Report of the Central Board of Directors on the working of the Reserve Bank of India for the year ended June 30, 2009 submitted to the Central Government in terms of Section 53(2) of the Reserve Bank of India Act, 1934

RESERVE BANK OF INDIA ANNUAL REPORT 2008-09

CENTRAL BOARD / LOCAL BOARDS

GOVERNOR

D. Subbarao

DEPUTY GOVERNORS

Shyamala Gopinath
Usha Thorat
K.C. Chakrabarty

DIRECTORS NOMINATED UNDER SECTION 8 (1) (b) OF THE RBI ACT, 1934

Y.H. Malegam
Suresh D. Tendulkar
U.R. Rao
Lakshmi Chand

DIRECTORS NOMINATED UNDER SECTION 8 (1) (c) OF THE RBI ACT, 1934

H. P. Ranina
Ashok S. Ganguly
Azim Premji
Kumar Mangalam Birla
Shashi Rajagopalan
Suresh Neotia
A. Vaidyanathan
Man Mohan Sharma
D. Jayavarthanavelu
Sanjay Labroo

DIRECTOR NOMINATED UNDER SECTION 8 (1) (d) OF THE RBI ACT, 1934

Ashok Chawla

MEMBERS OF LOCAL BOARDS

WESTERN AREA

Y.H. Malegam
K. Venkatesan
Dattaraj V. Salgaocar
Jayantilal B. Patel

EASTERN AREA

Suresh D. Tendulkar
A. K. Saikia
Sovan Kanungo

NORTHERN AREA

U.R. Rao
Mitha Lal Mehta
Ram Nath
Pritam Singh

SOUTHERN AREA

Lakshmi Chand
C. P. Nair
M. Govinda Rao
Devaki Jain

AS ON JUNE 30, 2009

PRINCIPAL OFFICERS

(As on June 30, 2009)

EXECUTIVE DIRECTORS	V.K. Sharma
	C. Krishnan
	Anand Sinha
	V.S. Das
	G. Gopalakrishna
	H.R. Khan
	D.K. Mohanty
CENTRAL OFFICE	
Department of Administration and Personnel Management	Prabal Sen, Principal Chief General Manager
Customer Service Department	G. Jaganmohan Rao, Chief General Manager
Department of Banking Operations and Development	P. Vijaya Bhaskar, Chief General Manager-in-Charge
Department of Banking Supervision	S. Karuppasamy, Chief General Manager-in-Charge
Department of Communication	A.I. Killawala, Press Relations Officer (Gr. F)
Department of Currency Management	U.S. Paliwal, Chief General Manager
Department of Economic Analysis and Policy	-
Department of Expenditure and Budgetary Control	Deepa Srivastava, Chief General Manager
Department of External Investments and Operations	Meena Hemachandra, Chief General Manager-in-Charge
Department of Government and Bank Accounts	S.V. Raghavan, Chief General Manager-in-Charge
Department of Information Technology	A.M. Pedgaonkar, Chief General Manager-in-Charge
Department of Non-Banking Supervision	P. Krishnamurthy, Chief General Manager-in-Charge
Department of Payment and Settlement Systems	G. Padmanabhan, Chief General Manager
Department of Statistics and Information Management	A.K. Ray, Principal Adviser
Financial Markets Department	Chandan Sinha, Chief General Manager
Foreign Exchange Department	Salim Gangadharan, Chief General Manager-in-Charge
Human Resources Development Department	Deepak Singhal, Chief General Manager
Inspection Department	Karunasagar, Chief General Manager
Internal Debt Management Department	K.V. Rajan , Chief General Manager
Legal Department	K.D. Zacharias, Legal Adviser-in-Charge
Monetary Policy Department	Janak Raj, Adviser-in-Charge
Premises Department	S. Venkatachalam, Chief General Manager
Rajbhasha Department	Phulan Kumar, Chief General Manager
Rural Planning and Credit Department	-
Secretary's Department	Grace E. Koshie, Chief General Manager & Secretary
Urban Banks Department	A.K. Khound, Chief General Manager
COLLEGES	**PRINCIPALS/CHIEF GENERAL MANAGER**
Centre for Advanced Financial Learning, Mumbai	-
College of Agricultural Banking, Pune	Sandip Ghose
Reserve Bank Staff College, Chennai	S. Ganesh
OFFICES	**REGIONAL DIRECTORS**
Chennai	K. R. Ananda
Kolkata	F.R. Joseph
Mumbai	A.N. Rao
New Delhi	R. Gandhi
BRANCHES	
Ahmedabad	A. K. Bera
Bangalore	B. Srinivas
Bhopal	Rajesh Verma
Bhubaneswar	Kaza Sudhakar
Chandigarh	J. Sadakkadulla
Guwahati	Sewali Choudhury
Hyderabad	N. Krishna Mohan
Jaipur	B.P. Kanungo
Jammu	-
Kanpur	J.B. Bhoria
Lucknow	D.P.S. Rathore
Nagpur	C.C. Mitra
Patna	K.K. Vohra
Thiruvananthapuram	S. Ramaswamy
	OFFICERS-IN-CHARGE
Belapur	-
Dehradun	Manoj Sharma, General Manager
Kochi	E. Madhavan, General Manager
Panaji	M.A.R. Prabhu, Deputy General Manager
Raipur	A.K. Sharma, General Manager
Ranchi	Rabi N. Mishra, General Manager
Shimla	S.K. Bal, General Manager

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APPENDIX TABLES

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LIST OF ABBREVIATIONS

ABCI	-	Association of Business Communicators of India
ABCP	-	Asset Backed Commercial Paper
ACU	-	Asian Clearing Union
ADB	-	Asian Development Bank
ADF	-	Augmented Dicky Fuller
ADR	-	Asset Development Reserve
ADRs	-	American Depository Receipts
ADs	-	Authorised Dealers
AERA	-	Airport Economic Regulatory Act
AFI	-	Annual Financial Inspection
AIFI	-	All India Financial Institution
AIMSCS	-	Advanced Institute of Mathematics, Statistics and Computer Science
ALM	-	Asset Liability Management
AMA	-	Advanced Measurement Approach
AMFI	-	Association of Mutual Funds in India
AML	-	Anti-Money Laundering
AMU	-	Asian Monetary Unit
ANBC	-	Adjusted Net Bank Credit
APS	-	Annual Policy Statement
AS	-	Accounting Standard
ATM	-	Automated Teller Machine
BAFT	-	Bankers' Association for Finance & Trade
BC	-	Business Correspondent
BCBS	-	Basel Committee on Banking Supervision
BCP	-	Business Continuity Planning
BCSBI	-	Banking Codes and Standards Board of India
BE	-	Budget Estimates
BF	-	Business Facilitator
BFS	-	Board for Financial Supervision
BFSI	-	Banking Financial Services and Insurance
BIS	-	Bank for International Settlements
BMP	-	Basic Management Programme
BoP	-	Balance of Payments
BPLR	-	Benchmark Prime Lending Rate
BPSS	-	Board for Regulation and Supervision of Payment and Settlement Systems
BRBNMPL	-	Bharatiya Reserve Bank Note Mudran Private Limited
BSA	-	Bilateral Swap Arrangements
BSE	-	Bombay Stock Exchange, Mumbai
BSR	-	Basic Statistical Returns
BTC	-	Bankers' Training College
CA	-	Concurrent Audit
CAB	-	College of Agricultural Banking
CACP	-	Commission for Agricultural Costs and Prices
CAD	-	Current Account Deficit
CAMELS	-	Capital Adquacy, Asset Quality, Management, Earnings, Liquidity, Systems and Control
CAS	-	Central Account Section
CBDT	-	Central Board of Direct Taxes
CBLO	-	Collateralised Borrowing and Lending Obligation
CBS	-	Consolidated Banking Statistics
CBS	-	Core Banking Solutions
CC	-	Cubic Capacity
CCB	-	Central Co-operative Bank
CCC	-	Central Complaints Committee
CCIL	-	Clearing Corporation of India Limited
CCR	-	Counterfeit Currency Report
CCRS	-	Currency Chest Reporting System
CD	-	Certificate of Deposit
C-D	-	Currency-Deposit
CDBMS	-	Centralised Data Base Management System
CDOs	-	Collateralised Debt Obligations
CDR	-	Corporate Debt Restructuring

LIST OF ABBREVIATIONS

CDS	-	Credit Default Swap
CENVAT	-	Central Value Added Tax
CFMS	-	Centralised Funds Management System
CFSA	-	Committee on Financial Sector Assessment
CFT	-	Combating Financing of Terrorism
CGFTMSE	-	Credit Guarantee Fund Trust for Micro and Small Enterprises
CGRA	-	Currency & Gold Revaluation Account
CIC	-	Central Information Commission
CICs	-	Credit Information Companies
CIS	-	Commonwealth of Independent States
CMCPS	-	Compulsorily and Mandatorily Convertible Preference Shares
CMIS	-	Currency Management Information System
CoBoSAC	-	Corporate Bonds and Securitisation Advisory Committee
CODs	-	Central Office Departments
CoR	-	Certificate of Registration
CP	-	Commercial Paper
CPADS	-	Centralised Public Accounts Department System
CPC	-	Cheque Processing Centre
CPDO	-	Centralised Public Debt Office
CPFF	-	Commercial Paper Funding Facility
CPI	-	Consumer Price Index
CPI-AL	-	Consumer Price Index-Agricultural Labourers
CPI-RL	-	Consumer Price Index-Rural Labourers
CPI-IW	-	Consumer Price Index for Industrial Workers
CPIO	-	Central Public Information Officer
CPIs	-	Consumer Price Indices
CPMG	-	Corporate Performance Monitoring Group
CPPC	-	Central Pension Payment Cell
CPSEs	-	Central Public Sector Enterprises
CR	-	Contingency Reserve
CRAR	-	Capital to Risk-Weighted Assets Ratio
CRCS	-	Central Registar of Co-operative Societies
CRR	-	Cash Reserve Ratio
CSAA	-	Control Self Assessment Audit
CSD	-	Customer Services Department
CSF	-	Consolidated Sinking Fund
CSGL	-	Constituant Subsidiary General Ledger
CSO	-	Central Statistical Organisation
CTR	-	Cash Transaction Receipt
CTS	-	Cheque Truncation System
CTS	-	Complaint Tracking System
CVD	-	Countervailing Duty
CVPS	-	Currency Verification and Processing System
CWC	-	Central Water Commission
DAD	-	Deposit Accounts Department
DAP	-	District Agricultural Plan
DAPM	-	Department of Administration and Personnel Management
DBOD	-	Department of Banking Operations and Development
DBS	-	Department of Banking Supervision
DCC	-	District Consultative Committee
DCCB	-	District Central Cooperative Bank
DCM	-	Department of Currency Management
DEAP	-	Department of Economic Analysis and Policy
DEBC	-	Department of Expenditure and Budgetary Control
DEIO	-	Department of External Investments and Operations
DEPB	-	Duty Entitlement Pass Book
DGBA	-	Department of Government and Bank Accounts

LIST OF ABBREVIATIONS

DGCI & S	- Directorate General of Commercial Intelligence and Statistics
DIC	- District Industries Centre
DICGC	- Deposit Insurance and Credit Guarantee Corporation
DIP	- Disclosure and Investor Protection
DIT	- Department of Information Technology
DMIS	- Document Management Information System
DNBS	- Department of Non-Banking Supervision
DOC	- Department of Communication
DoT	- Department of Telecommunication
DRG	- Development Research Group
DRI	- Differential Rate of Interest
DRT	- Debt Recovery Tribunal
DS	- Difference Stationary
DSB	- Designated Settlement Banks
DSIM	- Department of Statistics and Information Management
DvP	- Delivery versus Payment
EACB	- European Association of Co-operative Banks
EBT	- Electronic Benefit Transfer
ECB	- European Central Bank
ECBs	- External Commercial Borrowings
ECGC	- Export Credit Guarantee Corporation
ECR	- Export Credit Refinance
ECS	- Electronic Clearing Services
EEA	- Exchange Equalisation Account
EEFC	- Exchange Earners' Foreign Currency
EFT	- Electronic Funds Transfer
EMEs	- Emerging Market Economies
EOU	- Export Oriented Unit
EPCG	- Export Promotion Capital Goods
ESOS	- Employees Stock Option Scheme
EU	- European Union
EXIM Bank	- Export Import Bank
FAO	- Food & Agriculture Organisation
FAQs	- Frequently Asked Questions
FATF	- Financial Action Task Force
FBT	- Fringe Benefit Tax
FC	- Financial Conglomerate
FCAs	- Foreign Currency Assets
FCCB	- Foreign Currency Convertible Bond
FCI	- Food Corporation of India
FCNR(B)	- Foreign Currency Non-Resident (Banks)
FDI	- Foreign Direct Investment
FED	- Foreign Exchange Department
FEDAI	- Foreign Exchange Dealers' Association of India
FI	- Financial Institutions
FIEO	- Federation of Indian Export Organisation
FIIs	- Foreign Institutional Investors
FIPB	- Foreign Investment Promotion Board
FITL	- Funded Interest Term Loan
FIU-IND	- Financial Intelligence Unit-India
FLCCs	- Financial Literacy and Credit Counseling Centres
FMCG	- Fast Moving Consumer Goods
FMD	- Financial Markets Department
FOF	- Flow of Funds
FPS	- Focus Product Scheme
FRBM	- Fiscal Responsibility and Budget Management
FRBs	- Floating Rate Bonds
FRL	- Full Reservoir Level
FRLs	- Fiscal Responsibility Legislations
FSB	- Financial Stability Board
FSF	- Financial Stability Forum

LIST OF ABBREVIATIONS

FST	-	Financial Sector Technology
FVCIs	-	Foreign Venture Capital Investors
GCC	-	Gulf Cooperation Council
GCCs	-	General-purpose Credit Cards
GDP	-	Gross Domestic Product
GDRs	-	Global Depository Receipts
GFCE	-	Government Financial Consumption Expenditure
GFD	-	Gross Fiscal Deficit
GFSR	-	Global Financial Stability Report
GIPSA	-	General Insurer's (Public Sector) Association of India
GoI	-	Government of India
GRF	-	Guarantee Redemption Fund
GSDP	-	Gross State Domestic Product
GST	-	Goods and Services Tax
HFCs	-	Housing Finance Companies
HLAC	-	High Level Advisory Committee
HLCCFM	-	High Level Coordination Committee on Financial Markets
HLG	-	High Level Group
HR	-	Human Resources
HRDD	-	Human Resources Development Department
HRMS	-	Human Resources Management System
HSUI	-	Housing Start Up Index
HTM	-	Held-to-Maturity
IAS	-	Integrated Accounting Systems
IASC	-	Inspection and Audit Sub-Committee
IBA	-	Indian Banks' Association
ICAC	-	International Cotton Advisory Committee
ICAI	-	Institute of Chartered Accountants of India
ICAR	-	Indian Council for Agricultural Research
ICCOMS	-	Integrated Computerised Currency Operations and Management System
ICT	-	Information and Communication Technology
IDMD	-	Internal Debt Management Department
IDR	-	Indian Depository Receipt
IDRBT	-	Institute for Development & Research in Banking Technology
IEM	-	Industrial Entrepreneurs Memoranda
IES	-	Integrated Establishment System
IGIDR	-	Indira Gandhi Institute of Development Research
IIA	-	Institute of Internal Auditors
IIBM	-	Indian Institute of Bank Management
IIFCL	-	India Infrastructure Finance Company Limited
IIFT	-	Indian Institute of Foreign Trade
IIP	-	Index of Industrial Production
ILO	-	International Labour Organisation
IMA	-	Internal Models Approach
IMD	-	India Millennium Deposits
IMD	-	India Meteorological Department
IMF	-	International Monetary Fund
IMFC	-	International Monetary and Financial Committee
IODP	-	Integrated Officers Development Programmes
IPAs	-	Issuing and Paying Agents
IPCC	-	Inter-Govermental Panel on Climate Change
IPCs	-	Irrevocable Payment Commitments
IPDIs	-	Innovative Perpetual Debt Instruments
IPOs	-	Initial Public Offerings
IP-RR	-	Interest Payment - Revenue Receipt
IRB	-	Internal Ratings-Based
IRDA	-	Insurance Regulatory and Development Authority

LIST OF ABBREVIATIONS

IRFs	-	Interest Rate Futures
ISA	-	Information Systems Audit
ISACA	-	Information Systems Audit and Control Assessment
ISMS	-	Information Security Management System
ISO	-	International Organisation for Standardisation
IT	-	Information Technology
IT-BPO	-	Information Technology - Business Process Outsourcing
ITEs	-	Intra-Group Transactions and Exposures
IWMP	-	Integrated Watershed Management Programme
JLG	-	Joint Liability Group
JNNURM	-	Jawaharlal Nehru National Urban Renewal Mission
KCCs	-	*Kisan* Credit Cards
KVIBs	-	*Khadi* and Village Industries Boards
KVIC	-	*Khadi* and Village Industries Commission
KYC	-	Know Your Customer
LAF	-	Liquidity Adjustment Facility
LB	-	Lowest daily outstanding Balance
LCD	-	Liquid Crystal Display
LIBOR	-	London Inter-Bank Offer Rate
LOI	-	Letter of Intent
LPA	-	Long Period Average
MASI	-	Management Audit Systems Inspection
MAT	-	Minimum Alternate Tax
MCA	-	Ministry of Corporate Affairs
MBS	-	Mortgage Backed Securities
MF	-	Mutual Funds
MFDEF	-	Micro Finance Development and Equity Fund
MFDF	-	Micro Finance Development Fund
MFI	-	Micro Finance Institution
MICR	-	Magnetic Ink Character Recognition
MMA	-	Macro Management of Agriculture
MMBCS	-	Magnetic Media Based Clearing System
MMMFs	-	Money Market Mutual Funds
MMS	-	Multi Modal Settlements
MODVAT	-	Modified Value Added Tax
MoU	-	Memorandum of Understanding
MPD	-	Monetary Policy Department
MPI	-	Macro-Prudential Indicators
MPLS	-	Multi Protocol Label Switching
MSE-CDP	-	Micro and Small Enterprises Cluster Development Programme
MSEs	-	Micro and Small Enterprises
MSMEs	-	Micro, Small and Medium Enterprises
MSOE	-	Minimum Standards of Operational Efficiency
MSP	-	Minimum Support Price
MSS	-	Market Stabilisation Scheme
MTM	-	Mark-to-Market
NAB	-	New Arrangement to Borrow
NABARD	-	National Bank for Agriculture and Rural Development
NASSCOM	-	National Association of Software and Services Companies
NAV	-	Net Asset Value
NBFCs	-	Non-Banking Financial Companies
NBFC-D	-	Deposit taking NBFC
NBFC-ND	-	Non-deposit taking NBFC
NBFC-ND-SI	-	Systemically Important Non-deposit taking NBFC
NCR	-	National Capital Region
NBO	-	National Building Organisation
NDA	-	Net Domestic Asset
NDS	-	Negotiated Dealing Systems
NDS - OM	-	Negotiated Dealing System - Order Matching
NDTL	-	Net Demand and Time Liability

LIST OF ABBREVIATIONS

NECS	-	National Electronic Clearing System
NEFT	-	National Electronic Funds Transfer
NFS	-	National Financial Switch
NFA	-	Net Foreign Assets
NFSM	-	National Food Security Mission
NGO	-	Non-Government Organisation
NHB	-	National Housing Bank
NIBM	-	National Institute of Bank Management
NIC	-	National Informatics Centre
NIF	-	National Investment Fund
NIMSME	-	National Institute for Micro, Small and Medium Enterprises
NIPFP	-	National Institute of Public Finance and Policy
NOC	-	No Objection Certificate
NOF	-	Net Owned Funds
NPAs	-	Non-Performing Assets
NPCI	-	National Payments Corporation of India
NPS	-	New Pension Scheme
NRAA	-	National Rain Fed Area Authority
NREGS	-	National Rural Employment Guarantee Scheme
NR(E)RA	-	Non-Resident (External) Rupee Account
NRI	-	Non-Resident Indian
NRRDA	-	National Rural Road Development Agency
NSE	-	National Stock Exchange
NSM	-	Note Sorting Machine
NSSF	-	National Small Saving Fund
NSSO	-	National Sample Survey Organisation
OBCs	-	Other Backward Classs
OBE	-	Off- Balance Sheet Exposures
OD	-	Overdraft
OECD	-	Organisation for Economic Co-operation and Development
ODI	-	Offshore Derivative Instruments
OLTAS	-	Online Tax Accounting System
OMO	-	Open Market Operation
OMS	-	Open Market Sales
OPEC	-	Organisation for Petroleum Exporting Countries
ORFS	-	Online Returns Filing System
OSMOS	-	Off-Site Monitoring and Surveillance
OTC	-	Over-the-Counter
OTS	-	One-Time Settlement
PACS	-	Primary Agricultural Credit Socity
PAD	-	Public Accounts Department
PAN	-	Permanent Account Number
PCA	-	Prompt Corrective Action
PCPS	-	Perpetual Cumulative Preference Shares
PDs	-	Primary Dealers
PDI	-	Perpetual Debt Instruments
PDO	-	Public Debt Office
PDO-NDS	-	Public Debt Office - Negotiated Dealing System
PDS	-	Public Distribution System
PE	-	Private Equity
PFCE	-	Private Final Consumption Expenditure
PFRDA	-	Pension Fund Regulatory and Development Authority
PGPBF	-	Post Graduate Programme in Banking & Finance
PIT	-	Personal Income Tax
PMEGP	-	Prime Minister Employment Generation Programme
PMLA	-	Prevention of Money Laundering Act
PMRY	-	Prime Minister's Rojgar Yojana
PNCPs	-	Perpetual Non-Cumulative Preference Shares
POL	-	Petroleum, Oil and Lubricants
PPP	-	Public Private Partnership
PSBs	-	Public Sector Banks

LIST OF ABBREVIATIONS

PSS Act	-	Payment & Settlement Systems Act
PSUs	-	Public Sector Undertakings
QCBS	-	Quality and Cost Based Selection
QIB	-	Qualified Institutional Buyer
QIP	-	Qualified Institutional Placement
QMS	-	Quality Management System
R&D	-	Research & Development
RBIA	-	Risk Based Internal Audit
RBSC	-	Reserve Bank Staff College
RCs	-	Reconstruction Companies
RCC	-	Regional Complaints Committee
RCS	-	Registar of Co-operative Societies
RE	-	Revised Estimates
REER	-	Real Effective Exchange Rate
REGP	-	Rural Employment Generation Programme
RIDF	-	Rural Infrastructure Development Fund
RKVY	-	*Rashtriya Krishi Vikas Yojana*
RNCPS	-	Redeemable Non-Cumulative Preference Shares
RoA	-	Return on Assets
ROE	-	Return on Equity
ROSC	-	Report on Observance of Standards and Codes
RPCD	-	Rural Planning and Credit Department
RRBs	-	Regional Rural Banks
RTGS	-	Real Time Gross Settlement
RTI	-	Right to Information
RTP	-	Reserve Tranche Position
SAARC	-	South Asian Association for Regional Co-operation
SACPs	-	Special Agricultural Credit Plans
SAD	-	Single Administrative Document
SDDS	-	Special Data Dissemination Standards
SAMIS	-	Service Area Monitoring and Information System
SAP	-	State Agricultural Plan
SARFAESI	-	Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest
SBI	-	State Bank of India
SC	-	Scheduled Caste
SCs	-	Securitisation Companies
SCB	-	Scheduled Commercial Bank
SDLs	-	State Development Loans
SDR	-	Special Drawing Rights
SEBI	-	Securities and Exchange Board of India
SEZs	-	Special Economic Zones
SFCs	-	State Finance Corporations
SFMS	-	Structured Financial Messaging System
SFURTI	-	Scheme for Fund for Regeneration of Traditional Industries
SGL	-	Subsidiary General Ledger
SHGs	-	Self-Help Groups
SIDBI	-	Small Industries Development Bank of India
SIFI	-	Systemically Important Financial Intermediaries
SIPS	-	Systemically Important Payment System
SITP	-	Scheme for Integrated Textile Parks
SIVs	-	Structured Investment Vehicles
SLAF	-	Second Liquidity Adjustment Facility
SLA(IC)	-	Sundry Liabilities Account (Interest Capitalisation)
SLB	-	Securities Lending and Borrowing
SLBC	-	State Level Bankers' Committee
SLR	-	Statutory Liquidity Ratio
SMEs	-	Small and Medium Enterprises
SMO	-	Special Market Operations
SPMCIL	-	Security Printing and Minting Corporation of India Ltd.
SPV	-	Special Purpose Vehicle

LIST OF ABBREVIATIONS

SREP	-	Supervisory Review and Evaluation Process
SRMS	-	Self Employment Scheme for Rehabilitation of Manual Scavangers
SSS	-	Securities Settlement System
ST	-	Scheduled Tribe
StCB	-	State Co-operative Bank
STCRC	-	Short-Term Co-operative Rural Credit
STOs	-	State Treasury Offices
STR	-	Suspicious Transaction Report
STRIPS	-	Separate Trading for Registered Interest and Principal of Securities
TAC	-	Technical Advisory Committee
TAFCUBs	-	Task Force for Urban Co-operative Banks
TAG	-	Technical Advisory Group
TALF	-	Term Asset-Backed Securities Loan Facility
TFC	-	Twelfth Finance Commission
TFCI	-	Tourism Finance Corporation of India
TFP	-	Total Factor Productivity
TFTS	-	Trade for Trade Settlement
TIN	-	Tax Information Network
TMSM	-	Training Methods and Skills for Managers
TMT	-	Thermo Mechanically Treated
ToRs	-	Terms of References
TS	-	Trend Stationary
TUFS	-	Technology Upgraded Fund Scheme
UBD	-	Urban Banks Department
UCBs	-	Urban Cooperative Banks
UCNs	-	Uniform Code Numbers
UNDP	-	United Nations Develepement Programme
UNICO	-	Umbrella Organisation for Large Cooperative Banks in Europe
UNDP	-	United Nations Development Programme
UNIDO	-	United Nations Industrial Development Organisation
UNME	-	Urban Non-Manual Employees
UTs	-	Union Territories
VAR	-	Vector Autoregression
VaR	-	Value at Risk
VKGUY	-	Vishesh Krishi Gram Udyog Yojana
VPN	-	Virtual Private Network
WADR	-	Weighted Average Discount Rate
WEO	-	World Economic Outlook
WMA	-	Ways and Means Advances
WPI	-	Wholesale Price Index
WSS	-	Weekly Statistical Supplement
WTO	-	World Trade Organisation
XBRL	-	eXtensible Business Reporting Language
XML	-	Extensible Markup Language
Y-o-Y	-	Year-on-Year
ZTC	-	Zonal Training Centre

This Report can also be accessed on Internet
URL : www.rbi.org.in

THE ANNUAL REPORT ON THE WORKING OF THE RESERVE BANK OF INDIA

*For the Year July 1, 2008 to June 30, 2009**

PART ONE : THE ECONOMY - REVIEW AND PROSPECTS

I ASSESSMENT AND PROSPECTS

The Indian economy exhibited significant resilience in 2008-09 in the face of an intense global financial crisis and the subsequent severe global recession. The contagion from the global crisis, however, posed the challenge of responding to the evolving risks and heightened uncertainties, which warranted swift and appropriate use of fiscal and monetary policy measures with a view to ensuring orderly functioning of the markets, preserving financial stability, and moderating the dampening effects on growth. For the Government, this involved temporary deviation from the fiscal consolidation process embodied in the Fiscal Responsibility and Budget Management (FRBM) Act. The Reserve Bank had to contend with the challenges over two distinct phases during the year, which required contrasting monetary policy responses. In the first half of the year, inflation firmed up under the pressure of hardening international commodity and food prices, which necessitated an anti-inflationary policy response. In the second half, however, restoring orderly conditions in the market and subsequently supporting the growth momentum emerged as the key challenges. This required adoption of accommodative monetary policy stance, which was reflected in the provision of ample liquidity at lower interest rates. Consequently, the financial system functioned without disruptions and credit conditions did not operate as a constraint to growth.

Reverting to the high growth trajectory at the earliest remains the key policy challenge in the near to medium-term. The sustained expansionary fiscal and monetary policy stances, however, entail the risk of aiding inflationary pressures in the near-term and constraining the growth process in the medium-run. Timely exit from the current policy stance, thus, would be critical, given the emerging signs of inflationary pressures. Credible action plan on fiscal consolidation, with an emphasis on the quality of fiscal adjustment driven by rationalisation of expenditure and efficiency of public services would be necessary to revert to the high growth trajectory. The adverse impact of deficient monsoon on growth, inflation and social security needs to be carefully managed. Policies conducive to high domestic savings and promoting the role of innovations, technology and reforms in enhancing the productivity of investment may have to receive greater attention. The financial stability framework would need to be strengthened further taking into account the lessons from the global financial crisis.

* : While the Reserve Bank of India's accounting year is July-June, data on a number of variables are available on a financial year basis, *i.e.*, April-March, and hence, the data are analysed on the basis of the financial year. Where available, the data have been updated beyond March 2009. For the purpose of analysis and for providing proper perspective on policies, reference to past years as also prospective periods, wherever necessary, has been made in this Report.

I.1 The Indian economy witnessed moderation in growth in 2008-09 in comparison with the robust growth performance in the preceding five years. The deceleration in growth was broad based across three major constituent segments of GDP, *i.e.* agriculture, industry and services. Moreover, deceleration in industry and services sector also persisted over four consecutive quarters of the year. Reflecting the contraction in global demand, exports declined. Domestic aggregate demand also moderated due to sharp deceleration in the growth of private consumption demand. Reflecting the expansionary fiscal policy response to the slowdown in growth, government consumption demand increased by 20.2 per cent, and the contribution of government consumption expenditure to overall growth accordingly increased to 32.5 per cent from an average contribution of 5.9 per cent in the preceding five years. Corporate performance remained dampened, with significant fall in sales growth in the second half of the year, and decline in profits in last three consecutive quarters of the year. In 2009-10 so far, emerging signs of recovery are yet to indicate any clear trend, and the deficient monsoon and the depressed export performance have to be seen along with the improving growth in core infrastructure sector, recovering industrial production and more optimistic business outlook. Recognising the balance of risks to growth, the First Quarter Review of Monetary Policy for 2009-10 placed the projection for GDP growth at 6.0 per cent, with an upward bias. The inflation environment remained highly volatile during 2008-09; WPI inflation rose to a high of 12.9 per cent in August 2008 and declined sharply thereafter to below 1 per cent by the end of the year, before turning negative since June 2009. The currently observed negative inflation essentially reflects the impact of the high base of the previous year, and this transitory trend may not persist beyond few months. Within WPI, essential commodities continue to exhibit high inflation. Moreover, inflation expectations have not abated as much as the overall decline in WPI inflation, and inflation as per different consumer price indices remain stubbornly high. The adverse impact of the deficient monsoon on food prices, notwithstanding the record foodgrains production in 2008-09 and the high buffer stocks, also indicates upside risks to inflation, besides the evidence from the Reserve Bank's Survey of inflation expectations suggesting increase in inflation over the coming three months to one year. The First Quarter Review of Monetary Policy for 2009-10 took into account the emerging outlook on inflation and revised the inflation projection upwards from the earlier 4.0 per cent to 5.0 per cent, while reiterating 3.0 per cent as the medium term inflation objective.

I.2 The Indian economy exhibited five successive years of high growth with moderate inflation and macroeconomic stability during 2003-08, before encountering the contagion from the global economic crisis in 2008-09. The average GDP growth of 8.8 per cent achieved during this phase was not only the highest ever recorded in India's post independence economic history, but also one of the highest in the world in the recent period. More importantly, inflation in India averaged at about 5.3 per cent during this period. The macroeconomic environment remained stable and resilient to external shocks, despite rising degree of openness and significant reforms. India's ascent as a major emerging market economy with high potential for sustained robust growth was reflected in surges in capital inflows, which were in excess of the external financing needs as conditioned by the country's prudent emphasis on sustainable current account deficit as a means to stable growth. The impetus for growth emanated from the upsurge in the domestic savings rate from 23.5 per cent of GDP in 2001-02 to 37.7 per cent in 2007-08, which facilitated the step up in investment rate from 22.8 per cent to 39.1 per cent during the corresponding period. Fiscal consolidation and reforms unshackled the constraints to realisation of productivity and efficiency driven growth. Before the emergence of the global economic crisis in 2008-09, the high growth trajectory was generally seen as the sustainable critical threshold, and accordingly the policy focus was primarily shifting to address the growing infrastructure deficit and make progress on remaining areas of reforms, while also ensuring that the growth process becomes more inclusive.

I.3 The Indian economy confronted one of the severest external shocks in 2008-09 in the form of an intense global financial crisis coupled with a global recession, but exhibited notable resilience, with GDP growth at 6.7 per cent. Orderly conditions prevailed in various segments of the financial system during the year. The cyclical growth deceleration witnessed in the first half of 2008-09 got amplified in the second half of the year on account of the dampening effects of the global recession. This happened notwithstanding the policy driven moderation in the adverse effects of the contagion on the economy. When the global markets turned dysfunctional in September 2008, with intense scramble for liquidity and subsequent credit freeze under the pressure of deleveraging, the Indian markets reverberated the shock, which was seen in the form of higher volatility in all segments of the financial markets and sharp corrections in stock prices. The macro-financial conditions remained exceptionally challenging from the stand point of the conduct of Reserve Bank's policies, as it had to respond to multiple challenges, starting from containment of inflation in the first half of the year to containing the deceleration in growth, preserving the soundness of the banks and financial institutions, ensuring normal functioning of the credit market and maintaining orderly conditions in the financial markets in the second half. At times, the Bank had to operate on multiple fronts simultaneously, and in constant consultation and coordination with the Government, with the overriding objective of limiting the adverse effects of the global crisis to the extent possible.

I.4 Global developments prominently influenced domestic developments in 2008-09. There were two distinct phases during which the transmission of global shocks posed different but significant challenges for the Reserve Bank. In the first half of the year, the world experienced simultaneous increase in both food and commodity prices, and there was a return of inflation after a phase of "great moderation". Dealing with supply side sources of inflation posed significant challenges for the conduct of Reserve Bank's monetary policy, particularly in the face of emerging signs of cyclical slowdown on the one hand and the risk of spiralling headline inflation affecting inflation expectations on the other. In the second half of the year, the global financial crisis and the subsequent global recession changed dramatically the nature of the challenge emanating from globalisation. The sharp swings in global conditions within the year were reflected in the fast slide of the world economy into a deep recession from a phase of high growth over the preceding four consecutive years. There was a sudden plunge to dysfunctional markets from a phase of growing market bubbles that had brought down risk premiums to historic low levels. Post-September 2008, developments in the financial systems of advanced countries revealed that irrespective of the degree of globalisation of a country and the soundness of its domestic policies, a global crisis could spread to every economy. The contagion could transmit through sagging consumer and business confidence, which, in the current context, is turning out to be more critical than the contagion transmitted through trade and capital flows. The international transmission of liquidity shocks was fast and unprecedented; while falling asset prices and uncertainty about valuation of the traded instruments affected market liquidity, failure of leading global financial institutions and the deleveraging process tightened the market for funding liquidity. Given the growing risk of illiquidity cascading into solvency problems, liquidity management acquired priority in most central banks, since it was critical for preserving normalcy in financial markets, and thereby avoiding the risk of snowballing effects of financial stress on the real economy.

I.5 The Reserve Bank could restore normalcy in the financial markets over a short time period through its liquidity operations in both domestic currency and foreign currency; the absence of any direct exposure of the Indian banks and financial institutions to the troubled assets and failing financial institutions in the advanced countries helped in the avoidance of any serious stress in the financial system. The financial crisis in the advanced countries, however, precipitated into an intense synchronised global recession, which impacted the growth prospects of all countries through contraction in aggregate demand. With the earlier perception of decoupling fast turning out to be a myth, moderating the adverse effects of the contagion on growth emerged as a major globalisation-induced challenge in the second half of the year. The severity of the external shock had emerged as a test for the capacity of public policies to ensure soft landing in the face of persistent adverse global economic conditions.

I.6 India's capacity to withstand the global shock better than many other emerging market economies was partly on account of the sound macroeconomic and financial sector policy environment that had been put in place in the post-reform period by careful assessment of the opportunities and risks associated with reforms. After the balance of payments crisis in the early 1990s, as a matter of concerted policy effort, the extent of dependence on external finance for financing domestic growth has been limited to the sustainable level of the current account deficit, and capital flows in excess of the financing needs have resulted in comfortable foreign exchange reserves. The reserve management policy also assumes importance in the context of the market determined exchange rate regime where the Reserve Bank aims at containing undue volatility, recognising the adverse effects of a volatile exchange rate on trade, investment and growth. Despite significant pressures on India's balance of payments in the third quarter of the year, the foreign exchange reserves facilitated Reserve Bank's operations in the foreign exchange market to preserve orderly conditions, notwithstanding a phase of high volatility over a short period of time. The gradual and sequential approach to liberalisation of the capital account also prevented leveraging of the Indian financial system for taking positions in the troubled assets in the advanced economies. Despite significant financial sector reforms, adequate regulatory precautions have ensured that complex structures like synthetic securitisations do not contaminate the Indian markets, and prudential measures also limit the exposure of the banking system to sensitive sectors and asset price bubbles. Absence of structured products that could mask risk exposures, hide interconnectivity of market operators and allow excessive use of leveraged speculation has been a notable aspect of the Reserve Bank's prudence in regulation. Reserve Bank's mandatory SLR requirement of 25 per cent (now reduced to 24 per cent) also appeared relevant in the context of sharp deterioration in asset quality that was experienced by the leading international banks and financial institutions. More importantly, appropriate countercyclical regulations and provisioning requirements also contributed to preventing development of asset price bubbles in India.

I.7 The Reserve Bank had taken measures to modulate the monetary overhang that was building on account of sustained expansion in money growth; the withdrawal of monetary accommodation had in fact started in 2004 with gradual increase in both *repo* and *reverse repo* rates. Since April 2005 the Bank had also been expressing its concerns over the fast growth in credit, and the overdrawn state of the banking system to sustain the credit disbursement, given the mismatches between sources and uses of funds, and the associated increase in the credit-deposit ratios for certain banks. Recognising the unprecedented credit growth to the real estate sector during 2004-07, the provisioning requirements and risk weights were increased to prevent a build up of asset bubble. Absence of any sovereign issue in the international markets for financing the deficit of the Government has also helped in limiting the effects of adverse external shocks on the macroeconomic policy environment of the country. A large domestic market, reliance on domestic demand and domestic savings for growth, comfortable foreign exchange reserves, prudent management of the capital account and a sound and resilient domestic financial system, thus, represent the key factors that helped in moderating the impact of the contagion on India in relation to many other countries around the world.

I.8 The deceleration in growth from an average of 8.8 per cent during 2003-08 to 6.7 per cent in 2008-09, however, warranted swift and comprehensive policy response, given the overriding policy focus of maintaining a growth rate of around 9 per cent as the key means to ensure higher living standards for all in an inclusive growth process. As the post-September 2008 global developments affected the Indian markets through the global liquidity spiral and sharp spurt in risk aversion, the Reserve Bank had to operate in several markets simultaneously, with the use of conventional and unconventional measures, given the overriding aim of restoring orderly market conditions and preserving smooth flow of credit for all productive purposes.

ASSESSMENT OF 2008-09

Economic Growth

I.9 The deceleration in growth, which started with the cyclical slowdown in the first half of 2008-09, got magnified in the second half due to the contagion from the global crisis. Deceleration in growth to 5.8 per cent in two successive quarters in the second half of 2008-09 represented the weakest growth in recent period; more importantly, while industrial growth turned negative in the last quarter, the deceleration in services persisted in all successive quarters of the year. The sharp moderation in GDP growth warranted appropriate fiscal and monetary policy response, which was delivered swiftly, that too in a forward looking manner in the second half of the year, in anticipation of the adverse ramifications of the global crisis on the domestic growth. The significant deceleration in private consumption demand and the slowdown in investment demand, and the associated contraction in output necessitated expansion in public sector demand, both consumption and investment, to ensure a credible deterrent to deceleration in growth. Due to the global recession, contracting external demand also affected export growth, which first decelerated, and then declined. The moderation in growth in 2008-09 was thus broad-based, spread across all three sectors (*i.e.* agriculture, industry and services) of the economy. The decline in growth in agriculture and industry, however, was more prominent compared to services. A major cause for policy concern was dampened growth in the Index of Industrial Production (IIP) since November 2008 with negative growth in one month, besides the sustained fall in exports since October 2008. Reflecting the demand augmenting policy, the growth in government final consumption expenditure increased sharply by 20.2 per cent in 2008-09 as compared with 7.4 per cent in 2007-08. The contribution of the government consumption demand to growth, as a result, increased from 8.0 per cent in 2007-08 to as high as 32.5 per cent in 2008-09.

The Fiscal Stance

I.10 The unprecedented magnitude and complexity of the challenge necessitated temporary deviation from the fiscal consolidation process embodied in the Fiscal Responsibility and Budget Management (FRBM) Act. The deviation from the fiscal consolidation path was evident from the revision to the Centre's fiscal deficit target from 2.5 per cent of GDP in the budget presented for 2008-09 in February 2008 to 6.0 per cent in the interim budget presented in February 2009 before the general elections and further to 6.2 per cent in the provisional accounts for 2008-09. In addition, special bonds amounting to 1.8 per cent of GDP were issued to oil marketing companies and fertiliser companies during 2008-09 to cover for their under-recoveries in the face of high international prices and lower administered prices, which had become necessary to contain the spiralling of inflation in the first half of the year. Besides the deterioration in the fiscal parameters of the Centre under the compelling needs of fiscal stimulus, the fiscal deficits of the State Governments also witnessed some deterioration. The fiscal correction and consolidation process of the State Governments that was progressing during the previous few years was halted during 2008-09, although the consolidated revenue account of the State Governments continued to remain in modest surplus. Implementation of the Sixth Pay Commission award by some of the State Governments did exert pressures on the revenue expenditure of the States. The consolidated gross fiscal deficit (GFD) of States based on the revised estimates rose to 2.7 per cent of GDP from 2.1 per cent in the budget estimates on account of lower revenue surplus and non-debt capital receipts coupled with higher capital outlay. The combined fiscal deficit (Centre and States), including the special securities issued to oil marketing and fertiliser companies, thus, reached 10.7 per cent of GDP in 2008-09.

Financing of Fiscal Deficit

I.11 The challenge associated with financing of higher deficits emerged in the form of managing large borrowing programmes of the Governments without disrupting the markets, and more importantly, without exerting upward pressures on the interest rates. Significant moderation in inflation in the second half of the year; the deceleration in demand for non-food credit, reflecting the slowdown in growth; and the decline in non-bank sources of funding for the commercial sector created the headroom for smoother management of the borrowing programme. The net market borrowings of the Centre and the States jumped to Rs.4,02,302 crore (7.5 per cent of GDP) in 2008-09 from Rs.1,66,895 crore (3.5 per cent of GDP) in 2007-08; special securities outside the market borrowing programme increased to Rs.95,942 crore in 2008-09 from Rs.38,050 crore in 2007-08.

The Monetary Stance

I.12 The high growth in credit and broad money in 2004-08 was taken cognisance of by the Reserve Bank and its policy response gradually turned to modulating the monetary overhang, without restricting the growth in credit and money that was necessary for sustaining the high growth. Reflecting the cautious monetary stance, the *repo* and *reverse repo* rates were raised gradually since September 2004, along with higher reserve requirements. The tightening stance had to be pursued more aggressively in the first half of 2008-09 to contain the building inflationary pressures. Reflecting the moderation in growth in the second half and the contraction in aggregate demand, non-food bank credit, which was growing at 29.4 per cent in October 2008 (year-on-year basis) fell to 17.5 per cent by end-March 2009. Part of the high growth in credit up to October 2008 reflected the shift in the pattern of resource mobilisation by the corporates in the face of emerging global credit squeeze. The external funding was partly substituted by resort to domestic credit. Moreover, there was a sharp increase in credit to oil marketing companies which reflected the rising international oil prices and high cost of imported crude. After October 2008, however, with sharp fall in international oil prices, the demand from oil companies came down at the same pace. Moreover, decline in commodity prices, need for clearing the inventories accumulated at high cost in the face of falling demand and falling prices, as well as weakening business confidence contributed to the sharp drop in credit growth. Credit extended by private and foreign banks exhibited much sharper deceleration in growth in relation to the nationalised banks. More importantly, flow of resources from non-banking avenues (such as from the capital market, non-banking finance companies, ECBs, FCCBs, ADRs/GDRs and FDI) also fell by about 20 per cent over the level in the previous year. Relaxing all constraints on the expansion in credit at lower cost without dilution of the emphasis on asset quality emerged as a major challenge for the Reserve Bank. Many Central Banks around the world had to confront with the challenge of unfreezing the credit market; in India, however, the credit market functioned normally, and the deceleration in credit growth reflected slowdown in real activity. The Reserve Bank ensured ample surplus liquidity in the system to ensure flow of credit to productive sectors, within the prudence necessary for preserving the asset quality of the banks.

Liquidity Management

I.13 The monetary aggregates – both broad money and reserve money – evolved during the year reflecting the fast changing inflation and growth outcomes, as well as swings in domestic and international liquidity conditions. This was reflected in sharp shifts in the composition of monetary aggregates on both sources and components sides. In recent years up to the first half of 2008-09, increase in net foreign assets of the Reserve Bank, reflecting the surges in capital flows, had become the dominant source for expansion of base money. In the third quarter of 2008-09, however, the balance of payments came under pressure, and the reserve drawdown that became necessary to finance the deficit in capital inflows, led to corresponding contraction in base money. The Reserve Bank had to more than offset the contraction in reserve money by expanding its net domestic assets (NDA) so as to ensure necessary growth in money supply consistent with the needs of economic growth, besides the provision of ample liquidity to alleviate any fear of liquidity shortage in the Indian markets. The Reserve Bank ensured the necessary expansion in NDA through conventional open market operations (OMOs) involving outright purchase of government securities in the secondary market, as well as provision of liquidity through acquisition of securities by *repos* under the LAF. Another instrument which allowed the Reserve Bank to expand liquidity was the unwinding of the MSS securities. MSS securities had become an important instrument of sterilisation to partly neutralise the expansionary effects of surges in capital flows in the earlier years. While dealing with the challenge of expanding the NDA to offset the impact of contracting NFA on reserve money, the unwinding of MSS balances not only created the scope for adequate liquidity expansion by the Reserve Bank without expanding its balance sheet, but the timing of the unwinding could also be modulated in such a way that the large borrowing programme of the Government was managed smoothly without exerting any market stress. The reduction in CRR from 9 per cent to 5 per cent represented release of large liquidity to the banking system. The monetary operations of the Reserve Bank, in the wake of addressing the impact of the crisis, thus, were significantly different from the experience of many central banks of the advanced economies, even though the ultimate objective was almost the same, which was to ensure adequate liquidity in the banking system.

I.14 The reduction in CRR by 4 percentage points released Rs.1,60,000 crore of liquidity to the banking system. While the first round immediate impact of a reduction in the CRR leads to corresponding fall in the reserve money, it implies higher money multiplier, which leads to higher increase in broad money. Since moderation in reserve money growth was the result of a deliberate expansionary policy action, the Bank had to emphasise the "adjusted reserve money" indicator to communicate the monetary developments to the public.

Monetary Transmission

I.15 Despite persisting with the expansionary monetary policy stance in the post-September 2008 period, which was reflected in 400 basis points reduction in CRR, 4.25 percentage point reduction in the repo rate, 2.75 percentage point reduction in *reverse repo* rate and several other conventional as well as non-conventional windows for access to liquidity (resulting in the availability of more than Rs.4,00,000 crore of additional actual/potential liquidity to the system by the end of the year), the transmission of monetary policy became a matter of concern. The complete transmission of monetary policy takes place with long and variable lags. But in the midst of a sudden reversal in risk perception, the risk premium could increase significantly to often more than offset the magnitude of fall in the policy rates. As a result, the cost of funds may not decline for the customers, or may even increase, despite significant fall in the policy rates. This was experienced in several advanced economies, where the yield spreads increased significantly at some stage, reflecting heightened risk aversion. In India, while reassessment of risk was one of the factors constraining the transmission of monetary policy, there were several other structural factors in operation as well. First, the administered interest rate structure for small savings restricts flexibility on deposit rates for the banks, as small savings could potentially compete with deposits depending on the relative difference in the interest rates offered on both savings instruments. Second, depositors often lock their deposits at the high interest rate for longer term during a high interest rate phase; as a result, banks face the constraint of reducing the cost of lending in a phase of economic slowdown since their cost of funds remains high because of term deposits contracted earlier at higher rates. Till the term deposits become due for maturity, at which stage the deposits could be renewed at the lower rate, the banks experience structural rigidity in their balance sheet. Third, several concessional administered loans to sectors like agriculture and exports are linked to the BPLR, which works as a disincentive to revise the BPLR downwards even in the face of falling policy interest rates and use of moral suasion by the Reserve Bank to emphasise the need for lower lending rates as one of the means to support recovery in growth. Fourth, banks often compete to mobilise bulk/wholesale deposits, and they have to prevent shifting of such deposits to other banks, which creates the associated pressure to delay the revision in interest rate to the extent possible. In the conduct of its policies, the Reserve Bank, as a public institution, has to also remain sensitive to the interest of the depositors, given particularly the role of high domestic savings in India in the high growth phase of 2003-08 and the relatively higher degree of insulation of Indian growth compared to most other countries during 2008-09. Despite significant moderation in WPI inflation to below 1 per cent by the end of 2008-09 and then to sub-zero level, CPI inflation at the retail level continues to be high, and inflation expectations also have not receded at the same pace as the WPI inflation. In view of these reasons, monetary policy effectiveness continues to remain a challenge, which though is a universal concern and not specific only to India. Since the last quarter of 2008-09, however, the deposit and lending rates have started to moderate in response to the significant reduction in policy rates and sustained ample liquidity in the system, besides the Reserve Bank's constant emphasis on better policy transmission in the credit market.

Inflation Divergence

I.16 Headline inflation, as measured by year-on-year variations in the WPI, declined sharply to 0.84 per cent by end March 2009 from the peak of 12.91 per cent on August 02, 2008. The spurt in volatility in WPI inflation needs to be seen in the context of the behaviour of global commodity prices during the year. Reflecting the sharp increase in oil and metal prices in the global markets, WPI inflation had risen to double digits in June 2008 and remained elevated till October 2008. As the global commodity prices moderated from their peak levels, domestic prices also adjusted sharply thereafter. Excluding the volatile fuel and metals components in WPI, however, the WPI inflation was less volatile, in the range of 10.2 per cent in August 2008 to 4.8 per cent in March 2009. The pass-through of global commodity prices to domestic prices was incomplete because of administered price mechanism and fiscal interventions for several commodities, which helped in moderating the price pressures and containing the volatility in inflation. The prices of food articles, however, continued to rule high, as a result of which the consumer price indices (CPIs) remained firm near double digit levels, given the higher weight of food articles in CPIs. The Reserve Bank's Annual Policy Statement in April 2009 recognised the emerging significant divergences between inflation in WPI and CPIs and emphasised that for policy purposes it continuously monitors the full array of price indicators.

External Contagion and Financial Markets

I.17 In the post-September 2008 period, the major concern for the Reserve Bank was to deal with the knock-on effects of the global financial crisis. With sharp increase in the overnight call rate in India to 13 per cent on September 16, 2008 and further to a peak of 19.8 per cent on October 10, 2008, the volume under the LAF *repo* window of the Reserve Bank (which is used on a day-to-day basis by the banks for accessing liquidity) increased from around Rs.12,500 crore in the first half of September 2008 to Rs.68,000 crore in the second half of the month, and further to Rs.90,000 crore in early October 2008. Demand for liquidity had increased from many quarters, that too suddenly. Corporates had increased the demand for credit at home as a substitute for external financing in the face of global credit squeeze. Access to trade credit was becoming difficult, and the cost also had gone up. NBFCs and mutual funds, given the nature of their sources of funds, also faced major liquidity shortage. In view of the capital outflows and the pressures on the balance of payments in the third quarter of the year, the exchange rate came under pressure, which warranted intervention operations by the Reserve Bank to restore orderly conditions in the foreign exchange market. This, in turn, implied corresponding contraction in rupee liquidity in the banking system. The Reserve Bank, thus, had to ensure supply of adequate rupee as well as foreign currency liquidity to restore the call money rate within the LAF corridor and also to contain volatility in the exchange rate.

Reserve Bank's Responses to the Contagion

I.18 For enhancing the availability of domestic liquidity, besides the usual reduction in CRR, greater access under the LAF through *repos*, and unwinding of the MSS securities, several other conventional as well as unconventional instruments were also used depending on the nature and expected magnitude of the demand for liquidity, such as a second LAF window providing access to liquidity in the afternoon as against the normal LAF access in the morning, special 14 days *repo* facility using SLR eligible securities up to 1.5 per cent of NDTL for meeting the liquidity needs of NBFCs, housing finance companies and mutual funds, advance release of money at the request of the Government to the banks towards Agricultural Debt Waiver and Debt Relief Scheme, increase in export credit refinance limit for commercial banks, and special refinance facilities for specialised financial institutions such as the SIDBI, NHB and EXIM Bank. The additional liquidity that was made available exceeded Rs.4,00,000 crore (by the end of the year), which is unprecedented and amounted to 7.9 per cent of GDP.

I.19 For dealing with the excess demand conditions in the foreign exchange market, given particularly the objective of containing excessive large volatility, a number of measures were initiated to ease the supply situation by partly assuring greater access to the Reserve Bank's foreign reserves and partly by improving the inflows in response to specific measures. Besides the actual intervention sales in the foreign exchange market, the Reserve Bank also opened the forex swap facility for the banks. To ease the demand pressure from oil importing companies during the high and rising phase of international prices, the Bank had already started special market operations in the secondary market through commercial banks involving direct supply of forex liquidity against the oil bonds of the public sector oil marketing companies. The policy measures that aimed at improving the supply of forex liquidity included permitting banks to borrow from their overseas branches within prudential limits, relaxing further the external commercial borrowing policy, including allowing NBFCs and housing finance companies to borrow in foreign currency, and raising the interest rates on NRI deposits. Notwithstanding the demand pressure in the forex market, in view of depressed international asset prices, the corporates were permitted to prematurely buy back their FCCBs at prevailing discounted rates.

I.20 Recognising the difficult challenges in the credit market, the Reserve Bank had to balance the priorities of credit quality and improved credit delivery. As counter cyclical regulatory measures, the Reserve Bank reduced to normal levels the provisioning requirement for standard assets and risk weights for certain asset classes, which had been increased earlier during the period of rapid credit growth. With a view to further strengthening the domestic banking sector, the Reserve Bank also undertook a number of other regulatory initiatives, which include: (i) review of prudential framework for off balance sheet exposures of banks covering issues like risk weights, provisioning and credit conversion factors; (ii) strengthening of systems for monitoring large un-hedged foreign exchange exposure of corporates; (iii) enhancing cross border supervision and consolidated supervision of bank led conglomerates; (iv) reviewing supervisory framework for monitoring the activities of Special Purpose Vehicles(SPVs) and trusts set up by banks; (v) reviewing the appropriateness of the current supervisory framework for monitoring the overseas operations of Indian banks; (vi) issuing guidelines on managing maturity mismatch for addressing liquidity risks in the very short run; (vii) discouraging the practice of excessive reliance on call money borrowing by linking the borrowings to banks' capital; and (viii) modifications to guidelines on restructuring of advances. Despite the risk of contagion from the global financial crisis, the Indian banking system remained sound and resilient, as evident from the soundness indicators like capital adequacy, asset quality and profitability for 2008-09. While the capital adequacy level for the banking system was at 13.2 per cent at the end of the year, each individual bank was above the minimum 9 per cent capital adequacy requirement prescribed by the Reserve Bank. Stress-testing findings of the Committee on Financial Sector Assessment (CFSA) also suggested the resilience of the financial system and the adequacy of capital levels.

Impact of the Reserve Bank's Actions

I.21 Responding to the large and comprehensive domestic liquidity measures, the inter-bank call rate reverted to within the LAF corridor or around the ceiling by the end of October 2008 and the LAF window also moved from net injection to net absorption mode, indicating the surplus liquidity conditions in the system since November 2008. Reflecting the measures taken for improving the availability of forex liquidity, the average exchange rate of the rupee which had depreciated sharply from Rs.40.02 per US dollar at the beginning of April 2008 to Rs.51.23 per US dollar in March 2009, has appreciated since then to around Rs.48.0 per US dollar in the first half of August 2009. The 10-year benchmark government securities yield also softened from the October 2008 levels by the end of the year, despite significant increase in market borrowings in the second half of the year. Thus, the transmission of the Reserve Bank's policies to the money, forex and the government securities markets has been effective, thereby ensuring speedy restoration of orderly conditions over a short time span.

The Resilient External Sector

I.22 The external sector of the economy exhibited resilience despite significant pressures on the balance of payments through the trade and capital flows channels, particularly in the third quarter of the 2008-09, when the reserve loss (excluding valuation) was US$ 18 billion in just one quarter. While net capital flows remained negative even in the fourth quarter of the year, the reserve loss was negligible because of surplus in the current account. For the year as a whole, the current account deficit widened to 2.6 per cent of GDP in 2008-09 from 1.5 per cent of GDP in 2007-08, with a total loss of reserves of US$ 20.1 billion (net of valuation). Overall, there was substantial decline in net capital inflows from US$ 108 billion in 2007-08 to US$ 9.1 billion in 2008-09, with last two quarters of the year showing net outflows. The financial channel of the contagion from the global financial crisis, thus, was distinctly felt in the form of reversal in capital flows, which affected the domestic financial markets, in particular, the stock market and the forex market. The significance of maintaining comfortable foreign exchange reserves, even with a largely flexible exchange rate regime, thus, became evident during the year when one of the severest external shocks could be managed without any exceptional measures to modulate the specific transactions in the current and capital accounts.

Managing Macroeconomic Challenges

I.23 The management of the macroeconomic environment during 2008-09, thus, was exceptionally challenging for the Reserve Bank, as the magnitude and pace of the external contagion had the potential to cause severe disruptions to critical segments of the economy. Preventing a liquidity scare, with ample provision of liquidity, both domestic and foreign currency, was the immediate challenge in the post September 2008 period, and both money market and forex market returned to normal conditions within two months in response to Reserve Bank's actions. With a sound banking system, the liquidity of non-banks like NBFCs, mutual funds and housing finance companies were also met to avoid the failure of any financial institution on account of lack of access to liquidity. In the wake of net capital outflows and difficult conditions for access to international markets, while assuring the market to provide the needed liquidity from the comfortable foreign exchange reserves, steps were taken to make certain inflows more attractive. Given the overriding importance of containing the moderation in flow of credit to the private sector for sustaining the growth momentum, counter cyclical prudential regulations were used to encourage banks to lend. The policy rates were also brought down significantly so as to lower the cost of funds and thereby spur consumption and investment demand. The fiscal stimulus, that involved significant increase in the government borrowing programme, posed the challenge of smooth completion of the borrowings without disrupting the markets.

I.24 Notwithstanding the Reserve Bank's actions that prevented the financial system from stress and thereby avoided any risk to the growth process from the financial system, the slowdown in domestic aggregate demand on account of the apprehensions spilling over to the consumers and investors from the severe global recession emerged as the key challenge to sustained high growth. In 2008-09, management of high inflation in the first half and preserving the soundness and resilience of the financial system in the second half were the key policy challenges. By the beginning of 2009-10 the major policy concerns were slow recovery in growth despite use of large fiscal stimulus and accommodative monetary stance, global recession weakening the export prospects, less than expected correction in real estate prices constraining a recovery in housing demand, high food and consumer price inflation and the risk of inflationary pressures firming up further due to the impact of sustained recovery-focused fiscal-monetary policy stance, implications of protracted growth slowdown for asset quality of banks, and the increasing possibility of large borrowing programmes limiting the options for monetary policy by potentially exerting upward pressures on market interest rates and competing with the credit demand from the private sector, and thereby constraining the return to the high growth path in the medium-term.

PROSPECTS FOR 2009-10

The Uncertain Global Outlook

I.25 The external economic environment is unlikely to remain congenial for supporting a faster recovery in India, because despite improved financial market conditions and thaw in the pace of contraction in global activity, the recession in advanced countries is widely perceived to persist in 2009. The IMF's outlook released in July 2009 suggests that global growth would contract by 1.4 per cent in 2009, and the volume of world trade would also decline by 12.1 per cent. The recovery is widely perceived to be gradual, and even with the upward revision to the IMF's growth outlook for 2010 at 2.5 per cent, that would represent just about half of the growth achieved in 2007. Moreover, despite diminishing uncertainty and improving confidence as well as receding financial stress, bank lending conditions remain tight, housing markets are yet to bottom out, and banks' balance sheets need to be cleansed further. In the second quarter of 2009, while the rate of contraction in the US and Euro-area GDP slowed down significantly, Japan, Hong Kong, Germany and France recovered from the recession, and China and Korea exhibited acceleration in growth. Emerging signs of improvement in the global macro-financial conditions, however, need to gain roots for ensuring a sustained global recovery. According to the Global Development Finance of the World Bank June 2009, the industrial production in rich countries has declined by 15 percent since August 2008, and that in developing countries (excluding China) the decline has been by 10 percent. The external financing conditions for the developing countries has been viewed to remain difficult in 2009, with private capital flows expected to decline from US$ 707 billion in 2008 to US$ 363 billion in 2009. The IIF's June 2009 projections for capital flows to EMEs suggest that net flows could fall sharply to about US$ 141 billion in 2009 from US $392 billion in 2008. According to the July 2009 estimates of the World Bank, remittance flows to developing countries could decline to US$ 304 billion in 2009 from US$ 328 billion in 2008, suggesting that the impact on remittance receiving countries may not be as strong as the trade and capital flows channels. Rising unemployment, however, entails the risk of tighter immigration policies. The assessments of international agencies indicate that trade, capital flows and remittances may take some time to revive to normal levels and contribute to growth. If the protectionist response of some countries continues, global recovery may not immediately lead to corresponding revival in world trade. Moreover, rebalancing of the global growth to correct the accumulated global imbalances of the past years may also affect the growth prospects of many countries.

Return to the High Growth Trajectory

I.26 Reverting to the high growth path at the earliest and ensuring an inclusive growth process represent the overarching priorities of the Government, and the macroeconomic policy environment has to respond to this broad overall objective. As external demand operates as a major drag on the recovery, growth impulses have to depend even more on domestic demand than in the past and public expenditure has to take the lead in boosting aggregate demand in the face of deceleration in private consumption demand and investment demand. This realisation is reflected in the increase in government expenditure by 33.1 per cent in 2008-09 and by 13.3 per cent over the high base of the previous year, as budgeted for 2009-10.

I.27 The relatively higher resilience of Indian growth to the global economic crisis was on account of the dominant role of domestic demand and domestic saving. The increase in savings rate from 23.5 per cent in 2001-02 to 37.7 per cent in 2007-08 largely allowed a sustainable investment driven high average growth of 8.8 per cent over 2003-08, besides the congenial productivity enhancing influence of reforms. In the process of reverting to the high growth path, same level of support from domestic saving may be required, which, however, may be difficult in the immediate run due to the operation of two factors, which would have dampened the performance on the saving front. Public sector savings, which had been showing signs of improvement in recent years reflecting the disciplining influence of the FRBM, is expected to register some deterioration due to higher fiscal deficits as the outcome of using appropriate fiscal stimulus to contain the slowdown in growth, besides the expected subdued performance of the public sector enterprises in a phase of economic slowdown. Depressed corporate earnings associated with deceleration in aggregate demand could also lead to some erosion in savings of the private sector. The growth in overall domestic savings, thus, could be expected to decline modestly in 2009-10. This, however, may not operate as a constraint to growth in the short-run, since in relation to the aggregate demand adequate liquidity is available in the banking system. Moreover, during the phase of economic slowdown, corporates could have undertaken efficiency enhancing restructuring of the production processes, which otherwise might have been difficult to implement in the preceding phase of high growth. This could help in strengthening the growth momentum once the recovery sets in. Inventory levels, which would have declined during the slowdown, may also support a faster revival when aggregate demand recovers. In the medium-run, as the fiscal stimulus is withdrawn gradually and the fiscal policy stance reverts to the path of consolidation and discipline, return to the same level of domestic savings that could be consistent with the sustainable growth level of 9 per cent would be feasible.

Aggregate Demand

I.28 The composition of aggregate demand had to tilt in favour of government demand, on account of the use of fiscal stimulus to contain the growth slowdown. In view of the payments made under the Farmer Debt Waiver Scheme, Sixth Pay Commission and fiscal stimulus measures, the share of government final consumption increased to over 11.1 per cent of GDP in 2008-09 from 9.8 per cent of GDP in the previous year. The revival in private consumption demand, however, is essential to not only stimulate investment demand but also to facilitate faster fiscal consolidation. In this context, promoting rural demand assumes significance not only in view of the higher share of rural consumption in aggregate private consumption but also because of greater vulnerability of rural consumption in an environment of deficient monsoon as well as high food articles inflation, both of which could erode rural disposable income. The share of rural consumption in total household consumption has remained consistently in the range of 55 per cent to 60 per cent in last one decade, and is expected to grow at a faster pace with rising inter-linkages and catching up with the urban life style. Recognising the importance of rural demand in moderating the impact of the slowdown, the Union Budget for 2009-10 increased outlays under several schemes significantly that could benefit the rural households directly, besides the income enhancing/supporting policies associated with the increase in MSPs and food subsidies.

Agricultural and Allied Activities

I.29 The agricultural growth prospects in 2009-10 have to be assessed taking into account the output impact of deficient monsoon. With almost 60 per cent of the agricultural land being rain-fed, Indian agriculture is still dependent on the performance of the monsoon, particularly the South-West monsoon. During the last ten years, large cumulative deficiency in rainfall was observed during 2002 (-19 per cent) and 2004 (-13 per cent). On both these occasions, there was an adverse impact on foodgrains production. While agricultural production had contracted by 7.2 per cent in 2002, the production level in 2004 had held up at the same level as in the previous year due to the robust growth in allied activities. The past experience, thus, suggests that the spatial and temporal distribution of the rainfall is critical in influencing the overall outcome for agriculture. According to the August 2009 revised monsoon rainfall projections of the India Meteorological Department (IMD), the rainfall deficiency in 2009 (during June-September) could be about 13 per cent. The actual position up to the second week of August 2009 shows that the cumulative shortage of rainfall is about 29 per cent in relation to the normal levels. Moreover, production weighted rainfall index of the Reserve Bank shows a shortfall of 36 per cent, which is higher than what is indicated by the cumulative rainfall pattern. Crop sowing position as on August 13, 2009 indicates that sowing of most pulses and coarse cereals are higher than last year's levels, though paddy sowing has been substantially lower, *i.e.* about 19 per cent below last year's level. Given the fact that kharif paddy contributes about 86 per cent of total rice production and 36 per cent of total foodgrains production in India, foodgrains production in 2009-10 could be adversely affected because of the deficiency in rainfall. According to the Food and Agriculture Organization (FAO), India's paddy output in 2009-10 may decline by 2.5 per cent. Rainfall deficiency entails the additional risk of shortfall in hydro power generation, which may also add to the existing infrastructure constraint to growth, particularly when the energy demand increases with the recovery.

I.30 The rainfall deficiency during the kharif season, thus, could affect the growth and inflation outlook, besides rural disposable income. Rural demand that had remained buoyant so far on account of record food grains production last year, may also experience some moderation, which in turn could influence the recovery prospects of certain industries that benefited earlier from the robust rural demand. FMCG sector could be particularly affected, and the stock markets have already responded to the monsoon related outlook for different sectors as well as the overall economy. Notwithstanding the macroeconomic concerns associated with the rainfall deficiency, one needs to recognise the progress on effective diversification of Indian agriculture towards horticulture, livestock and fisheries, and their rising shares in the total output of the agricultural sector. Horticulture, livestock and fisheries contribute close to 60 per cent of the GDP originating from "agriculture and allied activities", and "cereals, pulses and oilseeds" grown during *kharif* account for only 20 per cent of the total agricultural output. As in the previous year, improved Rabi performance may also help in moderating the output effects of monsoon during the kharif, which though would depend on the rainfall pattern in the remaining phase of the South West monsoon as well as precipitation during North East monsoon. While the record foodgrains production in 2008-09 and comfortable buffer stocks of rice and wheat have enhanced the capacity to deal with price pressures in 2009-10 on account of the deficient rainfall, enhancing the agricultural output, driven by higher yield and diversification of crops, assumes importance. Higher investment backed by sustained research and extension activities could be critical for augmenting yield. Besides the policy focus on using higher MSP to generate supply response and public investment on expanding the irrigation potential, improving the market structure for agricultural commodities ensuring competitive pricing, hedging options for management of crop uncertainty, adequate warehouse facilities and improved rural roads enhancing better connectivity with urban markets also must receive greater policy attention. Better water management with an emphasis on water harvesting would be important for moderating the impact of below normal monsoon on farm output.

Industrial Sector

I.31 Despite positive growth and signs of recovery in the first quarter of 2009-10, the growth outlook for the industrial sector remains mixed. The pace of industrial output in a number of emerging and industrial economies had declined by double digit levels during the second half of 2008-09. In India also, the IIP registered a growth of 2.7 per cent in 2008-09, which is the lowest since 1992-93, with negative growth in one month of the year. The unregistered manufacturing sector has generally moved in line with the registered manufacturing sector, and the performance could be expected to have been equally subdued than the organised sector as micro and small enterprises (MSEs) often depend on large enterprises through forward and backward linkages. The concern relating to flow of credit to the SMEs also needs to be addressed. In view of the prevailing uncertainties, the Reserve Bank has set up an Industry Monitoring Group drawing members from external agencies as well as from concerned departments of the Bank in April 2009 to periodically assess the developments in Industry in relation to changes taking place in the global economy and the financial sector.

I.32 The manufacturing sector's performance in a competitive environment and in the face of risks of rising protectionism could encounter several challenges. Despite the advantages of a large domestic market, abundant availability of skilled labour force, and the proximity to the fast growing

Asian markets, productivity growth needs to catch up with the Asian economies, including China. This requires greater emphasis on quality, better adoption of technology, more flexible labour laws, significantly improved infrastructure and a policy environment supportive of the SMEs sector. The industry-education linkages must be strengthened vigorously. The technological breakthrough for product development, including patent protection, has often acted as a deterrent to attract sizeable investment into R&D in many industries, notably the drugs and pharmaceuticals. Persistent problems like delayed payments after delivery, frequent disruptions in the availability of power, and lack of stable demand also affect the performance of the manufacturing sector. The strong inter-linkage with the performance of the export sector has been a factor in affecting the industrial growth in the face of contracting external demand.

Services Sector

I.33 The underlying impetus of high growth in India has been the sustained robust performance of the services sector. This sector has not only exhibited minimum growth of 9 per cent in the recent five years, but its share in aggregate GDP has also increased to about 64.5 per cent. The significant progress made by the services sector has been partly possible because of the strong growth in services exports. The contribution of services exports in overall value added accelerated sharply from 6.9 per cent in 2000-01 to 21.6 per cent during 2008-09. Indian services sector has competitive edge in several knowledge based services segments *viz.*, software, business processing and healthcare, while in the remaining areas, India may have to gain the competitive edge; the availability of modern physical infrastructure along with quality human resources would be important to spur the growth impulses in the services sector.

I.34 Historically, the services sector has consistently showed resilience since 1990-91, and remained largely unaffected by the past instances of external crises such as the Gulf crisis in 1991, East-Asian crisis in 1997 and the technology meltdown in 2000. The current global economic crisis being unprecedented in the recent history in terms of the magnitude of the impact as well its duration, the past resilience of the services sector could be tested in 2009-10. Unlike the impact on manufacturing that started in the second half of 2008-09, the impact on services may be felt with a lag, since the use of services as input to output growth in organised manufacturing has been rising in the past. The services sector competition also thrives on labour productivity as well as intensity, which is important in the context of the demography of India in favour of the young population as well as the need to absorb the surplus labour available currently in the agriculture sector. The direct contribution of global factors to the services output has been rising since 2001, with increasing global integration in services trade under the multilateral framework, favourable terms-of-trade and communication revolution providing strong fillip to both on and off-shore outsourcing of business processes, activities and knowledge. The protectionist tendencies in some of the countries affected by the ongoing economic crisis have created concerns for the prospects of external demand for Indian services , but India's comparative advantage continues to be strong.

I.35 Notwithstanding the high growth and resilience of the services sector in the recent past, the sector faces multiple challenges for sustained growth over the years. A number of services where India enjoys comparative advantages experience lack of clear policy thrust. For instance, despite the high quality of healthcare services, it attracts a number of regulations. Similarly, in education, multiple regulation points and lack of credible accreditation systems hamper the growth potential. Given the medium to long-term contribution of investments on education and health to growth and productivity, availability of these services at affordable cost while enhancing their global competitiveness must form part of the priority in India's development process. A number of services in India are either predominantly associated with the Government or not liberalised enough to ensure growth through organised private initiatives. Services like professional, legal, postal, accountancy and insurance need further liberalisation to harness their potential.

Growth Outlook

I.36 The Reserve Bank's survey of professional forecasters conducted in June 2009 indicated an upward revision in the median growth outlook to 6.5 per cent from the earlier outlook of 5.7 per cent as per the previous Survey conducted in March 2009. Currently available projections of growth for India in 2009-10 generated by various international and domestic organisations suggest a range of 4.8 per cent to 7.5 per cent. Taking into account the global developments as well as the developments in domestic aggregate demand and the recent output outlook for the three broad constituent components of GDP (*i.e.* agriculture, industry and services), the first quarterly review of the monetary policy for 2009-10 conducted on July 28, 2009 placed GDP growth for 2009-10 at "6.0 per cent with an upward bias". Since the presentation of the policy statement, while the extent of rainfall deficiency associated with the South West monsoon has increased, the IIP figures for June 2009 released in August 2009 show significant recovery in Industrial output.

Inflation Outlook

I.37 In 2008-09, India witnessed large volatility in headline inflation, which exceeded 12 per cent at one point and then fell to below 1 per cent by the end of the year. Since June 2009, year-on-year WPI inflation has remained negative, primarily reflecting the high base effect of the previous year that resulted from significant increases in the prices of food and international commodities in the first half of 2008-09. The base effect could be expected to fade gradually and then disappear by October 2009, after which the positive WPI inflation will become visible. While WPI inflation has turned negative, other indicators of inflation based on CPI for June 2009 (point-to-point) continue to remain high at 11.5 per cent (for CPI-AL), 11.3 per cent (for CPI-RL), 9.6 per cent (for CPI-UNME) and 9.3 per cent (for CPI-IW). The significant divergent behaviour of the inflation is largely on account of the differences in the coverage of items and their weights in the WPI and CPI. At the disaggregated level, even within the WPI, inflation in food articles and essential commodities remain close to the inflation as per different indices of CPI. The divergent inflation pattern as per the WPI and CPI indices has increased the complexity in the assessment of inflation, and for policy purposes, the Reserve Bank monitors the full array of price indicators. Moreover, inflation expectations have not declined as much as the fall in WPI inflation and expansionary fiscal stance with an accommodative monetary policy may not lead to sobering of inflation expectations, even if the headline inflation remains negative for few months.

I.38 The steady increase in the WPI over its end-March 2009 level indicates the persisting upward momentum in inflation, and trends in global commodity prices in the first quarter of 2009-10 suggest that upside risks to inflation could persist from rebound in global commodity prices ahead of global recovery. Increase in Minimum Support Price (MSP), that may be seen as a measure to support the farmers in a below normal monsoon year could stoke inflation. More importantly, the deficient monsoon could affect the inflation outlook more than the growth prospects. The first quarter review of monetary policy conducted in July 2009 revised the inflation projection for the end of the year to 5 per cent from 4 per cent projected in April 2009, recognising the imminent signs of inflationary pressures, while highlighting the medium-term objective of 3.0 per cent inflation.

I.39 The divergent trends in inflation as measured by the WPI and CPIs have warranted a closer relook at the measurement issues as well as the choice of an appropriate price index for monitoring changes in price levels at the national level that could be used as the reference indicator for conduct of policies. In the absence of a nationwide single inflation indicator based on consumer prices covering the entire population, the wholesale price index (WPI) has been used as the headline inflation indicator as it is more representative and provides information on prices on a weekly basis with the minimum lag. The current WPI series (with base year 1993-94) does not completely capture the nature of transactions in the economy, as considerable structural changes have occurred in the economy since then. In this context, the Government's decision to revise the base year to 2004-05 is expected to improve the representativeness of WPI, as more number of products, including from the unorganised sector, is proposed to be covered in the new series, along with reassigning of weights. The ongoing efforts for compiling nationwide consumer price indices for both rural and urban areas by the Central Statistical Organisation (CSO), as per the recommendation of the National Statistical Commission, would also improve the information base on price movements.

The External Sector Outlook

I.40 The outlook for the external sector suggests that despite persistence of the global recession in 2009, the external sector is unlikely to cause concern for growth and stability in India. The latest available trends for 2009-10 indicate that current account deficit as percentage of GDP would be lower than that in 2008-09. Both exports and imports continued to decline in the first quarter of 2009-10, but the decline in imports has been sharper than the decline in exports, resulting in a narrowing down of trade deficit. However, global oil prices have increased in recent months, which, if sustained, may put some pressure on the trade and current account deficits. The relative stability in the software services exports and inward workers' remittances, as witnessed in the previous year, could impart resilience to the current account in 2009-10. Even though net capital flows to EMEs are expected to decline during 2009, capital flows to India may increase because of better medium-term growth and faster recovery prospects. Early indications for the first quarter of 2009-10 suggest that NRI deposits, FII portfolio inflows and inward FDI flows have generally been strong, as against the net capital outflows witnessed in the last two quarters of 2008-09. The liberalised external payments regime has been facilitating the process of acquisition of foreign companies by Indian corporates, both in the manufacturing and services sectors, with the objectives of reaping economies of scale, improving access to technological knowhow and increasing strategic presence in offshore markets to face the global competition. Besides the lower current account deficit, reasonable debt sustainability indicators and comfortable foreign exchange reserves would ensure external stability, notwithstanding the persistent adverse global economic conditions.

I.41 The strong export growth of India in recent years before the global recession started has been driven by the productivity changes underway in the Indian industry. The import intensity of exports, however, has also been steadily rising as domestic entities have expanded access to internationally available raw materials and intermediate goods as well as quality inputs for providing the competitive edge to domestic production and enhance export capabilities. The prospects for recovery in exports have to be seen in the context of low external demand due to the global recession and the resultant pressure on export prices and margins, protectionist measures adopted by several countries, significant stimulus given by India's competitor countries to their exporters, and uncertainty faced by exporters about timely receipt of payments. For improving the prospects for exports on a more sustainable basis the emphasis should be on diversification, in terms of both markets and export items, and competitiveness, without making the sector to remain dependent on incentives like tax breaks, lower excise and customs duties on inputs used for exports, and concessional interest rates on financing for exporters, even though such incentives may be necessary in a phase of contraction in global demand as a temporary support to the export sector. Incentive dependent exports could hamper the progress on productivity as the durable means to higher exports. South–South trade may also have to be recognised for its potential in augmenting exports growth in future.

I.42 The experience relating to surges in capital flows for successive years, followed by sharp reversals in the second half of 2008-09 highlight the importance of management of capital flows, given their ramifications for the exchange rate and the conduct of monetary policy, and more importantly, for the overall macroeconomic and financial stability. A diversified capital account, with a hierarchical preference for FDI over debt flows, and for long-term flows over short-term flows, should be the focus of external sector policy. Fuller capital account liberalisation remains a medium-term objective, recognising the growing ineffectiveness of micro controls in a world of growing trade and financial integration.

Fiscal Consolidation

I.43 The fiscal stance of the Government in the face of deteriorating global conditions and weakening domestic growth impulses was guided by the need for preventing a sharp contraction in growth in both 2008-09 and 2009-10, while recognising the need to revert to the path of fiscal consolidation as soon as possible. The fiscal consolidation during 2003-04 to 2007-08, driven by revenue buoyancy during the high growth phase, had created some fiscal space to activate discretionary counter-cyclical fiscal policy. The Union Budget for 2009-10 envisages further deceleration in revenue collection due to the economic slowdown, as also partly due to tax cuts that were undertaken earlier to support growth. The expenditure, in turn, was increased to support aggregate demand by enhancing allocation for the crucial sectors such as infrastructure in rural and urban areas, education and health, rural employment programmes and schemes for the weaker sections. On the taxation front, the changes in both direct and indirect taxes have been envisaged to address the concerns of growth and equity. The gross tax-GDP ratio is budgeted to decline to 10.9 per cent during 2009-10 from a peak of 12.6 per cent in 2007-08.

I.44 The quality of fiscal consolidation has to be given priority attention in view of the fact that even the post FRBM improvements in key deficit indicators were possible primarily on account of the revenue buoyancy. On account of the FRBM Act, revenue deficit and fiscal deficit came down from 2.5 per cent and 4.0 per cent of GDP in 2004-05 to 1.1 per cent and 2.7 per cent of GDP, respectively, in 2007-08. These improvements in fiscal indicators were largely revenue led. The revenue buoyancy improved significantly as a result of higher economic growth during this period and also due to deliberate policy action towards improvement in tax administration through computerised information system and institution of tax information network (TIN). The revenue receipts to GDP ratio increased from 9.7 per cent in 2004-05 to 11.5 per cent in 2007-08, which accordingly contributed to reduction in fiscal deficit to GDP ratio by 1.8 percentage points. On the other hand, contribution from compression in aggregate expenditure to reduction in fiscal deficit at 0.7 percentage points of GDP was much smaller. Decline in non-debt capital receipts (*i.e.* recovery of loans and disinvestment proceeds) by 1.2 per cent of GDP, however, led to partial offsetting of the positive impact of revenue buoyancy and expenditure compression on fiscal deficit. Not only that expenditure compression had the lowest contribution to fiscal consolidation, but even the composition of increase in expenditure tilted against capital expenditure. While the revenue expenditure to GDP ratio increased by 0.4 percentage points, that of capital expenditure declined by 1.1 percentage points, reflecting lack of focus on expenditure management in contributing to the quality of fiscal consolidation.

I.45 While the fiscal measures undertaken to revive growth have led to deviation in fiscal targets envisaged under the FRBM Act during 2008-09 and 2009-10, the Government has committed to return to FRBM mandate in the next two years. Though the stance of long-term fiscal policy beyond 2010-11 would emerge later this year when the Thirteenth Finance Commission presents its report, there are several factors which could enable the Government in returning to the FRBM path. Expenditure on account of payment of Sixth Pay Commission arrears and farm loan waivers would be paid out by 2009-10. Frontloading of the plan expenditure approved for the Eleventh Five Year Plan as fiscal stimulus measures would also imply lower plan expenditure in the remaining years. As tax collections, particularly direct taxes are cyclical in nature, revenue buoyancy is expected to rise again with the pickup in growth momentum. The Government could also reverse the indirect tax cuts with the revival of the economy. Goods and services tax (GST) proposed to be introduced from April 2010 could also be expected to improve the revenue buoyancy. In this regard, the Government has also recognised the importance of institutional reform measures encompassing all aspects of budget such as subsidies, taxes, expenditure and disinvestment.

I.46 The fiscal consolidation path may have to involve considerable and careful rationalisation of expenditure. The capital outlay to GDP ratio has been around 1.5 percent for last several years. Capital outlay, which is budgeted at 1.7 per cent of GDP during 2009-10 would need to be stepped up significantly over time. Non-plan expenditure would have to be checked. During 2009-10, non-plan revenue expenditure consisting mainly of interest payments, defence expenditure, subsidies, wages and pensions and grants to States appropriated over 60 per cent of the total expenditure (about 10 per cent of GDP). In the near future interest payments, which represent a major non-discretionary component of expenditure, could appropriate over one-third of total revenue receipts. This underpins the need for fiscal consolidation. The quality of fiscal consolidation, based on successful international experience, suggests that it should be driven by expenditure rationalisation/compression. A ceiling on the share of non-plan expenditure in total expenditure may be integrated into a medium-term plan for enhancing the quality of fiscal consolidation. Moreover, improving the productivity of public expenditure and quality of the public service should also be emphasised as an important part of the initiatives on expenditure led fiscal consolidation.

I.47 On the revenue front, introduction of goods and services tax (GST) is an important policy reform. The GST would facilitate greater vertical equity in fiscal federalism and reduce the cascading nature of commodity taxes, since the base for assessment would be the value addition. In the Union Budget for 2009-10 it has been indicated that the broad contour of the GST model would be dual GST, comprising Central GST and State GST. The Centre and States will legislate, levy and administer the Central GST and State GST, respectively. The Central Government has reiterated its commitment to facilitate the introduction of GST by April 1, 2010, after consultations with all stake holders. The share of services sector in total tax revenue is not commensurate with its share in GDP, although the services tax collections have witnessed an impressive growth during the period 2003-04 to 2008-09, from 0.3 per cent of GDP in 2003-04 to 1.2 per cent and budgeted at 1.1 per cent of GDP in 2009-10. Within gross tax revenue, the share of services has increased from 3.1 per cent in 2003-04 to 10.4 per cent in 2008-09 and budgeted at 10.1 per cent for 2009-10. With the introduction of GST, more number of services would also be brought into the tax net and consequently tax contribution from the services sector could be expected to increase substantially.

I.48 The fiscal consolidation process entails the risk of affecting social sector spending as much as infrastructure spending. The expenditure incurred on education and health in recent years as per cent to GDP showed marginal improvement from 0.4 per cent and 0.2 per cent in 2003-04 to 0.6 per cent and 0.3 per cent, respectively, in 2008-09. These are budgeted at 0.7 per cent and 0.4 per cent for 2009-10. Compared to other emerging market economies, expenditure on health and education is low in India. Given the already low level of expenditure on these crucial sectors, as a minimum, there is a need to maintain the gradual upward momentum witnessed in recent years. The process of fiscal consolidation, therefore, should not be achieved at the cost of cut backs in expenditure towards these sectors.

Disinvestment

I.49 In the context of options for faster return to the fiscal consolidation path, mobilisation of resources through disinvestment has been highlighted in some quarters. The experience with disinvestment programme in recent years indicate that proceeds from disinvestment were the highest in 2003-04, amounting to Rs.16,953 crore, and no subsequent momentum has been achieved since then. With the setting up of National Investment Fund (NIF), all the proceeds from disinvestment of Central Public Sector Enterprises (CPSEs) are required to be routed to it, which is maintained outside the Consolidated Fund of India. The Fund is managed professionally to provide sustainable returns to the Government, that too without any depletion of the corpus. Only the annual income of the Fund can be spent, with 75 per cent for financing select social sector schemes in the field of education, health and employment and the balance 25 per cent for meeting the capital investment requirements of profitable and revivable CPSEs. There is a need to step up disinvestment for greater resources mobilisation.

Subsidies

I.50 Management of subsidy has posed a persistent policy challenge. The high fertiliser prices prevailing in global commodity markets during the first half of 2008-09 and the enhanced minimum support price for wheat and rice led to sharp increases in fertiliser and food subsidies in 2008-09 (RE) by Rs.44,863 crore and Rs.10,960 crore, respectively, over the budget estimates. Apart from these subsidies, which are explicitly provided for in the Budget, implicit subsidies provided for by way of issue of special securities to oil and fertiliser companies amounted to Rs.75,849 crore and Rs.20,000 crore, respectively, in 2008-09 so as to compensate for under recoveries. This has added to the subsidy burden of the Government, as the interest payments on these securities will impinge on the revenue deficit of the Government. The Union Budget for 2009-10 has lowered the provisions for fertiliser subsidy in 2009-10 by 34 per cent over the revised estimates for 2008-09, assuming that the prevailing lower prices of fertilisers will continue in the international markets. Food subsidies have been raised by 20 per cent in order to ensure food security for BPL families. Together with the provision for special securities to oil marketing companies, the total provision for major subsidies is budgeted to be around 2 per cent of GDP for 2009-10, as against 4.2 per cent of GDP in 2008-09. Moreover, expenditure by the States on subsidies has been at around 0.4 to 0.5 per cent of GDP in recent years. This order of subsidy of the Centre and States taken together is high for a country where budgetary resources have competing demands and which have stronger potential for contributing to growth and development. Without explicit mandated provisions to cap expenditure on subsidies, needs for greater public investment in infrastructure, both physical and social, could be sacrificed as an outcome associated with higher subsidies.

I.51 As regards fertiliser subsidies, the move towards nutrient based subsidy regime as announced in the Union Budget 2009-10 could ensure balanced application at reasonable prices. Furthermore, the move towards a system of direct transfer of subsidy to the farmers in due course will ease the pressure on fertiliser subsidies as leakages could be reduced. Over time, fertiliser prices need to be decontrolled. As irrigation is a critical factor determining the use of fertilisers, and has a significant impact on foodgrain production, public investment in irrigation could be a more efficient policy instrument rather than subsidy.

Infrastructure

I.52 India's high growth trajectory has exerted significant pressures on the available physical infrastructure, and infrastructure deficit is widely recognised as a major constraint to attracting foreign investment and promoting efficiency in production in India. The Eleventh Five Year Plan envisages stepping up of the gross capital formation in infrastructure from 5 per cent of GDP in 2006-07 to 9 per cent of GDP by end of the Plan period in 2011-12, and this could be critical to achieve the 9 per cent growth. The large financing requirement that is necessary to almost double the investment in infrastructure has to be also seen in the context of challenges for investment in both public and private sectors. Public investment continues to dominate the infrastructure sector in India and when the Government is expected to go through an exit phase to revert to the fiscal consolidation path, accelerating the pace of public expenditure for infrastructure could become difficult. In attracting private investment to infrastructure projects, the challenge is to make the investment attractive enough in terms of expected return on capital while also being fair to the consumers and actual users of the infrastructure. Moreover, besides the current focus on growth, improving the quality of life through provision of modern physical and social infrastructure should also be given greater importance. During the implementation stage of the projects, more rigorous mechanism must be put in place to enhance the quality of the infrastructure. Development of infrastructure is the key to a sustainable high and inclusive growth process and is necessary for connecting producers to markets, lowering transaction costs and also providing a larger section of the population access to services like communication, education, and healthcare. India's rapid industrialisation and growing urbanisation continue to put pressure on infrastructure demand; as infrastructure projects are capital intensive with long gestation period, the return is uncertain and low in risk adjusted terms, which warrants provision of special preferential incentives in the policy framework for generating the desired supply response.

I.53 Addressing the growing infrastructure gap would be critical for both sustaining higher growth as well as improving the quality of life. The Eleventh Five Year Plan has estimated an investment requirement of US$ 502.88 billion (Rs.20, 11,521 crore) in infrastructure; financing this level of investment, however, remains a challenge ahead. Several new initiatives have been initiated in the recent years focussing particularly on the rural infrastructure development. To stimulate public investment in infrastructure, a special purpose vehicle - India Infrastructure Finance Company Limited (IIFCL) was set up for providing long-term financial assistance to infrastructure projects. The Union Budget for 2009-10 announced that IIFCL would, in consultation with banks, evolve a 'take out financing' scheme (which would address asset liability mismatch of commercial banks arising out of infrastructure financing) to facilitate incremental lending to the infrastructure sector. In recent years, some progress is discernible in attracting private investment in infrastructure sectors such as telecommunications, power generation, airports, ports, roads and the railways through public private partnerships (PPPs).

I.54 PPPs have grown in popularity around the world with governments otherwise finding it difficult to finance infrastructure investments through conventional revenue raising mechanisms like taxation or borrowings. In financing large-scale PPP programmes, there could be the constraint in terms of mobilisation of long-term funds. PPPs in India rely on commercial banks for funding, which by nature cannot be for very long-period. Bank financing for PPP projects exposes the banks to risk concentration, besides refinancing uncertainty at maturity, and the risk of changing interest rates and credit conditions over time. An active bond market could diversify risks, besides elongating the duration of finance. The financing challenges suggest the need for greater Government support, ranging from direct equity contribution to use of government guarantees and extension of tax breaks. To ease the financing constraints for infrastructure projects under the PPP mode, the Government has decided that IIFCL would refinance 60 per cent of commercial bank loans for PPP projects in critical areas over the next fifteen to eighteen months. The IIFCL was authorised to raise Rs.10,000 crore through Government guaranteed tax free bonds by the end of 2008-09 and an additional Rs.30,000 crore on the same basis as per the requirement in 2009-10. The refinancing option is expected to leverage bank financing for PPP programmes to the extent of about Rs.1,00,000 crore.

Technology and Innovations

I.55 For sustaining the high growth, there has to be significant emphasis on raising the productivity levels, for which innovations and adoption of technology would be critical. Any contribution to growth that emanates from factors other than labour and capital is generally seen as the contribution of technology in growth accounting, which is broadly captured under "total factor productivity (TFP)". International as well as domestic empirical evidences recognise the role of technological progress in economic growth through increase in TFP. Factors ranging from education, rule of law, openness to trade and capital flows and institutional reforms could contribute to technological progress, besides innovations and adoption of new technology. For enhancing productivity, thus, expenditure on primary health, education, vocational training and R & D may be raised, besides facilitating larger flow of credit. Entrepreneurship needs to be incentivised for promotion of innovation and growth of old and new businesses. Enhanced credit availability to business start-ups is one of the measures to facilitate the growth of entrepreneurship. Start-ups are expected to have a higher failure rate, which may have to be recognised in the regulatory norms relating to asset quality. Innovations in areas in which India has gained expertise and competitive edge (*e.g.* ICT, pharmaceuticals and biotechnology) also need to be encouraged. FDI often brings with it modern technology and other practices which contribute to productivity; there is, therefore, a need for a more liberal FDI policies. In view of the low yield in Indian agriculture, productivity enhancing technologies are particularly required for more inclusive high growth and rural development. Entrepreneurs are generally innovators and known for their development and adaptation skills. They are creative and are driven by the animal spirit of making profits. They are also risk takers. Hence, a special Government funded scheme for providing necessary opportunities to existing and potential entrepreneurs could be appropriate.

Food and Energy Security

I.56 The global developments on the food and energy fronts in 2008 highlighted the importance of food and energy security for ensuring sustainable and inclusive high growth in India. Insulating the common man from the vulnerability associated with high food price inflation warrants a more robust food security system in India, which could allow high growth in agriculture without depressing the prices too much while also preventing escalation in food prices in the eventuality of production shortfalls. The extent of volatility that was witnessed in international food prices in 2008-09, and the specific measures that the Government of India had to undertake in terms of banning export of certain items and reducing the prices of certain imported items through lower tariffs, also highlight that India may have to put in place a more comprehensive food management system that is consistent with high growth and low inflation objectives while also ensuring adequate supply of food articles at the lowest possible prices to the vulnerable sections of the society. This is particularly relevant on account of the fact that a large segment of the Indian population has no access to any assured social safety fall back options. The current buffer stock policy may have to be better aligned to the goal of stabilising food price inflation while simultaneously promoting higher growth in agricultural output, so that despite the costs involved, surplus production could be absorbed in years of good agricultural production to avoid any sharp fall in prices, while also releasing adequate stocks from the available buffer stock during periods of shortfall in domestic production in relation to demand. Other growth enhancing measures could include higher public investment in agriculture, better crop balancing, research and extension services, and prevention of degradation in soil productivity while enhancing the sustainability of available ground water for agricultural use. The emphasis should be also on diversification of agriculture, from rain-fed to dry land farming, from food crops to non-food cash crops, and from dependence on agriculture as the sole source of living to non-farm rural employment. Climate change related issues will assume greater prominence over time, and could potentially disturb the rainfall pattern in future; there could be gradual international consensus over time on emission limits for countries, which in turn would require larger public investment on clean technology.

I.57 Besides food security, energy security is another challenge, and the behaviour of energy prices in 2008-09 only highlights the urgency that should be assigned to this issue. Significant dependence on imports for ensuring assured supply of POL products in the domestic market warrants adequate strategic policies to contain any potential risk to future growth path arising from possible emergence of sudden deficits in energy availability. Incentives to private investment and higher public investment on exploration and production of crude and natural gas would be necessary. Any fiscal measures to moderate the impact of high oil prices over a sustained period could drag the fiscal position to unsustainable levels. Decontrol of prices for all POL products by linking the pricing directly to international prices, and delivering subsidies explicitly as a cash outgo affecting the budget deficit contemporaneously, instead of through oil bonds, could be the first step towards promoting energy security. The next important steps could involve provision of sufficient fiscal incentives for promoting energy conservation and efficient use, for attracting private investment in generation and conservation of power, and more importantly, research and extension activities on non-conventional clean energy.

Employment

I.58 The employment effects of the global economic recession have been a key driving factor behind the use of large stimulus packages all over the world. The May 2009 ILO Update on Global Employment Trends projects additional unemployment of over 50 million (in the worst case scenario) as a fallout of the global economic crisis in 2009. While no information is available at the macro-level in India on the unemployment scenario arising from the slowdown in growth, unemployment very much remains a concern, and there are evidences of some increase in unemployment in certain sectors. The Ministry of Labour in India had conducted two quick quarterly surveys for the period October-December 2008 and January-March 2009 in select business segments to assess the impact of the global contagion and domestic slowdown on employment. The survey found a decline in overall employment growth in industries like textiles, metals, automobiles, gems and jewellery, transport and IT/BPO by 1.0 per cent (or 0.5 million job losses) during the third quarter of 2008-09, with the gems and jewellery and transport segments showing (-8.6 per cent) and (-4.0 per cent) change in employment. While export oriented units exhibited pressure on employment, non-exporting units experienced modest employment growth.

I.59 The employment situation in the fourth quarter of 2008-09, however, improved, even in certain export-oriented segments, particularly textiles, IT/BPO, automobiles, gems and jewellery and handloom/powerloom; the employment situation though deteriorated in other export oriented sectors like leather, metals and transport, where employment remained below the September 2008 levels. The Reserve Bank's Industrial Outlook Survey conducted in April-May 2009 showed that as per expectations about employment in July-September 2009, there would be net hiring in the manufacturing sector.

I.60 The Government has undertaken several measures to promote growth in the sectors facing slowdown, and thereby prevent increase in unemployment. Prominent among these are establishment of two new mega clusters for handlooms and carpets, interest subvention on pre-shipment credit for labour intensive export oriented sectors, enhanced ECGC cover, and reduction in basic customs duty and service tax exemption to select exports. Enhanced resource allocation in 2009-10 for national flagship schemes such as National Rural Employment Guarantee Scheme (NREGS) (rise by144 per cent), Bharat Nirman (rise by 45 per cent), National Highway Development Programme (rise by 23 per cent), Jawaharlal Nehru Urban Renewal Mission (JNNURM) (rise by 87 per cent) could help in generating additional employment, particularly in the un-organised sector, both in rural and urban areas during 2009-10. There have been reports of reverse migration – from urban industrial clusters to the rural areas within India – and the protectionist response of several countries in terms of tighter immigration policies on account of their own deteriorating employment conditions.

Urbanisation

I.61 Approximately 30 per cent of India's population resides in urban areas currently. The proportion of people living in urban areas is going to increase at a faster pace in the next thirty years on account of organic growth as well as the continued rural-urban migration. Considering the important role that urbanisation has played in economic development more recently in South-East Asia and China, the role of proper urban planning and management cannot be overemphasised. Focus is required not just on hard infrastructure such as water, sanitation, sewerage, urban transportation, power and communication, but also on softer areas such as education (primary, secondary, higher and vocational) and health. Traditionally, provision of public goods and services is financed by tax flows and public borrowings while that of private goods and services is financed through user charges. In India, the importance of user charges in developing and sustaining the urban infrastructure is well recognised. The Jawaharlal Nehru Urban Renewal Mission (JNNURM), launched in 2005-06, is by far the most ambitious programme aimed at improving the civic service levels in identified mission cities over a period of seven years. While sanctioning projects utilising the additional central assistance under the JNNURM, priority has been given to projects such as water supply, sanitation and storm water drainage, which benefit the common man and the urban poor. This process needs to be further strengthened.

Financial Sector Reforms

I.62 While India's financial sector remained resilient in the face of global shocks, there are a number of areas where the reforms would be needed to promote stability and generate growth impulses for the real economy. An important challenge is to channelise more savings to the financial system, particularly in rural areas and from the urban informal sector. This would need further penetration of the banking system. The Reserve Bank's emphasis on financial inclusion is important in attaining this objective over time. There is also enormous potential for expanding financial services in semi-urban and rural areas for productive activities, which may require strengthening the banking correspondent relationship, simultaneously enhancing the risk assessment and risk management capacities in order to maintain credit quality and sustain the credit growth in the informal sector. Further reduction in the cost of banking services may require greater competition among product lines, improved delivery mechanisms and increasing use of information technology. With a view to ensuring that domestic savings could finance long-term investment in projects having long gestation lags, the insurance and pension sectors, would be critical, due to the very nature of their liabilities, as well as a vibrant bond market. This may, however, require a number of reforms in the insurance sector such as increasing flexibility for the insurance companies to raise capital and bring in greater competition and enhance depth in the insurance and pension funds markets. Deep and liquid domestic markets with varied participation can absorb overall risk better and reduce the excessive volatility that often adds uncertainty to the investment climate. From this perspective, the corporate bond market in India has lagged behind in comparison with other financial market segments, owing to many structural factors. Rationalising the primary issuance procedure, facilitating exchange trading, increasing the disclosure and transparency standards and strengthening the clearing and settlement mechanisms in the secondary market are necessary in this regard. Cross-border banking, in the post crisis period, has to be examined with greater caution, and future reforms in this area must be guided by progress on adequate mechanisms and systems to prevent the possibility of sudden and large external contagion creating systemic risks for the domestic financial system. For sustaining the high growth path, improving the investment climate and enhancing the absorptive capacity would be critical. In this context, financial sector reforms have to emphasise promoting financial inclusion, ensuring wide and deep financial markets and facilitating the growth of strong, competitive and sound financial institutions.

Financial Stability Architecture

I.63 The post-crisis revamping of the architecture for promoting financial stability as a precondition to growth could encompass macroeconomic policy issues as well as financial regulation and supervision. In the sphere of monetary policy, alongside the predominant emphasis on inflation, asset price bubbles driven by credit boom and excessive use of leverage has to receive greater attention, notwithstanding the current lack of clarity on how does monetary policy respond to asset prices? The fiscal policy stance has to recognise the limits of pro-cyclical fiscal stance, and the importance of adequate fiscal consolidation and sustainability as a necessary stimulus to high growth and stability. In the Indian context, inherent rigidities that constrain faster consolidation has to be taken into account; adequate fiscal space has to be built up as a cushion over time to deal with future shocks to the growth process. Leverage driven or export/capital flows dependent growth could increase the amplitude of the business cycle and the real costs of an external or financial sector shock could be disproportionately high. In the sphere of regulatory and supervisory architecture, alongside the current emphasis on the soundness of individual banks and institutions as a means to ensure systemic stability, increasing emphasis has to be laid on macro-prudential regulation that could promote and strengthen systemic stability.

I.64 In India, elements of macro-prudential regulation were visible even before the global crisis started, in terms of counter-cyclical use of risk-weights and provisioning norms. Macro-prudential analysis could provide the early warnings for timely identification of systemic risks, while macro-prudential regulation could prevent the emergence of systemic risk in the financial system. In view of the interconnectedness between banks and institutions, financial markets, and the economy, systemic risk analysis would involve interpreting the changing dynamics between these three segments on a continuous basis. Any vulnerability in any small segment of these broad areas could amplify and become systemic in view of the strong inter-linkages.

I.65 The international initiatives that could lead the process for strengthening the global financial systems would involve significant coordination among national regulators, besides revamping of national stability frameworks reflecting the global trends and country specific requirements. The ongoing international initiatives indicate a multipronged approach, covering several important aspects of stability: (a) introducing automatic stabilisers into the regulatory framework by adopting counter-cyclical capital charge, so that adequate cushion could be built up during the booming phase of the business cycle which could be used to deal with the asset quality problems that may arise during the waning phase of the business cycle; (b) adequacy and quality of capital as per Basel-II risk based capital framework, and simultaneous use of simpler measures such as the *leverage ratio*; (c) capital requirements for reputational and other risks in respect of securitisation activities and activities undertaken by the sponsored or connected conduits/shadow banks; (d) capital treatment for trading book exposures, and the need for supplementing *value-at-risk* approach with *incremental risk charge* so as to minimise the incentive for regulatory arbitrage between banking books and trading books, (e) strengthened Pillar 2 supervision, focusing on risk concentration, off-balance sheet exposures, valuations of financial instruments, access to funding liquidly during hypothetical possibility of a financial crisis, stress test practices adopted in banks and system level stress-tests and their integration into capital and liquidity planning; and (f) promotion of market discipline under Pillar 3 through better disclosure and clarity on the risk associated with exposure to certain instruments. The international deliberations have also highlighted other important issues like the risk associated with distorted incentive structures for the market players, the inadequacy of self regulation for rating agencies, the deficiencies of models for risk analysis and measurement, and the need for improving market structure for derivatives. The emerging international standards and best practices would have to be carefully examined from the stand point of their relevance to India, while further strengthening the domestic financial stability framework to avoid systemic stress on the financial system.

I.66 As on March 31, 2009, all Indian banks, including the foreign banks, have migrated to the Basel II standardised approaches, and hence, they will be subject to the Supervisory Review and Evaluation Process (SREP) under Pillar 2 of Basel II for assessing the capital requirement as also the capital adequacy of each bank *vis-a-vis* its risk profile and the standard of its internal controls system and risk management practices. Consolidated supervision mechanism for the banking group with bank as parent entity has been put in place. Financial Conglomerate Monitoring Mechanism already is in vogue since June 2004 in India. Steps are being taken to strengthen Cross Border Supervisory Co-operation. With a view to strengthening and formalising a comprehensive financial stability framework, supporting pillars have been laid out through special exercises like periodical reviews of the banking sector, micro prudential reviews, interest rate sensitivity analysis, and vulnerability assessment. Tools such as stress testing and scenario analysis are also used, depending on the evolving financial/economic environment in the country. The counter cyclical approach to supervision, that is being highlighted internationally as a post-crisis reaction to revamp the architecture for financial stability, where the prudential requirements like build up of capital and / or provisions is enhanced during the good times, to meet the stress on the asset quality during financial downturns has been implemented in India even before the onset of the crisis.

I.67 The macro-prudential dimension of systemic risk assessment has become particularly important in the context of the current global financial crisis. Since risk assessment is a continuous process and stress tests need to be conducted taking into account the macroeconomic linkages as also the second round effects and contagion risks, consequent to the announcement in the Annual Monetary Policy Statement of 2009-10, an inter-disciplinary Financial Stability Unit has been set up to monitor and address systemic vulnerabilities. In addition to applying stress tests to the portfolios of individual institutions at the micro level, stress-testing in macro-prudential analysis is becoming more relevant for systemic risk analysis. The main objective of an economy and financial system level stress test is to help public authorities identify those structural vulnerabilities and overall risk exposures that could potential lead to systemic problems. The principles enunciated by BCBS on stress testing as per its final guidelines issued in May 2009 emphasize the importance of macro level forward looking stress testing for assessing the adequacy of capital and liquidity. The Reserve Bank is in the process of revising guidelines on stress testing and liquidity risk management taking into account the new guidance issued by BCBS. It is also considering to lay down a risk management and capital adequacy framework for bank sponsored private pools of capital (*e.g.* private equity funds / venture capital funds), especially in view of the reputational risk arising from undertaking such activities.

I.68 There is a perception that the impact of the growth slowdown experienced in the second half of 2008-09 could be seen in the form of pressures on banks' asset quality during 2009-10, particularly if the recovery gets delayed. Restructuring of accounts permitted by the Reserve Bank in 2008-09 has also been highlighted as a factor that temporarily delayed the emergence of asset quality problems. It may have to be recognised that the objective of restructuring is to take a swift action based on detection of the weaknesses in viable entities which may be facing temporary cash flow problems due to internal or external factors, so as to preserve their economic and productive value. The exceptional regulatory treatment was not extended earlier to commercial real estate exposures as well as to capital market exposures and personal/ consumer loans in view of the possibility of fuelling asset price bubbles. The restructuring of accounts allowed up to June 30, 2009 aim at preserving economic value of units and not ever-greening of problem accounts. Banks, therefore, have to use their judgement before agreeing to restructure, so as to ensure that restructuring is undertaken only for viable units.

POLICY CHALLENGES

I.69 The macroeconomic conditions in 2009-10 so far, and the expected outlook for growth and inflation suggest that there are clear policy challenges for the Reserve Bank as well as for the economy as a whole. A major challenge for the Reserve Bank is to deal with the unpleasant combination of subdued growth with emerging risk of high inflation, which poses a complex dilemma on the appropriate stance of monetary policy. In such conditions, while withdrawal of monetary accommodation entails the risk of weakening recovery impulses, sustained accommodation and the associated protracted phase of high money growth can only increase inflation in future. Secondly, large borrowing programmes and high fiscal deficits complicate the challenge even further by accentuating inflationary expectations, which could worsen the actual inflation situation over time while also putting upward pressure on interest rates. Subdued growth with high inflation erodes the disposable income of the masses, and as a result, the recovery becomes even more difficult because of sustained depression in aggregate demand. Low inflation is an essential precondition to spur private demand, and monetary accommodation of the large fiscal stimulus could support recovery in growth only in a low inflation environment. Thirdly, for any early signs of recovery to gain momentum, private sector credit must grow. Better monetary policy transmission that could enhance the demand for credit is a key challenge, notwithstanding the usual dynamics of any credit market which may not respond to monetary policy actions. Finally, with the return of capital inflows to the pre-crisis period and revival in demand for credit from the private sector, the costs of any delay in withdrawal of monetary accommodation and fiscal consolidation could increase.

I.70 The emerging inflation outlook and the medium-term consequences of sustained accommodative monetary stance for inflation suggest that timing and pace of exit from the current accommodative monetary policy stance would be a major challenge for the Reserve Bank. If the stimulus is sustained longer, the imbalances left in the system could create market induced pressures, besides engendering the inflation situation, which may work against the recovery. The exit options for fiscal policy have to be seen in the context of the fact that economic recovery in itself could allow the automatic stabilisers to operate, by raising the revenues, and creating scope for reduction in public expenditure. What would be more important, however, is the discretionary unwinding measures to ensure reverting to the fiscal consolidation path as an essential requirement for returning to the high growth path. This cannot happen through expenditure compression alone, because of associated growth implications; hence part of the adjustment has to come through revenue buoyancy, higher tax base and better compliance. For the monetary policy, which has to be primarily guided by the assessment of the likely path of the business cycle and the inflation cycle, balancing the goals of supporting growth and containing emerging inflationary pressures could become increasingly challenging over 2009-10, in the face of an expansionary fiscal stance.

I.71 For the Reserve Bank, thus, besides the near term challenges of emerging inflationary pressures, management of large borrowing programmes and the associated potential conflict between monetary and fiscal policy, there are other medium-term issues associated with globalisation as well international initiatives on revamping the architecture for promoting financial stability. While openness offers a number of benefits, it increases the risks from external demand and capital flows. Swings in capital flows and sudden stops can have a significant impact on exchange rates, domestic monetary and liquidity conditions and overall macroeconomic and financial stability. Global growth and monetary conditions, therefore, have an influence on domestic policies.

I.72 The single mandate linked to inflation objective has often been highlighted as a necessity for ensuring a better inflation environment, but given the importance of other objectives for a country of India's size and diverse needs, the operational relevance of an inflation-centric mandate has to be examined carefully. Supply driven large volatility in WPI inflation that was witnessed in 2008-09 could erode credibility of any inflation-centric monetary policy. Moreover, the WPI inflation has been quite different from the CPI based inflation in India in the recent period, and as a result which measure of inflation may be the most appropriate reference for conduct of monetary policy has also been an issue. The Reserve Bank operates with multiple objectives of price stability, growth and financial stability. In the pursuit of multiple goals, the available instruments are used optimally with a mix of interest rate changes, quantitative liquidity adjustment, prudential regulations and credit policy measures. For promoting financial stability, the new international initiatives in response to the global financial crisis have to be monitored and examined, with an emphasis on country specific relevance, and the future approach to financial sector reforms may have to be based on lessons from the recent crisis.

I.73 For the economy as a whole, the most critical challenge is to revert to the high growth path, which would be possible only with a faster recovery. The longer the growth impulses remain dampened, the fiscal policy will exhaust any available fiscal space, and the costs of large fiscal stimulus will also increase with time. Secondly, deficient monsoon and the possible adverse effects on agricultural output may not only put pressure on food prices but also increase the demand for more subsidies and relief measures. The pressure on the fiscal situation could only increase if drought related policy response involves further expansion in government expenditure, and the additional costs associated with possible import of essential commodities to improve domestic supply conditions. Given the fact that food prices remain high, despite low overall WPI inflation, and that all CPI indices exhibit little moderation in inflation, the supply side of food management would assume critical significance for the Government. Thirdly, the unemployment effects of a long phase of economic slowdown, with weakly developed social security system, suggest that the Government's preparedness for dealing with situations as in 2008-09 should be strengthened, which must include counter-cyclical fiscal stance allowing build up of significant cushion during periods of high growth. But despite the FRBM, fiscal consolidation process remained slow. More importantly, the public expenditure was also not reoriented to address constraints to high growth, such as physical and social infrastructure.

I.74 The macroeconomic outlook for 2009-10, in terms of expected gradual recovery in growth and the emergence of inflation pressures by the end of the year pose difficult challenge for the conduct of policy, in terms of balancing the two key objectives. While the fiscal stance has clearly tilted towards the growth objective, the associated accommodative monetary policy stance, if sustained longer, entails the risk of higher inflation, which in itself may become a constraint to higher growth in the medium-run. In India, globalisation certainly had the associated benefits, directly in terms of exports and capital inflows, and indirectly in terms of global perceptions of India as a major emerging economic power. The manner in which Indian policies could manage the contagion from the global crisis would have only further improved the global perception of India. The global crisis, when it started to spread, did not differentiate countries on the basis of soundness of their macroeconomic policies. In a globalised world, consumers' and investors' perceptions could often be influenced by global developments, and hence, strengthened multilateral surveillance and effective global action to prevent the emergence of major global imbalances would have to be ensured so as to allow national policies the space for pursuing and achieving the high and sustainable growth objectives. Overall, Indian growth continues to be driven by domestic demand and domestic saving, with foreign capital supplementing within the prudent approach to sustainable current account deficit. Thus, return to 9 percent growth trajectory would largely be determined by the country's structural fundamentals and the responsive macro policy environment.

II ECONOMIC REVIEW

The domestic macroeconomic conditions changed significantly during the course of the year reflecting sharp deterioration in global economic conditions. In the first half, the policy challenge was to deal with high inflation and emerging signs of cyclical slowdown; in the second half, however, containing the adverse effects of the contagion from global economic crises necessitated coordinated monetary and fiscal policy actions with a view to moderating the pace of slowdown in growth, preserving the soundness of domestic banks and financial institutions, and maintaining orderly and well functioning markets. The growth supportive fiscal stance led to deviations from the fiscal consolidation path and the fiscal deficit rose accordingly. The monetary policy stance remained accommodative; the Reserve Bank ensured ample liquidity in the system while reducing the cost of liquidity significantly by appropriate reduction in policy interest rates. The sharp decline in WPI inflation in the second half of the year created some space for pursuing accommodative monetary policy. Indian banks and financial institutions largely escaped the heat of the global contagion because of strong fundamentals and no direct exposure to the troubled assets and stressed institutions in the advanced countries. The Reserve Bank's swift and necessary responses ensured orderly functioning of the markets. Thus, the conditions in the financial system did not operate as a constraint to growth in India, unlike in the advanced countries. Deceleration in demand, however, emerged as a major concern in the second half of the year, because of its dampening effects on growth.

I. MACROECONOMIC POLICY ENVIRONMENT

II.1.1 The environment for policy making remained exceptionally challenging during 2008-09, as global recession and unsettling conditions in the global financial markets warranted institution of swift and appropriate policy measures to contain the adverse ramifications for the Indian economy. The domestic macroeconomic conditions also changed dramatically during the year; from the first half concerns relating to building inflationary pressures and some evidence of cyclical slowdown to the second half apprehensions arising from reversal of capital inflows and pressure on financial markets on account of further deepening of the global economic crisis and the consequent moderation in growth. Notwithstanding the benefits of globalisation experienced by the world economy in terms of a four-year phase of high growth and low inflation, the crisis in 2008-09 brought to the fore the associated risks of globalisation for national economies, not only in terms of the speed and magnitude of the contagion, but also in terms of the limitations on the national policies to deal with the challenges in the face of a persistent adverse external environment. For most of the countries around the world, high international food and commodity prices created challenges for the conduct of anti-inflationary policies in the first half of the year. In the second half of the year, global credit squeeze, stressed financial institutions, dysfunctional markets, and above all, falling global output, investment, employment and trade, posed testing conditions for the use of national policies to counter growth moderation and to preserve financial stability.

II.1.2 India, in the midst of a severe global recession, could still contain the moderation in growth, preserve financial stability and ensure normal functioning of the markets. The macroeconomic policy framework of India and the approach to regulation and supervision of financial institutions and markets clearly contributed to soften the impact of the global financial crisis on the domestic economy. In a globalised world, however, the natural process of transmission of contagion operating through the trade, capital flows and confidence channels have affected the domestic economic and financial conditions. Real GDP growth, which had averaged at 8.8 per cent during 2003-08, decelerated to 6.7 per cent in 2008-09. Trade and capital flows channels exerted pressures on the balance of payments. These developments along with the confidence channel of contagion affected the financial markets. Despite resilience of the banking system, the demand for liquidity, both domestic and in foreign currency magnified. In consultation and coordination with the Government of India, the Reserve Bank had to take a range of comprehensive policy measures covering the economy, the markets and the financial institutions. A detailed analysis of the developments in each critical sector of the economy is presented separately in various sections of Part I, while the context against/rationale for which specific policy measures were introduced are outlined in the respective chapters in Part II. This section offers an outline of all the major policy measures taken in India in the real, fiscal, monetary, financial and external sectors of the economy during 2008-09.

REAL SECTOR POLICIES

Agriculture and Allied Activities

II.1.3 Given the importance of the agriculture sector in the Indian economy in terms of its contribution to the GDP, employment, food security and the need for ensuring inclusive growth, the Union Government has been supplementing and complementing the efforts of the State Governments through several policy measures to enhance agricultural income and productivity. Several significant schemes have been initiated by the Government in recent years, particularly in 2007-08, to enhance the agriculture growth and to find sustainable solutions for strengthening the farmers' livelihood and income. The notable schemes such as the National Food Security Mission (NFSM), the *Rashtriya Krishi Vikas Yojana* (RKVY) and National Rural Employment Guarantee Scheme (NREGS) were further strengthened in 2008-09.

II.1.4 The NFSM, launched in 2007 with an objective to increase the production of rice, wheat and pulses by 10, 8 and 2 million tonnes, respectively, by the end of the Eleventh Five-Year Plan period, is being implemented in 312 identified districts across 17 States. The Mission aims at increasing production of the above crops through area expansion and yield improvement in the targeted districts having high potential but relatively low level of productivity performance at present. During 2008-09, an amount of Rs.883 crore was released under the Programme. As an important step towards inclusive development, the Union Budget 2009-10 has proposed to put forth the draft National Food Security Bill on the website of the Department of Food and Public Distribution for comments.

II.1.5 The RKVY launched in August 2007 with an allocation of Rs.25,000 crore for the Eleventh Five-Year Plan is a participatory programme with the State Governments to boost investment in agriculture. The access to resources under RKVY depended, *inter alia,* on formulation of district agricultural plans (DAP)/State agricultural plans (SAP) by the State Governments. During 2008-09, an amount of Rs.2,887 crore was released to the eligible States. The allocation under the RKVY has been increased by around 30 per cent in the Union Budget 2009-10.

II.1.6 In the backdrop of launching NFSM and RKVY in 2007, the Macro Management of Agriculture (MMA) Scheme, launched in 2000-01 by integrating 27 centrally sponsored schemes, was revised in July 2008. Accordingly, the role of the scheme has been redefined to avoid overlapping and duplication of efforts and to make it more relevant to the present agriculture scenario in the

States in order to achieve the basic objective of food security and to improve the livelihood of rural masses. The allocation criteria for making funds available to the States has also been revised to facilitate higher resource allocation to the States having larger cropped area and also larger concentration of small and marginal farmers.

II.1.7 *Bharat Nirman* launched in 2005-06 for building rural infrastructure, has six components namely, rural roads, rural telephony, irrigation, drinking water supply, rural housing and electrification. Specific targets have been set under each of these goals. There has been all round progress in the implementation of this programme. Almost the entire budgetary provision of Rs.7,300 crore for 2008-09 was utilised during the year. The Union Budget 2009-10 has allocated Rs.12,000 crore for this programme.

II.1.8 Under the ongoing National Rural Employment Guarantee Scheme (NREGS) a sum of Rs. 16,000 crore was allocated for 2008-09. Subsequent allocations in the supplementary demands for grants raised the total allocation for the programme during 2008-09 to Rs.30,000 crore. During 2008-09, over 44.7 million households were provided employment as compared with 33.9 million households in 2007-08. Since its inception the programme has generated around 3,718 million person-days of employment, of which around 2,156 million person days were during 2008-09. The implementation of this programme has resulted in increased wage employment, enhanced wage earnings and improved equity with significant benefits flowing to Scheduled Caste/Scheduled Tribe (SC/ST) and women. This has also led to increased demand for and consumption of wage goods. The Union Budget for 2009-10 proposed an allocation of Rs.39,100 crore for this scheme during the year.

II.1.9 The Union Budget for 2008-09 had set a target of Rs.2,80,000 crore for total agricultural credit; the actual disbursement of agricultural credit by the banking system exceeded the target and amounted to Rs. 2,87,000 crore. The Union Budget for 2009-10 has set a target of Rs.3,25,000 crore for total agricultural credit during the year and has proposed to continue providing interest subvention of 2 per cent per annum for short-term crop loans up to Rs.3 lakh to farmers at the interest rate of 7 per cent per annum. The Government has also proposed to pay an additional subvention of 1 per cent as an incentive to those farmers who repay their short term crop loans on schedule.

II.1.10 To strengthen the short-term co-operative credit structure, the Government is implementing a revival package in 25 States involving a financial assistance of Rs.13,596 crore. The Central Government and State Governments have also reached an agreement on the content of the package for reviving the long-term co-operative credit structure. The cost of the package is estimated at Rs.3,074 crore, of which the Central Government's share will be Rs.2,642 crore or 86 per cent of the total burden.

II.1.11 In order to restore access to institutional credit for indebted farmers, the Government introduced a scheme of debt waiver and relief to farmers, the modalities of which were finalised by the Government in consultation with the Reserve Bank and the National Bank for Agriculture and Rural Development (NABARD). The scheme provides for waiver of the entire amount of direct agricultural loans (fulfilling certain eligibility criteria) extended to small and marginal farmers by scheduled commercial banks (SCBs), regional rural banks (RRBs), co-operative credit institutions and local area banks. Farmers having more than two hectares of land were offered a one-time settlement (OTS) scheme under which they will be given a rebate of 25 per cent of 'eligible amount' provided that they pay 75 per cent of their overdues in three installments by June 30, 2009. Due to the delay in the South-West monsoon, the Union Budget 2009-10 has proposed to extend this period by six months up to December 31, 2009. The Budget also proposed to set up a Taskforce to look into the issue of farmers not covered under the loan waiver scheme and had taken loans from money lenders, particularly in some regions of Maharashtra, in order to help the distressed farmers.

II.1.12 One major factor contributing to the decline in marginal productivity of soil in relation to application of fertilisers is the skewed NPK (Nitrogen, Phosphorous, Potassium) application ratio *i.e.*, comparatively higher application of straight fertilisers like urea, DAP (Di-ammonium phosphate) and MOP (Murate of Potash) as against the complex fertilisers (NPKs) which are considered to be agronomically better and more balanced fertiliser products. The Union Budget 2009-10 has proposed to move towards a nutrient based subsidy regime instead of the current product pricing regime. Besides enhancing productivity, it will lead to availability of innovative fertiliser products in the market at reasonable prices. This unshackling of the fertiliser manufacturing sector is expected to attract fresh investments in this sector. In due course the Government intends to move to a system of direct transfer of subsidy to the farmers.

II.1.13 The National Rain Fed Area Authority (NRAA) has been functioning since 2006 to provide knowledge inputs towards systematic upgradation and enhancing productivity of the dry, non-irrigated rainfed areas. NRAA has published the common guidelines for watershed development projects that would provide an enabling framework for the planning, design, management and implementation of all watershed development projects in the country. Under these common guidelines, the Budget 2009-10 proposes to implement the Integrated Watershed Management Programme (IWMP) in the current financial year.

Industry

II.1.14 During 2008-09, the Government of India continued to undertake sector-specific measures and other programmes on an on-going basis. In order to minimise the adverse impact of the global recession on the domestic industry and also to activate domestic demand, the Government of India also undertook a series of measures in the form of indirect tax cuts and infrastructure spending, with commensurate support from the Reserve Bank through easing of liquidity and interest rates, besides encouraging banks to extend credit to industries, particularly small industries.

II.1.15 The phased de-reservation of items from the list of reserved items for the Micro, Small and Medium Enterprises (MSMEs) continued in 2008 with the Government deleting 14 items from this list during the year. The Credit Guarantee scheme for MSMEs has been modified. The revisions include reduction in one time guarantee fee and annual service fee to 1.0 per cent and 0.5 per cent, respectively, for loans up to Rs. 5 lakh; increase in loan limit from Rs.50 lakh to Rs.1 crore with a guarantee cover of 50 per cent; increase in guarantee cover from 80 per cent to 85 per cent for loans up to Rs. 5 lakh; and reduction in lock-in period for preferring claims from 24 to 18 months. In order to provide some relief to the MSMEs reeling under the global economic crisis, the Union Budget 2009-10 exempted small businesses with an annual turnover of Rs.40 lakh from advance tax. In order to facilitate the flow of credit at reasonable rates to MSEs, the Union Budget has proposed a special fund out of Rural Infrastructure Development Fund (RIDF) to Small Industries Development Bank of India (SIDBI). This fund of Rs.4,000 crore will incentivise Banks and State Finance Corporations (SFCs) to lend to MSEs by refinancing 50 per cent of incremental lending to MSEs during the current financial year.

II.1.16 In the pharmaceutical sector, the Government of India, along with central public sector undertakings, has launched the *Jan Aushadhi* Campaign with the aim of providing quality medicines at affordable prices to the masses. The Government has proposed to set up *Jan Aushadhi* stores in every district for the sale of generic unbranded drugs which are equivalent in quality to branded drugs. The first such store was opened in Amritsar in November 2008.

II.1.17 Major tax concessions given in 2008-09 to boost aggregate demand and revive industrial growth include reductions in CENVAT rate and service tax rate. Countervailing duty and additional customs duty at the rate of 4 per cent was imposed on imported cement. Government of India removed the export duty on pig iron, iron and steel ingots, bars and rods, reintroduced import duty of 5 per cent on steel, restored DEPB benefits partially, reduced excise duty to 8 per cent, placed hot rod (HR) imports on the restricted list and withdrew the exemption from countervailing duty on import of TMT bars and structurals.

II.1.18 The textiles and garments industry which contributes substantially to exports received impetus through reduction in duties on cotton textile and textile articles, interest subvention to pre-shipment and post-shipment export credit and expansion of Focus Market Scheme through inclusion of 10 more countries. An additional allocation of Rs.1,400 crore has been made to clear the entire backlog in Technology Upgradation Fund Scheme (TUFS) during 2008-09. Under Scheme for Integrated Textile Parks (SITP), 40 integrated textiles parks of international standards, covering weaving, knitting, processing and garmenting sectors with project proposals worth Rs. 4,199 crore (of which assistance from the Government is Rs.1,438 crore) have been sanctioned. Four textile parks were inaugurated during 2008-09.Government also announced accelerated depreciation of 50 per cent for commercial vehicles.

II.1.19 The Union Budget 2009-10 acknowledged the problems faced by individual industries and proposed various industry specific measures. In order to support the construction industry, the Budget announced full excise duty exemption for goods manufactured at the construction site. To arrest the deteriorating growth in commercial vehicles industry, the Budget has reduced excise duty on petrol driven trucks to 8 per cent from 20 per cent to equate the duty with similar vehicles run on diesel. *Ad valorem* duty on large cars and utility vehicles with engines capacity of above 2000 cubic capacity (CC) has been reduced to Rs.15,000 from the Rs.20,000. As a boost to the handlooms industry, the Union Budget for 2009-10 proposed one handloom mega cluster each in West Bengal and Tamil Nadu and one powerloom mega cluster in Rajasthan. Further, new mega clusters for 'carpets' have been added in Srinagar (Jammu and Kashmir) and Mirzapur (Uttar Pradesh). With a view to support the information technology industry which has been hit hard by the slowdown in advanced economies, the Union Budget 2009-10 has extended the 10-year tax holiday by one more year and exempted the value attributable to the transfer of the right to use packaged software from excise and countervailing duties. Among the long-term reform measures for the industry, the Budget proposed to create an alternative dispute resolution mechanism within the Income Tax Department for the resolution of transfer pricing disputes. The Government has also envisaged establishment of a National Knowledge Network, which will connect all universities, research institutions, libraries, laboratories, hospitals and agricultural institutions across the country. The initial phase of the network was inaugurated in April 2009.

II.1.20 In view of the uncertain prospects for industrial production in the face of the global economic crisis, and the critical role of industrial growth in shaping the growth and inflation outcome in India, the Reserve Bank has set up an Industry Monitoring Group, drawing members from external agencies as well as from concerned departments of the Bank in April 2009 to periodically assess the developments in Indian industry in relation to changes taking place in the global economy and the financial sector. The terms of reference of the Monitoring Group, *inter alia*, focused on analysing emerging scenario in the industrial sector, monitoring the trends in industrial sector growth at a disaggregated level and suggest policy measures. The Group had its first meeting on April 15, 2009, to discuss the pressure points faced by the industry and the likely course of revival of the same from the stand point of requirements for formulation of monetary policy. The Group, in its second meeting on July 16, 2009 had reassessed the current state of the industries as well as prospects.

Infrastructure

II.1.21 Infrastructure sector received an impetus in the Government's policy package, which includes measures such as permission to India Infrastructure Financing Company (IIFCL) for raising tax free bonds, removal of interest ceiling on external commercial borrowings (ECB), enhancing of cap on FII investment in corporate debt market, easy refinancing from the Reserve Bank and creation of Special Purpose Vehicle (SPV) to lend to non-bank finance companies.

II.1.22 With a view to enhancing the competitiveness of the domestic industry by providing quality infrastructure through public-private partnership (PPP) in select functional clusters/locations which have the potential to become globally competitive, the Government of India has recast the Industrial Infrastructure Upgradation Scheme (IIUS). The salient features of this scheme include creation of quality infrastructure in existing industrial clusters/ locations with high growth potential requiring strategic interventions in providing common facilities for transport, road, power supply, effluent treatment and solid waste disposal, information and communication technology (ICT) and such other physical infrastructures. Under the recast scheme, 10-15 clusters/locations will be taken up for development during the Eleventh Five-Year Plan period. The scheme will be implemented through special purpose vehicles (SPVs) so as to ensure a focused, time-bound and sustainable pattern of industrial infrastructure development in the PPP mode.

II.1.23 In view of the difficulties faced in arranging long-term financing for a large number of infrastructure projects under the PPP mode, the IIFCL was authorised to raise Rs.10,000 crore through Government guaranteed tax free bonds by the end of 2008-09 and additional Rs.30,000 crore on the same basis as per the requirement in 2009-10. The capital so raised will be used by IIFCL to refinance bank lending of longer maturity to eligible infrastructure projects. This initiative is expected to result in leveraging bank financing to PPP programmes of about Rs.100 thousand crore over a period of 15-18 months.

II.1.24 In the power sector, the Central Electricity Regulatory Commission has issued new Inter-State Trading Regulations in February 2009. The regulations aim to tighten the terms and conditions for grant of trading licenses so as to encourage only serious players. In pursuance of this, the definition of inter-state trading has been revised to include electricity imported for sale, number of categories of licenses reduced from 6 to 3 and the net worth requirement increased to the range of Rs.5-50 crore. Among the initiatives to promote alternative energy sources, under the National Gas Hydrate Programme, a Memorandum of Understanding (MoU) was signed between the Directorate General of Hydrocarbons and the US Geological Survey for exchange of scientific knowledge and technical personnel to exploit the potential of gas hydrate in India. The Union Budget for 2009-10 extended the tax holiday to natural gas to facilitate the energy security.

II.1.25 The Airport Economic Regulatory Act, 2008 (AERA) has been notified with effect from January 01, 2009. AERA calls for fixing, reviewing and approving tariff structure for the aeronautical services and users fees which may be levied by the service providers for airport development and monitoring prescribed performance standards.

FISCAL POLICY

II.1.26 The Union Budget for 2008-09 was presented in the backdrop of five consecutive years of impressive growth, which translated into high revenue buoyancy, facilitating the fiscal consolidation process under the Fiscal Responsibility and Budget Management (FRBM) Act, 2003. The Budget had envisaged the continuance of the revenue led process of fiscal consolidation while focusing on the outcomes and improving the allocative efficiency of public expenditure. The focus of the tax policy during 2008-09 was to follow an appropriate policy intervention coupled with improvement in the quality, efficiency and effectiveness of tax administration to raise revenue. The policy strategy was to move towards moderate and fewer tax rates, removal of exemptions and broadening of the tax base. In the case of tax administration, emphasis was placed on recovery of tax arrears, improvement in service delivery to the tax payers and enhancement of deterrence levels. Conforming with this strategy, the corporate tax rates were kept unchanged, while the threshold limit of exemption for Personal Income Tax (PIT) was raised and the four slabs of tax were revised upwards. With regard to indirect taxes, the Budget announced reduction in general CENVAT on all goods from 16 per cent to 14 per cent with a view to providing stimulus to the manufacturing sector.

II.1.27 The finances of the Central Government, however, came under severe pressure due to several unanticipated post-budget developments, particularly the significant slowdown of the economy as a fall out of the unprecedented global financial crisis. The Government undertook fiscal measures by way of indirect tax cuts and increase in subsidies during the first half of 2008-09 to contain inflation pressures emanating from sharp rise in international prices of commodity and petroleum products. While implementing these measures to contain inflation, there was, however, no conscious move at that point of time to deviate from the path of fiscal consolidation. In the second half of 2008-09, however, the fiscal stance completely altered with the activation of discretionary fiscal policy measures to contain the economic slowdown. This shift in the fiscal policy stance was part of an international trend in terms of general response to the real effects of the global crisis and also consistent with the mainstream views at the international level that in situations of deep and prolonged economic downturn, as in the present context, fiscal policy could play a leading role in stabilisation. To contain the economic slowdown, discretionary fiscal policy has been activated in a large number of countries, both developed and developing, notwithstanding the known challenges for timely unwinding and, hence, the need for an appropriate exit strategy. While designing the fiscal stimulus package, however, it is important to ensure that it is timely, well targeted and temporary so that the impact is felt at the right time, has the maximum and does not lead to concern over debt sustainability in the medium-term (Box II.1).

II.1.28 In the Indian context, the role of fiscal policy in stimulating aggregate demand in the current downturn may have to be distinguished from the earlier episodes of economic slowdown. The moderation in growth in 2008-09 was largely conditioned and continues to be influenced by the global recession and the resultant loss of confidence which has led to substantial fall in private sector demand. Therefore, the role of fiscal policy in the current context may be different from the previous episodes of normal business downturns. In the case of India, the fiscal stimulus provided so far has been a mixture of cut in indirect taxes and increase in both investment and consumption expenditure, with the latter accounting for a major share. The general CENVAT rate was further reduced by 4.0 percentage points and 2.0 percentage points in December 2008 and February 2009, respectively, to 8 per cent, leading to an estimated revenue loss of 0.2 per cent of GDP in 2008-09. Additional expenditure amounting to 3.0 per cent of GDP was provided through three supplementary demands for grants during October-December 2008 and February 2009. Of the expenditure measures, revenue expenditure constituted around 84 per cent and the capital component accounted for the rest. On the whole, the fiscal stimulus measures appear to have given more emphasis to supporting consumption demand rather than investment demand. The fiscal deficit increased to 6.2 per cent of GDP in 2008-09 (Provisional Accounts) from 2.7 per cent of GDP in 2007-08.

Union Budget 2009-10

II.1.29 The Union Budget for 2009-10 was presented in the backdrop of moderation of growth in the economy and signs of stabilisation in global economy. The Budget has proposed to address three important challenges in the short and medium term, *viz*., revive the economy to attain a growth of 9 per

Box II.1
Counter-Cyclical Fiscal Policy in the Current Economic Scenario

For several decades since the Great Depression, discretionary fiscal policy involving either increase in public expenditure including transfers or cuts in tax rates or both was actively used for the purpose of macroeconomic stabilisation. By the 1980s, however, it got discredited due to a number of political and administrative challenges and substantial changes in the method of policy making. It was increasingly accepted that fiscal policy is ineffective or the fiscal multiplier is low, as the marginal propensity to save (consume) out of temporary tax cuts is high (low), while raising aggregate demand through increased government expenditure could get nullified due to induced rise in long term interest rates. Besides, fiscal policy involves a number of lags *viz.,* recognition lags, implementation lags and lags in the effect on aggregate demand, which lead to uncertainty in the magnitude of the impact and thereby increase the risk of destabilising the economy. Concomitantly, monetary policy gained ascendancy as the prime policy option for economic stabilisation due to its amenability to quicker adjustments; better ability to judge the timing and the magnitudes of the needed stimulus; and increasing use of rule based policy that limited the scope for discretion (Taylor, 2000). Thus, the stabilisation role of fiscal policy was confined to the operation of automatic stabilisers only (see Box II.24 of Section IV of this chapter).

Discretionary fiscal policy, however, has been advocated in situations of sustained economic downturn with low aggregate demand and interest rates, and falling prices (Feldstein, 2002). In rapidly deteriorating economic conditions, a well-crafted discretionary fiscal stimulus has the potential advantage of boosting economic activity much faster relative to monetary stimulus. Furthermore, during a deep recession, monetary policy may also become ineffective not only due to policy rate nearing zero at some stage but also due to higher levels of disconnect in the monetary policy transmission mechanism (Elmendorf and Furman, 2008). During the global economic crisis, it was realised that the sudden increase in risk premium may more than offset the impact of falling policy rates, weakening thereby the transmission process significantly. The problem of decision lags involved in effecting discretionary fiscal policy also becomes less binding when the economic downturn is deep and prolonged. The design of the policy, however, is crucial. At least three criteria have been suggested. First, it should be timely, given the urgent need for action. Second, it should be well targeted to ensure that the impact is the maximum. Third, it should be temporary so that the condition of debt sustainability in the medium to long-term is not violated. In the context of current global slowdown discretionary policy should also be: i) large enough since the drop in demand is large; ii) lasting since the recession is expected to last longer; iii) diversified as there is uncertainty regarding the effectiveness of particular fiscal measures; iv) contingent on actual progress to indicate that further action will be taken if needed; and v) collective among countries given the severity and global nature of the downturn (Freedman *et al*, 2009).

The impact of the policy or the magnitude of the multiplier, however, would depend on the channels through which the stimulus is provided, the degree of monetary policy accommodation and the structure of the economy. The multiplier would normally be smaller for small and open economies, and in countries which are more susceptible to financial markets constraints and subject to offsetting monetary policy. When there is loss of confidence during a crisis, government spending measures are likely to provide the maximum short-run impact on aggregate demand than tax cuts or lump-sum transfers due to increased propensity to save. If tax cuts are to be implemented, it should be targeted to those facing liquidity constraints. It has been observed that targeted transfers to poorer households have higher multipliers than lump-sum transfers and multipliers are larger in emerging Asia and other developing countries due to higher share of poorer households (Freedman, *et al,* 2009).

The long term sustainability of debt is an important consideration for the success of fiscal policy measures in short-term stabilisation (see Box II.25 in Section II.IV of this Chapter). When the debt related concerns of the market participants are significant – particularly in terms of servicing challenges for the future, discretionary fiscal stimulus could lead to rise in interest rates and resultant fall in aggregate demand, thereby making the fiscal multiplier potentially negative and hence counterproductive. The magnitude of the fiscal stimulus and the concerns on debt sustainability may largely depend on the initial fiscal situations or the available fiscal space. On account of limited fiscal space and debt concerns in EMEs, fiscal stimulus had limited impact on growth in the past crises, and hence, they pursued less aggressive countercyclical fiscal policy (IMF, 2008). Thus, fiscal stimulus should be accompanied by credible commitments to scale it back or even reverse it once recovery takes place by laying out a medium-term fiscal framework. In view of the possibility that unwinding of fiscal stimulus in itself may slowdown the pace of recovery, there could be challenges in crafting an appropriate exit strategy.

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cent per annum at the earliest, deepen and broaden the agenda for inclusive development and re-energise government and improve delivery mechanisms. The Budget proposed to enhance allocation for the crucial sectors such as infrastructure, education and health, rural employment and empowerment of disadvantaged sections of the population. The Government has reiterated the importance of reverting back to the path of fiscal consolidation at the earliest and as soon as the negative effects of the global crisis on Indian economy have been overcome. In order to attain the medium-term sustainability, the Government has recognised the importance of institutional reforms encompassing all aspects of the Budget such as subsidies, taxes, expenditure and disinvestment.

II.1.30 The thrust of the reforms over the last few years has been to improve the efficiency and equity of the tax system by eliminating distortions in the tax structure, introducing moderate levels of tax rates and expanding the base. The Government has proposed to pursue structural changes in the direct taxes by releasing the “Direct Taxes Code” for public discussion on August 12, 2009 and accelerate the process for the smooth introduction of the goods and services tax (GST) with effect from April 1, 2010. In order to improve the efficiency in tax administration, it has been proposed to merge the two Authorities for advanced rulings on direct and indirect taxes by amending the relevant Acts. The direct tax measures in the Union Budget 2009-10 are expected to be revenue neutral while indirect taxes are estimated to make a gain of Rs.2,000 crore.

II.1.31 On direct taxes front, corporate tax rates and surcharge on them were kept unchanged. On the PIT front, the threshold limit of exemption was raised by Rs.15,000 to Rs.2,40,000 for senior citizens while it was raised by Rs.10,000 each for women and all other categories of individual tax payers to Rs.1,90,000 and Rs.1,60,000, respectively. An additional deduction of Rs.25,000 was allowed under Section 80 D from the present limit of Rs.75,000 to an individual who pays for maintenance including medical treatment of a dependant with severe disability. The surcharge on personal income tax was eliminated. In order to tide over the slowdown in exports, the Government extended the sunset clauses for one more year, *i.e.*, 2010-11. The income of the New Pension System (NPS) Trust was proposed to be exempted from income tax and any dividend paid to this Trust has been exempted from dividend distribution tax. All purchase and sale of equity shares and derivatives by the NPS Trust were also exempted from the securities transaction tax.

II.1.32 The imposition of fringe benefit tax (FBT) was considered as compliance burden, and therefore, it was abolished. In order to incentivise the corporate sector to undertake research and development, it was proposed to extend the scope of the current provision of weighted deduction of 150 per cent on expenditure incurred on in-house research and development (R&D) to all manufacturing businesses except for a small negative list. To incentivise businesses, it was proposed to extend investment-linked tax incentives to the businesses of setting up and operating ‘cold chain’, warehousing facilities for storing agricultural produce and the business of laying and operating cross country natural gas or crude or petroleum oil pipeline network for distribution on common carrier principle. With a view to address the issue of inequity in taxation of corporates, the rate of minimum alternate tax (MAT) was increased from 10 per cent of book profits to 15 per cent. As a measure of relief, however, it was proposed to extend the period allowed to carry forward the tax credit under MAT from seven years to ten years.

II.1.33 In the case of indirect taxes, rationalisation measures were taken in both customs and central excise in respect of some sectors. In order to encourage domestic value addition, a nominal basic customs duty of 5 per cent on set top boxes was imposed. Similarly, the basic customs duty on liquid crystal display (LCD) panels was reduced from 10 per cent to 5 per cent to support indigenous production. The accessories, parts and components imported for the manufacture of mobile phones were exempted from countervailing duty (CVD) of 4 per cent for another year. For encouraging value-addition and exports, full exemption was provided to rough corals from basic customs duty. The customs duty was reduced from 10 per cent to 5 per cent on influenza vaccine and nine specified life saving drugs used for the treatment of breast cancer, hepatitis-B, rheumatic arthritis and on bulk drugs used for the manufacture of such drugs. Customs duty was increased from Rs. 100 to Rs.200 per ten grams for gold bars and from Rs. 250 to Rs. 500 per ten grams for other forms of gold (excluding jewellery), and on silver (excluding jewellery), duty was increased from Rs.500 per kg to Rs.1,000 per kg due to manifold rise in the prices of these metals in international market.

II.1.34 The proposed measures relating to excise rates include: differential rates between the cotton textile sector and the manmade fibre sector; restoration of the erstwhile optional rate of 4 per cent for cotton textiles beyond the fibre stage; restoration of 8 per cent duty on manmade fibre and yarn on a mandatory basis and on stages beyond fibre and yarn at that rate on optional basis; full exemption of petro-diesel blended with bio-diesel from excise duty; and reduction of basic customs duty on bio-diesel from 7.5 per cent to 2.5 per cent - at par with petro-diesel in order to encourage the use of this environment friendly fuel and augment its availability. In the case of construction industry, full exemption to goods manufactured at site was restored, including pre-fabricated concrete slabs or blocks. Excise duty on petrol driven trucks was reduced from 20 per cent to 8 per cent.

II.1.35 Services received by exporters from goods transport agents and commission agents, where the liability to pay service tax is *ab initio* on the exporter, was exempted from service tax. For other services received by exporters, the exemption would be operated through the existing refund mechanism based on self-certification of the documents where such refund is below 0.25 per cent of *fob* value, and certification of documents by a chartered accountant for value of refund exceeding the above limit. In order to provide a level playing field in the goods transport sector, the levy of service tax was extended to goods carried by Indian railways or those carried as coastal cargo or through inland waterways. The advice, consultancy or technical assistance provided in the field of law was brought into the gamut of services tax. However, this tax would not be applicable in case the service provider or the service receiver is an individual.

II.1.36 To facilitate the objective of introducing goods and services tax (GST), both at the national and State level, through convergence of central excise duty rates to a mean rate of 8 per cent, the excise rate was increased to 8 per cent on many items barring food items, drugs, pharmaceuticals and other articles. With regard to the introduction of GST, the Government has indicated that there has been an agreement on the basic structure in keeping with the principles of fiscal federalism enshrined in the Constitution. The GST Model would be a dual model comprising of a Central GST and a State GST. The Centre and the States would each legislate, levy and administer the Central GST and State GST, respectively.

II.1.37 The Government had taken a conscious decision to increase the public expenditure in select sectors in order to continue the momentum of growth, with a focus on intended outcomes. The major focus in expenditure management would be reform of governance for effective delivery of public services. The initiatives that are being taken by the Government to achieve the above objective include: establishing mechanisms for performance monitoring and performance evaluation in government on a regular basis; strengthening the public accountability of flagship programmes by the creation of an Independent Evaluation Office at an arm's distance from the Government which will concurrently evaluate the impact of these programmes and place it in the public domain; and putting up a public data policy to place all information covering non-strategic areas in the public domain which will help citizens to challenge the data and engage directly in governance reform.

II.1.38 The allocation of expenditure to infrastructure, health and education, rural employment and other flagship programmes of the Government has been enhanced. Keeping in view the critical role of infrastructure in the growth of the economy, the allocation to national highway development programme and urban infrastructure has been increased considerably during 2009-10. In order to make the development process more inclusive, the government has undertaken initiatives on several areas while strengthening the existing programmes. The *Swarna Jayanti Gram Swarozgar Yojna* is proposed to be restructured as National Rural Livelihood Mission to make it universal in its application, focussed in approach and time bound for poverty alleviation by 2014-15. The Budget has stated that enrolment of at least 50 per cent of all rural women as members of the Self Help Groups (SHGs) over the next five years and linking these SHGs to banks would be an important objective. The corpus of *Rashtriya Mahila Kosh* was proposed to be raised to Rs.500 crore for credit support to poor women. In order to provide access to higher education for weaker sections, provision of student loans was proposed with total interest subsidy during the period of moratorium and an estimated 5 lakh students are estimated to benefit from this scheme. The allocation for the welfare of minorities was enhanced. A new project for modernisation of employment exchanges in public-private partnership was visualised so that a job seeker can register on-line from anywhere and approach any employment exchange. The allocation for health and education was increased considerably in the Budget 2009-10. Keeping in view the demographic advantage, the provision for the scheme 'Mission in Education through ICT' was increased substantially. The Government also made an allocation to establish central university in each uncovered State. In order to improve the delivery of public services, the Government allocated an amount of Rs.120 crore to the Unique Identification Authority of India.

State Governments[1]

II.1.39 The State Governments' efforts at fiscal correction and consolidation in terms of the path of fiscal restructuring prescribed by the Twelfth Finance Commission (TFC) and targets fixed under their respective Fiscal Responsibility Legislation (FRL) suffered some setback during 2008-09. This was on account of the change in fiscal priority that became necessary to accommodate additional expenditures to support fiscal stimulus in the face of shortfalls in revenue on account of the overall economic slowdown. In order to accommodate additional expenditures having direct impact on the deficit targets, three states, *viz.*, Karnataka, Kerala and Rajasthan proposed to amend their FRLs.

II.1.40 The States, while presenting their budgets for 2009-10, announced a number of policy initiatives aimed at directing expenditure towards economic revival. Kerala announced a Rs.10,000 crore stimulus package to be implemented over two years for undertaking infrastructure development. As a reform measure, it proposed formation of a special cell to monitor non-tax revenue mobilisation measures and another cell for undertaking preparatory work on GST. Haryana launched an economic stimulus package for undertaking specific projects in various infrastructure sectors during the next two years, with an emphasis on upgradation of hospitals, sewerage and water supply systems, and construction of houses for industrial workers. Some other policy initiatives like upgradation of bus stands are being taken on PPP basis. Utilisations under NREGS were proposed to be stepped up by the States (Karnataka and Haryana). Karnataka announced reductions in several taxes, including luxury tax, profession tax, entertainment tax, and stamp duty on all immovable properties, including agricultural land, in order to provide a boost to the economy. It also proposed to constitute an Expenditure Review Commission to review the expenditure incurred on government programmes and to reduce expenditure on less productive programmes.

[1] Based on the budget documents of twenty-seven State Governments, of which two are Vote on Account.

II.1.41 Allocations for housing for weaker sections were proposed to be raised by Andhra Pradesh. It has proposed to expand the coverage of social security pensions, besides a one-time write-off of loans sanctioned to the weavers' co-operative societies and individual weavers. Allocations for education and upgradation of technical institutions are proposed to be raised by Karnataka, Haryana and Gujarat. States have also proposed higher allocations for the various infrastructure sectors, including transport, power and development of major cities. Agriculture and irrigation would be the priority areas for States like Karnataka, Himachal Pradesh and Andhra Pradesh. Karnataka proposed to provide crop loans to farmers up to Rs.50,000 at the concessional rate of 3 per cent.

II.1.42 The Sixth Pay Commission constituted by the Government of India for Central Government employees submitted its Report on March 24, 2008. A number of States including Bihar, Chhattisgarh, Gujarat, Haryana, Arunachal Pradesh, Himachal Pradesh, Jharkhand, Maharashtra, Rajasthan, Uttar Pradesh, Uttarakhand and Orissa have announced their decision to follow the recommendations of the Sixth Pay Commission. Andhra Pradesh, West Bengal, and Assam decided to constitute separate Pay Commissions for reviewing the salaries and other benefits for their employees. Karnataka and Kerala have already revised pay scales for their employees based on pay commissions constituted by them while Punjab Government has accepted the recommendations of their Fifth State Pay Commission.

II.1.43 The Committee on Financial Sector Assessment constituted by the Reserve Bank, which submitted its Report in March 2009, had carried out an assessment of fiscal transparency at the level of State Governments (Box II.2).

External Sector Policies

II.1.44 India's export sector was directly affected by the contagion in global output and trade, with negative growth since October 2008. In response, the export sector was extended a plethora of incentives such as interest subvention of 2 per cent for pre-shipment and post-shipment credit; Government back-up guarantee for export credit guarantee corporation (ECGC); credit line of Rs.5,000 crore for the EXIM Bank; and duty drawback benefits on certain items such as knitted fabrics, bicycles, agricultural hand tools and specified categories of yarn. A Committee of Secretaries has also been constituted to address procedural problems faced by exporters and to speed up various clearances.

II.1.45 The Annual Supplement to India's Foreign Trade Policy (2004-09), which was announced by the Government of India on February 26, 2009 against the backdrop of the ongoing global economic crisis and its impact on India's trade performance, contained several measures. Export obligation period against advance authorisations was extended up to 36 months. Under the EPCG scheme, in case the decline in exports of a product(s) is more than 5 per cent, export obligation for all exporters of that product(s) is reduced proportionately. This provision has been extended for the year 2009-10, for exports undertaken during 2008-09. Threshold limit for obtaining recognition as premier trading house was reduced to Rs. 7,500 crore from the existing Rs. 10,000 crore. Duty credit scrips under duty entitlement passbook (DEPB) scheme were permitted to be issued without waiting for realisation of export proceeds. For advance licences issued prior to April 1, 2002, the requirement of MODVAT/CENVAT certificate was dispensed with in certain cases. Duty entitlement pass book (DEPB)/Duty Credit Scrip utilisation was extended for payment of duty for import of restricted items also. Value cap applicable under DEPB was revised upwards for two products. Sector-specific schemes to strengthen exports included special package for leather and textiles sector; extended coverage of Focus Product Scheme (FPS); removal of import restrictions on worked corals; and allowing the personal carriage of gold up to 10 kilograms in a financial year to gems and jewellery units in Export Oriented Units (EOU) for the gems and jewellery sector.

Box II.2
Fiscal Transparency at the State Level

Fiscal transparency involves providing ready access to reliable, comprehensive, timely, understandable, and internationally comparable information on Government activities, so that the electorate and financial markets could accurately and easily assess the Government's financial position as well as the true costs and benefits of its activities (Kopits and Craig 1998). Fiscal transparency fosters better-informed public debate, as well as greater government accountability and credibility. The IMF brought out "Code of Good Practices" and "Manual on Fiscal Transparency" to encourage greater fiscal transparency, which were updated in 2007. This comprehensive framework for fiscal transparency focuses on clear roles and responsibilities, transparent budget processes, public availability of information, and assurances of integrity. Despite the efforts of international financial institutions to strengthen fiscal transparency, about one third of the world's population does not have full access to information on the fiscal operations of public bodies (Chand, 2008).

In the case of India, fiscal transparency was first assessed by an Advisory Group Report and the Report on Observance of Standards and Codes (ROSC) in 2001 and a Review Report in 2004. These assessments mainly covered the Central Government finances. Fiscal transparency at the aggregated State level has been assessed explicitly for the first time in a Report by the Committee on Financial Sector Assessment (CFSA) (Chairman: Dr. Rakesh Mohan) released in March 2009. The Report found that the fiscal transparency at the State level in India generally lags behind the standards achieved at the Central Government level. Although there is no mandatory requirement for the States to adhere to such transparency standards, adoption of such practices could help State Governments in explaining the rationale of various policy decisions to the public. Furthermore, as several States have been increasingly accessing the market for meeting their borrowing programmes, enhancement of such transparency practices will be beneficial to them. The enactment of Fiscal Responsibility Legislations (FRLs) by all States (excepting West Bengal and Sikkim) has brought about some improvement in fiscal transparency at the State level.

The compliance to the IMF Code by the State Governments was observed to be relatively lower as compared to the Central Government, but still a significant number of 28 out of 45 practices were either 'Fully' or 'Broadly Observed'. The 'Partly Observed' practices numbered 15 and non-observance was assessed against two practices in respect of Pillar III (Public Availability of Information). Overall, the current status of compliance leaves scope for substantial improvement that is needed for greater transparency (Table A).

Table A: Fiscal Transparency: Assessment of States

	O	BO	PO	NO
I. Clarity of Roles and Responsibilities	6	1	3	-
II. Open Budget Processes	4	4	1	-
III. Public Availability of Information	4	-	7	2
IV. Assurances of Integrity	8	1	4	-

O – Observed; BO – Broadly Observed;
PO – Partly Observed; NO – Not Observed.
Source : Report of Committee on Financial Sector Assessment, March 2009.

The state of fiscal transparency at the State Government level is reflected in lack of availability of information, consistency in the available information and uniformity in data reporting. Beside these, State budgets also lack clarity and uniformity in terms of methodology to define certain variables which leads to mismatch of data provided by the State Governments, Union Government, Comptroller and Auditor General of India, and Controller General of Accounts. Data dissemination is particularly poor with regard to outstanding guarantees, off-budget borrowings, financing pattern of gross fiscal deficit, revenue arrears, subsidies, interest rates and maturity profile of negotiated loans. A few State Governments do not provide detailed information on 'Discharge of Internal Debt' in their respective budgets. Likewise, disaggregated fiscal data for the accounts year are not available for some States. In this context, the CFSA observed that while it would be difficult to resolve completely such differences, the actual accounting figures cannot, in principle, differ. The CFSA endorsed the Advisory Panel recommendation that a Working Group needs to be set up to sort out such discrepancies in fiscal data reported. It also recommended that all States set up State Finance Commissions (SFCs), ensure timely submission of Reports and report compliance with the rationale for rejecting any of the recommendations. The Report pointed out that the State Governments' relationship with publicly-owned corporations is not always governed by MoUs. In most of the cases, cover for losses of State PSUs is extended through equity contributions from the capital account, instead of subsidies through the revenue account. Such non-transparent transactions need to be curbed. Transfers of funds for the performance of functions devolved to local level should be reported in a transparent manner, separately for rural and urban local bodies. The CFSA highlighted the need to reconcile discrepancies in the fiscal data reported by various data disseminating agencies and also to restructure and rationalise the structure for reporting expenditures. In short, States need to improve transparency levels with regard to their finances so that credibility and integrity of information provided in public domain is enhanced.

References:

1. Chand, Prem (2008), "Fiscal Transparency", *Encyclopedia of Public Administration and Public Policy*, Second Edition.
2. Kopits, G. and J. Craig (1998), "Transparency in Government Operations", *IMF Occasional Paper* No. 158.
3. Reserve Bank of India (2009), *Report of the Committee on Financial Sector Assessment*, March 2009.

II.1.46 Bhilwada and Surat were recognised as towns of export excellence, for textiles and diamonds, respectively. Several other facilitation measures were taken such as establishment of electronic message transfer facility for advance authorisation and EPCG scheme; allowing re-credit of 4 per cent Single Administrative Document (SAD) for *Vishesh Krishi Gram Udyog Yojana* (VKGUY); simplification of procedure for claiming duty drawback refund and refund of terminal excise duty and admissibility of reimbursement of additional excise duty levied on fuel, in respect of EOUs.

II.1.47 As a relief to exporters, the Union Budget 2009-10 has announced extension of interest subvention scheme for select industries till March 2010, extension of the benefits of the adjustment assistance scheme to provide enhanced Export Credit and Guarantee Corporation cover for badly hit sectors till March 2010, increased allocation for the 'Market Development Assistance Scheme' in order to enable exporters to identify and develop new markets and simplified service tax refund proposals.

II.1.48 The Reserve Bank also introduced several measures to support the export sector, which include extension of the period of entitlement of the first slab of pre-shipment and post-shipment rupee export credit; raising of the aggregate limit of export credit refinance (ECR) facility for scheduled commercial banks (excluding RRBs); extension of prescribed interest rate as applicable to post-shipment rupee export credit to overdue bills up to 180 days; raising of the ceiling rate on export credit in foreign currency and raising the limit of the standing liquidity facility to banks in terms of export credit refinance.

Foreign Exchange Transactions[2]

II.1.49 During 2008-09, despite the severity of the external shock associated with the global economic crisis, the Reserve Bank continued to undertake measures to simplify and liberalise the external payments regime. The momentum of capital account liberalisation, however, remained consistent with the cautious, gradual and need-based approach that has been adopted by India. The Reserve Bank even advanced the phased liberalisation measures suggested by the Committee on Fuller Capital Account Convertibility. The regulations governing capital flows have been liberalised substantially in the past three years taking into account the macroeconomic conditions, state of the financial sector developments, risk management capabilities of financial institutions and depth of financial markets.

II.1.50 In keeping with the preferred hierarchical approach to liberalisation of inflows in favour of equity flows rather than debt flows, measures undertaken during 2008-09 to strengthen inflows under the equity route include expansion of coverage of foreign direct investment (FDI) to credit information companies and commodity exchanges; and widening the access of foreign firms to local equity markets. In order to accord flexibility to allocate their investments, restriction on the ratio of equity to debt in the investment portfolio of FIIs was removed. The specific measures taken during 2008-09 to liberalise outbound investment include raising the investment limits of Indian corporates and mutual funds registered with the SEBI and permitting registered trusts and societies engaged in manufacturing/educational/hospital sector to make investment in the same sector(s) in a joint venture or wholly owned subsidiary outside India.

II.1.51 The ECB policy, which was tightened in 2007 in view of the then prevailing macroeconomic conditions, was relaxed in 2008-09 following the slowdown in capital inflows, drying up of resources in domestic capital market and the continuing pressure on credit spreads in the international markets. Measures taken in this direction include expanding the coverage of ECB to the services

[2] A detailed discussion of policies relating to foreign exchange transactions is presented in Chapter V (Development and Regulation of Financial Markets) of the Report.

sectors, *viz.,* hotels, hospitals and software companies; permitting non-banking finance companies (NBFCs) involved exclusively in infrastructure financing to access ECB; broadening the definition of infrastructure sector for the purpose of accessing ECB to include mining, exploration and refinery sector in the country; increasing the ECB limits for infrastructure sector; removal of restrictions on rupee expenditure for permissible end-use; and dispensing with the all–in-cost interest rate ceilings for ECBs under the approval route. Furthermore, taking into account the depressed asset prices internationally, buyback of foreign currency convertible bonds (FCCBs) by Indian companies was allowed both under the approval and automatic routes, subject to certain conditions.

II.1.52 Specific measures were taken to improve foreign exchange liquidity in the domestic market in response to uncertainty in the global financial markets that has affected capital flows. These include, raising the interest rate ceilings on FCNR(B) and NR(E)RA deposits and on lines of credit with overseas banks; allowing Indian banks to borrow more funds from their overseas branches and correspondent banks; and permitting systemically important non-deposit taking non-banking financial companies (NBFCs-ND-SI) and Housing Finance Companies (HFCs) to raise short-term foreign currency borrowings.

II.1.53 In view of the slowdown in exports as a fall out of the synchronised global recession, the period of realisation and repatriation to India of proceeds from goods or software exports was enhanced from six months to twelve months from the date of export, subject to review after one year. Similarly, as a measure of relief to importers, the limit for direct receipt of import bills/documents from their overseas suppliers was enhanced from US$ 100,000 to US$ 300,000 in the case of import of rough diamonds, rough precious and semi-precious stones by non-status holder exporters enabling them to reduce transaction costs. Accordingly, authorised dealers (AD) Category-I banks have been permitted to make remittances for imports, where the import bills/documents have been received directly by the importer from the overseas supplier and the value of import bill does not exceed US$ 300,000 subject to certain conditions.

MONETARY POLICY MEASURES[3]

II.1.54 The fast changing conditions relating to inflation, growth and financial markets posed significant challenges for the conduct of monetary policy during 2008-09. The monetary policy during 2008-09 witnessed two distinct phases. The first phase during April-September 2008 witnessed a period of monetary tightening reflecting the response to rising inflation expectations. The second phase since mid-September 2008 witnessed a period of monetary policy easing in response to the knock-on effects of the global financial crisis on the Indian economy and significant moderation in inflation pressures.

II.1.55 The Annual Policy Statement for 2008-09 noted that there had been significant shifts in both global and domestic developments in relation to initial assessments for 2007-08 and the dangers of global recession had increased. Against this backdrop, the Annual Policy Statement for 2008-09 emphasised the overreaching policy challenges to mitigate inflationary pressure and global uncertainties while maintaining the growth momentum of the economy.

II.1.56 The intensity of global financial crisis since September 2008, however, reinforced the importance of placing special emphasis on preserving financial stability and stimulating growth. The Mid-Term Review highlighted that while prudent regulatory surveillance and effective supervision ensured that India's financial sector remains stable and continues to be robust, the global financial turmoil warranted special emphasis on preserving financial stability. The monetary policy challenge,

[3] A detailed discussion of monetary management is presented in Chapter III (Monetary Policy Operations) of the Report.

accordingly, was to strike an optimal balance between preserving financial stability, maintaining price stability, anchoring inflation expectations, and sustaining the growth momentum, with the use of both conventional and unconventional tools.

II.1.57 The Third Quarter Review of Monetary Policy 2008-09 was set in the context of further deterioration in global economic outlook and heightened uncertainty about the global financial sector. The Indian economy, which had experienced a cyclical moderation in growth accompanied by high inflation in the first half of 2008-09, exhibited a distinct evidence of further slowdown as a consequence of the global downturn. The knock-on effects of the global financial crisis affected the Indian economy in several ways: capital flows declined; capital market valuations remained low; industrial production growth slackened; export growth turned negative; and overall business sentiment deteriorated. On the positive side, the headline inflation decelerated, though consumer price inflation did not show any moderation. The domestic financial markets also continued to function normally, except for a short phase of high volatility. Although bank credit growth was higher than in the previous year, the flow of overall financial resources to the commercial sector between April 2008 and January 2009 declined marginally as compared with the previous year. This was on account of decline in other sources of funding such as resource mobilisation from the capital market and external commercial borrowings (ECBs). Based on the assessment of the global scenario and domestic economy, particularly the outlook on growth and inflation, the Reserve Bank maintained its monetary policy stance of provision of comfortable liquidity to meet the required credit growth consistent with the overall projection of economic growth. The Reserve Bank expressed its resolve to respond swiftly and effectively with all possible measures as warranted by the evolving global and domestic situation impinging on growth and financial stability. Furthermore, it committed to ensure a monetary and interest rate environment consistent with price stability, well-anchored inflation expectations and orderly conditions in financial markets.

II.1.58 The Annual Policy Statement for 2009-10 observed that there was scope for the overall interest rate structure to move down within the policy rate easing already effected by the Reserve Bank. Based on the overall assessment of the macroeconomic situation, the stance of monetary policy emphasised the need to ensure a policy regime that will enable credit expansion at viable rates while preserving credit quality so as to support the return of the economy to a high growth path.

II.1.59 The Annual Policy Statement for 2009-10 highlighted several immediate challenges that the Indian economy was facing, which needed to be addressed. These were: supporting the drivers of aggregate demand to enable the economy to return to its high growth path; restoring credit flow to all the productive sectors; unwinding fiscal stimulus over time in an orderly manner and return to a path of credible fiscal consolidation; preserving financial stability in the face of a severe global economic crisis; and withdrawal of the large liquidity injections in an orderly manner in order to avoid possible risks of upward inflationary pressures and asset price bubbles; and finally addressing the key challenge of ensuring an interest rate environment that supports revival of investment demand. The First Quarter Review of the Monetary Policy 2009-10 reiterated that the Reserve Bank would maintain the accommodative monetary stance until there are definite and robust signs of recovery. Recognising that the Reserve Bank would have to reverse the expansionary measures over time so as to anchor inflationary expectations and subdue inflationary pressures while preserving the growth momentum, the Review stated that “the exit strategy will be modulated in accordance with the evolving macroeconomic developments.”

II.1.60 Reflecting the overall policy stance announced in the quarterly policy statements, the Reserve Bank shifted its policy stance from monetary tightening in response to the elevated inflationary pressures in the first half of 2008-09 to monetary easing in the background of moderation of growth engendered by the crisis and easing inflationary pressures. The changing stance of policy needs to be viewed in the context of the previous period of graduated withdrawal of accommodation from September 2004 till August 2008 during which repo/reverse repo rates were increased by 300/150 basis points and the cash reserve ratio (CRR) for commercial banks was raised by 450 basis points. General provisioning requirements for standard advances and risk weights were raised in the case of specific sectors. In the second half of 2008-09, reflecting the emerging needs of the economy, the Reserve Bank reduced the CRR by 400 basis points during September-March 2008-09. During the same period, the repo rate was reduced by 400 basis points and the reverse repo rate was reduced by 250 basis points. The repo and reverse repo rates were further brought down by 25 basis points each, to 4.75 per cent and 3.25 per cent, respectively, on April 21, 2009. Use of macro-prudential measures along with monetary policy measures remained a unique feature of the Reserve Bank's policy approach of ensuring financial stability while balancing the objectives of growth and inflation during 2008-09.

CREDIT DELIVERY[4]

II.1.61 During a period when the advanced economies encountered an intense credit freeze, in India, the credit market functioned normally, notwithstanding the decline in demand for credit on account of the economic slowdown. The Reserve Bank continued to place emphasis on improving credit delivery mechanisms and took various measures for enhancing the flow of credit to those sectors of the economy, which were relatively more severely affected due to the synchronised global recession and also to the employment-intensive sectors. Wide ranging initiatives were also taken in the areas of financial inclusion, employment generation in rural and unorganised sectors, financial literacy and credit counselling. These include strengthening of rural co-operatives and regional rural banks which cater predominantly to the rural areas; liberalisation of branch licensing policies of RRBs; encouraging multiple channels of lending such as the self-help groups (SHGs), micro-finance institutions (MFIs) and adoption of banking facilitator/banking correspondent (BC) model; simplification of the procedures and processes for lending to agriculture and micro, small and medium enterprises (MSME) sectors and encouraging the adoption of ICT solutions to not only increase the outreach but also to reduce transaction costs.

FINANCIAL SECTOR POLICIES[5]

II.1.62 The resilience of the Indian financial sector in the face of the unprecedented global financial crisis to a large extent reflected the soundness of the Reserve Bank's regulatory and supervisory policies and the country's approach to financial reforms to support economic growth and development. The Reserve Bank's regulatory and supervisory initiatives during 2008-09 include changes in prudential regulations and measures to improve customer service, promote financial inclusion and strengthen anti-money laundering in the banking sector. Prudential regulations, which were earlier stepped up during the economic boom phase through counter-cyclical use of risk weights and provisioning on standard assets were brought down to the normal levels to create enabling conditions for preventing sharp moderation in credit growth during the economic slowdown. Initiatives were also taken for meeting country-specific requirements in the convergence with international best practices; strengthening the supervisory framework in terms of cross-border supervision;

[4] A detailed discussion of policies relating to credit delivery is presented in Chapter IV (Credit Delivery) of the Report.

[5] A detailed discussion of financial sector policies is presented in Chapter V (Development and Regulation of Financial Markets) and Chapter VI (Financial Regulation and Supervision) of the Report.

risk-based supervision and bank-led conglomerates; and strengthening the off-site monitoring system further for surveillance over bank's credit portfolios.

II.1.63 The Reserve Bank continued to take measures in 2008-09 to strengthen the urban co-operative banks (UCBs) in line with the Vision Document. Some of the important measures taken during the year include liberalisation of branch licensing norms for UCBs; permission to issue preference shares and long-term deposits; financial restructuring; and dynamic provisioning and restructuring of assets to address the stress created by economic slowdown. The process of consolidation of the sector through merger with stronger UCBs was further strengthened by laying down the guidelines for such mergers, including payment to depositors, financial contribution by the transferee bank and sacrifice by large depositors.

II.1.64 The Reserve Bank, on a review of the experience with the regulatory framework for non-banking financial companies in place since April 2007, enhanced the capital adequacy requirement for systemically important non-banking financial companies (NBFCs-ND-SI) and put in place guidelines for liquidity management and reporting, with specified norms for disclosures in October 2008. The implementation of capital to risk weighted asset ratio (CRAR) of 12 per cent by March 31, 2009 and 15 per cent by March 31, 2010 for these NBFCs was, however, deferred by one year, respectively, in view of the difficulty in raising equity capital in a market, which was depressed in the second half of the year in line with the sharp downward correction in asset prices globally. Taking into consideration the need for adequate access to funds for meeting business and regulatory requirements, NBFCs-ND-SI were permitted to issue perpetual debt instruments. To address problems of liquidity and ALM mismatch in the current economic scenario, the Reserve Bank permitted NBFCs-ND-SI to raise short term foreign currency borrowings under the approval route as a temporary measure, subject to certain conditions and also provided liquidity support to eligible NBFCs-ND-SI through a special purpose vehicle (SPV).

Policies for Financial Markets

II.1.65 The contagion from the global crisis operating through the trade, capital flows and confidence channels created pressures and enhanced volatility in the financial markets of India, in particular the foreign exchange market, the capital market and the money market. The Reserve Bank's timely measures restored orderly conditions in the money and foreign exchange markets over a short period. All markets, more importantly, functioned normally throughout the year. Besides the specific measures to address the stress levels in the markets, several measures were taken to sustain the process of ensuring deeper and competitive markets.

II.1.66 Important measures to improve activity in the Government securities market during 2008-09 include: (i) new issuance structure for issue of floating rate bonds (FRBs); (ii) operational readiness for introduction of separate trading for registered interest and principal of securities (STRIPS); (iii) revision of repo accounting guidelines; (iv) clearing and settlement of over the counter (OTC) derivatives; and (v) new settlement mechanism in government securities market for the non-current account holders.

II.1.67 During 2008-09, the Securities Exchange Board of India (SEBI) as the regulator for capital market, continued to take measures to further develop the market. Specific measures were also taken in the wake of the global financial crisis, to strengthen the Indian capital market, ensure market safety and safeguard the interest of investors.

II.1.68 SEBI operationalised the securities lending and borrowing (SLB) with effect from April 21, 2008. Pursuant to feedback received from market participants, National Stock Exchange (NSE) and Bombay Stock Exchange (BSE), SEBI has made certain changes in the SLB mechanism such as increase in the tenure of SLB to 30 days from 7 days, extending the time for SLB session from one hour (10 am to 11 am) to the normal trade timings of 9.55 am to 3.30 pm and advising the stock exchanges to follow the common risk management practices.

II.1.69 In order to improve the efficiency of the use of the margin capital by market participants, SEBI in December 2008 revised the existing facility of cross margining and extended it across cash and derivatives segments to all categories of market participants. The extent to which positions of clients in both the cash and derivatives segments offset each other shall be considered for the purpose of cross margining.

II.1.70 Effective August 6, 2008, trading in currency futures was permitted at recognised exchanges for Indian entities, including banks. With a view to rationalising the eligibility criteria for introduction of derivatives, SEBI in October 2008 advised stock exchanges to introduce derivatives on shares fulfilling the prescribed criteria, irrespective of their date of listing and/or size of issue.

II.1.71 SEBI revised the position limit applicable for client and trading member for exchange traded currency derivatives as per the recommendations of the RBI-SEBI Standing Technical Committee. The position limits shall be specific to an exchange and not to the exchange traded currency derivatives market as a whole. On June 17, 2009, RBI and SEBI jointly brought out norms enabling exchange-traded interest rate futures (IRFs).

II.1.72 The cumulative debt investment limit for FIIs' investments in corporate debt was enhanced from US$ 6 billion to US$ 15 billion. Following this, US$ 8 billion has been allocated to the market participants in an open bidding platform. All biddings for the limits would be through the stock exchanges and the window for bidding would remain open for two hours. The existing trading members would have access to the bidding platform. FIIs or the sub-accounts have to route through the existing trading members, who in turn shall bid for the limits.

II.1.73 On review of certain restrictions imposed on issuance of participatory notes/offshore derivative instruments (ODIs) by FIIs/sub-accounts in 2007 in October 2008, SEBI decided to relax restrictions imposed on issue of participatory notes by FIIs against securities, including derivatives as underlying. Furthermore, the foreign investment promotion board (FIPB) decided that foreign investment could flow into private equity funds registered as trusts, thus opening up another window of funds for private equity players and venture capital funds registered as trusts. Applicants seeking registration as Foreign Venture Capital Investors (FVCIs) with SEBI, have to obtain firm commitment from their investors in the form of a minimum contribution of US $ 1 million at the time of submission of application. FIIs and NRIs have been permitted in July 2009 to invest in Indian Depository Receipts (IDRs) subject to specified conditions.

II.1.74 SEBI amended the SEBI (DIP) Guidelines, 2000 with respect to reduction in timelines for rights issue; definition of qualified institutional buyers (QIBs) and eligibility and pricing norms of qualified institutions placement (QIP). With a view to encourage participation of institutional buyers in the capital market, QIBs were allowed to subscribe to the combined offering of non-convertible debentures (NCDs) with warrants or to individual instruments issued by a listed company. With the amendment of SEBI (DIP) guidelines and the Listing Agreement, the time duration for a rights issue was reduced, which meant a reduction in the market risk faced by an issuer besides faster turnaround of money for investors.

II.1.75 Considering the importance of systems audit in a highly technology-driven securities market, all exchanges were advised in July 2008 to conduct, on an annual basis, comprehensive audit of their systems and processes by a reputed independent auditor. In order to boost investor confidence in the wake of concerns relating to corporate governance in certain companies, SEBI has set up a panel of audit firms to begin peer review of audit reports for firms listed in the stock market for

2008-09 and for the first three quarters of 2009-10. SEBI guidelines were amended to align the accounting standards of employee stock option scheme with the accounting norms prescribed by the Institute of Chartered Accountants of India (ICAI).

II.1.76 In order to enhance disclosures regarding shareholding pattern in a listed company and also to bring more transparency and efficiency in the governance of a listed company, SEBI amended certain clauses in the Equity Listing Agreement in April 2009. These amendments included, *inter alia*, providing a uniform procedure for dealing with unclaimed shares; reducing the notice period; uniformity in dividend declaration by listed companies on 'per share' basis; and disclosure of shareholding pattern for each class of shares and voting rights pattern.

II.1.77 With a view to bringing about uniformity in disclosure by the mutual funds, SEBI in consultation with Association of Mutual Funds in India (AMFI), prescribed a new format of abridged scheme-wise annual report in July 2008. In order to further strengthen the framework for close-ended schemes, all close-ended schemes (except Equity Linked Savings Schemes) launched on or after December 12, 2008 were required to be mandatorily listed and net asset value (NAV) computed and published on a daily basis.

II.1.78 In order to bring about greater transparency to the market, SEBI decided that the position of the securities lent by foreign institutional investors (FIIs) and their sub-accounts abroad shall be disseminated on a consolidated basis twice a week i.e., on Tuesday and Friday of every week.

Legislative Measures

II.1.79 The Payment and Settlement Systems Act, 2007, which was notified on December 20, 2007 came into effect from August 12, 2008. The Reserve Bank has, in exercise of the powers conferred under the Act, framed two regulations, *i.e.*, Board for Regulation and Supervision of Payment and Settlement Systems Regulations, 2008 and the Payment and Settlement Systems Regulations, 2008. The Act has designated the Reserve Bank as the authority to regulate and supervise the payment systems in the country, including those operated by non-banks such as the CCIL, card companies, other payment system providers and all prospective organisations for payments. The netting procedure and settlement finality, earlier governed by contractual agreement(s), have been accorded legal recognition under the Act. Entities that want to/ continue to operate a payment system are required to apply to the Reserve Bank for authorisation. The other powers vested with the Reserve Bank under the Act include laying down operational and technical standards for the various payment systems; calling for information and returns/documents from the service providers and imposing fines on failure to do so or on providing false information. The Reserve Bank is also empowered to issue directions and guidelines to the system providers, prescribe the duties to be performed by them and audit and inspect their systems/premises. The Payment and Settlement Systems Regulations, 2008 cover: (a) authorisation of payment systems including the form and manner of submission of application for authorisation of commencement/continuation of a payment system and grant of authorisation certificate; (b) payment instructions and determination of standards; (c) furnishing of returns, documents and other information; and (d) furnishing of accounts and balance sheets.

II.1.80 The macroeconomic policies taken during 2008-09 by the Government and the Reserve Bank kept pace with the dynamically changing global environment and its repercussions on the domestic economy. The policies that were formulated in response to the evolving developments aimed at cushioning the economy from the adverse impact of high global commodity and fuel prices on domestic inflation during the first half of the year and from the knock-on effect of the global financial crisis on economic growth during the second half. The overall policy thrust, however, continued to focus on non-inflationary high growth that is inclusive and is based on efficient use of resources in a liberalised policy environment.

II. REAL ECONOMY

II.2.1 As the global economy entered a phase of synchronised recession, the Indian economy experienced distinct moderation in real GDP growth reflecting creeping contagion from the global crisis as well as slackness in cyclical growth impulses. In relation to the record average growth of 8.8 per cent achieved during 2003-08, 6.7 per cent growth in 2008-09 represents a notable deceleration, though in terms of growth performance of major countries around the world Indian growth remained one of the highest. What emerged as a concern, however, is that the growth in industry and services decelerated during the four successive quarters of 2008-09.

II.2.2 During 2008-09, the GDP growth moderated mainly on account deceleration in growth, both industry and services. The moderation in industrial growth was largely an outcome of some cyclical downturn and weak domestic and external demand. The services sector, which has powered India's strong growth performance in the recent past, also came to witness some moderation, reflecting weakness in demand, both at home and abroad. A large set of services sub-sectors such as trade, transportation, hotel, tourism, finance and construction witnessed subdued growth on account of global slowdown. The sub-sector 'community, social and personal services', however, provided some support as its growth accelerated, mainly reflecting the impact of the Sixth Pay Commission Awards. The agriculture sector also witnessed deceleration in growth during 2008-09. As regards sectoral composition of GDP, while the shares of agriculture and industry in India's total GDP registered marginal decline, the share of services increased correspondingly in 2008-09 (Table 2.1).

Table 2.1: Growth Rates of Real GDP
(at 1999-2000 prices)

(Per cent)

Sector	2000-01 to 2008-09 (Average)	2005-06 to 2007-08 (Average)	2006-07	2007-08*	2008-09#	2008-09			
						Q1	Q2	Q3	Q4
1	2	3	4	5	6	7	8	9	10
1. Agriculture and Allied Activities	**2.8**	**4.9**	**4.0** **(18.5)**	**4.9** **(17.8)**	**1.6** **(17.0)**	**3.0**	**2.7**	**-0.8**	**2.7**
1.1 Agriculture	3.0	5.0	4.1	5.0	n.a	n.a	n.a	n.a	n.a
2. Industry	**6.5**	**8.7**	**10.7** **(19.5)**	**7.4** **(19.2)**	**2.6** **(18.5)**	**5.1**	**4.8**	**1.6**	**-0.5**
2.1 Mining and Quarrying	5.0	5.7	8.8	3.3	3.6	4.6	3.7	4.9	1.6
2.2 Manufacturing	7.1	9.7	11.8	8.2	2.4	5.5	5.1	0.9	-1.4
2.3 Electricity, Gas and Water Supply	4.5	5.2	5.3	5.3	3.4	2.7	3.8	3.5	3.6
3. Services	**9.0**	**11.1**	**11.3** **(62.0)**	**10.8** **(63.0)**	**9.4** **(64.5)**	**10.0**	**9.8**	**9.5**	**8.4**
3.1 Trade, Hotels, Transportation, Storage and Communication	10.6	12.4	13.4	12.4	9.0	13.0	12.1	5.9	6.3
3.2 Financing, Insurance, Real Estate and Business Services	8.7	12.3	13.8	11.7	7.8	6.9	6.4	8.3	9.5
3.3 Community, Social and Personal Services	6.4	6.5	5.7	6.8	13.1	8.2	9.0	22.5	12.5
3.4 Construction	10.2	12.7	11.8	10.1	7.2	8.4	9.6	4.2	6.8
4 Real GDP at Factor Cost	**7.2**	**9.4**	**9.7** **(100)**	**9.0** **(100)**	**6.7** **(100)**	**7.8**	**7.7**	**5.8**	**5.8**

* : Quick Estimates. #: Revised Estimates. n.a.: Not Available.

Note : 1. Figures in parentheses denote percentage shares in real GDP.

2. Q1: First Quarter (April-June); Q2: Second Quarter (July-September); Q3: Third Quarter (October- December); and Q4: Fourth Quarter (January- March).

Source : Central Statistical Organisation.

II.2.3 Despite the moderation in growth, India continues to be one of the fastest growing economies in the world, demonstrating the strength of its inherent growth impulses and strong macroeconomic fundamentals. Another significant aspect of the India's growth experience during the current economic slowdown, as also during the past episodes of global emerging market crises, is the absence of any permanent loss of output (Box II.3).

II.2.4 A revealing feature of the growth process in India is the visible role of cyclical factors in conditioning the variation in output, notwithstanding the overall shift in the growth trajectory, reflecting the impacts of structural reforms and globalisation. The emerging evidence on the role of the cyclical factors suggests that in the absence of the global crisis, India's growth might have still experienced some moderation, though of a much lesser intensity, than what is actually being observed because of the global crisis (Box II.4).

AGGREGATE SUPPLY

Agriculture

II.2.5 The performance of the Indian agriculture is conditioned largely by the monsoon coupled with its spatial and temporal distribution, besides other factors such as Government's price support policy, investment in agriculture, access to irrigation, credit and other inputs like fertiliser and pesticides and development of markets for hedging risks. Management of food stocks in India and developments in the world agriculture market, in terms of production, trade and prices also assume significance because of their implications for prices of agriculture products in the domestic market.

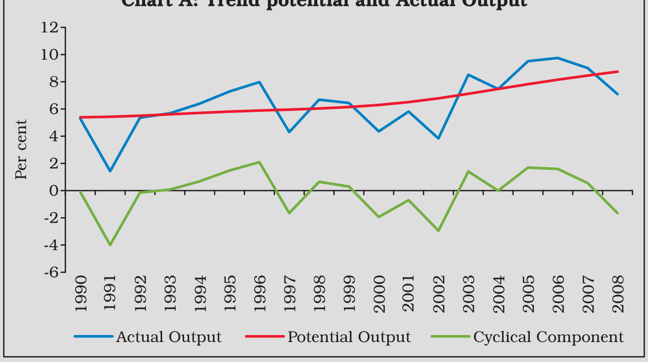
Box II.3
Permanent and Transitory Output Loss

In the event of a crisis, an economy may face permanent or transitory output loss depending on the nature and the severity of the crisis. According to the literature, permanent loss of output becomes evident when there is a decline in potential output of the economy. In the context of a global crises, this could happen on account of shrinking aggregate demand or severe investment contraction, driven by weak business confidence over a long period. Econometrically, it could be shown that any output growth series exhibiting the property of trend stationarity is unlikely to have a permanent output loss, as variations in output growth would be mean reverting.

Economic crises and other adverse shocks, whether external or domestic, may impose only a temporary or transitory restraint on output growth, and strong future growth may more than offset the initial decline. Corrective policies could often spur an economic recovery that, at times may shift the growth trajectory above the original trend line, particularly if the crises induced policy responses reduce inefficiencies and enhance productivity.

Evidence gathered from the Indian data, using re-sampling techniques to obtain the distributions of unit root test statistics [Augmented Dicky Fuller (ADF)] under the null hypotheses of Difference Stationary (DS) process as well as Trend Stationary (TS) process shows that India's GDP growth is trend stationary, which implies that any variations in the output around the trend remain transient and have a tendency to revert back to their original trend. Moreover, trend in potential output generated through Hodrick-Prescott filter reveal that there has never been any permanent fall in India's potential output over longer duration in the event of any economic crisis since the 1990s, whether domestic or external (Chart A). The potential output, has increased in recent years on account of the spurt in investment rates and reform related productivity gains, which is evident from the average 8.8 per cent growth experienced during 2003-08.

Chart A: Trend potential and Actual Output



Reference

1. Campbell, J. and Mankiw, N.G. (1987), "Are output fluctuations transitory?", *Quarterly Journal of Economics,* 102:857.

Box II.4
Growth Cycles in India: Recent Evidence of Cyclical Slowdown

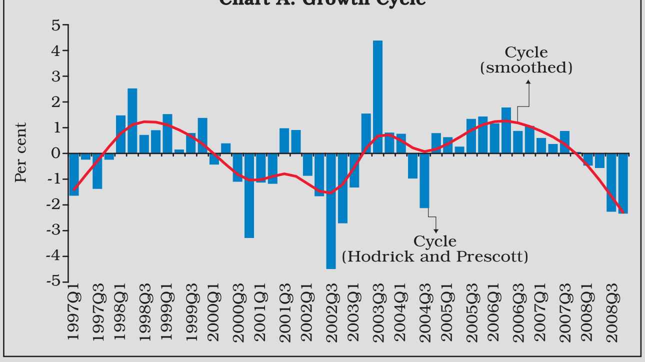
The Annual Policy Statement on April 21, 2009 had noted that after recording high average growth over 2003-08, India was headed for a cyclical downturn in 2008-09. Global crisis coincided with the cyclical downturn to amplify the magnitude of deceleration in India's growth.

For an analysis of the shifts in the pattern of business cycles in the post- reform period, the growth experience could be divided into three broad phases, *i.e.,* 1992-93 to 1996-97, 1997-98 to 2002-03, and 2003-04 to 2008-09. In the immediate post-reform phase, the average real GDP growth rate improved to 6.2 per cent during 1992-93 to 1996-97 (with a peak of 7.9 per cent in 1996-97). On account of various adverse external developments such as the Asian crisis in 1997-98, the September 11, 2001 developments in the US coupled with recession in the world economy during 2000-01 to 2001-02 and domestic developments such as the Kargil war in 1999-2000 and the deficient monsoon in 2002-03, the real GDP registered an average growth of 5.2 per cent during the second phase. Though lower than the growth seen in both the preceding five years and even the average growth of the 1980s, it was considered remarkable in terms of the resilience of the Indian economy. The economy did not slip into negative growth territory, unlike the earlier episodes of supply shocks, such as the severe drought condition in the 1965-66 and 1979-80 and the oil shock in the early 1970s. The growth performance of the economy during these two post-reform phases, however, exhibited a modest improvement in the economy's capacity or growth potential despite the plethora of reform measures. On an average, real GDP grew at 6.3 per cent in the 1990s (excluding 1990-91), a modest increase over 5.8 per cent growth recorded during the 1980s.

The third major cyclical phase (2003-04 to 2007-08) however, clearly moved the growth trajectory to a higher level, with an annual average of 8.8 per cent – a jump by about 5 percentage points over the so called 'Hindu growth rate' that marked the first three decades of planning era, 3 percentage points over the demand-led growth of the 1980s, and 2.5 percentage points over the post-reform period of the 1990s. This was a phase when the economic structure of India had undergone significant changes in terms of saving and investment rates, composition of GDP, structural reforms, globalisation and sound macroeconomic and financial conditions. There was a clear upward shift in the level of the entire cycle, with the peak (representing overheating) reaching the 10 per cent mark.

In terms of the quarterly real GDP growth, since the late 1990s after the Asian crisis, the economy has witnessed three or four growth cycles; a medium term cycle of about 15 quarters from 1997(Q1) to 2000(Q4), in line with the revival from the Asian crisis, two shorter cycles from 2000(Q4) to 2002(Q3) relating to the period of world recession and deficient monsoon, and then 2002(Q4) to 2004(Q3), followed by a reasonably longer cycle of four to five years from 2004(Q4) to 2008(Q3) around the high growth trajectory. During this cycle, the expansionary phase lasted for about 8 to 9 quarters beginning in 2004(Q4) and reached its peak closer to 10 per cent in the second and third quarters of 2006. Thereafter, the momentum of underlying growth showed some moderation until 2008-09(Q4). Thus, by the beginning of 2008-09, the cyclical moderation had already started (Chart A). In the fourth quarter of 2008, the growth decelerated to 5.8 per cent, reflecting the combined effects of global crisis and domestic cyclical impulses. Thus, even in the absence of the global recession, India's high growth phase might have still encountered a cyclical slowdown, *albeit,* at much lesser scale and magnitude.

Chart A: Growth Cycle



II.2.6 The agriculture sector, after recording a robust growth well above its trend during 2003-08, came to witness a marked deceleration during 2008-09, primarily due to the high base effect. The total foodgrains production during 2008-09, however, reached a record level of 233.9 million tonnes, representing an increase of about 3 million tonnes over the previous year (Table 2.2).

II.2.7 Despite higher overall foodgrains production estimate for 2008-09, *kharif* foodgrains production remained lower than the previous year due to the crop losses resulting from floods in some states like Bihar, Eastern UP, Orissa and Assam during the *kharif* season 2008. Total *kharif* foodgrains production during 2008-09 is estimated to remain marginally lower than in 2007-08, but

Table 2.2: Agricultural Production

(Million tonnes)

Crop	2005-06	2006-07	2007-08	2008-09#
1	2	3	4	5
a. Foodgrains	**208.6**	**217.3**	**230.8**	**233.9**
i. Rice	91.8	93.4	96.7	99.2
ii. Wheat	69.4	75.8	78.6	80.6
iii. Coarse Cereals	34.1	33.9	40.8	39.5
iv. Pulses	13.4	14.2	14.8	14.7
b. Non-foodgrains				
i. Oilseeds++	28.0	24.3	29.8	28.2
ii. Sugarcane	281.2	355.5	348.2	271.3
iii. Cotton@	18.5	22.6	25.9	23.2
iv. Jute and Mesta+	10.8	11.3	11.2	10.4
v. Tea*	946.0	981.8	944.7	980.8
vi. Coffee*	274.0	280.0	262.0	277.0

\# : Fourth Advance Estimates as on July 21, 2009
++ : For nine oilseeds out of eleven in all.
\+ : Million bales of 180 kg. each.
@ : Million bales of 170 kg. each.
* : Million kilograms and data for tea on a calendar year basis.
Source: Ministry of Agriculture, Government of India.

significantly higher than in 2006-07 (Table 2.3). The *rabi* production, however, was higher than that recorded in the previous year and compensated for the loss in *kharif* output. Overall, the total rice and wheat production increased, while the production of coarse cereals, pulses, oilseeds, showed some slippage and the output of sugarcane and cotton exhibited a marked decline over the previous year. Growth in the allied sector is expected to remain strong during 2008-09.

Behaviour of Monsoon

II.2.8 The performance of South West monsoon during 2008 (June 1 to September 30) was satisfactory with cumulative rainfall being two percentage points below normal. The South-West monsoon arrived over Kerala on May 31, a day ahead of the normal date. The monsoon covered the entire country by July 10, nearly 5 days ahead of the normal schedule. The progress of South-West monsoon was, however, uneven with rainfall being deficient in most of the weeks during sowing months of July and August 2008. The temporal distribution shows that precipitation was above normal in June, while it was below normal during July, August and September (Chart II.1). Nonetheless, the spatial distribution of rainfall was satisfactory with majority of meteorological sub-divisions recording excess/ normal[6] rainfall and only few sub-divisions registering deficient/scanty/no rains (Chart II.2).

Table 2.3: Season-wise Agricultural Production

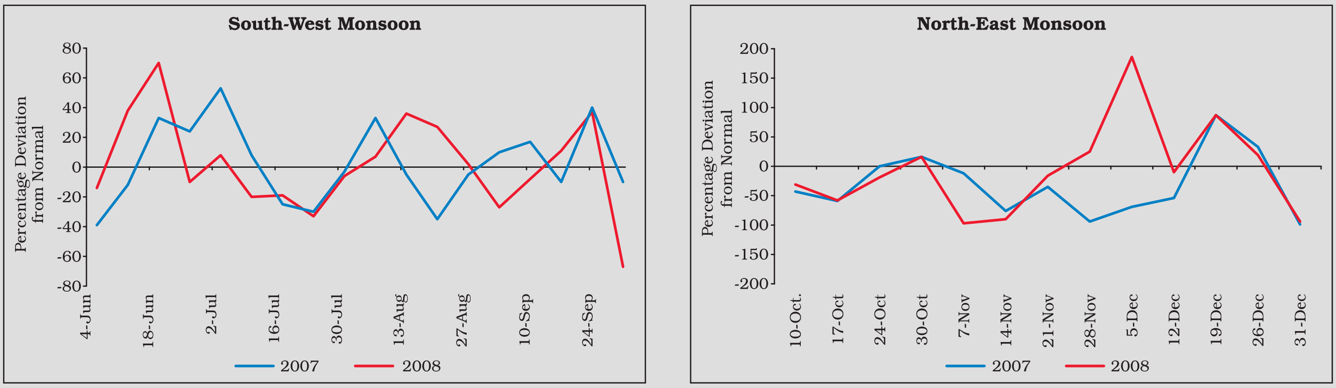
(Million tonnes)

	Kharif			*Rabi*		
Crop	2006-07	2007-08	2008-09 AE	2006-07	2007-08	2008-09 AE
1	2	3	4	5	6	7
Rice	80.2	82.7	84.6	13.2	14.0	14.6
Wheat	-	-	-	75.8	78.6	80.6
Coarse Cereals	25.6	31.9	28.3	8.3	8.9	11.1
Pulses	4.8	6.4	4.8	9.4	8.4	9.9
Total Foodgrains	110.6	121.0	117.7	106.7	109.8	116.2
Oilseeds	14.0	20.7	17.9	10.3	9.0	10.3
Sugarcane	355.5	348.2	271.3	-	-	-
Cotton*	22.6	25.9	23.2	-	-	-
Jute & Mesta**	11.3	11.2	10.4	-	-	-

-: Not Applicable. AE: Fourth Advance Estimates as on July 21, 2009.
*: In million bales of 170 kilograms each. ** : In million bales of 180 kilograms each
Source: Ministry of Agriculture, Government of India.

[6] Excess: + 20 per cent or more; Normal: + 19 per cent to -19 per cent; Deficient: -20 per cent to - 59 per cent; Scanty: -60 per cent to -99 per cent; No Rain: -100 per cent (All with respect to the Long Period Average).

Chart II.1: Inter-Temporal Progress of Monsoon



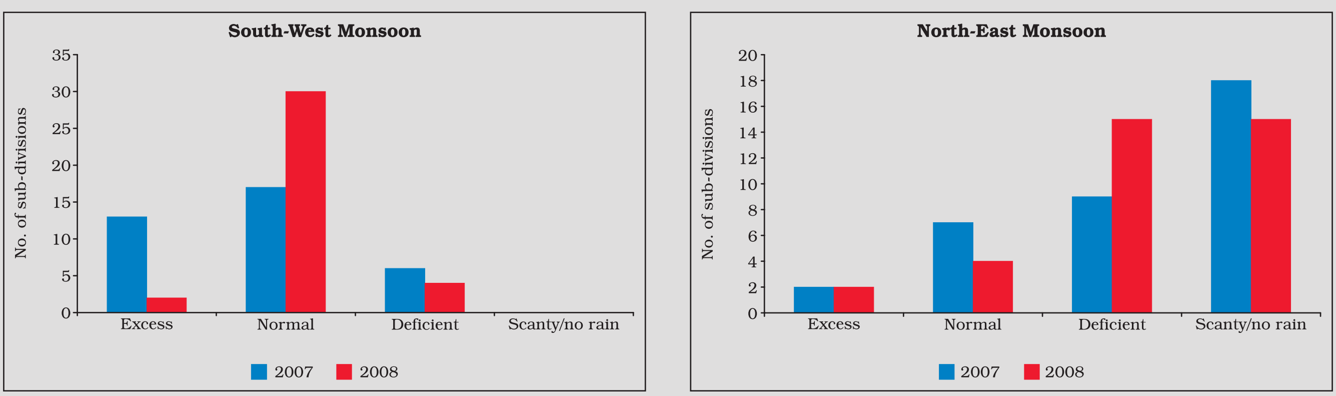
II.2.9 Among the four broad homogeneous regions, while the South-West monsoon seasonal rainfall was above normal in the North-West India, it was below normal in the South Peninsula, Central India and North-East India. The uneven temporal rainfall distribution caused flood situation in many states. The water storage in the major reservoirs in the country was 74 per cent of the Full Reservoir Level (FRL) at the end of the South-West monsoon season (October, 2008), which although was lower than the previous year (79 per cent) but remained higher than the average of last 10 years (66 per cent).

II.2.10 The North-East monsoon (October 1 to December 31, 2008) rains commenced over the Peninsular India on October 15, 2008. The cumulative position of North-East monsoon was deficient with rainfall being 31 per cent below normal, almost the same as recorded in the previous year. The cumulative rainfall was excess/normal only in few sub-divisions, while most of them recorded deficient/scanty/no rains.

Progress of South West Monsoon during 2009-10 (so far)

II.2.11 According to the latest monsoon forecast released by the IMD in August 2009, the rainfall during the South-West monsoon season 2009, for the country as a whole is likely to be below normal, *viz.,* 87 per cent of the LPA with a model error of +/- 4 per cent. The cumulative rainfall during the South West monsoon season for 2009-10 so far (up to August 12) has been less than satisfactory, with rainfall over the entire country being 29 per cent below normal as against 2 per cent above normal during the corresponding period of the previous year. The foodgrains production weighted

Chart II.2: Spatial Distribution of Monsoon



rainfall index[7] stood at 64 as on August 12, 2009 as against 114 during the corresponding period of the previous year. As on August 18, 2009, 10 states *viz.,* Assam, Bihar, Himachal Pradesh, Jharkhand, Madhya Pradesh, Manipur, Nagaland, Karnataka, Maharashtra and Uttar Pradesh have declared drought, partly or wholly, in the state.

Agricultural Price policy

II.2.12 The fundamental objective of agriculture price policy in India has been to evolve a balanced and integrated price structure to meet the overall needs of the economy while protecting, in particular, the interests of the producers and the consumers. Keeping in view the interests of the farmers as also the need for self reliance, the Government has been fixing the Minimum Support Prices (MSP) for 24 major crops. Recently, based on the recommendations of the Expert Committee to examine methodological issues in fixing MSP (Chairman: Prof. Y.K. Alagh), the Government approved the inclusion of three more variables in the calculations done by the Commission on Agricultural Costs and Prices (CACP) to arrive at the minimum support price. The Government has further raised the MSP for *rabi* crops of 2008-09 season with a view to incentivise crop production and to ensure remunerative prices to the farmers (Box II.5).

Investment in Agriculture

II.2.13 Investment in agriculture as a proportion of overall GDP has remained stagnant in recent years. Gross capital formation in agriculture relative to GDP in this sector, however, has been improving continuously from 11.1 per cent in 2003-04 to 14.2 per cent in 2007-08 (Table 2.4). This needs to be raised to 16 per cent during the Eleventh Plan period to achieve the target growth rate of 4 per cent for agriculture.

II.2.14 The private sector in India has taken the lead in investment on agricultural research and made significant contribution to Bt cotton and other hybrid varieties of rice, maize and sunflower. Significant step up in investments is critical to ensure the much needed structural break that could lift the Indian agriculture to a higher level of sustainable growth. Nevertheless, the composition of investments, the quality of facilities created by them and the efficacy with which these facilities are managed will also hold a key for agricultural performance and the growth of rural incomes.

Allied sector

II.2.15 In recent years, rising incomes, urbanisation and globalisation have opened up new opportunities for diversification of agriculture. Crop diversification is increasingly perceived as a risk management strategy in the farm sector to shield the farmers from generally volatile agricultural prices. Greater diversification of agriculture towards highly lucrative horticultural crops coupled with other allied activities like livestock, bio-tech, food processing and others have contributed to higher agricultural growth in last few years. The growth in allied sector, *viz.,* horticulture, livestock and fisheries is expected to have remained strong in the range of 5 to 6 per cent during 2008-09.

II.2.16 Horticulture provides ample opportunities for sustaining large number of agro-based industries, which could generate substantial employment opportunities. Although the horticulture sector accounts for only 10 per cent of agricultural acreage, it contributes around 28 per cent to agricultural GDP. Horticulture production has grown at an average rate of 5 per cent during 2002-2008. India produced 207 million tonnes of horticultural crops during 2007-08. India is the second largest producer of fruits and vegetables in the world after China.

[7] The foodgrains production weighted index (PRN) is constructed based on the weighted average of actual rainfall received by the states where weights are taken as the average share of food grains production by the particular states in overall foodgrains production. A PRN of 100 indicates normal rainfall, where normal represents average of last 10 years' weighted rainfall.

Box II.5
Rationalisation of MSP Computation

The minimum support prices (MSP) are announced by the Government with a view to ensuring remunerative prices to the farmers for their produce on the basis of recommendations made by the Commission for Agricultural Costs and Prices (CACP). Support prices for all major crops, which are announced before the sowing, indirectly affect farmers' decisions regarding land allocation to crops. The MSPs have usually been remunerative and higher than the cost of production, providing a benchmark for the market prices of foodgrains. Price support policy has been successful in encouraging technology adoption, particularly in the irrigated areas and also in enhancing the production. In less than 15 years, following 1965, wheat production trebled while rice production increased by more than 50 per cent, which enabled the country to overcome the situation of shortages. With the easing supply situation, the policy emphasis was shifted from maximizing the production to encouraging a production pattern based on balanced allocation of resources that is consistent with the overall needs of the economy. Subsequently, since 1985, the emphasis was placed on taking full account of cost of production while determining the MSPs for various crops. The Government has periodically hiked the MSP in response to India's rising need for food security as also to meet the rising cost of cultivation on account of increasing input costs (Table A).

An Expert Committee was set up (Chairman: Prof. Y.K. Alagh) on May 7, 2003 by the Ministry of Agriculture with an objective to examine methodological issues in fixing MSP in view of the changing policy paradigm in terms of trade liberalisation, privatisation and globalisation. The Committee submitted its Report to the Government on May 31, 2005. The Report, in its recommendations, included certain observations on various aspects of costs and prices of the agricultural commodities, non-cost and non-price measures like trade and tariff policy, market reforms, re-vamping of procurement agencies and strengthening of rural credit measures. Following some of its recommendations, the Cabinet Committee on Economic Affairs (January 15, 2009) gave approval to CACP for incorporating three more variables in its computations done for arriving at MSP. The three items are: premium actually paid by farmers for crop insurance, as a cost item, marketing, and transport charges incurred by farmers. This move is expected to improve and rationalise the calculation of MSP.

Table A: Minimum Support Price of Wheat and Paddy

(Rs. per quintal)

Crop Year	Wheat		Paddy Common@	
	MSP	% change	MSP	% change
1	2	3	4	5
1990-91	225	4.7	205	10.8
1995-96	380	5.6	360	5.9
2000-01	610	5.2	510	4.1
2004-05	640	1.6	560	1.8
2005-06	650 *	1.6	570	1.8
2006-07	750 #	15.4	580 **	1.8
2007-08	1,000	33.3	645 #	11.2
2008-09	1,080	8.0	850 ##	31.8

@ : From 1997-98, Minimum Support Price (MSP) is announced for two varieties of paddy – common and Grade 'A', as against the earlier three categories of common, fine and super fine.

* : An additional incentive bonus of Rs.50 per quintal payable over the MSP.

\# : An additional incentive bonus of Rs.100 per quintal is payable over the MSP.

** : An additional incentive bonus of Rs. 40 per quintal on procurement between October 1, 2006 to March 31, 2007.

\## : Bonus of Rs. 50 per quintal is payable over the MSP.

Note : For other Rabi Crops of 2008-09, the MSP for Barley has been fixed at Rs.680 per quintal (increase by Rs.30), Gram at Rs.1,730 per quintal (increase by Rs.130), Masur (Lentil) at Rs.1,870 per quintal (increase by Rs.170), and Rapeseed/ Mustard at Rs.1,830 per quintal (increase by Rs.30).

Source : Ministry of Agriculture, Government of India.

II.2.17 Horticulture exports, accounting for 35 per cent of India's agricultural exports, have registered an average growth of 22 per cent during 2004-08 and hold a promising potential for agricultural growth. The pickup in this sector has been prominent since the setting up of the National Horticulture Mission in 2005-06 with an objective to enhance yields and improve infrastructure, processing and marketing of horticulture crops. Going forward, there is a need to address the challenges faced by this sector, including the provision of adequate physical infrastructure to reduce post-harvest losses.

II.2.18 The livestock sector provides an important source of supplementary income to the small and marginal farmers and women in the rural areas, besides being a source of nutrition to millions in the country. India has one of the largest livestock population in the world. The livestock sector contributes to over 5 per cent of the total GDP and more than a quarter of the GDP originating from

Table 2.4: Gross Capital Formation in Agriculture
(At 1999-2000 prices)

Year	Investment in Agriculture and Allied Activities (Rupees crore)			Share in Agricultural and Allied Activities Gross Investment (per cent)		Gross Capital formation/ Agricultural GDP (Per cent at constant prices)	Investment in Agriculture (per cent of GDP at constant prices)
	Total	Public	Private	Public	Private		
1	2	3	4	5	6	7	8
1999-00	50,151	8,670	41,481	17.3	82.7	11.2	2.8
2003-04	53,542	10,805	42,737	20.2	79.8	11.1	2.4
2004-05	57,849	13,019	44,830	22.5	77.5	12.0	2.4
2005-06	66,065	15,947	50,118	24.1	75.9	12.9	2.5
2006-07	73,285	18,755	54,530	25.6	74.4	13.8	2.6
2007-08	79,328	22,107	57,221	27.9	72.1	14.2	2.5

Source: Central Statistical Organisation.

agriculture and allied activities. The Eleventh Five-year Plan envisages an overall growth of 6-7 per cent per annum for the sector. India ranks first in the world in milk production, which has increased from 17 million tonnes in 1950-51 to about 105 million tonnes by 2007-08.

II.2.19 Fisheries and aquaculture contribute about 1.1 per cent to the overall GDP and about 5.3 per cent to the GDP originating from agriculture and allied activities. The sector provides employment to over 14 million people. The annual export earnings from this sector amounted to Rs.7,620 crore in 2007-08 and is projected to increase to Rs.15,000 crore by the end of the Eleventh Plan. During 2008-09, this sector is expected to grow at a rate of 6.0 per cent, providing some support to the overall growth.

II.2.20 India is the world's second largest producer of food. The food processing industry ranks fifth in size in the country and contributes over 9.0 per cent to the GDP and has also emerged as a significant contributor to the country's exports. The Indian food processing sector, which mainly depends on agriculture for its raw materials, has been growing at an average rate of 13.5 per cent per year and remains a potential driver of future agricultural growth.

II.2.21 India made its entry into the biotechnology sector in 2002 with the Government approval of commercial cultivation of Bt cotton. Since then, agri-biotechnology continues to be the fastest growing segment among all biotechnology industries in the country. Besides, various efforts are being made in the direction of agro innovations that include the imported technique of hydrophonics- a soilless system of growing plants- which is being practised in Gujarat for cultivating different varieties of exotic hybrid tea, roses and strawberry. Research is also in progress on the production of transgenic rice and several genetically engineered vegetables. India being a major cashew producing country, use of cashew apple as an alternative to food crops used for ethanol production is also being explored in coordination with United Nations Industrial Development Organisation (UNIDO).

Indian Agriculture amidst Global Crisis

II.2.22 As the global crisis deepened, it appeared to have impacted the world agriculture through the demand channel, impinging on both consumption as well as trade. Food prices, which remained at elevated levels from 2007 till mid-2008, moderated subsequently on account of the economic slowdown and the consequent subdued demand for agricultural commodities, food, feed and fuel. Depressed global economic growth prospects may also have negative second round effects on investment and productivity in farm output. The financial crunch could lower availability of capital at a time when accelerated investment in agriculture is urgently needed. While policy attention amidst the financial crisis has generally shifted to other sectors, focused attention on agriculture and rural development has been part of the stimulus packages designed in many countries, which aim at stepping up rural infrastructure expenditure in many emerging economies such as China, Malaysia and Indonesia and providing subsidised loans to farmers in countries like Thailand and Vietnam.

II.2.23 In the Indian context, the crisis does not seem to have impacted the agricultural sector. The overall satisfactory precipitation during South-West monsoon season in 2008 and availability of adequate food stocks have provided key cushion for the farm sector. Besides, the agricultural allied sector in India is also growing at a robust pace and could be expected to impart some resilience and stability to overall growth. Furthermore, because of India's mandated priority sector lending, institutional credit for agriculture remains unaffected by the global credit squeeze. The farm loan waiver package implemented by the Government also worked like a forward looking stimulus, as a matter of coincidence, to insulate the farm sector from the financial crisis. The social sector programmes such as National Rural Employment Guarantee Scheme (NREGS) could be expected to support the livelihood of the rural poor and the returning migrant workers under the impact of the global crisis.

II.2.24 Through the trade channel, the global economic slowdown may have some adverse impact on the agriculture sector. India's exports from labour intensive sectors, including agricultural and allied products, have registered decelerated growth under the impact of global demand recession, mainly in the developed regions, *viz.,* the US and the EU. However, the overall impact seems to be muted in the case of agriculture sector as India's exports of agriculture commodities account for only about 1.5 per cent of GDP.

II.2.25 The policy initiatives of the Government such as the Agricultural Debt Waiver scheme, together with enhanced outlays under various rural development schemes such as NREGS, Bharat Nirman Programme, National Food Security Mission, Integrated Watershed Management Programme of the National Rainfed Area Authority, Rural Infrastructure Development Fund (RIDF) and large increase in fertiliser and food subsidies imply a larger transfer of purchasing power to the farmers and the rural sector, which could help in stimulating rural demand and compensating for any fall in rural incomes on account of deficit monsoons. Rural spending in sectors like fast moving consumer goods (FMCG), telecom, education, health care and life insurance are generally expected to remain strong in coming years and the Indian corporate sector is gradually recognising the potential for growth in demand in rural areas[8]. Given the rising backward and forward linkages between farm and non-farm sectors, farm sector could be expected to support the rest of the economy during the current crisis.

Food Management

II.2.26 The procurement of foodgrains (rice and wheat) during 2008-09 was higher than that in the corresponding period of the previous year largely due to more than two-fold increase in wheat procurement (Table 2.5). The off-take of foodgrains (rice and wheat) during 2008-09 was higher as compared to corresponding period of the previous year. With procurement remaining higher than off-take during 2008-09, the total stocks of foodgrains with the Food Corporation of India (FCI) and other Government agencies at end-March 2009 registered an increase of nearly 80 per cent over the previous year. Total foodgrain stock was placed at 51.0 million tonnes as on August 1, 2009. The stocks of both rice and wheat are now higher than their buffer stock norms.

II.2.27 Despite effective food management, prices of primary articles remained highly volatile during

[8] Rural Marketing Association of India, McKinsey Global Institute.

Table 2.5: Management of Food Stocks

(Million tonnes)

Year/ Month	Opening Stock of Foodgrains			Procurement of Foodgrains			Foodgrains off-take				Closing Stock	Norms
	Rice	Wheat	Total	Rice	Wheat	Total	PDS	OWS	OMS – Domestic	Exports		
1	2	3	4	5	6	7	8	9	10	11	12	13
2008												
January	11.5	7.7	19.2	4.5	0.0	4.5	2.9	0.3	0.0	0.0	21.4	20.0
February	14.0	7.2	21.4	3.0	0.0	3.0	2.9	0.4	0.0	0.0	21.4	
March	14.7	6.5	21.4	1.6	0.0	1.6	3.0	0.5	0.0	0.0	19.8	
April	13.8	5.8	19.8	1.1	12.6	13.7	2.7	0.0	0.0	0.0	30.7	16.2
May	12.9	17.7	30.7	2.1	8.8	10.9	3.0	0.1	0.0	0.0	36.4	
June	12.1	24.1	36.4	1.2	0.9	2.2	2.8	0.4	0.0	0.0	36.3	
July	11.2	24.9	36.3	0.1	0.2	0.3	3.0	0.3	0.0	0.0	34.3	26.9
August	9.8	24.4	34.3	0.8	0.0	0.8	2.8	0.3	0.0	0.0	31.8	
September	8.5	23.3	31.8	1.4	0.0	1.4	3.0	0.4	0.0	0.0	30.0	
October	7.9	22.0	30.0	8.1	0.0	8.1	2.8	0.1	0.0	0.0	35.3	16.2
November	14.1	21.0	35.3	3.1	0.0	3.1	2.9	0.3	0.0	0.0	35.5	
December	15.6	19.6	35.5	4.2	0.0	4.2	3.0	0.5	0.1	0.0	36.2	
2009												
January	17.6	18.2	36.2	4.8	0.0	4.8	3.0	0.2	0.2	0.0	37.4	20.0
February	20.2	16.8	37.4	3.7	0.1	3.8	3.0	0.3	0.2	0.0	37.1	
March	21.3	15.3	37.1	2.3	0.0	2.3	2.9.	0.4	0.5	0.0	35.6	
April	21.6	13.4	35.6	1.4	19.4	20.8	3.3	0.1	0.0	0.0	51.8	16.2
May	21.4	29.8	51.8	1.9	4.4	6.4	3.6	0.2	0.0	0.0	54.8	
June	20.4	33.1	54.8	1.3	1.1	2.4	n.a.	n.a.	n.a.	n.a.	53.2	
July	19.6	32.9	53.2	1.4	0.4	1.8	n.a.	n.a.	n.a.	n.a.	51.0	26.9
August*	18.8	31.6	51.0	0.5	0.0	0.5	n.a.	n.a.	n.a.	n.a.	n.a.	

n.a.: not available. *: Procurement up to August 17.

Note : Closing stock figures may differ from those arrived at by adding the opening stocks and procurement and deducting off-take, as stocks include coarse grains also.

Source : Ministry of Consumer Affairs, Food and Public Distribution, Government of India.

2008-09 in line with international trends. It is important to note, however, that volatility in prices of food articles have been much lower domestically in relation to international food prices, which may partly be attributed to various domestic intervention policies of the Government that aim at containing the price pressure on certain commodities. While world food prices have fallen since July 2008, the outlook for 2009 remains mixed on account of lower projected world cereal output (Box II.6).

Commodity Futures

II.2.28 The commodity futures markets could facilitate efficient price discovery and provide options for risk management. Government of India permitted futures trading in a wide range of agricultural commodities in 2003. The total volume of trade in the commodity futures market rose from Rs.5.72 lakh crore in 2004-05 to Rs.52.5 lakh crore in 2008-09.

II.2.29 In the wake of considerable rise in inflation during the first quarter of the calendar year 2007, concerns were raised that excessive speculation in the commodity futures market could be a contributory factor behind the increase in the prices of many agricultural commodities. In response, a temporary ban on futures trading in four commodities such as wheat, rice, urad and tur in 2007 was imposed. Furthermore, in May 2009, keeping in view the demand-supply situation and recent surge in sugar prices, futures trading in sugar

Box II.6
Global Agricultural Outlook

The Food and Agriculture Organization (FAO) expects decline in world cereal production in 2009 by 3.4 per cent from the record levels of 2,286 million tonnes in 2008. The FAO expects a reduction in the global wheat harvest by 4.2 per cent in 2009. The bulk of the decrease is expected in the world's top producing countries, in particular those in the eastern parts of Europe, and in the United States. In Asia, however, larger winter wheat plantings are expected in countries, such as in China, India and Pakistan, where government support measures have been introduced to boost production. Prospects for winter wheat crop has also improved, following the arrival of rains in many of the drought affected areas of China. Preliminary estimates indicate an increase of 0.2 per cent in world paddy production in 2009 as compared to 2008 levels. The reduction in world cereal production in 2009 is expected to put pressure on the international cereal prices. The impact on supply and prices, however, is expected to be somewhat offset by the satisfactory level of global cereal stocks, particularly for rice and wheat.

The FAO Report also highlights that food crisis persists in 30 countries around the world. The situation is of particular concern in the Gaza Strip as a result of recent conflict. In Eastern Africa, more than 18 million people face serious food insecurity due to conflict, unrest, adverse weather or a combined effect, while in Southern Africa, the total number of food insecure people is estimated at 8.7 million. In Kenya, Somalia and Zimbabwe, the food security problem is very serious following drought, civil insecurity and economic crises.

According to the Rabobank Report, demand for the '4 Fs' - food, fuel, feed and fibre - is set to continue to increase worldwide. This will further boost investment in agriculture and increase the value of inputs, particularly in South America, Eastern Europe and Southeast Asia. The Report also estimates that global wheat output is likely to decline to 640 million tonnes during 2009-10 from 683 million tonnes in 2008-09. With regard to cotton, the International Cotton Advisory Committee (ICAC) has projected that the world cotton production is expected to decline for the third consecutive season during 2009-10 and prices are projected to increase by 5 per cent.

A Report drafted for the Ministers of the G8 nations has recently expressed concern over the global food situation. The Report warns that global food production needs to double by 2050 to be able to feed a surging population, which has to happen while dealing with "pronounced climate changes" and higher input costs. Without immediate interventions in agriculture and agri-marketing systems, the food crisis experienced in 2007-08 could become structural in only a few decades. The World Bank (2008) also highlighted that cereal production will have to increase by nearly 50 per cent and meat production by 85 per cent from 2000 to 2030 in order to meet the rising demand for food and for bio fuel. Managing the supply response of agriculture to rising demand will require appropriate policy measures and sustained investments.

According to the OECD-FAO Agricultural Outlook for 2009-2018, though the high prices observed in 2007 and 2008 will gradually come down, food prices will remain at elevated levels over the medium term (2009-2018) than the historic average of the decade prior to 2007-08. On the supply side, the Report expects continued yield growth for crops to be more important than new areas brought into cultivation in determining crop supply. On the demand side, changing diets, urbanisation, economic growth, expanding populations and of late biofuel demand are driving food and feed demand in developing countries. Further, the Report states that the epicentre of global agriculture will shift from the OECD towards developing countries. Both consumption and production are growing faster in developing countries for all products except wheat. In future, these countries are expected to dominate production and consumption of most commodities, with the exception of coarse grains, cheese, and skim-milk powder.

The expected developments in the world agricultural markets in terms of demand/supply and trade/prices have many implications for the future domestic agriculture. In the recent past, world agricultural markets witnessed dramatic upsurge in the prices of agricultural commodities and the domestic prices closely followed the international trends, *albeit,* at a lower pace. Given the fact that the future international prices of agricultural products are anticipated to rule above the historic averages, on the back of uncertain outlook for world cereal output, there is a need to propel the domestic supply response to contain any excessive demand pressures impinging on the price situation. It is in this context, it becomes a national priority that the domestic production of foodgrains such as wheat, rice, pulses and non-foodgrains such as edible oils is augmented to the comfortable levels and adequate buffer stocks are built by way of procurement and MSP, so as to ensure the food security in the event of any sharp weather aberrations and crop failures. The global outlook clearly signals the need for preserving India's food security while also enhancing agricultural production as a means to rural development and higher growth in the economy.

Reference

1. Food and Agriculture Organisation (2009), "Crop Prospects and Food Situation", April and July.
2. OECD-FAO (2009), *Agricultural Outlook 2009-2018*.
3. World Bank (2008), Agriculture for Development, *World Development Report*,
4. Rabobank (2008), *The Boom Beyond Commodities: A New Era Shaping Global Food and Agribusiness*.

was suspended till December 31, 2009. Earlier, the Government had also appointed a Committee (Chairman: Prof. Abhijit Sen) to study the impact, if any, of futures trading on agricultural commodity prices. The Report of the Committee, noted that there was no clear evidence of futures trading having either reduced or increased volatility of spot prices. Furthermore, the Committee gave wide ranging recommendations such as enabling wider participation of farmers in the futures market; expediting reforms in agricultural marketing; and designing appropriate contracts to serve the objective of risk management. The Committee also noted that for many commodities, the acceleration of domestic prices post introduction of commodity futures has been from a depressed base and hence, cannot be attributed directly or solely to futures trading.

II.2.30 The prices of agricultural commodities in India, after the introduction of futures, need to be seen in relation to a range of factors that affect such prices, *viz.*, domestic production, buffer stock levels, Government intervention in food markets through procurement policies and minimum support prices, agricultural commodities exports, international food prices scenario and domestic supply and demand dynamics. The market regulator, *i.e.,* the Forward Markets Commission, has also been monitoring the futures prices of sensitive commodities. In order to curb volatility and speculation in prices in the futures market, margin requirements were imposed on sensitive commodities, as in the case of sugar, potato and soyabean during 2009.

Weather Insurance

II.2.31 The global climate change entails the risk of Indian agriculture being affected adversely in the long-run due to heat, erratic weather, and reduced availability of irrigation facilities. Imparting resilience to agriculture in the face of climate change is a challenge which requires adopting climate-resilient crop varieties and animal breeds as well as more prudent management of crops, animals and natural resources. One important option for managing risk involves innovative weather insurance schemes linked to climate data, together with better models for predicting weather. Recent initiatives in this direction need to be carried forward (Box II.7).

Industrial Performance

II.2.32 The industrial production, which was on a robust growth trajectory during 2003-08, with an average growth of 8.7 per cent, witnessed a significant moderation thereafter to 2.7 per cent in 2008-09, on the back of heightened uncertainty and weak domestic and external demand (Table 2.6). The moderation in growth (year-on-year) that began in the first quarter of 2007-08, turned out to be one of the longest spell in the recent past. The growth experience of Indian industry since the mid-1990s reveals that there were three distinct phases of slowdown, all coinciding with adverse global developments of one form or the other, although the slowdown might not necessarily have been caused entirely by global factors (Table 2.7).

II.2.33 The industrial slowdown during 1996-97 and 2000-01 coincided with global economic downturn, but domestic factors such as excess capacity in some sectors, infrastructural bottlenecks in power, transport and communication, low levels of productivity in the industry due to inability to reap economies of scale, outdated technology, restrictive labour laws and demand fluctuations in some cyclical industries such as cement, steel and automobiles largely contributed to the slippage in industrial growth. With the growing share of exports in India’s GDP (from 13.0 per cent in 2000-01 to 23.4 per cent in 2008-09 based on national income statistics published by CSO) and liberalisation of the capital account, the impact of global developments on Indian industry has become somewhat more pronounced over time. Owing to the unprecedented scale of global uncertainty surrounding the current crisis, the intensity of the current growth slowdown in industrial production seems to be higher. Growth in industrial output lost its momentum by the second half of 2008-09 in conjunction with a sharp fall in external demand.

Box II.7
Global Climate Change: Emerging Challenges for Indian Agriculture

The risks associated with global climatic change are widely believed to pose an unprecedented and formidable threat for sustenance of human, plant and animal fraternity. According to a Report of the United Nations Inter-Governmental Panel on Climate Change (IPCC), the average temperature of the earth's surface, having already risen by 0.74 degrees Centigrade in the last 100 years, is expected to increase by an average of about 3 degrees over the next century. Even the minimum predicted temperature increase by 1.4 degrees could represent a profound change, unprecedented in the last 10,000 years. One of the perils of this climatic change includes rising sea levels, caused by the expansion of ocean volumes and melting of glaciers and ice caps, as a consequence of which coastal areas around the world, including major urban areas, could be inundated. An associated serious concern relates to the forward looking adverse effects on agriculture, given its vulnerability to extreme weather events, and the grave consequences that it signals for the world's poor and hungry. Based on the simulation models, scientists predict that these catastrophes will occur with even greater frequency, especially in the tropics. In addition, fundamental changes in rainfall patterns, together with rising temperatures, will shorten growing seasons, reduce crop productivity and thereby affect the food security. Climate change will have adverse effects on the existing water related infrastructure, including hydropower, structural flood control, drainage and irrigation systems as well as water management practices, thereby magnifying the effects of other stress factors, such as population growth, changing economic activities, change in land-use pattern and urbanisation. Agricultural irrigation demand in arid and semi-arid regions of Asia is estimated to increase by at least 10 per cent for an increase in temperature of 1°C (Fischer *et al.,* 2002; Liu, 2002).

Management of climatic concerns in India has become critical for meeting challenges such as frequent localised droughts (as 2/3rds of arable land continues to be rainfed); frequent floods, especially in Eastern India; frost, particularly in North-Western India; and frequent episodes of heat waves and cyclones in the Eastern coast. These climatic changes are likely to significantly increase volatility in agricultural production. Projected impact of climate change on Indian agriculture indicates that while in the short-term it may not be very significant, the long run impact could increase with crop productivity projected to decline by 10-40 per cent by 2100. Of particular relevance to India is the fact that global warming will lead to increased variability in summer monsoon precipitation. Given the fact that a large part of the rural population of the Indian subcontinent depends on rain-fed agriculture for its livelihood, erratic monsoon precipitation would adversely affect the lives of majority of the population. It is estimated that the loss in net revenue at the farm level in India could range between 9 to 25 per cent for a temperature rise of 2° C to 3.5° C (Kumar and Parikh, 1998). It is anticipated that India will reach a state of water stress before 2025, when the availability is projected to fall below 1,000 m^3 per capita (CWC, 2001). The projected decrease in winter precipitation over the Indian subcontinent would imply less storage and greater water stress during the lean monsoon period.

Traditionally, farmers have been responding to the challenges through strategies such as drought proofing by mixed cropping; changing varieties/crops/planting time; matching crop cycles with weather/water availability; and diversifying income sources, including livestock raising. However, these are not sufficient and there is a need for other strategies such as (i) instituting early warning systems for climatic risks/disasters; (ii) strengthening pest surveillance and forecasting mechanisms; (iii) bridging yield gaps across crops and regions by ensuring timely availability of adaptable varieties of quality seeds, adaptation and demonstrations of new technologies along with farmers' training, providing financial incentives for resource conservation and technological adaptation; (iv) strengthening research on adaptation; (v) assessing regional impact on crops, livestock, fisheries, pests and microbes; (vi) evolving 'adverse climate tolerant' genotypes and land use systems; and (vii) re-examining water and fertilizer management practices for adaptation. Even though Indian agriculture has been resilient during the current slowdown supporting the growth cycle, the risks associated with global climatic change may erode future resilience, unless timely policies are introduced to address these concerns.

Reference

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4. Liu C.Z. (2002), "Suggestions on Water Resources in China Corresponding with Global Climate Change", *China Water Resources, No.2, 36-37*.
5. United Nations Inter-Governmental Panel on Climate Change (2008): "Climate Change and Water", *Technical Paper of Working Group II ,* June.

Table 2.6: Growth Performance of Industrial Sector based on Index of Industrial Production (IIP)

(Per cent)

Month/year	Mining & Quarrying		Manufacturing		Electricity		General	
	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
1	2	3	4	5	6	7	8	9
April	2.6	6.1	12.4	6.7	8.7	1.4	11.3	6.2
May	3.8	5.5	11.3	4.5	9.4	2.0	10.6	4.4
June	1.5	0.1	9.7	6.1	6.8	2.6	8.9	5.4
July	3.2	2.8	8.8	6.9	7.5	4.5	8.3	6.4
August	14.7	2.8	10.7	1.7	9.2	0.8	10.9	1.7
September	4.9	5.8	7.4	6.2	4.5	4.4	7.0	6.0
October	5.1	3.2	13.8	-0.6	4.2	4.4	12.2	0.1
November	6.3	0.7	4.7	2.7	5.8	2.6	4.9	2.5
December	5.0	2.2	8.6	-0.6	3.8	1.6	8.0	-0.2
January	2.9	0.7	6.7	1.0	3.7	1.8	6.2	1.0
February	7.9	-0.2	9.6	0.2	9.8	0.7	9.5	0.2
March	4.9	1.9	5.7	-0.3	3.7	6.3	5.5	0.3
April-March	**5.1**	**2.6**	**9.0**	**2.7**	**6.3**	**2.8**	**8.5**	**2.7**

Source: Central Statistical Organisation, Government of India.

The growth in Index of Industrial Production (IIP), which was at a monthly average rate of 5.0 per cent in the first half 2008-09, decelerated sharply to 0.6 per cent in the second half, with negative growth rates in December 2008. It has generally been observed that the onset of industrial slowdown in India coincides with the weakening of domestic demand – investment demand in particular, while depressed external demand operating through weak export and dampened business confidence has amplified the industrial growth deceleration during the current global crisis. Empirical relationships provide some evidence that the IIP exhibits significant positive correlation with domestic consumption demand, exports and domestic capital formation, and inverse relationship with imports (signifying the fact that imports partly compete with domestic substitutes).

Table 2.7: Phases of Slowdown in Indian Industry

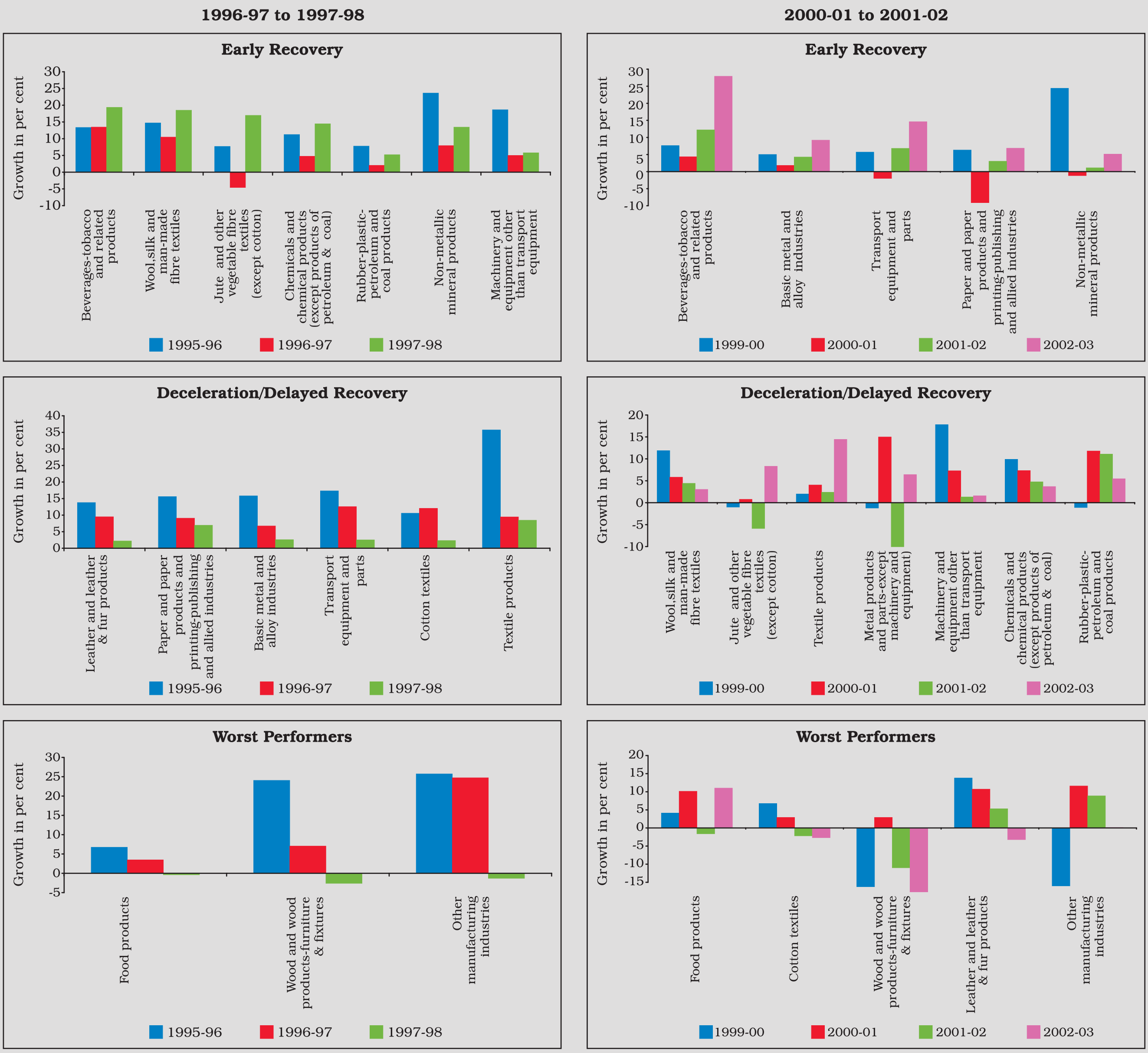
	Beginning	End	Length
1	2	3	4
1996-97	1996-97: Q2	1997-98: Q1	4 quarters
2000-01	2000-01: Q2	2001-02: Q3	7 quarters
2007-08	2007-08: Q1	2008-09: Q4	8 quarters

II.2.34 A notable aspect of the deceleration in IIP growth during 2008-09 is that it was broad based, affecting all the three sectors, *viz.*, mining, manufacturing and electricity. The deceleration was relatively sharp in the manufacturing sector (Appendix Table 6). The growth in mining sector also decelerated, mirroring the downtrend in the growth of crude petroleum and products, despite a sizeable growth in coal production. Electricity generation remained subdued throughout the year due to slowdown in power generation in both thermal and hydro-power plants, with nuclear power plants showing the sharpest decline during the year.

II.2.35 The manufacturing sector, which had powered the industrial growth beginning in 2002-03, turned sluggish since 2007-08. Apart from the trend in the headline industrial growth based on IIP, the behavioural pattern of the disaggregated 17 two-digit manufacturing industries provide some information based on past trends about the groups, which exhibit early recovery, late recovery and recovery with significant lag during the current downturn phase (Chart II.3).

II.2.36 The current slowdown is more broad-based as fifteen out of 17 two-digit manufacturing industry

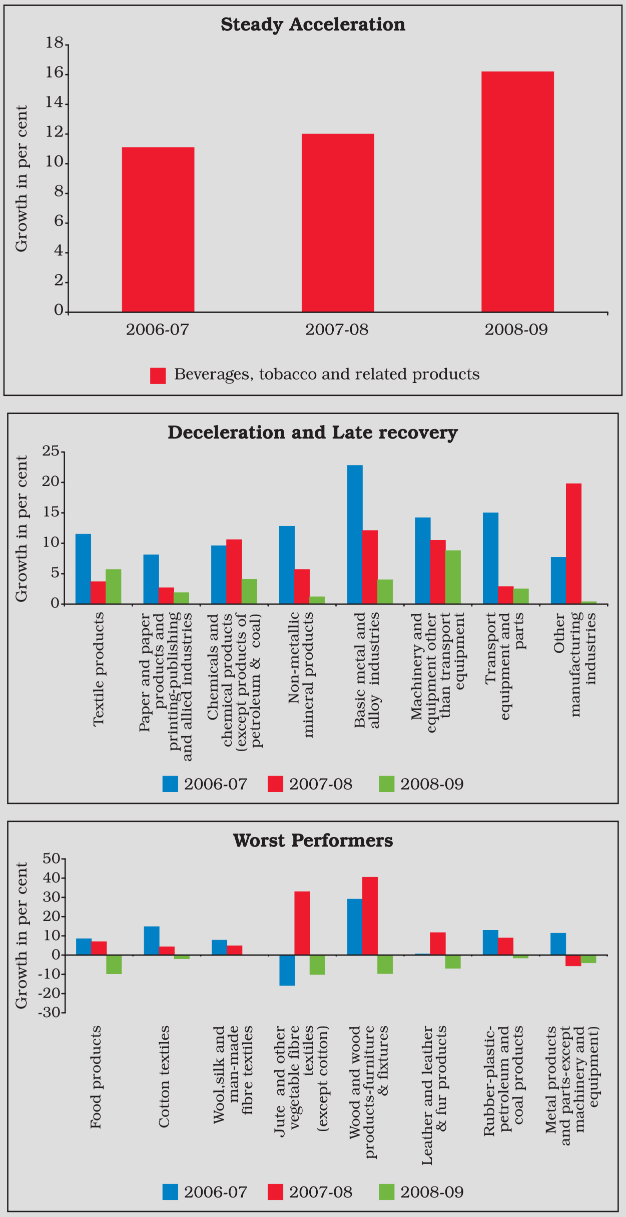
Chart II.3: Performance of 17 Two-Digit Manufacturing Industries During Slowdown in the Past



groups accounting for 74.4 per cent weight in IIP, registered negative/decelerated growth during 2008-09 (Chart II.4; Appendix Tables 7 and 8). Like the previous two phases of slowdown, 'cotton textiles', 'food products', 'leather and leather products', 'wood and wood products' and 'furniture and fixtures' exhibited negative growth in the current phase as well. The sluggish performance of industries with higher export intensities (apart from textile products) is a key feature of the current slowdown, reflecting the overall impact of global recession.

II.2.37 In terms of use-based classification, moderation in industrial activity has been observed across all the sectors, but with varying intensity (Table 2.8; Appendix Table 9). The decline in intermediate goods production, which began as early as August 2008, intensified and became broad-based during the third quarter of 2008-09.

Chart II.4: Performance of 17 Two-Digit Industries During Slowdown in 2007-08 and 2008-09



Overall, the sector posted negative year-on-year growth in seven out of the twelve months. There was a perceptible decline in growth in sectors producing intermediate inputs for the export oriented industries. Similarly, the slump in the domestic automobile industry impinged on the performance of 'auto ancillary and parts' as well as ‘metal products and parts industry’. The

Table 2.8: Index of Industrial Production: Sectoral and Use-based Classification of Industries

(Per cent)

Industry Group	Growth Rate		Weighted Contribution	
	2007-08	2008-09	2007-08	2008-09
Sectoral Classification				
Mining	5.1	2.6	4.2	6.3
Manufacturing	9.0	2.6	89.5	85.3
Electricity	6.3	2.8	6.3	8.3
Use-Based Classification				
Basic Goods	7.0	2.6	24.8	32.2
Capital Goods	18.0	7.3	25.1	38.2
Intermediate Goods	8.9	-1.9	27.5	-31.6
Consumer Goods (a+b)	6.1	4.7	23.0	59.1
a) Consumer Durables	-1.0	4.5	-1.0	14.3
b) Consumer Non-durables	8.5	4.8	24.1	44.7
General	**8.5**	**2.7**	**100**	**100**

Source: Central Statistical Organisation.

deceleration in the construction industry impacted heavily on the production of non-metallic mineral inputs such as ceramic tiles, stone chips/polished granite and cement sheets.

II.2.38 Basic goods started losing momentum in the second half of the year. Deceleration in electricity, negative growth in basic chemicals and chemical products, nitrogenous and phosphatic fertilisers, rubber, plastic, petroleum, coal and aluminium products led to lower growth in basic goods. The moderation in the capital goods sector was spread across ‘machinery and equipment’, 'textile machinery', 'refrigerators and air conditioning', 'machine tools', 'air and gas compressors' and ‘transport equipment and parts’, manifesting slowdown in the investment demand. Consumer goods sector experienced a relatively moderate deceleration, reflecting slackening of the overall private consumption demand in the economy. The slowdown in consumer goods industry emanated primarily from the decline in consumer non-durables. Consumer durable, however, performed better during 2008-09 than a year ago, *albeit,* with high inter-month volatility (Table 2.9). These gains in consumer durables may be partly attributed to sustained rural demand arising from good harvests in the last three years and agriculture debt waiver.

Table 2.9: Trends in Growth of Consumer Goods

(Per cent)

Month/Year	Total Consumer Goods			Consumer Durables			Consumer Non-Durables		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8	9	10
April	8.9	14.7	8.5	7.4	2.4	3.2	9.4	18.7	10.0
May	10.5	8.7	7.4	17.5	-0.7	2.8	8.2	12.1	9.0
June	6.1	3.6	9.9	19.9	-3.6	4.6	1.8	6.3	11.6
July	16.8	7.1	5.9	16.1	-2.7	13.9	17.1	10.5	3.4
August	15.0	0.0	6.4	19.0	-6.2	3.9	13.6	2.4	7.3
September	12.1	-0.2	7.4	11.8	-7.3	14.7	12.2	2.6	4.8
October	-2.8	13.7	-0.9	0.2	9.0	-1.6	-4.1	15.8	-0.6
November	13.5	-2.9	9.4	10.1	-5.5	0.3	14.8	-2.0	12.4
December	10.7	8.7	1.7	1.8	2.8	-4.2	13.5	10.3	3.2
January	8.2	8.4	3.6	5.3	-0.5	2.1	9.1	11.1	4.0
February	7.4	11.7	-1.3	1.8	3.1	6.0	9.3	14.3	-3.4
March	15.8	0.9	1.3	3.8	-2.0	8.4	20.2	1.9	-1.0
April-March	**10.1**	**6.1**	**4.7**	**9.2**	**-1.0**	**4.5**	**10.4**	**8.5**	**4.8**

Source: Central Statistical Organisation, Government of India.

Capacity Utilisation

II.2.39 The capacity utilisation[9] in industrial sector dropped by over 2 per cent for all industries during 2008-09 as compared to the previous year, mainly in manufacturing and electricity sectors. The impact of demand slowdown was evident in manufacturing sector, as out of 17 two-digit manufacturing industries, 15 industries posted lower capacity utilisation during 2008-09 than in the previous year (Table 2.10). During the second half of 2008-09, the decline in capacity utilisation was pronounced in most of the industries. The Reserve Bank's Industrial Outlook Survey of manufacturing companies in the private sector, which provides leading information about the expectations for the quarter ahead, indicated that the level of capacity utilisation (compared to the average in the preceding four quarters) decelerated in the second quarter and declined in the last two quarters of 2008-09. The Survey indicates that expectations of capacity utilisation of the main products turned positive for the second quarter of 2009-10, after witnessing a modest decline for the first quarter.

Infrastructure Industries

II.2.40 The infrastructure sector witnessed deceleration alongside the industrial sector (Appendix Table 10). The core sector comprising coal, electricity, finished steel, cement, petroleum refinery and crude oil decelerated to 2.8 per cent in 2008-09 (from 5.9 per cent in 2007-08), which is the lowest growth thus far since 1998-99 (Chart II.5). The electricity sector recorded a sharp deceleration because of lagging performance of new units (Box II.8).

II.2.41 The sharp decline in international crude oil prices, contraction in domestic demand, insufficient logistics support, delay in installation of processing platforms, power shutdowns, decrease in reservoir pressure and environmental factors affected the production of crude oil. Steel production remained

[9] Capacity utilisation has been estimated using the peak output approach. Under this approach, the peak monthly output during a financial year for a particular industry is regarded as the productive capacity for that year, while the monthly average output is used to work out utilisation level for that year. Accordingly, monthly capacity utilisation of a particular industry is the ratio of monthly production to the peak level of production during the year.

Table 2.10: Capacity Utilisation

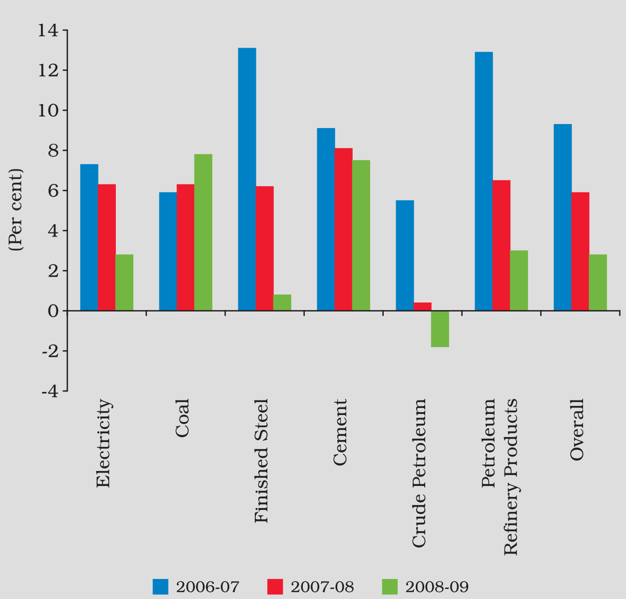
(Per cent)

Industry	Weight	Capacity Utilisation		
		2006-07	2007-08	2008-09
1	2	4	5	6
Food products	9.08	67.8	68.9	65.2
Beverages, tobacco and related products	2.38	84.2	83.4	81.8
Cotton textiles	5.52	94.6	96.5	93.0
Wool, silk and man-made fibre textiles	2.26	87.4	86.8	87.4
Jute and other vegetable fibre textiles (except cotton)	0.59	71.4	90.4	86.8
Textile products (including wearing apparel)	2.54	92.3	95.6	94.5
Wood and wood products, furniture and fixtures	2.70	69.6	88.9	74.8
Paper and paper products and printing, publishing and allied activities	2.65	93.8	93.3	88.5
Leather, and leather and fur products	1.14	81.1	89.1	83.5
Chemicals and chemical products except products of petroleum and coal	14.0	79.2	81.1	77.2
Rubber, plastic, petroleum and coal products	5.73	86.8	86.5	80.0
Non-metallic mineral products	4.40	85.8	86.8	85.2
Basic metal and alloy Industries	7.45	83.4	85.3	90.2
Metal products and parts (except machinery and equipment)	2.81	65.3	74.2	69.6
Machinery and equipment other than transport equipment	9.57	74.9	77.0	73.4
Transport equipment and parts	3.98	80.7	81.4	78.5
Other manufacturing industries	2.56	73.4	73.4	70.0
Manufacturing Industry	**79.36**	**80.1**	**82.5**	**79.3**
Mining and Quarrying	**10.47**	**83.2**	**83.3**	**84.9**
Electricity	**10.17**	**93.4**	**95.9**	**92.7**
All Industries	**100**	**81.8**	**83.9**	**81.3**

Note : 1. Data are provisional.
2. Capacity utilisation has been calculated from the production data for 296 industries supplied by the Ministry of Statistics and Programme Implementation.
3. The capacity utilisation estimated under the peak-output approach is only indicative of the trends and may not be viewed as reflecting the actual capacity utilisation levels. In the absence of any other data or indicator on capacity utilisation, peak-output approach is used as a proxy for capacity utilisation.

Source : Based on data from Ministry of Statistics and Programme Implementation, Government of India.

Chart II.5: Growth in Six Infrastructure Industries



subdued, mirroring the slowdown in construction and automobile industry. The year-on-year growth in cement production in 2008-09 was only marginally short of the production growth achieved in the previous year.

II.2.42 Almost all the infrastructure industries fell short of the target set for 2008-09 (Table 2.11). The gap between target and achievement widened for power, steel, fertilisers, crude oil and natural gas production.

Performance of Central Sector Projects

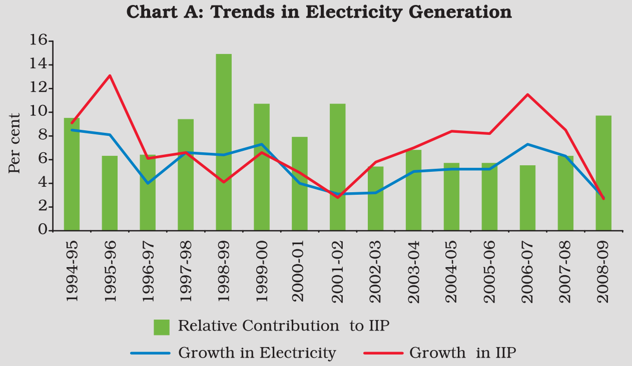
II.2.43 The number of central sector projects under various stages of implementation increased by 7.4 per cent at end-March 2009 over the previous year. The number of projects on schedule, constituting

Box II.8
Performance of the Electricity Sector

The Indian electricity sector has exhibited significant production and efficiency gains in the post-reforms period. The installed generation capacity has more than doubled to 1,47,965 MW as at end-March 2009 (from 71,750 MW as at end-March 1990). Electricity generation by power utilities has increased by over 150 per cent to 662 billion KWH in 2007-08 (from 264 billion KWH in 1990-91). Plant load factor, which is a powerful indicator of operational efficiency in thermal power plants during excess demand has increased from 53.8 in 1990 to 77.2 in 2006-07. The efforts of the Government towards accelerating rural electrification have made access to electricity more extensive and inclusive. According to the Central Electricity Authority, as at end-February 2009, 4,87,338 or 82.1 per cent of the villages in India had access to electricity. The annual per capita consumption of electricity in India has also grown overtime from 566.7 KWH in 2002-03 to 704.2 KWH in 2007-08.

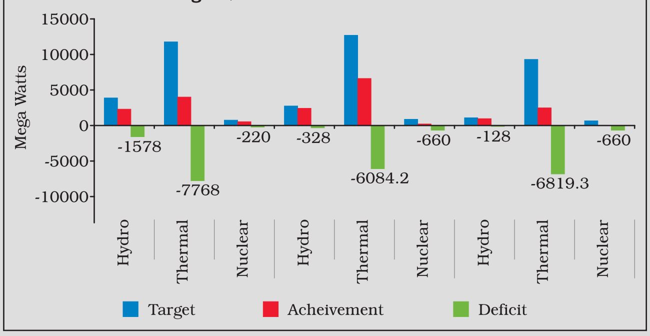
Despite notable progress, the electricity supply could not keep pace with the rapid growth in demand in the economy. In terms of energy availability, the deficit in power supply has expanded from 8.5 per cent in 1992 to 12.0 per cent in 2008-09. The average growth rate in electricity generation has, in fact, decelerated from 6.8 per cent in the second half of 1990's to 4.7 per cent since then (Chart A).

Chart A: Trends in Electricity Generation



The increasing supply constraints could be attributed to inadequate capacity additions, high aggregate and transmission losses, poor inter-regional transmission links and fuel supply bottlenecks. Shortfall in capacity additions in generation has been acute in the thermal segment for the past three years (Chart B). While 66.4 per cent of the targeted capacity was added during the Tenth plan, during the first two years of the Eleventh Plan (2007-08 and 2008-09), a meagre 16.2 per cent of the targeted capacity addition (78,700 MW) was achieved.

Chart B: Annual Capacity Additions in Electricity - Targets, Acheivements and Deficits



Only 4.4 per cent of the targeted capacity was actually realized in 2008-09.

Private investment in the power sector has been constrained by the presence of certain peculiar characteristics such as high cross subsidisation and consequent low realisation of power cost and high aggregate transmission and commercial losses (AT&C). Total electricity subsidies amounted to Rs.42,607 crore during 2007-08. In 2006-07, against a cost of supply of Rs.2.76 per unit, the realisation was only Rs.2.27 per unit including agriculture. Realisation from the agriculture sector alone was as low as Rs.0.71 per unit.

Despite central schemes like Accelerated Power Reforms and Development Programme introduced in 2000, AT&C losses have exhibited downward rigidity primarily due to inadequate metering, power theft and low collection efficiency. In order to increase competition and improve access to power, reforms need to be accelerated with a focus on development of ultra mega power projects and merchant power plants, private sector participation in hydro power development, power trading, operationalisation of open access in inter-state transmission and adoption of information technology in the areas of energy accounting to improve the efficiency of transmission and distribution of power.

Reference

1. Central Electricity Authority (2009), *Highlights of the Sector.*
2. Central Electricity Authority (2008), *Highlights of the Sector.*
3. Central Electricity Authority (2008), *Electricity Generation Review*, April-January.
4. Government of India (2009), *Economic Survey – 2008-09.*

Table 2.11: Targets and Achievements of Infrastructure Industries

Sector	Unit	2007-08			2008-09		
		Target	Achievement	Gap (%)	Target	Achievement	Gap (%)
Power	Billion Units	710	704	-0.8	774	724	-6.5
Coal	Million Tonnes	455	450	-1.0	492	487	-0.9
Finished Steel	000' Tonnes	56984	55240	-3.1	60867	56413	-7.3
Railways	Million Tonnes	790	794	0.5	850	833	-2.0
Shipping (Major Ports)	Million Tonnes	515	519	0.7	576	530	-7.9
Fertilisers	000' Tonnes	16823	14706	-12.6	16332	14334	-12.2
Cement	Million Tonnes	–	174	–	–	187	–
Crude Petroleum	Million Tonnes	35	34	-2.5	36	34	-6.8
Petroleum Refinery Products	Million Tonnes	146	156	6.7	165	161	-2.4
Natural Gas Production	Million Cubic Mtrs.	33241	32274	-2.9	36943	32846	-11.1

Source: Ministry of Statistics and Programme Implementation.

27.4 per cent of the total projects, showed an increase of 11.9 per cent at end-March 2009 as against a decline of 24.6 per cent recorded as at end-March 2008. The number of delayed projects, which constituted 52 per cent of the total projects, also increased by 24.1 per cent as at end-March 2009, as compared with an increase of 35.7 per cent as at end-March 2008. The sectoral break-up shows that there is a rise in delayed projects in sectors like coal, petroleum, power, railways and telecommunications. The delay in implementation of projects in the railways, surface transport and power sectors was attributed to the problems of land acquisition; obtaining environmental clearances; finalisation of detailed engineering plans; changes in/finalisation of the scope; and lack of complementary infrastructure support in some regions. The global financial crisis also contributed to the delay in terms of non-availability of requisite funds and inputs procurement. The overall cost overrun during 2008-09 increased by 54.2 per cent, while the cost overrun in the case of delayed projects increased by 95.6 per cent (Table 2.12). The cost overrun of delayed projects as percentage of original project cost, which was coming down in recent years, had increased during 2008-09.

Table 2.12: Performance of Central Sector Projects

Item	2000-01	2005-06	2006-07	2007-08	2008-2009
1	2	3	4	5	6
1. Number of Projects (a to d)	187	396	491	514	552
(a) Ahead	5	6	6	16	8
(b) On Schedule	58	113	179	135	151
(c) Delayed	65	149	171	232	288
(d) Without Date of Commissioning	59	128	135	131	105
2. Cost Overrun of Total Projects (Rupees Crore)	40,303	47,337	39,741	40,906	63,065
3. Cost Overrun of Total Projects (% of Original Cost)	36.4	18.2	12.4	11.9	13.7
4. Cost Overrun of Delayed Projects (Rupees crore)	23,374	29,655	20,808	22,351	43,722
5 Cost Overrun of Delayed Projects (% of Original Cost)	91.6	35.6	19.8	13.9	19.1

Note : Central Sector Projects amounting to Rs.100 crore and above are included.
Source : Ministry of Statistics and Programme Implementation, Government of India.

Table 2.13: Industrial Investment Proposals

Year	IEMs		LOI	
	No. of Proposals	Proposed Investment (Rs. crore)	No. of Proposals	Proposed Investment (Rs. crore)
1	2	3	4	5
2003	3,875	1,18,612	102	1,057
2004	5,118	2,67,069	39	381
2005	6,203	3,53,956	24	333
2006	6,261	5,88,550	20	137
2007	3,725	8,27,500	8	74
2008	3,979	15,22,566	4	38
2009*	1,342	4,04,380	0	0

*: Up to May 2009.
IEM : Industrial Entrepreneurs Memoranda.
LOI : Letters of Intent.
Source: Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, GOI.

Investment Climate

II.2.44 The investment climate in 2008 had remained upbeat before the intensification of the global crisis by mid-September 2008, which is evident from 84.0 per cent rise in the Industrial Entrepreneurs Memoranda (IEM) submitted to the Government of India (Table 2.13). The proposed investment in 2008 in terms of letters of intent (LOI) issued, subsequent to the submission of IEMS, however, failed to pick up.

Micro, Small and Medium Enterprises

II.2.45 The Micro, Small and Medium Enterprises (MSMEs) in India occupy an important place in manufacturing and service sector. Over the years, the MSMEs have established a reputation for their contribution to industrial production, exports, employment and creation of entrepreneurial base in the economy. During 2007-08, MSMEs recorded a growth of 18.8 per cent in the nominal value of output as against 17.5 per cent in 2006-07 (Table 2.14). The rise in production in this sector, however, was accompanied by a significant deceleration in employment growth to 2.9 per cent in 2007-08 as compared to 4.3 per cent in 2006-07. Accordingly, output per worker had increased, reflecting both a rise in labour productivity as well as cost savings strategy to manage the pressure on margins during economic slowdown.

II.2.46 The slowdown in the Indian industry, which began in the first quarter of 2007-08 accentuated on the back of global economic slack that intensified further with the unfolding of financial crisis in September 2008. The slowdown partly reflected sharp fall in global commodity trade, which impacted India's external demand for manufacturing products. As compared to other emerging economies, however, the impact of the financial crisis on industrial output in India has been moderate (Box II.9).

Developments during 2009-10

II.2.47 During the first quarter of 2009-10 (April-June), the growth in IIP recovered to 3.7 per cent although it remained lower than 5.3 per cent in the corresponding period of the previous year. The output of basic and intermediate goods increased by 6.1 per cent and 7.1 per cent, respectively during 2009-10 as compared with 3.1 per cent and 2.6 per cent in the same period of 2008-09. The

Table 2.14: Performance of Micro, Small and Medium Enterprises

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08P
1	2	3	4	5	6	7
Number of Units (Lakh numbers)	15.91	16.97	17.53	18.71	20.98	24.68
Employment (Lakh persons)	264	275	288	300	313	322
Fixed Investment (Rupees crore)	1,69,913	1,79,306	1,85,821	1,96,186	2,13,219	2,38,975
Value of Output (Rupees crore)	3,14,850	3,64,547	4,29,796	4,97,842	5,85,112	6,95,126
Exports from MSMEs (Rupees crore)	86,013	97,644	1,24,417	1,50,242	1,77,600 P	n.a.

n.a.: Not Available. P : Provisional.
Source: Ministry of Micro, Small and Medium Enterprises, Government of India.

Box II.9
Industrial Performance – Select Economies

The financial markets turmoil that started in the US snowballed into a global economic crisis during 2008-09 spreading across the real and financial sectors of both developed and developing economies. Industrial output declined across the countries, although with varied intensity (Table A).

The US industrial production contracted by 2.2 per cent in 2008 as against a growth of 1.5 per cent in 2007. During the second quarter of 2009, overall industrial output in the US dropped at an annual rate of 13.2 per cent. The capacity utilisation rate for industry fell to a historical low of 69.3 per cent as at end-March 2009 from 80.5 per cent a year ago.

Industrial production in Japan contracted by 3.0 per cent in 2008 as compared to expansion of 2.8 per cent in 2007, reflecting increased adjustment pressures on inventories. Production registered a significant decline in the fourth quarter of 2008 (-14.3 per cent) due to negative contribution of industries such as transport equipment (excluding ships and rolling stocks), electronic parts and devices and general machinery. Shipments also decreased substantially by 11.8 per cent in the fourth quarter of 2008, led by capital goods. The production in the first quarter of 2009 contracted sharply by 33.5 per cent over the previous year which is the lowest level since the fourth quarter of 1983. Similar weakness was observed in the industrial output of Western Europe too. The weakness in the developed economies resonated in the performance of Emerging Market Economies (EMEs) led by the dismal industrial performance in China and Korea in 2008. Other EMEs like Malaysia and Brazil also put up a dismal show. Malaysia, an export-oriented economy, recorded a decelerated growth of 0.03 per cent in industrial production during 2008, as compared to 2.3 per cent in 2007, led by contraction in export oriented industries. Industrial production in Brazil also decelerated from 5.9 per cent in 2007 to 3.0 per cent in 2008 led by moderation in all sectors such as capital, intermediate and consumer goods production. Notably, the industrial growth in China rebounded with 5.1 per cent during first quarter of 2009 reflecting on massive fiscal stimulus and monetary easing.

In contrast to a decline in production of both developed and several other EMEs, India recorded a deceleration in industrial performance in 2008 because of the higher role of domestic demand in conditioning the growth process in India. The Index of Industrial Production registered a growth of 4.4 per cent during 2008, on account of higher domestic demand and the fiscal and monetary measures already implemented. The growth in industrialised sector, based on IIP decelerated in the first quarter (January-March) of 2009, but revived in the second quarter (April-June) of 2009. Thus, although industrial production in most of the countries declined at a rapid pace in 2008 and first quarter of 2009 under the impact of global recession, India's industrial production experienced deceleration at a relatively lower pace. Industrial growth during the second quarter of 2009 shows some improvement, led by China and India.

Table A: Industrial Performance of Developed and Developing Economies

(per cent)

	2006				2007				2008				2009	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2#
Developed Economies														
Japan	2.6	4.1	4.9	5.7	2.9	2.3	2.6	3.3	2.5	0.8	-1.3	-14.3	-33.5	-27.9
US	2.1	2.1	3.2	1.7	1.3	1.5	1.4	1.8	1.2	-0.3	-3.2	-6.6	-11.5	-13.2
UK	2.0	-0.5	0.2	1.5	-0.6	0.9	0.5	1.7	-0.3	-0.7	-1.7	-7.7	-12.7	-11.9
Germany	4.7	6.3	7.1	6.6	8.9	6.7	6.3	5.8	5.3	3.3	0.4	-7.6	-21.8	-19.2
Developing Economies														
China	-13.1	9.3	-0.2	-10.0	n.a	1.7	12.2	18.7	n.a	-13.1	-28.5	-63.3	5.1	9.0
South Korea	10.5	9.0	9.9	4.8	4.1	6.3	6.1	10.9	10.9	8.9	5.6	-11.3	-16.3	-6.1
Brazil	3.5	1.6	3.0	3.3	3.8	5.6	6.3	7.9	6.7	5.2	6.3	-6.1	-14.0	-12.3
Malaysia	5.2	5.5	4.3	3.2	0.6	1.8	2.1	4.5	5.9	3.1	0.2	-9.1	-16.3	-10.7
India	8.7	10.5	11.8	11.2	12.5	10.3	8.7	8.3	7.0	5.3	4.7	0.8	0.5	3.7

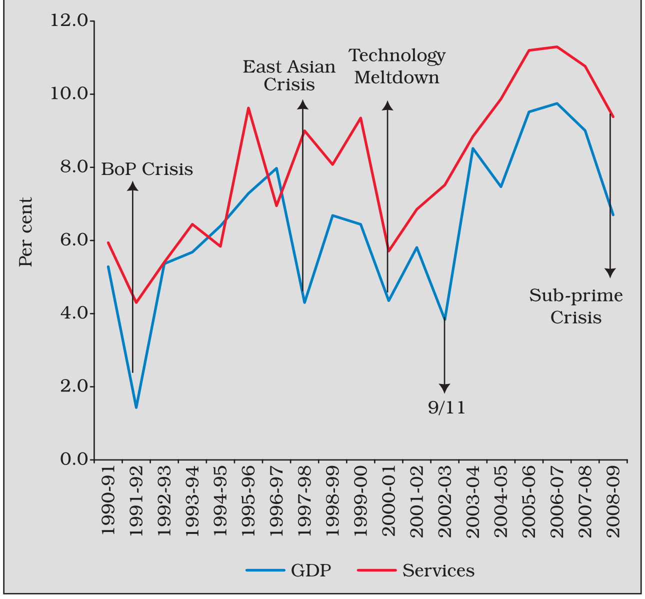
: Based on The Economist. n.a. : Not Available.
Source: International Financial Statistics and CSO.

Reference:

1. International Monetary Fund (2009), *World Economic Outlook*, April.
2. Bank of Japan (2009), *Monthly Report of Recent Economic and Financial Developments*, March.
3. Bank Negara Malaysia (2009), Economic and Financial Developments in Malaysia in the First and Fourth Quarter of 2009, *Overview,* May.

consumer goods output contracted by (-)0.1 per cent during the first quarter of 2009-10 as compared with a growth of 8.6 per cent during the corresponding period of the previous year due to the substantial decline in the production of consumer non-durables. The production of consumer durables increased by 15.0 per cent as compared with 3.5 per cent a year ago. The capital goods production increased by 1.0 per cent in April-June 2009 as compared with 7.9 per cent growth in April-June 2008. The core infrastructure sector recorded a higher growth of 4.8 per cent during April-June 2009 as compared with 3.5 per cent in the corresponding period of previous year. Various leading indicators of industrial production, both quantitative and qualitative, suggest that the downturn has been arrested and a pick-up is on the way forward.

Chart II.6: Growth trend in Services Sector



Services Sector

II.2.48 The services sector, which made rapid strides in growth in the Indian economy over the past few years, witnessed moderate slowdown in growth during 2008-09, owing to the contagion from the global economic downturn. Historically, services sector showed resilience during periods of overall growth slowdown in India since 1990-91. The growth in services sector has remained consistently higher than the overall growth in the economy except for two years. More importantly, as compared with rest of the economy, the services sector appears to have been less affected by the global financial crisis (Chart II.6).

II.2.49 The robust expansion in services output since 2004-05 has also been driven by services exports. While the direct contribution of global factors to the services sector output in India came from step-up in external demand for Indian services, the indirect contribution came through increasing globalisation and the resultant pressure on cost efficiency, which expanded the scope for outsourcing of business processes, activities and knowledge. Reflecting India's comparative advantage in the outsourcing market, the ratios of both gross and net services exports (service exports *minus* service imports) to services sector GDP accelerated significantly since 2004-05 with moderate decline in 2007-08 (Box II.10 and Chart II.7).

II.2.50 According to the estimates released by the CSO, the growth in real GDP originating from services sector moderated to 9.4 per cent during 2008-09 from 10.8 per cent in 2007-08. While services sector's share in GDP improved marginally from 63.0 per cent in 2007-08 to 64.5 per cent during 2008-09, its relative contribution to GDP growth increased significantly from 74.1 per cent to 88.2 per cent during the same period (Table 2.15).

II.2.51 The slowdown in global demand affects output of services sector, especially in emerging economies like India, through various channels (Box II.10). Moderation in the services sector growth during 2008-09 was largely confined to construction, trade, hotels, transport and communication, financing, insurance, real estate and business services. The sluggish condition in the real estate market, contraction in household disposable income and slowdown in project execution in the private sector operated as a drag on construction activities. Trade, hotels, transport and communication services were affected by global slowdown through reduced traffic related to business, commerce and tourism. In fact, the lower growth in commercial vehicles production,

Box II.10
Global Recession and the Services Sector

Prior to the onset of the sub-prime related global financial crisis, several emerging markets had witnessed high growth in services, particularly since the early 1990s. The share of services sector in aggregate GDP of the respective countries had also become dominant by the time the global recession started to affect the performance and prospects of this sector. The period following 1990s was marked by a new wave of services growth, particularly in the medium to high income countries that were seen to be democratic, open to trade, and situated relatively closer to the major global financial centres (Eichengreen and Gupta, 2009). In India, number of factors, *viz.,* growing integration with global economy, buoyancy in global services trade, skilled manpower, increasing tradability of services due to commensurate developments in information technology and liberalisation in the regulatory framework and economic environment contributed to the boom in services sector. The information technology revolution on a global scale in particular, created downstream demand for services like financial advices, auditing, accounting, legal, hospitality, brokerage, *etc.,* which also expanded the scope for cross-border trade in services. Since the early 1990s and particularly since 2003-04, there has been a compositional shift in services output in favour of exports driven by offshore demand, especially in hospitality, financial, and information technology sectors. The services sector, however, lost the momentum with weak external demand in the wake of the global downturn and its growth started slowing down from the first quarter of 2008-09 following through the entire year. However, slowdown in services sector was more pronounced during the fourth quarter of 2008-09. The slowdown mainly emanated from 'financing, insurance, real estate and business services' and 'trade, hotel, transport and communication services'.

Reflecting India's comparative advantage in the outsourcing market, the share of services exports in services sector GDP, which had increased from an average of 5.4 per cent during 1995-2000 to 15.0 per cent in 2006-07, declined moderately during 2007-08 but rose sharply to 21.6 per cent in 2008-09. Similarly, net services exports also increased from 0.8 per cent in 1995-2000 to the peak of 6.6 per cent in 2008-09. In fact, India recorded the second largest growth after China in the services sector among the major emerging market economies during the recent period (Table A).

Until the current global meltdown, it appeared that the global penetration in the services sector may continue and India could emerge as a global services hub. Given the unprecedented nature of the current crisis and the higher sensitivity of demand for services to decline in disposable income in relation to agriculture and manufacturing products, recovery in the services sector would critically depend on revival in domestic consumption and investment demand. The risk of global economic slowdown to services output in emerging countries like India arises from several channels besides decline in demand such as the slowdown in private capital flows and lower confidence in the financial systems, depressed business confidence, contraction in trading and commercial activities as well as sharper fall in income sensitive demand like knowledge outsourcing and tourism. It is often believed that the first round impact of the global contagion could be limited to the urban economy, as rural / semi-urban areas are not closely integrated into the services sector. There is a risk, however, that an intensified urban slowdown could lead to reverse migration of workers. The risk from the possible protectionist bias in OECD economies, under the pressure from job losses and taxpayers should also be reckoned. There have already been certain instances by some countries resorting to protectionist policies on outsourcing services to save their local businesses and jobs. At the same time, however, it is believed that cost cutting pressures to deal with recession may create added incentives for clients to move work offshore to emerging economies like India.

Table A: Performance of Services Sector in Emerging Markets

(Per cent)

Country	Services sector share in GDP			Services sector growth			GDP growth		
	2001-05	2006	2007	2001-05	2006	2007	2001-05	2006	2007
1	2	3	4	5	6	7	8	9	10
India	52	52	52	8.4	11.0	11.0	6.8	10.0	9.0
Brazil	65	65	66	2.8	4.0	6.0	2.8	4.0	5.0
Chile	56	49	49	4.2	5.0	6.0	4.2	4.0	5.0
China	40	40	40	10.0	12.0	13.0	9.4	12.0	13.0
Korea	56	57	58	4.0	4.0	5.0	4.6	5.0	5.0
Russia	59	57	57	6.4	10.0	10.0	6.0	7.0	8.0

Source: World Development Indicators, World Bank.

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1. Eichengreen, B. and P. Gupta (2009), "The Two Waves of Services Sector Growth." *NBER Working Paper* No. 14968.

2. Subbarao, D. (2009), "Impact of the Global Financial Crisis on India: Collateral Damage and response", *RBI Bulletin*, March.

Chart II.7: Services exports and GDP Originating from Services Sector

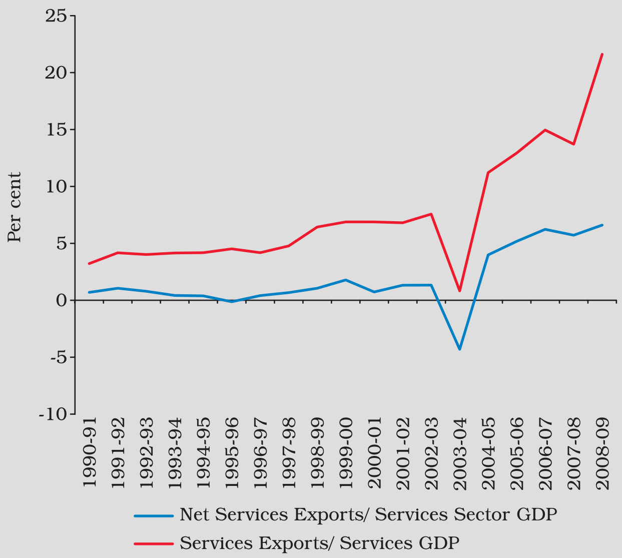


Table 2.16: Indicators of Services Sector Activity

(Growth rates in per cent)

Sub-sector	2006-07	2007-08	2008-09
1	2	3	4
Tourist arrivals	13.0	12.2	-2.5
Commercial vehicles production#	33.0	4.8	-24.0
Railway revenue earning freight traffic	9.2	9.0	4.9
New cell phone connections	85.4	38.3	44.8
Cargo handled at major ports	9.5	11.9	2.1
Civil aviation			
Export cargo handled	3.6	7.5	3.4
Import cargo handled	19.4	19.7	-5.7
Passengers handled at international terminals	12.1	11.9	3.8
Passengers handled at domestic terminals	34.0	20.6	-12.1
Cement **	9.1	7.8	7.5
Steel **	13.1	6.8	0.6

\# : Leading Indicator for transportation.
** : Leading indicators for construction
Source : Ministry of Tourism; Ministry of Commerce and Industry; Ministry of Statistics and Programme Implementation; Reserve Bank of India; and Centre for Monitoring Indian Economy.

railway revenue earning freight traffic, cargo handled at major ports and most of the indicators in the civil aviation sector reflects depressed internal and international trade during 2008-09 compared to previous year.

II.2.52 Despite having no direct exposure to the troubled assets in the advanced economies, the financing, insurance, real estate and business services exhibited sluggish performance, mainly on account of indirect effect of the financial crisis. Financial services recorded steep decline mainly due to significant correction in the capital market, following the international trends, heightened economic uncertainties and market expectations of a sluggish performance by the corporates. On the other hand, the growth in community, social and personal services accelerated, reflecting counter-cyclical fiscal measures and the Sixth Pay Commission payouts. All the major segments of services activity, with the exception of new cell phone connections, showed deceleration in growth or declined in 2008-09 (Table 2.16).

II.2.53 One of the most discernible fallout of current global meltdown is the contraction in industrial and services sectors, and the resultant significant loss

Table 2.15: Performance of the Services Sector

(Per cent)

Sub-sector	Growth Rate						2008-09 (RE)
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	
1	2	3	4	5	6	7	8
Trade, Hotels, Transport and Communication	9.4	12.0	10.7	12.1	12.8	12.4	9.0
Financing, Insurance, Real Estate and Business Services	8.0	5.6	8.7	11.4	13.8	11.7	7.8
Community, Social and Personal Services	3.9	5.4	6.9	7.0	5.7	6.8	13.1
Construction	7.9	12.0	16.1	16.2	11.8	10.1	7.2
Services Sector	**7.5**	**8.8**	**9.9**	**11.2**	**11.3**	**10.8**	**9.4**
Memo:							
Shares of Services in GDP	58.7	58.9	60.2	61.1	62.0	63.0.	64.5
Relative Contribution to GDP growth	111.1	60.9	77.7	70.8	70.8	74.1	88.2

RE: Revised estimates.
Source: Central Statistical Organisation.

of employment amidst growing uncertainty in the labour markets. If the recovery is delayed as anticipated by the IMF, scenario for the labour markets could be further disconcerting. The adverse employment effects of global slowdown remains a clear downside risk and a policy concern (Box II.11).

Box II.11
Effects of Global Recession on Unemployment in India

One of the serious ramifications of the global recession has been the rising unemployment and heightened uncertainty in the labour markets, particularly in the advanced countries. This has set off a vicious circle, whereby contraction in aggregate demand leads to higher unemployment and job market uncertainty, which in turn amplifies the rate of contraction in aggregate demand. In India, due to the dependence of a large section of the labour force on the agriculture sector for employment, the negative employment effect has been relatively moderate due to the resilient agricultural sector during 2008-09, but the adverse employment effects of a growth slowdown remains a policy concern. This explains the magnitude and nature of the stimulus measures already delivered by the Government, despite concerns about the available fiscal space in India.

Available scattered reports suggest that the employment intensive SMEs have been affected by the crisis and there is reverse migration from the urban to rural areas, thereby accentuating the vulnerabilities of rural population. Internationally, migrant workers' remittances are falling, contributing to a further deterioration in income/employment in remittance receiving economies. As the labour market recovery comes with considerable lags even after output picks up, a weak recovery of the global economy only in 2010 as projected by the IMF suggests grave implications for the employment scenario, with serious social and political consequences (ILO, April 2009).

According to the International Labour Office's (ILO) 'Global Employment Trends Report' released in May 2009, in all probabilities, there will be a sharp increase in the global unemployment in 2009, particularly in developing countries engaged in labour-intensive exports. Unemployment rate is estimated to rise up to 6.5 per cent in 2009 as compared with 5.7 per cent in 2007. In a worst case scenario it could rise up to 7.1 per cent (or 50 million people). The Report also estimated that the proportion of people in vulnerable employment could rise considerably in the worst case scenario to reach a level of 53 percent of the employed population. The unemployment level in South Asia was estimated at 32.2 million and it may vary between 32.6-32.1 million in 2009 depending upon the extent of slowdown. The Report also noted that over 2009 and 2010, an estimated 20.3 million additional jobs would be needed to absorb India's growing labour force. Women and young labour force could be affected the most. In fact, Indian workers in sectors with high exposure to the global market and which employ millions of women workers have already faced job cuts, particularly in civil aviation, textiles, leather and gems and jewellery sectors. The Report underlined the importance of public spending programmes that have high multiplier effect on employment.

In order to assess the unemployment situation in the context of the economic slowdown, the Ministry of Labour conducted two quick quarterly surveys for the period October-December 2008 and January-March, 2009 covering 21 centres (10 states/ UTs) and sectors such as mining, textiles, metals, gems and jewellery, automobiles, transport and IT/BPO covering more than 60 per cent of the GDP. The Reports observed that about half a million workers lost their jobs during October-December 2008 while employment increased by about half a quarter million during January-March 2009. The estimated employment in all the sectors declined from 16.2 million during September 2008 to 15.7 million in December 2008. The employment growth rate was placed at (-) 3.03 per cent during the third quarter of 2008-09 which improved somewhat during the quarter January-March 2009. Sector-wise, the decline in employment was observed in all the sectors, except for the IT/ BPO during October-December 2008 whereas sector like gems and jewellery, textiles, IT/ BPO, handloom/power-loom and automobiles posted rise in employment in January-March 2009.

The Government has undertaken several measures to promote growth in the sectors facing slowdown. Prominent among these are establishment of two new mega clusters for handlooms and carpets, interest subvention on pre-shipment credit for labour intensive export oriented sectors, enhanced ECGC cover and reduction in basic customs duty and service tax exemption to select exports. Enhanced allocation of resources for national flagship schemes such as National Rural Employment Guarantee Scheme (NREGS) (rise by144 per cent), Bharat Nirman (rise by 45 per cent), National Highway Development Programme (rise by 23 per cent), Jawaharlal Nehru Urban Renewal Mission (JNNURM) (rise by 87 per cent) is also likely to generate additional employment, particularly in unorganised sectors, both in rural and urban areas during 2009-10.

Reference:

1. Government of India (2008), *Report on Effect of Economic Slowdown on Employment in India.* October-December.
2. Government of India (2008), *Report on Effect of Economic Slowdown on Employment in India.* January-March.
3. International Labour Organisation (2009), *Global Employment Trends.* January.

II.2.54 The compositional shift in services output in favour of exports observed during the 1990s, became more discernable since 2003-04 with global integration driven by technology facilitating larger demand for Indian services onshore. However, the momentum was lost somewhat after the outbreak of the sub-prime crisis. Although services sector has placed itself on an impressive growth trajectory powered by internal demand, openness and integration with global economy rendered it difficult to remain completely decoupled from the global developments.

Developments during 2009-10

II.2.55 The lead indicators of services sector activity during the first quarter of 2009-10 suggest decline in growth momentum barring few segments. The trade-related services such as cargo handled at major sea and airports, and passengers handled at international terminals continued to show deceleration/negative growth during April-June 2009. Domestic activity-related services such as communication, construction and automobile segments show signs of upturn.

AGGREGATE DEMAND

II.2.56 The relative resilience of Indian growth in the face of a severe synchronised global recession has largely been ascribed to the relatively greater role played by the domestic demand as opposed to external demand in shaping the overall growth outcome in India. Domestic demand in the form of both consumption and investment continued to remain the main driver of the India's economic growth process in 2008-09. Consumption expenditure dominated the demand side of national income, accounting for 66.6 per cent share in GDP. Private final consumption expenditure (PFCE) accounted for 55.5 per cent, while government final consumption expenditure (GFCE) constituted 11.1 per cent of GDP in 2008-09. Gross capital formation accounted for 36.6 per cent of GDP during the same period (Table 2.17).

II.2.57 Given the significant importance of PFCE for GDP, it is notable that the growth rate of PFCE decelerated significantly to 2.9 per cent in 2008-09 from 8.5 per cent in 2007-08 (Table 2.18). Despite the moderation, this growth was much higher compared to the advanced economies, where private consumer expenditure almost stagnated — growing at only 0.6 per cent in 2008.

II.2.58 The growth in GFCE in India registered a sharp increase and more than doubled to 20.2 per cent in 2008-09 from 7.4 per cent in 2007-08, reflecting the pay out of the Sixth Pay Commission Award and other counter-cyclical fiscal stimulus measures. For the advanced economies as a whole, public consumption grew at the rate of 2.4 per cent in 2008 – up from 2.2 per cent in 2007.

Table 2.17: Demand Side of GDP-Shares@
(1999-2000 Prices)

(As percentage of GDP at Market Prices)

Item	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 QE	2008-09 RE
1	2	3	4	5	6	7	8	9
Total Final Consumption	76.7	75.6	73.6	71.5	69.8	67.6	67.0	66.6
Private Final Consumption Expenditure	64.5	63.9	62.5	60.9	59.5	57.7	57.2	55.5
Government Final Consumption Expenditure	12.2	11.7	11.1	10.6	10.3	9.9	9.8	11.1
Gross Domestic Capital Formation #	22.2	25.0	27.1	30.5	33.3	34.4	35.9 ^	36.6^
Net Exports	0	1.4	0.3	1.1	-2.5	-3.5	-4.4	-5.8

@ : Share may not add up to GDP due to statistical discrepancy.
QE : Quick Estimate. RE: Revised Estimate
: Adjusted for errors and omissions. ^: Gross Capital Formation.
Source: Central Statistical Organisation.

Table 2.18: Demand Side of GDP - Growth Rates #
(At 1999-2000 Prices)

(Per cent)

Item	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 QE	2008-09 RE
1	2	3	4	5	6	7	8	9
1. Total Final Consumption Expenditure	5.2	2.3	5.5	5.2	6.7	6.3	8.3	5.4
of which:								
(i) Private Final Consumption	5.7	2.8	6	5.5	6.8	6.4	8.5	2.9
(ii) Government Final consumption	2.3	-0.4	2.6	3.6	6.2	5.5	7.4	20.2
2. Total Investment +	-3.5	-2.9	17	19.9	19.5	19.4	10.9	8.3^
(i) Private Investment ++	4.1	18.4	14.4	24.6	19.6	13.6	12.9	n.a.
(ii) Public Investment ++	3	-7	8.3	14.7	21.5	14.7	24.6	n.a.
(iii) Valuables ++	-5.4	-4.2	66.6	57.2	-2.2	14.9	2.7	27.5
3. Total Fixed Investment	0	7.4	6.6	13.7	18.9	17.4	12.9	8.2
of which:								
(i) Private Fixed	8.9	8.9	14.6	23.6	17.5	13.1	10.8	n.a.
(ii) Public Fixed	3.6	1.3	10.8	5.2	18.1	19.3	19.7	n.a.
4. Exports	5.7	21.8	7.4	27.2	17.6	21.1	2.1	12.8
5. *Less* Imports	3.4	10.4	16.3	22.2	41.1	24.5	6.9	17.9

\# : Based on real GDP at market prices. QE : Quick Estimates RE: Revised Estimates.
\+ : Adjusted for errors and omissions. ^ : Gross Capital Formation ++ : Unadjusted for errors and omissions. n.a. : Not Available.
Note : 'Valuables' cover the expenditures made on acquisition of valuables, excluding works of art and antiques.
Source : Central Statistical Organisation.

II.2.59 Gross fixed capital formation contracted in most of the advanced economies in 2008. The growth rate of gross fixed capital formation in India decelerated sharply to 8.2 per cent in 2008-09 from 12.9 per cent in 2007-08. This is to be seen as a combination of financing constraints facing Indian enterprises, despite easy domestic liquidity conditions and on account of greater risk aversion among suppliers of finance, as well as a sharp downturn in investors' confidence that dampened investment demand. Increase in net exports gap in successive quarters of 2008-09 also had an adverse impact on overall GDP growth.

II.2.60 During 2008-09, there was a compositional shift within consumption expenditure. The contribution of PFCE to overall growth declined sharply to 27.0 per cent in 2008-09 from 53.8 per cent in 2007-08. On the other hand, the contribution of GFCE to overall growth increased to 32.5 per cent in 2008-09 from 8.0 per cent in 2007-08, partly offsetting the growth impact of deceleration in PFCE. As a result, the overall contribution of consumption demand to growth declined marginally to 59.5 per cent in 2008-09 from 61.8 per cent in 2007-08.

II.2.61 Predominance of domestic demand not only enabled India to maintain a relatively high growth in the wake of current global financial crisis and even during earlier episodes of crises, it has also been a key factor explaining as to why, in each of the past crises episodes, India's recovery has been faster than the world economy.

II.2.62 Trends in the sub-components of aggregate demand during past instances of major external shocks suggest decline in domestic investment expenditure has been key factor in lowering aggregate demand and the income growth. Variance decomposition results drawn through vector autoregression (VAR) estimates shows that although Indian economy is far more integrated in the recent period, it continues to be driven by domestic demand. Though impact of exports on investment expenditure is found to be positive and significant, in relative terms, it continues to be less significant than the impact of consumption expenditure (Box II.12).

Box II.12
Financial Crisis and Economic Growth: An Inter-temporal Perspective

Analysis of shocks has been an integral part of most assessments of growth dynamics and since the 1970s, the global economy has confronted with a spate of supply shocks. Literature distinguishes between demand and supply shocks, domestic and external shocks, country specific and global shocks, nominal (monetary) and real shocks, *etc*. According to the neoclassical school of thought, shocks cause unpredictable changes in short-run aggregate demand and supply and hence, induce fluctuations in the short-run growth rate.

If one takes into account the chronology of some of the global financial crises and their impact on select macroeconomic aggregates in India, one could notice a clear fall in the output and investment from the potential levels during the crisis. In India, the actual output (Y) remained below the potential output (Y*) only for three quarters during the Asian Crisis, five quarters during the dotcom bust, partly attributable to sharp fall in investment and below normal monsoon (Chart A).

The output-gap (*i.e.*, actual in relation to potential) in India increased to -30.8 per cent during the crisis led by dotcom burst in 2000 (Table A). As regards the current global crisis, it is still unfolding and, therefore, output loss cannot be captured fully. The possible effects of the global crisis on India's exports, investment and consumption and hence on overall growth, operating through dynamic interactions between trade, real and business confidence channels were assessed by estimating vector auto-regression (VAR) model for investment, export and consumption for the period 1996-97(Q1) to 2008-09(Q4). One major objective of such an assessment is to examine the extent to which exports (external demand) and consumption (domestic demand) influence the investment demand. Though the impact of exports on investment expenditure in India is found to be positive and significant, it continues to be relatively smaller than the impact of consumption expenditure. The Cholesky variance decomposition suggests that variation in investment explained by exports is small in relation to consumption.

Table A : Impact of Financial Crisis on Select Macroeconomic Variables

(Percentage of Potential)

Nature of Crisis	Period	PFCE gap	Investment Gap	Saving gap	GDP gap
1	2	3	4	5	6
East Asian Crisis	1997	-32.4	14.4	5.1	-27.7
	1998	28.8	-59.8	-52.5	10.7
Dotcom Burst	2000	-34.7	-92.7	-80.5	-30.8
Global Financial Crisis	2008				-18.9
	2008*				-22.9

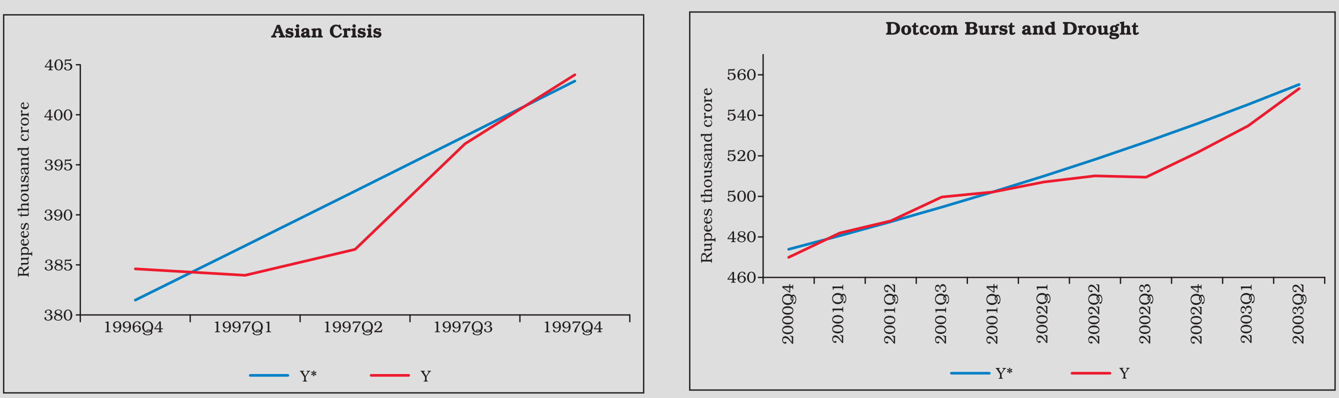
*: If the actual GDP growth is 6.6 per cent.

Note : HP Filter applied on growth rate to decompose growth into trend and cyclical components.

References

1. Bhattacharya B.B. and Kar Sabyasachi (2005), "Shocks, Economic Growth And The Indian Economy", www.imf.org/external/np/res/seminars/2005
2. Lucas, Robert E., Jr. (1988), "On the Mechanics of Economic Development", *Journal of Monetary Economics* 22(1), 3-42.
3. Pritchett, Lant (2000), "Understanding Patterns of Economic Growth: Searching for Hills among Plateaus, Mountains, and Plains", *The World Bank Economic Review* 14(2),221-50.
4. Rodrik, Dani (1999), "Where Did All the Growth Go?: External Shocks, Social Conflict, and Growth Collapses", *Journal of Economic Growth*, 4, 358-412.

Chart A: Movement in Potential and Actual Output



II.2.63 Growing global imbalances had been clearly recognised as a source of risk to the world economy much before the onset of the crisis, and post-crisis period may necessitate a serious rethinking on rebalancing the growth strategies taking into account the lessons from the crisis, without reversing the globalisation process. The need for rebalancing growth in several countries through appropriate policies could be necessary to enhance the resilience of countries to such shocks in future (Box II.13).

Saving and Capital Formation

II.2.64 The Indian economy has been witnessing an increasing trend in gross domestic saving since 2002-03, which reached a peak level by 2007-08, with improved performance of the private corporate sector and enhanced contribution of public sector, due to the progress made in fiscal consolidation. Gross domestic saving as per cent of GDP at current market prices increased from 35.7 per cent in 2006-07 to 37.7 per cent in 2007-08. The private

Box II.13
The Management of Economic Slowdown: Rebalancing of Growth

Prolonged global imbalances have been at the root of the current crisis. While inappropriate policies and regulatory frameworks in some countries contributed to the crisis, saving glut in some countries in the face of inadequate absorption capacity, and excessive consumption and investment in relation to domestic saving in some other also contributed to the imbalances. There is a broad emerging consensus now that rebalancing of growth is required in several countries to tackle the global crisis, overcome its adverse effects and also strengthen the resilience of the countries to future shocks. In the midst of the crisis, surplus countries in particular, could lead rebalancing the growth through higher expenditure to promote domestic demand growth. Country specific conditions like size of the domestic market, export dependence and potentials, fiscal space, income inequality, underlying causes of the current account status in balance of payments and several other economic factors could decide the path and speed of rebalancing.

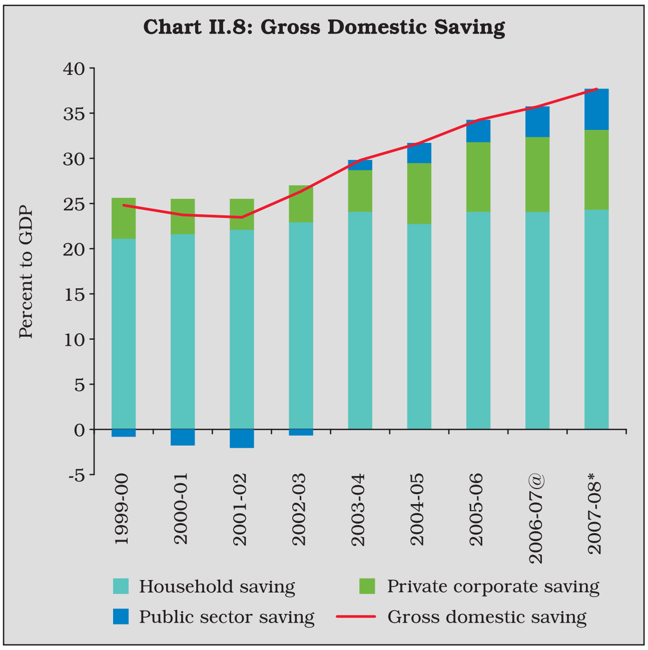
In its *Asian Development Outlook 2009*, the ADB suggested the following set of rebalancing policy measures for Asian countries to build strong demand and use resources more efficiently:

- Strengthening domestic consumption requires policies which transfer more corporate saving to households, as well as policies, which reduce the precautionary motive for saving among households.
- Governments should give priority to improving the investment climate rather than quantitative expansion of investment.
- A more active fiscal policy can mitigate weak external demand in the short-run as well as lay the foundation for a more robust domestic demand beyond the short run.
- Supply-side policies, which promote small and medium-sized enterprises and services industries, will increase the relative importance of production that caters to domestic demand.
- Policies pertaining to financial development and exchange rate will ease the adjustment of both supply and demand towards a more balanced structure.

Prasad (2009) noted that there are other aspects of potential growth imbalances that also need to be considered. For instance, whether the economy is driven by consumption or by investment determines the kind of measures that would be required for rebalancing growth. This has implications for growth in household labour income, employment and the overall welfare. Measures to rebalance growth suggested by Prasad include: (a) increasing spending on social safety nets and other government insurance mechanisms to reduce precautionary saving and boost consumption; (b) financial market development for more efficient risk sharing, inter-temporal smoothing of consumption and diversification of opportunities across income and assets; (c) improving financial system efficiency for optimal allocation of capital and efficient risk sharing which would promote entrepreneurial activity and employment; (d) enhancing financial inclusion for better consumption and saving patterns; (e) more flexible exchange rate regime that allows the exchange rate to respond to productivity growth differentials relative to trading partners, which could generate positive wealth effects through favourable terms of trade changes.

References:

1. Asian Development Bank (2009), *Asian Development Outlook.*
2. Prasad, Eswar (2009), *Rebalancing Growth in Asia.*
3. Blanchard, Olivier J and Giavazzi Francesco (2006), *Rebalancing Growth In China: A Three-Handed Approach,* CEPR Discussion Paper No. 5403.



corporate saving rate improved for the sixth consecutive year, reflecting better corporate performance and higher retained earnings. Saving of the household sector also increased, *albeit,* marginally. Public sector saving – which had witnessed a turnaround from dis-saving prior to 2003-04 to positive saving, was largely the result of higher savings of non-departmental as well as departmental enterprises, which recorded gradual but significant improvement in 2007-08 (Chart II.8).

II.2.65 While the domestic saving rate improved by 2.0 percentage points of GDP during 2007-08, domestic investment registered an increase of 2.2 percentage points of GDP. Domestic saving financed more than 95 per cent of investment, and the remaining, by capital flows. Domestic investment rate reached 39.1 per cent of GDP in 2007-08 from 36.9 per cent in 2006-07 (Table 2.19).

II.2.66 Estimation of gross domestic saving and investment have assumed immense significance in the recent times when the Indian economy is undergoing rapid structural changes in the income levels and the saving behaviour. The extent to which foreign capital should supplement domestic saving to ensure high growth without creating unsustainable pressures on the management of the external account has also become an important issue, given India's past experience as well as current lessons from the ramifications of large global imbalances. The Reserve Bank had suggested to the Government for the appointment of a High Level Committee to review the estimation procedures and place the estimation of household saving on a sound footing, including improving the methodology for compilation of saving and investment. Recognising the criticality of the issue, the Government of India appointed the *High Level Committee on Estimation of Saving and Investment* (Chairman: Dr. C. Rangarajan) which submitted its report on March 2, 2009 (Box II.14).

II.2.67 Preliminary estimates, based on latest available information, place financial saving (net) of the household sector in 2008-09 at 10.9 per cent of GDP at current market prices, which is lower than

Table 2.19: Gross Capital Formation
(at current market prices)

Per cent of GDP

	Sector	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08*
	1	2	3	4	5	6	7
1.	Household Sector	12.6	12.7	12.7	12.4	12.4	12.6
2.	Private Corporate Sector	5.9	6.8	10.8	13.7	14.8	15.9
3.	Public Sector	6.1	6.3	6.9	7.6	8	9.1
4.	Valuables	0.6	0.9	1.3	1.2	1.2	1.1
5.	Gross Domestic capital Formation (GDCF)#	25.2	27.6	32.1	35.5	36.9	39.1
6.	Net Capital Inflow	-1.2	-2.2	0.4	1.2	1.1	1.4

*: Quick Estimates. #: Adjusted for errors and omissions.
Source : Central Statistical Organisation.

Box II.14
Report of the High Level Committee on Estimation of Saving and Investment (Chairman: Dr. C. Rangarajan)

Background

At a time when Indian economy was going through a phase of robust economic growth, backed by rising domestic saving and investment as well as surge in capital inflows, the High Level Committee on Estimation of Saving and Investment (HLC) was constituted on December 12, 2007 under the Chairmanship of Dr. C. Rangarajan. The Committee addressed long list of Terms of References (ToRs) encompassing various compilation methodology and data issues. The HLC examined the feasibility of directly estimating household saving through integrated income and expenditure surveys; improvements in the methods and procedures used in the estimation of corporate investment and saving; new data bases, if any, to be devised/built-up for improving the reliability or checking validity of the estimates, *etc*.

Approach

The HLC followed a sector-wise approach and recommended shift to the extent possible from sample-based estimates of saving and investment to a census based estimates. The HLC also undertook discussions with apex institutions and the National Sample Survey Organisation (NSSO) and worked out trial estimates for some of the changes recommended. This was a contrast from the approach followed by the earlier Committees.

Major Recommendations

1. Household Saving

- The existing practice of indirect method of estimation of household saving may continue due to non-availability of an acceptable, practical and alternative method.
- Since households sector is a conglomerate entity consisting of both consumer and producer households with significant structural changes in its saving behaviour, the approach adopted by the HLC was to pave way for eventual introduction of periodical comprehensive income-expenditure surveys for the household sector.
- Combined with Enterprise Surveys, it is expected to provide direct estimation of household saving for the consumer households as is the practice in a number of advanced countries and also help in cross-validation of the present residual based estimates.

2. Private Corporate Sector Saving

- To replace the presently followed sample-based methodology of estimation of saving and investment using blow up factors by a census-based procedure.
- HLC in this regard is entering into an understanding with the Ministry of Corporate Affairs (MCA) to share their database under an E-Governance arrangement (MCA 21) on a regular basis to substantially improve the quality of the private corporate sector saving and investment.
- The HLC recommended that saving and investment estimates from the year 2010-11 may be made using MCA21 data for all companies, dispensing with the blow up factor method.

3. Public Sector Saving

- In the case of public sector saving, the HLC suggested for separate estimates of GDP, consumption expenditure, saving and capital formation for the Local Bodies and quasi/autonomous Government bodies by the CSO.
- The HLC's recommendation that a mechanism needs to be instituted to capture the annual accounts of the PPPs would ensure that the saving and investment estimates from these ventures are adequately captured.

Other Related Issues

- The HLC recommended compilation of flow-of-funds data in a more timely manner to consider different ratios including the ratio of households' cash holding on a more realistic basis. In view of the emerging importance of farmers and institutions like Non-Government Organisations (NGOs) and self-help groups (SHGs) in the financial system and also from the perspective of policy issues, the HLC recommended that such unincorporated non-profit institutions be treated as separate categories under households. Accordingly, there is need to capture these entities in the returns for deposits provided by banks to the Reserve Bank.
- In view of the inadequate provision made for manning the statistical wings with adequate number and quality of technical staff, the Committee has recommended strengthening of staff positions in the statistical wings of the Department of Company Affairs, the Department of Industrial Policy and Promotion and in the CSO, as also in the Reserve Bank, SEBI and NABARD.

the estimates for 2007-08 at 11.5 per cent (Table 2.20). Decline in the household investments in shares and debentures were the main factors responsible for the lower household financial saving in 2008-09. In addition, moderation in the overall growth rate in the economy in 2008-09 *vis-à-vis* the previous

Table 2.20 : Household Saving in Financial Assets

(Amount in Rupees crore)

Item	2006-07	2007-08 P	2008-09 #
1	2	3	4
A. Financial assets (Gross)	650,412	715,994	746,865
	(15.8)	(15.2)	(14.0)
	{100.0}	{100.0}	{100.0}
1. Currency	66,274	81,278	93,056
	(1.6)	(1.7)	(1.7)
	{10.2}	{11.4}	{12.5}
2. Deposits@	319,385	374,088	436,710
	(7.7)	(7.9)	(8.2)
	{49.1}	{52.2}	{58.5}
3. Claims on Government	19,198	-28,315	-23,479
	(0.5)	-(0.6)	-(0.4)
	{3.0}	-{4.0}	-{3.1}
4. Investment in shares and debentures+	58,598	89,134	19,349
	(1.4)	(1.9)	(0.4)
	{9.0}	{12.4}	{2.6}
5. Contractual savings**	186,957	199,809	221,228
	(4.5)	(4.2)	(4.2)
	{28.7}	{27.9}	{29.6}
B. Financial Liabilities	176,787	173,135	165,656
	(4.3)	(3.7)	(3.1)
C. Saving in financial assets (Net) (A-B)	473,624	542,859	581,209
	(11.5)	(11.5)	(10.9)

P : Provisional; # : Preliminary.
@ : Comprise bank deposits, non-bank deposits and trade debt (net).
+ : Including units of specified undertaking of the Unit Trust of India and other mutual funds.
** : Comprise 'life insurance funds' and 'provident and pension funds'.
Note : 1. Components may not add up to the total due to rounding off.
2. Figures in ( ) indicate per cent of GDP at current market prices and { } indicate per cent of financial assets (gross).

years might also have some adverse impact on the household financial saving. Household saving in other instruments, *viz.,* currency, deposits, contractual instruments and claims on government, however, remained broadly stable during the year. Financial liabilities of the household sector declined from 3.7 per cent of GDP in 2007-08 to 3.1 per cent of GDP in 2008-09, mainly on account of decline in loans and advances from banks. Decline in the gross financial assets far outpaced the decline in financial liabilities, resulting in lower net financial saving for the household sector during 2008-09.

II.2.68 After recording robust economic growth for five consecutive years, the Indian economy witnessed a marked moderation of real GDP growth during 2008-09, reflecting the impact of cyclical downturn in certain sectors to begin with but subsequently due to the adverse effects of the global recession. Despite the moderation, India's GDP growth remained one of the highest in the world. The impact of the deceleration in growth of industrial and services sectors during successive quarters of the year was somewhat off-set by the turnaround in agricultural and allied activities in the fourth quarter of the year. Indian agriculture, however, faces risks associated with global climate change, particularly because of the dependence on monsoon. In this context it is important to preserve India's food security while also enhancing agricultural productivity. During 2008-09, the deceleration in industrial output as measured by the IIP was broad-based, affecting all the three sectors, *viz.*, mining, manufacturing and electricity. The pace of deceleration, however, was relatively lower than in most countries. Services sector, which has been the main driver of economic growth, witnessed a moderate slowdown due to the contagion from the synchronised global economic slowdown. Intensification of the global economic slowdown and the resultant protectionist tendencies may affect the prospects of certain services, which though may not be significant because of the cost cutting pressures in these economies to deal with the recession.

II.2.69 While the greater role played by domestic demand provided some resilience to Indian economic growth in the face of the severe global recession, the significant deceleration in private consumption expenditure as well as moderation in investment demand required counter-cyclical fiscal stimulus measures. The growth in government final consumption expenditure, therefore, increased sharply to 20.2 per cent in 2008-09 which helped in cushioning the impact of the slowdown. Available information for 2009-10 indicate early signs of industrial recovery but the delay in the progress of monsoon could affect agricultural production and dampen the growth prospects. Stimulus measures directed at boosting consumption demand entails the risk of affecting medium-term growth prospects, if sustained longer, and hence, the timing of return to fiscal consolidation would be important in balancing the short-term needs of recovery and medium-term needs of sustainable high growth.

III. MONEY, CREDIT AND PRICES

II.3.1 The monetary and credit conditions in India showed phases of sharp shifts during 2008-09, reflecting the volatile developments in growth, inflation and financial markets, and the consequent policy responses. During 2008-09, while growth decelerated significantly in the second half of 2008-09, WPI inflation scaled above the 12 per cent level by August 2008 to subsequently decline sharply to below one per cent level by the end of the year, even though CPI inflation continued to remain firm. During the third quarter of 2008-09, the liquidity needs of the financial markets and financial institutions tested the liquidity management operations of the Reserve Bank. Reflecting the moderation in growth and associated subdued aggregate demand, credit growth also decelerated considerably by the end of the year. The nature and scale of these developments got reflected in the pattern of growth in monetary and credit aggregates during 2008-09.

II.3.2 In the early part of the year, the previously experienced pattern in terms of increase in net foreign assets of the Reserve Bank as a primary driver of expansion in reserve money continued. As capital outflows and the resultant interventions in the foreign exchange market led to contraction in net foreign assets of the Reserve Bank in the second half of the financial year, the impact on liquidity had to be more than offset by expansion in net domestic assets of the Reserve Bank, which became necessary to meet the growing demand for liquidity in the face of trickling contagion from the global financial crisis.

II.3.3 During 2008-09, net Reserve Bank credit to the Government became the key source for expanding the net domestic assets, and this option also coincided with a time when large fiscal stimulus had become necessary to contain the economic slowdown. Besides the policy induced compositional shifts on the asset side of the Reserve Bank's balance sheet, on the liability side also there were major policy driven changes, on account of reduction in reserve requirement and unwinding of Government's deposits under market stabilisation scheme (MSS) with the Reserve Bank. While both these measures expanded the liquidity available to the banking system and the Government, the combined effect amounted to contraction in Reserve Bank's balance sheet. Thus, unlike in many other countries where expansion in the central bank balance sheet size became the symbol of quantitative easing, the behaviour of the Reserve Bank's balance sheet reflected the policy driven expansion in liquidity through lower reserve requirements and unwinding of MSS on the liabilities side and increase in domestic assets to offset the impact of the contracting foreign assets on the assets side of the balance sheet.

II.3.4 The evolution of monetary aggregates in India during 2008-09, thus, has been consistent with the policy stance of the Reserve Bank and reflects the outcome of operations of the Reserve Bank on several fronts, aimed at ensuring adequate liquidity in the system, restoring orderly conditions in the markets and supporting faster recovery of growth in the face of subdued inflation.

Monetary Conditions in India

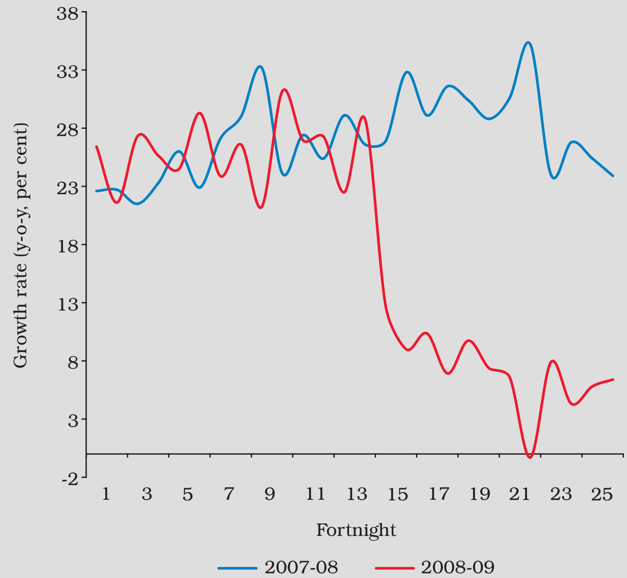
II.3.5 The large and exogenous capital inflows that remained the major driver of liquidity during the preceding years exhibited a notable turnaround in 2008-09 with the intensification of the global financial crisis. The expansion in bank credit in India also receded, reflecting the moderation in growth momentum from the third quarter of 2008-09. Accordingly, growth in monetary and liquidity aggregates during 2008-09 witnessed some moderation. Broad money growth during the last quarter of 2008-09 moderated reflecting slowdown in growth and aggregate demand. Expansion in bank credit to the commercial sector remained strong up to October 2008 in the backdrop of drying up of other sources of funds to industry, but decelerated subsequently and remained below the Reserve Bank's Third Quarter Review (January 2009) projection of 24.0 per cent for the year 2008-09. The contractionary impact of decline in net foreign exchange assets on reserve money and domestic liquidity was offset by purchases under open market operations (OMOs), unwinding of balances under MSS and other measures to augment rupee liquidity which gave rise to significant expansion in the net Reserve Bank credit to the Central Government. There was a significant turnaround in the net Reserve Bank credit to the Centre during 2008-09 as compared with the previous years.

RESERVE MONEY

II.3.6 Growth in reserve money during 2008-09 reflected the impact of monetary policy responses to the changing liquidity positions arising from domestic and global financial conditions. In terms of components, reserve money variation during 2008-09 was conditioned by the increase in currency in circulation and changes in cash reserve ratio (CRR) for banks. In view of the inflationary pressures in the beginning of 2008-09, the Reserve Bank initially raised CRR by 150 basis points during April-August 2008-09 to 9.0 per cent. Subsequently, in view of the contagion from the international financial turmoil and associated impact on the domestic monetary and liquidity conditions, particularly against the comfort of easing inflationary pressures, the Reserve Bank reduced CRR by a total of 400 basis points, since October 11, 2008. This reduction in CRR released primary liquidity of the order of Rs.1,60,000 crore into the banking system. Bankers' deposits with the Reserve Bank, as a result, contracted by 11.3 per cent during 2008-09 as against an increase of 66.5 per cent during 2007-08. Reserve money growth as on March 31, 2009 was 6.4 per cent (y-o-y) as compared with 31.0 per cent a year ago (Chart II.9). In the context of sharp changes in the CRR during 2008-09, for analytical purposes, use of reserve money growth adjusted for the first round impact of CRR changes is considered more appropriate (Box II.15). Adjusted for the first round effect of the changes in CRR, reserve money growth (y-o-y) as on March 31, 2009 was at 19.0 per cent as compared with 25.3 per cent a year ago.

II.3.7 The changes in CRR impacted the money multiplier, *i.e.,* the ratio between broad money and

Chart II.9: Reserve Money Growth



reserve money. The money multiplier, which had declined from 4.7 at end-March 2007 to 4.3 at end-March 2008 in the wake of CRR hikes, increased to 4.8 at end-March 2009, reflecting lowering of CRR. Money multiplier has exhibited much volatility during 2008-09. However, when money multiplier is calculated with respect to adjusted reserve money, as expected, it exhibits much greater stability (Chart A in Box II.15). The currency-deposit (C-D) ratio, which exhibited a general trend of moderation in last few years, increased somewhat in the recent period. This is a notable development, since a higher C-D ratio could potentially offset the impact of declining reserve requirement on the money multiplier. It is important to note that the declining trend in the C-D ratio has almost paused since September 2007 (*i.e.* the onset of sub-prime crisis), and there have been occasional increases in the C-D ratio, suggesting that despite high deposits growth, currency growth remained higher. The pattern in C-D ratio in 2008-09 could be largely explained by high inflation expectations, increased preference for liquidity in the face of heightened risk, besides 2008-09 also preceding a general election, which often could be associated with higher currency demand. In 2009-10, though, growth in currency clearly lags behind the growth in deposits.

Box II.15
Adjusted Reserve Money and Money Multiplier

Commercial banks' deposits with the Reserve Bank not only determine the size of the reserve money, but also serve as a base for multiple expansion of money in the banking system. By changing the reserve requirement, which is a conventional monetary policy tool, both reserve money and the money multiplier could be changed, though with opposite effects on the broad money. High or low growth in reserve money is often viewed with concern, even though such growth in reserve money might have been deliberately engineered through changes in the reserve requirement. Once the effects of policy induced changes in the reserve money are adjusted, the growth in adjusted reserve money may not appear significantly volatile. That has been the case in India in 2008-09, when the Reserve Bank first increased CRR by 150 basis points up to August 2008 and reduced thereafter by 400 basis points, leading to large fluctuation in the reserve money. As a result, while the reserve money exhibited a high growth of 34.1 per cent as on October 3, 2008 the growth rate fell sharply to 6.4 percent by the end March 2009. But for the policy driven changes to the reserve requirement, the reserve money growth would have been conditioned by the non-policy related factors such as the currency growth and the excess reserves, which depend on the behaviour of the public and the commercial banks, respectively. Adjusted reserve money, as a concept, thus makes the money multiplier invariant to changes in the reserve requirement. When such concept of adjusted reserve money is used, the multiplier should also be adjusted correspondingly by taking only factors other than the reserve requirement in arriving at the multiplier.

The adjusted reserve money could be defined as:

Adjusted RM: RM – $(r_t - r_0)$ NDTL

Where r_t is current CRR, r_0 is initial benchmark CRR and NDTL is net demand and time liabilities relevant for the purpose of computation of CRR. If CRR is changed over a period of time in bi-directional way, then a judgement about the initial benchmark CRR would be required.

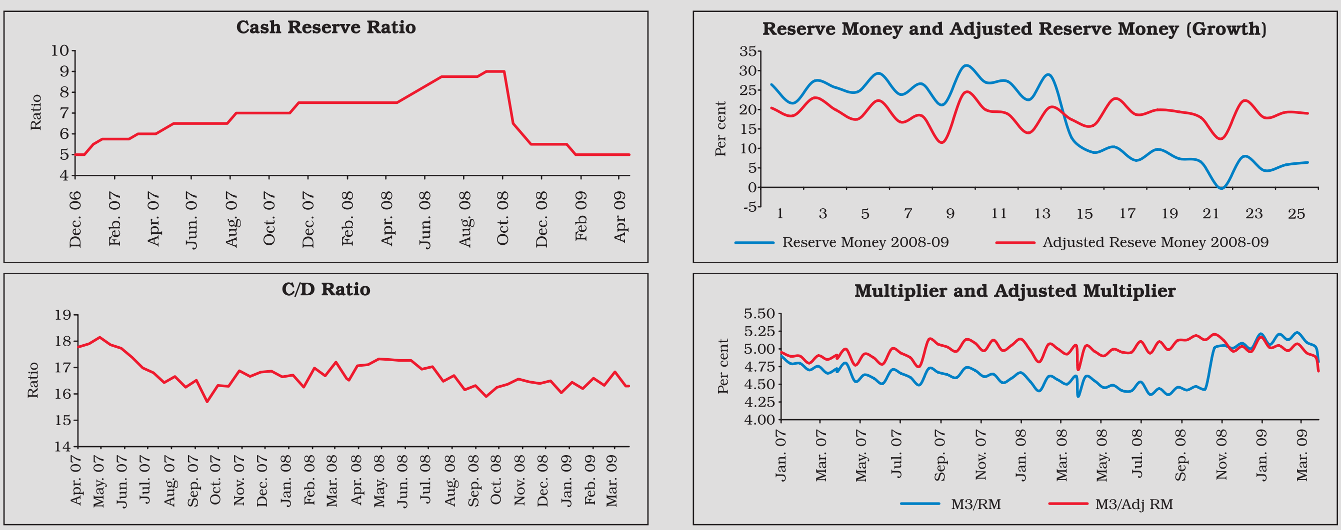
According to the behavioural definition of broad money multiplier (m), it is a function of CRR (r) and currency-deposits (c) ratio [$m = (1+c)/(c + r)$]. Though CRR, as a policy variable, is controlled by the central bank, the 'c' is a behavioural ratio and could be expected, in the short run, to be influenced by income, interest rate, risk perception of the investors, and in the long run, by institutional factors like monetisation of the economy and development of non-money substitutes in the form of liquid financial assets as well as non-cash substitutes in the form of debit/credit cards. In the Indian context, the 'c' ratio has witnessed a secular declining trend since 1970s. However, in recent years, currency growth has been somewhat higher than the high deposits growth and therefore the 'c' ratio has recorded some increase since August 2007, although with some variation. Since the multiplier is inversely related to both 'r' and 'c', when c increases somewhat in the face of policy drawn reduction in 'r' that could partly offset the expansionary effects of the policy on broad money. The secular decline in 'c' ratio since 1970, with the change in banking habits of the people after bank nationalisation and financial deepening have resulted in a higher money multiplier in India.

The panel chart A in this box presents the behaviour of the multiplier (m) during 2008-09, which is quite volatile. The multiplier with the adjustment for the first round effect of CRR changes in the reserve money, however, exhibits higher stability and explains the need for the use of adjusted reserve money for analytical purposes. This result also reveals the crucial role of the 'c' ratio in monetary management that could alter both reserve money and the multiplier.

Reference

1. Reserve Bank of India (1998), The Report of the Third Working Group on "Money Supply: Analytics and Methodology of Compilation". Mumbai, June.

Chart A: Adjusted Reserve Money and Money Multiplier



II.3.8 Monetary management during 2008-09 was dominated by the response to the spillover effects of global financial crisis and the need to address slackening of domestic demand conditions, especially during the second half of the year. As the Reserve Bank had to provide foreign exchange liquidity to meet the demand from importers and contain excess volatility arising out of capital outflows by the foreign institutional investors, its net foreign exchange assets (NFEA) declined. The contractionary impact of decline in net foreign exchange assets on reserve money and domestic liquidity was offset by expansion of net domestic assets through purchases under open market operations (OMO), unwinding of balances under MSS and other measures to augment rupee liquidity. Therefore, on the sources side of the reserve money, in contrast to the preceding years, net foreign exchange assets (adjusted for valuation) declined substantially during 2008-09 while net Reserve Bank credit to the centre increased (Table 2.21, Appendix Table 13 and 14).

Table 2.21 : Reserve Money – Variations

(Amount in Rupees crore)

Item	Outstanding as on Mar 31, 2009	2007-08	2008-09	2008-09			
				Q1	Q2	Q3	Q4
1	2	3	4	5	6	7	8
Reserve Money	9,88,001	2,19,412	59,698	3,416	25,218	-70,452	1,01,516
		(31.0)	(6.4)				
Adjusted Reserve Money	10,15,751	1,72,412	1,61,948	-24,584	-4,532	69,548	1,21,516
		(25.3)	(19.0)				
Components (1+2+3)							
1. Currency in Circulation	6,91,153	86,702	1,00,352	36,859	-14,516	38,277	39,733
		(17.2)	(17.0)				
2. Bankers' Deposits with RBI	2,91,275	1,31,152	-37,172	-29,333	39,219	-1,15,773	68,714
		(66.5)	(-11.3)				
3. 'Other' Deposits with the RBI	5,573	1,558	-3,482	-4,110	514	7,045	-6,931
		(20.8)	(-38.5)				
Sources (1+2+3+4-5)							
1. RBI's net credit to Government	61,580	-1,15,632	1,74,789	-13	51,360	30,230	93,212
of which: to Centre (i+ii+iii+iv-v)	61,761	-1,16,772	1,76,397	1,430	51,379	29,932	93,657
i. Loans and Advances	0	0	0	0	0	0	0
ii. Treasury Bills held by the RBI	0	0	0	0	0	0	0
iii. RBI's Holdings of Dated Securities	1,57,389	17,421	42,796	-39,239	56,975	-44,206	69,266
iv. RBI's Holdings of Rupee Coins	99	121	-34	-1	-26	27	-33
v. Central Government Deposits	95,727	1,34,314	-1,33,635	-40,670	5,570	-74,111	-24,424
2. RBI's Credit to Banks and Commercial Sector	24,177	-2,794	17,799	-3,358	4,963	5,032	11,163
3. NFEA of RBI	12,80,116	3,69,977	43,986	1,03,932	10,336	-1,56,330	86,048
		(42.7)	(3.6)				
of which : FCA, adjusted for valuation		3,70,550	-1,00,308	15,535	-31,641	-92,102	7,900
4. Governments' Currency Liabilities to the Public	10,054	1,063	831	225	206	186	213
5. Net Non-Monetary liabilities of RBI	3,87,927	33,202	1,77,706	97,369	41,648	-50,431	89,120
Memo:							
Net Domestic assets	-2,92,115	-1,50,565	15,712	-1,00,516	14,882	85,878	15,468
LAF- Repos (+) / Reverse Repos(-)	-1,485	21,165	-51,835	-45,350	51,480	-62,170	4,205
Net Open Market Sales # *	-	-5,923	-94,548	-8,696	-10,535	-7,669	-67,649
Centre's Surplus	16,319	26,594	-60,367	-42,427	6,199	-32,830	8,691
Mobilisation under the MSS	88,077	1,05,418	-80,315	6,040	-628	-53,754	-31,973
Net Purchases(+)/Sales(-) from Authorised Dealers	-	3,12,054	-1,78,592	3,956	-52,761	-1,11,877	-17,910
NFEA/Reserve Money @	129.6	133.2	129.6	143.8	141.1	134.7	129.6
NFEA/Currency @	185.2	209.2	185.2	213.5	220.2	183.3	185.2

NFEA: Net Foreign Exchange Assets. FCA: Foreign Currency Assets. LAF: Liquidity Adjustment Facility.
*: At face value. # : Excludes Treasury Bills @ : Per cent; end of period

Note: 1. Data are based on March 31 for Q4 and last reporting Friday for all other quarters.
2. Figures in parentheses are percentage variations during the fiscal year.

Net Reserve Bank's credit to the Centre during 2008-09 increased by Rs.1,76,397 crore as against a decrease of Rs.1,16,772 crore during the corresponding period of the previous year (Chart II.10). The Reserve Bank's foreign currency assets (adjusted for valuation) decreased by Rs.1,00,308 crore as against an increase of Rs.3,70,550 crore during the corresponding period of the previous year. On the sources side, it may be noted that marketable securities held by the Reserve Bank (which include both OMOs and LAF) did not increase significantly. Since the period following November 2008, the liquidity released through relatively sharp unwinding of the MSS has also partly been offset by the banks resorting to reverse repos (despite a 2.75 percentage points reduction in reverse repo rate since December 8, 2008), indicating a lower credit off-take and availability of adequate surplus liquidity in the banking system.

II.3.9 The MSS was mainly introduced as an innovative sterilisation instrument to absorb excess liquidity in the period of large capital inflows. It also gave the monetary policy the much needed flexibility, even in the period of capital outflows, as simply by unwinding the balances under MSS, domestic liquidity could be expanded.

Developments during 2009-10

II.3.10 Reserve money year-on-year (y-o-y) declined by 2.8 per cent as on August 14, 2009 as compared with an increase of 31.2 per cent, a year ago. Adjusted for the first round effect of the hike in CRR, reserve money growth was 14.7 per cent as compared with 24.4 per cent a year ago. The Reserve Bank's foreign currency assets (adjusted for valuation), on a y-o-y basis, decreased by Rs.71,658 crore as against an increase of Rs.2,51,201 crore a year ago. The Reserve Bank's net credit to the Centre increased by Rs.80,507 crore as compared with an increase of Rs.6,125 crore a year ago.

MONETARY SURVEY

II.3.11 Broad money (M_3) growth (y-o-y) was at 18.6 per cent at end-March 2009, lower than 21.4 per cent a year ago (Chart II.11, Table 2.22 and Appendix Table 15). Expansion in the residency-based new monetary aggregate (NM_3) – which does not directly reckon non-resident foreign currency deposits such as FCNR(B) deposits – was lower at 18.2 per cent (y-o-y) at end-March 2009 than 21.6 per cent a year ago. Similarly growth in liquidity aggregate, L_1, was lower at 17.7 per cent than 20.9 per cent a year ago (Appendix Table 16 and 17).

Chart II.10: Important Sources of Reserve Money Variation

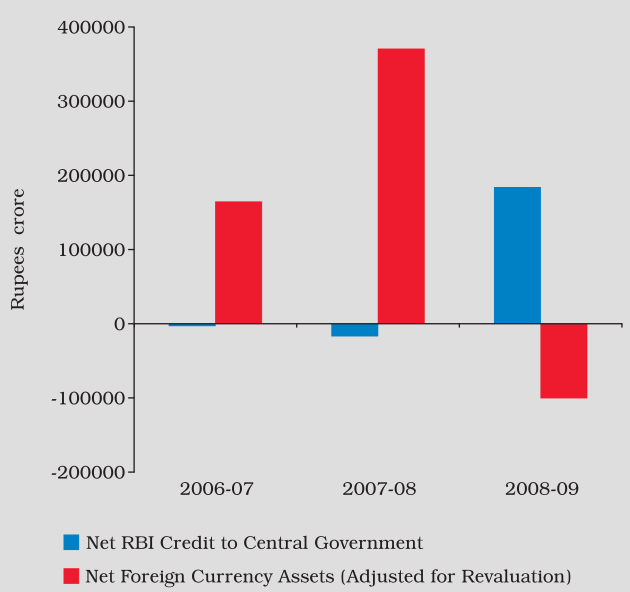


Chart II.11: Broad Money Growth

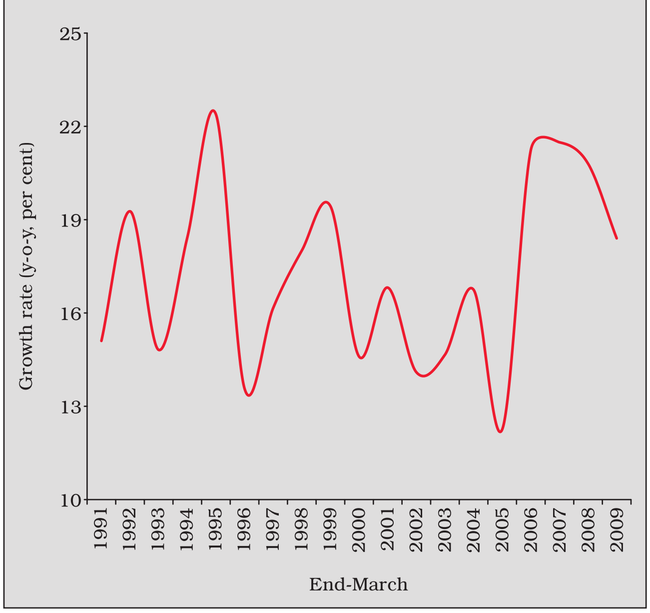


Table 2.22: Monetary Indicators

(Amount in Rupees crore)

Item	Outstanding as on March 31, 2009	Variation (year-on-year)			
		Mar 31, 2008		March 31, 2009	
		Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6
I. Reserve Money	9,88,001	2,19,412	31.0	59,698	6.4
(Adjusted Reserve Money)		1,72,412	25.3	1,61,948	19.0
II. Narrow Money (M_1)	12,53,184	1,87,882	19.4	97,347	8.4
III. Broad Money (M_3)	47,64,019	7,07,815	21.4	7,46,136	18.6
a) Currency with the Public	6,66,364	85,556	17.7	97,953	17.2
b) Aggregate Deposits	40,92,083	6,20,701	22.0	6,51,665	18.9
i) Demand Deposits	5,81,247	1,00,768	21.1	2,875	0.5
ii) Time Deposits	35,10,835	5, 19,933	22.2	6,48,790	22.7
of which: Non-Resident Foreign Currency Deposits	67,268	-10,525	-15.6	10,332	18.1
IV. NM_3	47,81,333	7,19,019	21.6	73,73,93	18.2
of which: Call Term Funding from FIs	1,13,936	20,668	24.1	7,432	7.0
V. a) L_1	48,95,354	7,18,321	20.9	7,36,563	17.7
of which: Postal Deposits	1,14,021	-698	-0.6	-830	-0.7
b) L_2	48,98,286	7,18,321	20.9	7,36,563	17.7
c) L_3	49,22,933	7,19,154	20.7	7,36,358	17.6
VI. Major Sources of Broad Money					
a) Net Bank Credit to the Government (i+ii)	12,77,199	71,891	8.7	3,77,681	42.0
i) Net Reserve Bank Credit to Government	61,580	-1,15,632	-	1,74,789	-
of which: to the Centre	61,761	-1,16,772	-	1,76,397	-
ii) Other Banks' Credit to Government	12,15,619	1,87,523	22.7	2,02,892	20.0
b) Bank Credit to the Commercial Sector	30,13,337	4,50,127	21.1	4,34,347	16.8
c) Net Foreign Exchange Assets of the Banking Sector	13,52,184	3,81,952	41.8	57,053	4.4
d) Government Currency Liability to Public	10,054	1,063	13.0	831	9.0
e) Net Non-Monetary Liabilities of the Banking Sector	8,88,754	1,97,219	34.7	1,23,775	16.2
Memo:					
Aggregate Deposits of SCBs	38,34,110	5,85,006	22.4	6,37,170	19.9
Non-food Credit of SCBs	27,29,338	4,32,846	23.0	4,11,824	17.8

SCBs: Scheduled Commercial Banks. FIs: Financial Institutions. NBFCs: Non-Banking Financial Companies.

NM_3 is the residency-based broad money aggregate and L_1, L_2 and L_3 are liquidity aggregates compiled on the recommendations of the Working Group on Money Supply, 1998.

$L_1 = NM_3$ + Select deposits with the post office saving banks.

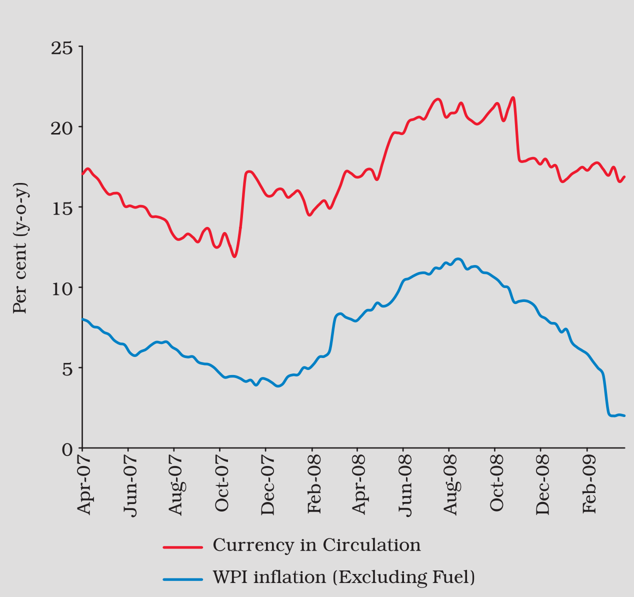
$L_2 = L_1$ +Term deposits with term lending institutions and refinancing institutions + Term borrowing by FIs + Certificates of deposit issued by FIs.

$L_3 = L_2$ + Public deposits of NBFCs.

Note: 1. Data are provisional. Wherever data are not available, the data for last available month are repeated as estimates.

II.3.12 The moderation in broad money (M_3) growth mainly reflected a deceleration in aggregate deposits expansion during 2008-09 in response to the downturn in economic activity. Currency with public remained high during the first half of 2008-09 reflecting the effects of disbursement under Farmers' Debt Waiver Scheme and the Sixth Pay Commission payouts along with higher inflationary situation prevailing during that period (Chart II.12). Expansion in currency started moderating from the third quarter reflecting moderation in economic activity. Currency with the public grew by 17.2 per cent (y-o-y) at end-March 2009 as compared with 17.7 per cent a year ago. The pattern of fortnightly

Chart II.12: Currency in Circulation and WPI Inflation



variation in currency in circulation, however, remained more or less similar in 2007-08 and 2008-09 (Chart II.13).

II.3.13 Growth in time deposits decelerated during the first two quarters of 2008-09 but witnessed robust expansion thereafter reflecting some switching from demand deposits and other savings instruments to time deposits. With depressed equity markets, increase in risk perception in the face of snowballing uncertainty and risk free high interest rates still available on time deposits, motivated investors to shift their financial savings to time deposits during the third quarter of 2008-09. The expectations of near-term decline in interest rates also contributed to the compositional shift in deposits in favour of term-deposits. Time deposits recorded a higher growth of 22.7 per cent (y-o-y) at end-March 2009 as compared to 22.2 per cent a year ago (Chart II.14). Accordingly, demand deposits recorded a marginal growth (0.5 per cent) as against a robust growth in the previous year (21.1 per cent). The net outflows from small savings schemes that started from December 2007 continued up to March 2009, the period for which the latest data are available (Chart II.15).

II.3.14 On the sources side of broad money (M_3), growth in bank credit to the commercial sector decelerated and expansion in net foreign exchange assets of the banking sector moderated to a large extent during 2008-09. On the other hand, net Reserve Bank credit to the Centre increased reflecting the decline in outstanding balances under MSS, increase in purchases under open market operations (including purchase of oil bonds under

Chart II.13: Fortnightly Variation in Currency in Circulation

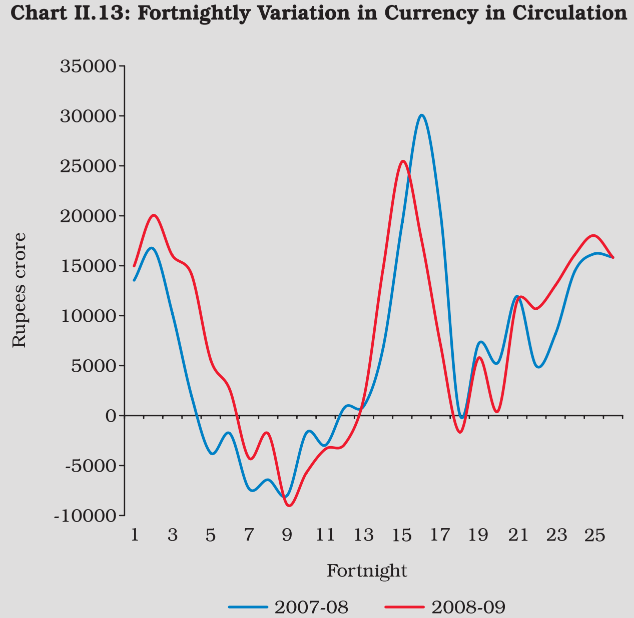


Chart II.14: Time Deposits Growth

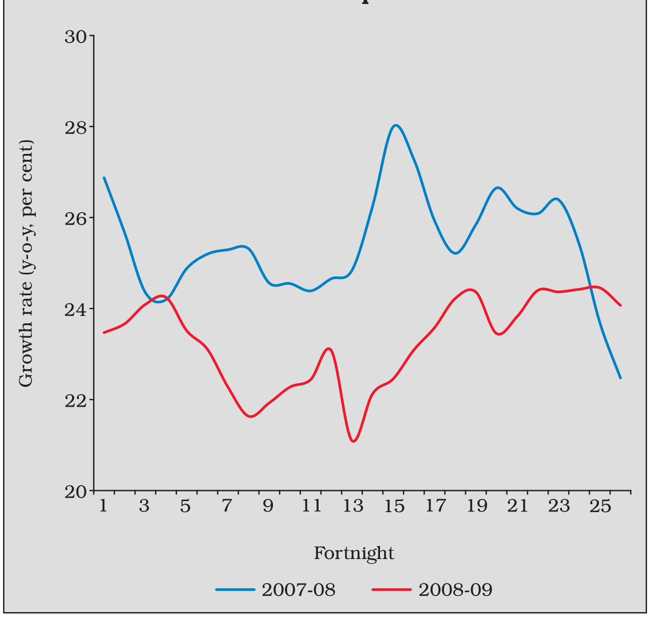
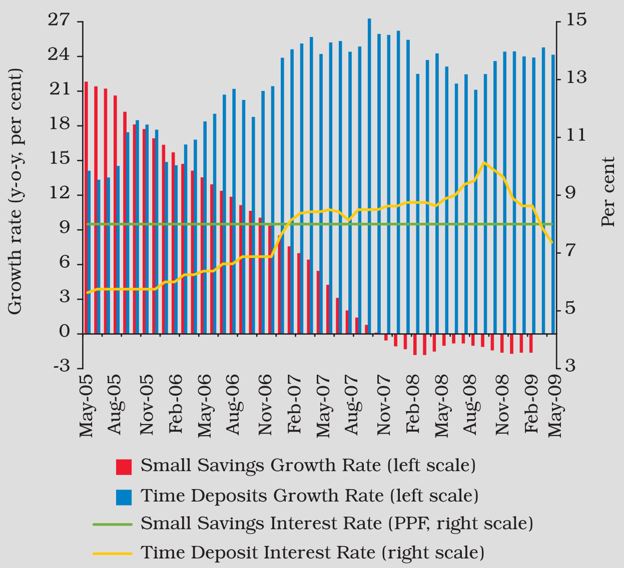


Chart II.15: Time Deposits and Small Savings



special market operations) and decline in the Centre's surplus balances with the Reserve Bank. However, growth in scheduled commercial banks' (SCBs) credit to the Government witnessed some moderation during this period. Bank credit to the commercial sector expanded by 16.8 per cent (y-o-y) at end-March 2009 as compared to 21.1 per cent a year ago.

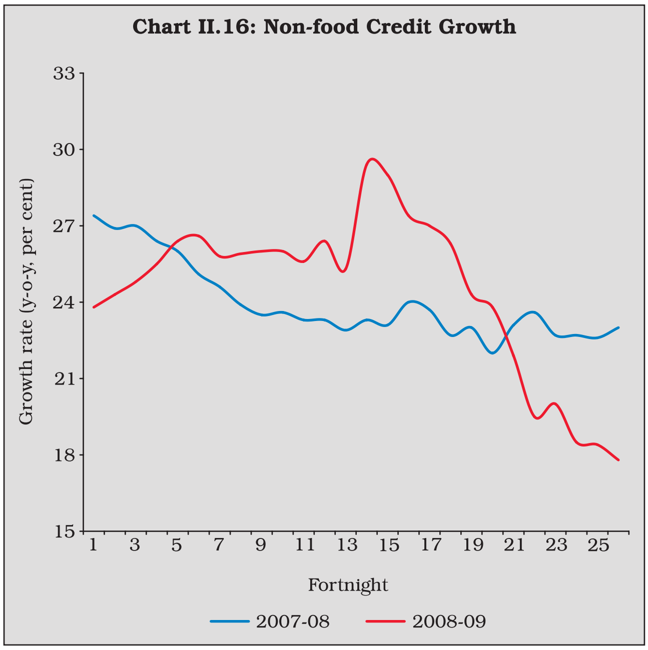
II.3.15 During 2008-09, the growth in non-food bank credit (year-on-year basis) decelerated from a peak of 29.4 per cent in October 2008 to 17.8 per cent by March 2009 (Table 2.23, Appendix Table 18 and 19, Chart II.16). At this rate, non-food credit expansion was lower than that of 23.0 per cent in 2007-08 as also the indicative projection of 24.0 per cent set in the Third Quarter Monetary Policy Review of January 2009. The intra-year changes

Table 2.23: Operations of Scheduled Commercial Banks

(Amount in Rupees crore)

Item	Outstanding as on March 27, 2009	2007-08	2008-09	Variations during 2008-09 Q1	Q2	Q3	Q4
1	2	3	4	5	6	7	8
C.I. Aggregate Deposits of Residents (C.I.1+C.I.2)	37,66,842	5,95,531	6,26,838	53,155	1,83,287	1,11,471	2,78,925
C.I.1 Demand Deposits	5,23,085	94,579	-1,225	-77,630	52,219	-60,449	84,635
C.I.2 Time Deposits of Residents (C.I.2.1+C.I.2.2)	32,43,757	5,00,952	6,28,063	1,30,785	1,31,068	1,71,920	1,94,290
C.I.2.1 Short-term Time Deposits	14,59,691	2,25,429	2,82,628	58,853	58,980	77,364	87,430
C.I.2.1.1 Certificates of Deposits	6,24,427	69,200	4,57,785	-2,527	3,418	-18,045	4,74,940
C.I.2.2 Long-term Time Deposits	17,84,067	2,75,524	3,45,435	71,932	72,087	94,556	1,06,859
C.II. Call/Term Funding from Financial Institutions	1,13,936	20,668	7,432	-1,116	7,015	-685	2,217
S.I. Domestic Credit (S.I.1+S.I.2)	41,51,147	6,41,799	6,43,388	73,716	1,11,296	2,25,311	2,33,064
S.I.1 Credit to the Government	11,55,786	1,82,603	1,97,124	33,245	-19,641	99,566	83,955
S.I.2 Credit to the Commercial Sector (S.I.2.1+S.I.2.2+S.I.2.3+S.I.2.4)	29,95,361	4,59,196	4,46,264	40,471	1,30,938	1,25,746	1,49,109
S.I.2.1 Bank Credit	27,75,549	4,30,724	4,13,636	31,325	1,57,787	92,708	1,31,815
S.I.2.1.1 Non-food Credit	27,29,338	4,32,846	4,11,824	25,577	1,62,758	85,774	1,37,714
S.I.2.2 Net Credit to Primary Dealers	1,671	721	-1,850	-797	-1,174	1,520	-1,400
S.I.2.3 Investments in Other Approved Securities	10,624	-2,405	-2,429	-194	-567	-1,360	-309
S.I.2.4 Other Investments (in non-SLR Securities)	2,07,517	30,155	36,907	10,136	-25,109	32,877	19,003
S.II. Net Foreign Currency Assets of Commercial Banks (S.II.1-S.II.2-S.II.3)	-53,359	-29,585	16,837	-19,924	-5,564	33,708	8,618
S.II.1 Foreign Currency Assets	55,312	-27,564	24,123	-8,383	2,934	24,151	5,421
S.II.2 Non-resident Foreign Currency Repatriable Fixed Deposits	67,268	-10,525	10,332	2,048	3,898	-2,323	6,710
S.II.3 Overseas Foreign Currency Borrowings	41,404	12,546	-3,047	9,494	4,600	-7,234	-9,907
S.III. Net Bank Reserves (S.III.1+S.III.2-.III.3)	2,46,748	81,050	-24,418	28,526	35,997	-1,16,193	27,252
S.III.1 Balances with the RBI	2,38,195	76,900	-18,927	24,277	36,902	-1,08,427	28,321
S.III.2 Cash in Hand	20,281	1,905	2,237	1,861	3,577	-2,226	-974
S.III.3 Loans and Advances from the RBI	11,728	-2,245	7,728	-2,388	4,482	5,539	94
S.IV. Capital Account	3,32,444	69,821	59,822	47,618	4,932	3,043	4,230
S.V. Other Items (net) (S.I+S.II+S.III-S.IV-C.I-C.II)	1,31,313	7,244	-58,285	-17,339	-53,506	28,998	-16,437

Note : Data relate to the last reporting Friday of each quarter.



in credit flow could be attributed to several factors. First, the demand for bank credit increased sharply during April-October 2008 as corporates found their access to external sources of credit constrained, and shifted that demand to domestic credit. Second, there was a sharp increase in credit to oil marketing companies by Rs.36,208 crore during April-October 2008 as compared to a decline of Rs.1,146 crore in the corresponding period of the previous year. In the subsequent period, however, the demand for credit moderated reflecting the slowdown of the economy in general and the industrial sector in particular. Working capital requirements had also come down because of decline in commodity prices and drawdown of inventories by the corporates. The demand for credit by oil marketing companies also moderated. In addition, substantially lower credit expansion by private and foreign banks also muted the overall flow of bank credit during the year (Table 2.24). The lower expansion in credit relative to the expansion in deposits resulted in a decline in the incremental credit-deposit ratio (y-o-y) of SCBs to 64.9 per cent at end-March 2009 from 73.6 per cent a year ago.

II.3.16 Bank credit growth, which had started moderating from 2006 onwards, witnessed large deceleration during 2008-09. With moderation in credit growth as well as slowdown in GDP, credit-GDP ratio during 2008-09 remained almost at the same level as a year ago. Bank credit to GDP ratio that increased from 30 per cent at end-March 2000 and 47 per cent at end March 2006 to 51 per cent at end-March 2007 and further to 55 per cent at end-March 2008 remained at 56 per cent at end-March 2009. Bank's investment in government securities increased in consonance with increase in time deposits (Chart II.17).

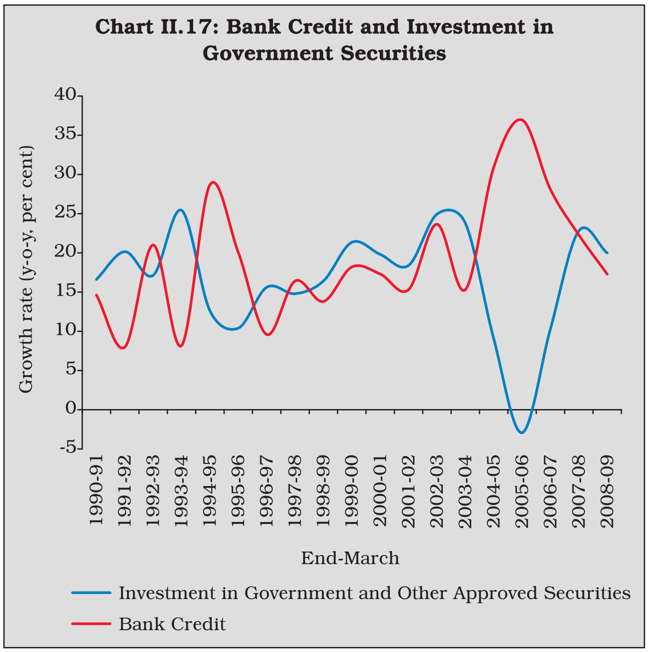
II.3.17 During 2003-04 to 2008-09, Indian economy experienced an average real GDP growth of 8.5 per cent, average WPI inflation of 5.8 per cent and average money supply growth of 17.9 per cent. Growth and inflation conditions, however, changed significantly during the course of 2008-09, and the broad money growth at 18.6 per cent at end-March 2009 in the face of moderating growth and below one per cent (year-on year) WPI inflation has to be seen in the context of significant fall in the velocity of circulation of money (Chart II.18).

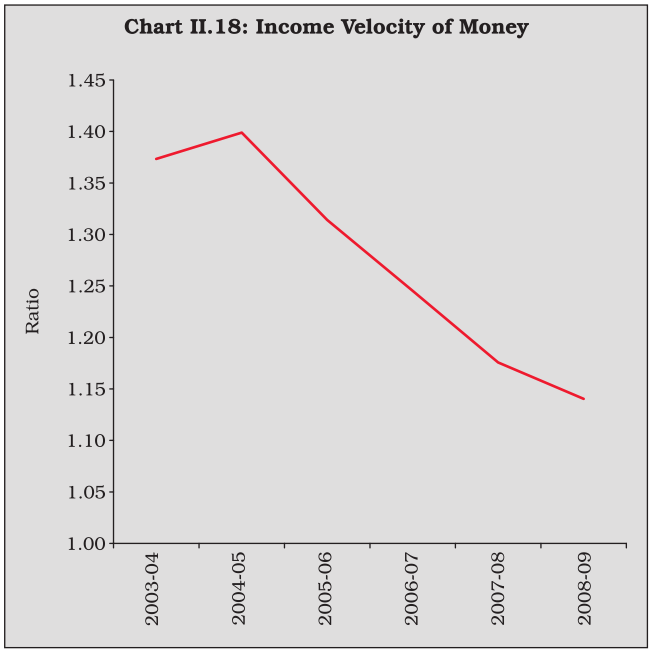
Table 2.24: Credit Flow from Scheduled Commercial Banks

(Amount in Rupees crore)

Item	Outstanding as on March 27, 2009	Variation (year-on-year)			
		As on March 28, 2008		As on March 27, 2009	
		Amount	Per cent	Amount	Per cent
1	2	3	4	5	6
1. Public Sector Banks	20,18,711	3,07,310	22.5	3,48,562	20.9
2. Foreign Banks	1,69,335	36,116	28.5	6,467	4.0
3. Private Banks	5,23,492	78,301	19.9	52,013	11.0
4. All Scheduled Commercial Banks*	27,75,549	4,30,724	22.3	4,13,636	17.5

* : Includes Regional Rural Banks.





II.3.18 Provisional data on sectoral deployment of non-food bank credit indicate deceleration in credit growth to services sector and personal loans in 2008-09. Credit to commercial real estate continued to grow fast and its share in total non-food credit also increased during 2008-09. The share of credit to agriculture in total non-food credit increased to 13.0 per cent during the year (Table 2.25, Appendix Table 20 and 21).

II.3.19 Apart from banks, the commercial sector mobilised resources from a variety of other sources

Table 2.25: Non-food Bank Credit - Sectoral Deployment

(Amount in Rupees crore)

Sector/Industry	Outstanding as on March 27, 2009	Year-on-Year Variations			
		2007-08		2008-09	
		Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6
Non-food Gross Bank Credit (1 to 4)	**26,02,290**	**4,01,650**	**22.3**	**3,99,400**	**18.1**
1. Agriculture and Allied Activities	**3,38,656**	**44,966**	**19.5**	**63,313**	**23.0**
2. Industry (Small, Medium and Large)	**10,54,390**	**1,69,536**	**24.3**	**1,87,515**	**21.6**
of which: Small Enterprises	2,57,027	76,932	65.2	62,185	31.9
3. Personal Loans	**5,62,479**	**54,730**	**12.1**	**54,991**	**10.8**
Housing	2,76,957	26,802	11.6	19,165	7.4
Advances against Fixed Deposits	48,676	4,170	10.2	3,671	8.2
Credit Cards	28,000	8,094	44.2	1,607	6.1
Education	28,579	5,324	35.0	8,047	39.2
Consumer Durables	8,187	-390	-4.2	-612	-7.0
4. Services	**6,46,765**	**1,32,419**	**31.5**	**93,580**	**16.9**
Transport Operators	39,302	9,486	33.5	1,484	3.9
Professional & Other Services	45,373	3,201	13.4	18,240	67.2
Trade	1,44,377	17,059	16.0	20,656	16.7
Real Estate Loans	91,575	19,235	43.6	28,261	44.6
Non-Banking Financial Companies	98,853	30,094	61.5	19,835	25.1

Note : 1. Data are provisional and relate to select scheduled commercial banks.
2. Data also include figures of Bharat Overseas Bank, American Express Bank and State Bank of Saurashtra which were merged with Indian Overseas Bank, Standard Chartered Bank and State Bank of India, respectively.

such as capital markets, commercial papers (CPs), non-banking financial companies (NBFCs), financial institutions, external commercial borrowings, American Depository Receipts(ADRs)/ Global Depository Receipts(GDRs) and foreign direct investment. During 2008-09, flow of resources from domestic non-bank sources increased while flow of resources from external sources declined sharply as compared with the previous year. Among the domestic non-bank sources, resources raised through systemically important NBFCs, gross private placements by non-financial entities, total gross accommodation by four Reserve Bank-regulated AIFIs and gross investment by LIC increased, while resources raised by other sources declined. Within external sources, resources raised through external commercial borrowing, ADR/GDR issues and short-term credit declined significantly, while investment through FDI routes registered an increase. Thus, besides the decline in the flow of non-food credit during 2008-09 as compared with 2007-08, the flow of resources from non-bank sources also declined substantially, resulting in lower annual flow of financial resources to the commercial sector (Table 2.26).

II.3.20 Scheduled commercial banks' investment in SLR securities as a per cent of their net demand and time liabilities (NDTL) increased at end-March 2009 to 28.1 per cent from 27.8 per cent a year ago. However, adjusted for LAF collateral securities on an outstanding basis, SCBs' holding of SLR securities amounted to Rs.11,10,820 crore or 26.8 per cent of NDTL at end-March, 2009 - implying an excess of Rs.1,69,846 crore or 4.1 per cent of NDTL over the prescribed SLR of 24.0 per cent of NDTL (Chart II.19).

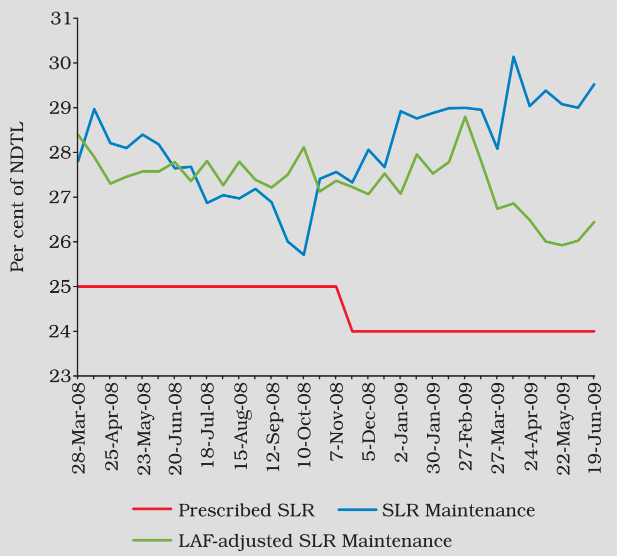
II.3.21 Non-SLR investments (i.e., investments in commercial papers, shares, bonds and instruments of financial institutions and mutual funds) by scheduled commercial banks witnessed a large expansion during 2008-09. In the period of high growth in time deposits and moderation in credit expansion, banks channelised their resources to non-SLR investments. Banks' investments in non-

Table 2.26: Flow of Resources to Commercial Sector

(Rupees crore)

Item	2007-08	2008-09
1	2	3
A. Adjusted non-food Bank Credit (NFC)	**4,44,807**	**4,21,091**
i) Non-Food Credit	4,32,846	4,11,824
of which: Petroleum and fertilizer Credit	5,057	31,632
ii) Non-SLR Investment by SCBs	11,961	9,267
B. Flow from Non-banks (B1+B2)	**5,87,659**	**4,66,895**
B1. Domestic Sources	**2,55,230**	**2,96,679**
1 Public issues by non-financial entities	51,478	14,205
2 Gross private placements by non-financial entities	68,249	76,184
3 Net issuance of CPs subscribed by non-banks	10,660	5,590
4 Net Credit by housing finance companies	41,841	26,634
5 Total gross accommodation by 4 RBI regulated AIFIs - NABARD, NHB, SIDBI & EXIM Bank	22,267	31,423
6 Systemically important non-deposit taking NBFCs net of bank credit	36,460	76,828
7 LIC's gross investment in Corporate Debt, Infrastructure and Social Sector	24,275	65,815
B2. Foreign Sources	**3,32,429**	**1,70,216**
1 External Commercial Borrowings / FCCB	91,180	38,009
2 ADR/GDR Issues excluding banks and financial institutions	34,937	4,788
3 Short-term Credit from abroad	68,878	-31,160
4 Foreign Direct Investment to India	1,37,434	1,58,579
C. Total Flow of Resources (A+B)	**10,32,466**	**8,87,986**

Chart II.19: SLR Investment by Scheduled Commercial Banks



SLR securities increased to 25.5 per cent during 2008-09 as compared with 21.5 per cent during 2007-08 (Table 2.27).

Developments during 2009-10

II.3.22 On a year-on-year basis, growth in broad money (M_3) was 20.0 per cent as on July 31, 2009 as compared with 19.9 per cent a year ago. Amongst the major components, growth in aggregate deposits increased marginally to 20.9 per cent from 20.3 per cent a year ago. On the sources side, expansion in bank credit to the commercial sector moderated to 15.5 per cent (y-o-y) as on July 31, 2009 as compared with 23.6 per cent a year ago.

II.3.23 Reserve money growth that remained high during the first quarter of 2008-09, witnessed a sharp decline from end-October 2008 reflecting subsequent reduction in CRR. Since this reduction in reserve money was the result of a deliberate policy action to inject additional liquidity to the banking system and to ensure higher growth in broad money through the higher money multiplier, it is appropriate to assess the monetary conditions in terms of growth in adjusted reserve money. During 2008-09, adjusted reserve money increased by 19.0 per cent as compared with 25.3 per cent a year ago. Broad money (M_3) growth during 2008-09 moderated somewhat and remained lower than a year ago. Net bank credit to the Government was the major driving source of broad money, while credit to the commercial sector witnessed a decline. The expansion in net foreign exchange assets also

Table 2.27: Scheduled Commercial Banks' Non-SLR Investments

(Rupees crore)

Item	Mar. 2006	Mar. 2007	Mar.2008	Mar. 2009
1	2	3	4	5
1. Commercial Paper	**4,821**	**8,978**	**13,045**	**19,688**
2. Units of Mutual Funds	**10,345**	**11,659**	**18,692**	**36,781**
3. Shares issued:	**15,044**	**20,178**	**28,454**	**30,753**
By Public Sector Undertakings	2,274	2,127	3,023	2,767
By Private Corporate Sector	10,501	16,225	23,387	25,043
By Public Financial Institutions	2,270	1,826	2,044	2,943
4. Bonds/debentures issued by	**1,03,170**	**98,201**	**1,08,791**	**1,16,408**
By Public Sector Undertakings	32,345	28,595	27,382	24,182
By Private Corporate Sector	29,523	27,620	28,669	33,093
By Public Financial Institutions	26,402	24,362	23,511	28,103
Others	14,899	17,623	29,230	31,030
Total (1 to 4)	**1,33,380**	**1,39,016**	**1,68,983**	**2,03,630**

Note: Data are provisional and exclude regional rural banks.

witnessed a decline. Commercial banks' investment in non-SLR securities expanded. Besides the decline in non-food credit, flow of non-bank resources to commercial sector during 2008-09 also declined as compared with 2007-08.

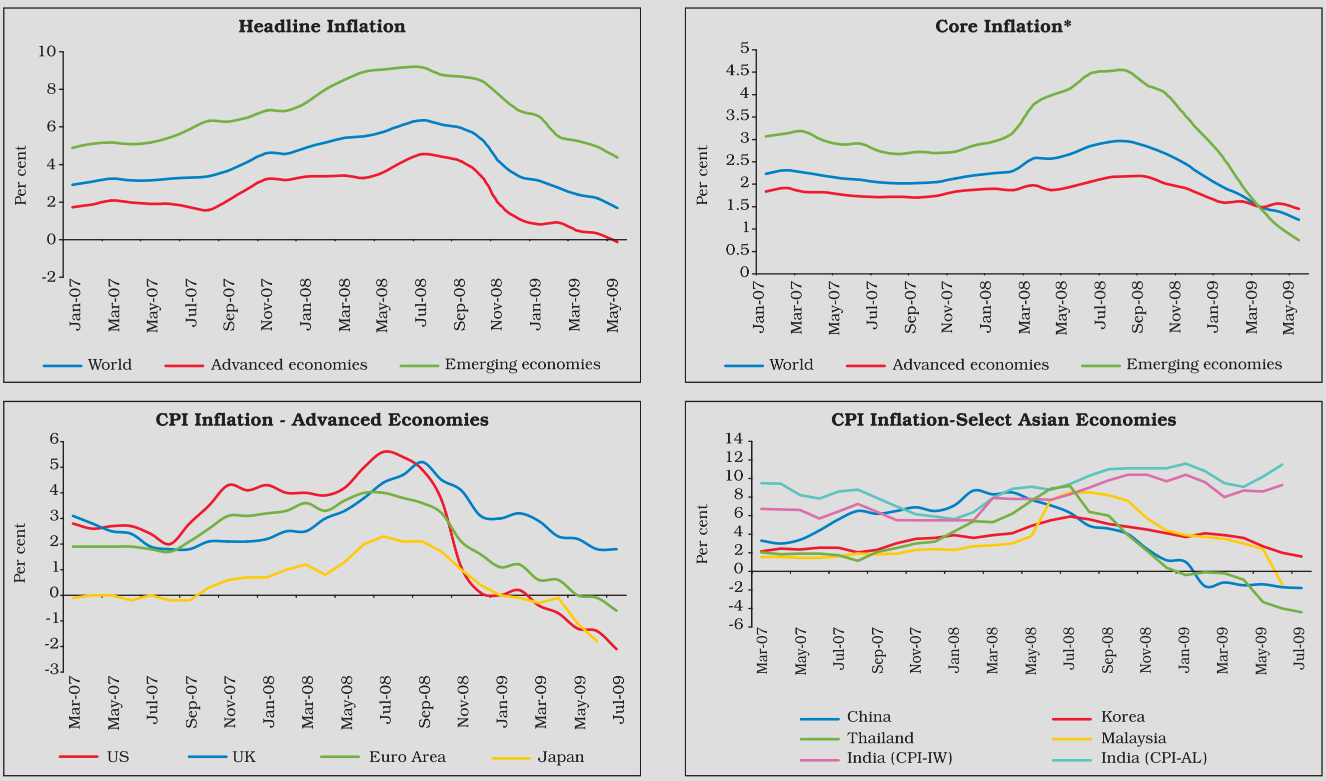
PRICE SITUATION

II.3.24 The significant volatility in inflation that was witnessed in India during the course of 2008-09 is unprecedented, and different contrasting phases within the year had different dynamics in terms of the underlying factors explaining the inflation process, posing equally contrasting policy challenges. The external and supply side factors had a dominant role during the first phase of accelerating inflation to double digit level as well as during the subsequent sharp slowing down to below one per cent by the end of the fiscal year. Mirroring global trends, WPI inflation in India reached an intra-year peak of 12.9 per cent in August 2008 but declined subsequently to 0.8 per cent by end-March 2009. Accordingly, the monetary policy stance of the Reserve Bank during the first half of 2008-09 was primarily conditioned by the urgency to contain inflationary expectations, whereas in the second half, fading inflation concerns allowed the balance of policy focus to clearly shift towards preventing deceleration in growth and preserving orderly conditions in the financial markets.

Global Inflationary Conditions and Monetary Policy Responses

II.3.25 Inflation pressures across the globe, which began to firm up during the second half of 2007-08, magnified during the first half of 2008-09, largely driven by the increase in international commodity prices (Chart II.20). Though the advanced

Chart II.20: Global Inflation



* Excluding food and energy
IW: Industrial Workers. AL: Agricultural Labourers.
Source: World Economic Outlook, International Financial Statistics, IMF, and official websites of respective countries.

economies had started to experience some moderation in aggregate demand pressures during the first half of 2008-09 itself, following the gradually unfolding ramifications of the sub-prime crisis, sustained pressures from international commodity prices kept the headline inflation rising to higher levels. Emerging market economies, on the other hand, witnessed inflationary pressures not only from the increasing international commodity prices but also from the demand pressures following their stronger growth. The inflationary impact of higher food and fuel commodities in the international market, though, was much higher in emerging market economies as compared to the advanced economies, as food and fuel items have higher weights in the consumption baskets in the case of emerging economies. Most countries that operate with inflation targeting frameworks also witnessed their headline inflation diverging significantly from the targets during the first half of 2008-09.

II.3.26 The monetary policy responses to emerging inflationary pressures during the first half of 2008-09 were mixed in view of growth implications of anti-inflationary monetary policy stance, in the face of growing concerns of growth deceleration on account of the snowballing effects of the global financial crisis. Most central banks in advanced economies were faced with the difficult trade-off arising from the combination of slowing economic activity and heightened inflationary pressures. Central banks of the developed countries such as the US, the UK and Canada, which had reduced policy rate in early 2008, paused subsequently. On the other hand, many central banks in emerging economies continued with pre-emptive monetary tightening to contain inflation and inflationary expectations up to September 2008, as the general perception till that time was that the impact of the US sub-prime crisis on the real economy of most developing countries could be minimal.

II.3.27 Inflationary pressures started abating significantly in major economies from August 2008 as international commodity prices declined sharply under the pressure of contracting global demand. The decline in inflation during the second half of 2008-09 in the advanced economies turned out to be much sharper than in the emerging economies, reflecting the more serious contraction in demand in advanced economies. Moreover, as the emerging economies had taken specific measures to limit the full pass-through of international commodity and food prices to domestic inflation during the increasing phase of international commodity prices, the significant decline in international commodity prices also correspondingly did not translate into an equal decline in domestic inflationary pressures in the developing countries. Contrary to earlier perceptions about possible decoupling, however, emerging/developing countries also faced almost the same combination of outcome in terms of slowing growth alongside minimal inflation risk, which significantly widened the scope for adoption of easy monetary policy stance. Monetary policy concerns during the second half of 2008-09, thus, were largely oriented towards mitigating the adverse impact of global financial crisis on economic growth and employment. Hence, most central banks in developed as well as emerging economies reduced their policy rates substantially since September 2008 (Table 2.28).

II.3.28 One of the major challenges that most central banks encountered during 2008-09 was the sharp volatility in inflation experienced within one year. The volatility, as measured by coefficient of variation, which was declining since 2003 increased significantly from 2007 onwards. It could also be seen that the volatility in inflation has been much higher in advanced economies as compared to emerging economies (Chart II.21), notwithstanding the fact that inflation rates in emerging economies have been consistently above the levels experienced in advanced economies.

II.3.29 As inflation fell to near zero levels, and even entered the negative zone temporarily, there was a growing concern about policy options to deal with deflation. Deflation could pose severe challenges to the scope and effectiveness of monetary policy. The policy rates in many advanced

Table 2.28: Global Inflation Indicators

(Per cent)

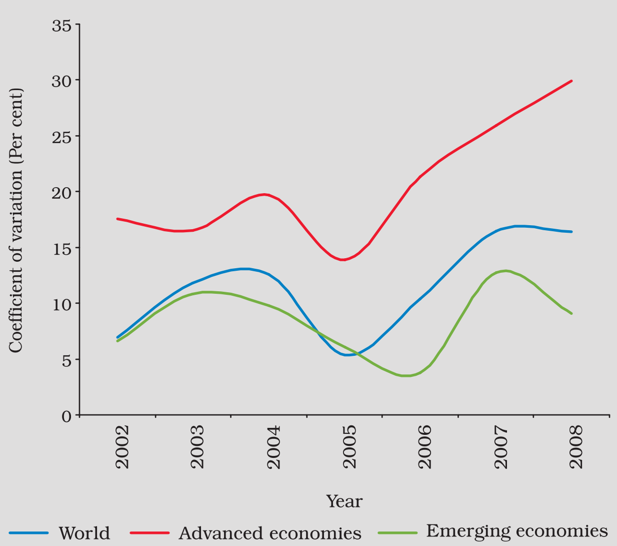
Country/ Region	Key Policy Rate	Policy Rate (As on Aug. 20, 2009)	Changes in Policy Rates (basis points)			CPI Inflation (y-o-y)		
			Mar 08-Sept 08	Sept 08-Mar 09	Since end-Mar 09	Jul. 2008	Mar. 2009	Jul. 2009
1	2	3	4	5	6	7	8	9
Developed economies								
Australia	Cash Rate	3.00 (Apr.8, 2009)	25	(-) 400	(-) 25	4.5 Q2	2.5 Q1	1.5 Q2
Canada	Overnight Rate	0.25 (Apr.21, 2009)	(-)100	(-) 250	(-) 25	3.4	1.2	-0.9
Euro area	Interest Rate on Main Refinancing Operations	1.00 (May 13, 2009)	25	(-) 275	(-) 50	4.0	0.6	-0.6
Japan	Uncollateralised Overnight Call Rate	0.10 (Dec.19, 2008)	0	(-) 40	0	2.0 *	-0.3	-1.8 *
UK	Official Bank Rate	0.50 (Mar. 5, 2009)	(-)25	(-) 450	0	4.4	2.9	1.8
US	Federal Funds Rate	0.00 to 0.25 (Dec.16, 2008)	(-)25	(-) 200	0	5.6	-0.4	-2.1
Developing economies								
Brazil	Selic Rate	8.75 (July 23, 2009)	250	(-) 250	(-) 250	6.4	5.6	4.5
India	Reverse Repo Rate	3.25 (Apr. 21, 2009)	0	(-) 250	(-) 25	7.7 *	8.0	9.3 *
	Repo Rate	4.75 (Apr. 21, 2009)	125	(-) 400	(-) 25			
			(150)	(-) 400	0			
China	Benchmark 1-year Lending Rate	5.31 (Dec. 23, 2008)	0	(-) 216	0	6.3	-1.2	-1.8
			(200)	(-300)	0			
Indonesia	Bank Indonesia (BI) Rate	6.50 (Aug. 5, 2009)	100	(-) 150	(-) 125	11.9	7.9	-2.7
Israel	Key Rate	0.50 (Apr.1, 2009)	50	(-) 350	(-) 25	4.8	3.6	3.5
Korea	Base Rate	2.00 (Feb. 12, 2009)	25	(-) 325	0	5.9	3.9	1.6
Philippines	Reverse Repo Rate	4.00 (July 9, 2009)	100	(-) 125	(-) 75	12.3	6.4	0.2
Russia	Refinancing Rate	10.75 (Aug. 10, 2009)	50	200	(-) 225	14.7	14.0	12.0
South Africa	Repo Rate	7.00 (Aug. 4, 2009)	100	(-) 250	(-) 250	12.2 *	8.5	6.9 *
Thailand	1-day Repurchase Rate	1.25 (Apr. 8, 2009)	50	(-) 225	(-) 25	9.2	-0.2	-4.4

* : June.

Note : 1. For India, data on inflation pertain to CPI for Industrial Workers.
2. Figures in parentheses in column (3) indicate the dates when the policy rates were last revised. 3. Figures in parentheses in column (4) indicate the variation in the cash reserve ratios during the period.

Source : International Monetary Fund, websites of respective central banks and The Economist.

Chart II.21: Volatility in CPI Inflation



Source: World Economic Outlook Database IMF, 2009.

countries having already been brought down to near zero levels, persistence of deflationary conditions could imply that the monetary policy may not ensure required reduction in the real interest rate that may be necessary to contest deflationary head winds. If deflationary symptoms persist, they could give rise to even more serious debt-deflation *i.e.,* an increase in debt burden in real terms. This could trigger widespread defaults and further amplify the negative causal feedback running from the real economy to the financial sector, which, over time could mutually reinforce each other to increase the intensity of the crisis. The real policy rate in most countries have declined since September 2008 (excluding a few), indicating the aggressive monetary easing stance adopted by central banks (Table 2.29).

Table 2.29: Nominal and Real Policy Rates : Select Countries

(Per cent)

Country	Nominal Policy Rate			Real Policy Rate		
	March 2008	Sept. 2008	March 2009	March 2008	Sept. 2008	March 2009
1	2	3	4	5	6	7
Developed Economies						
US	2.25	2.00	0.25	-1.75	-2.90	0.05
UK	5.25	5.00	0.50	2.75	0.20	-2.50
Euro area	4.00	4.25	1.50	0.40	0.65	0.30
Developing Economies						
Brazil	11.25	13.75	11.25	6.55	7.45	5.65
China	7.47	7.20	5.31	-0.83	2.60	6.91
India	7.75	9.00	5.00	-0.15	-0.80	-3.00
				(0.00)	(-3.10)	(4.16)
Indonesia	8.00	9.25	7.75	1.70	-2.85	-0.15
Israel	3.75	4.25	0.75	0.05	-1.25	-2.85
Korea	5.00	5.25	2.00	1.10	0.15	-1.90
Phillipines	5.00	6.00	4.75	-1.40	-5.90	-1.65
Russia	10.25	11.00	13.00	-3.05	-5.10	-1.00
South Africa	11.00	12.00	9.50	0.40	-1.10	0.90
Thailand	3.25	3.75	1.50	-2.05	-2.25	1.70

Note : 1. Real policy rate is the policy rate less year-on-year consumer price inflation. For India, repo rate is taken as the policy rate, while inflation refers to that for CPI-Industrial Workers.
2. Figures in parentheses for India are based on wholesale price inflation.

Source : International Monetary Fund, The Economist and official websites of respective central banks.

Global Commodity Prices

II.3.30 During 2008-09, international commodity prices witnessed sharp increases up to July 2008, but declined thereafter at a fast pace (Table 2.30 and Chart II.22).

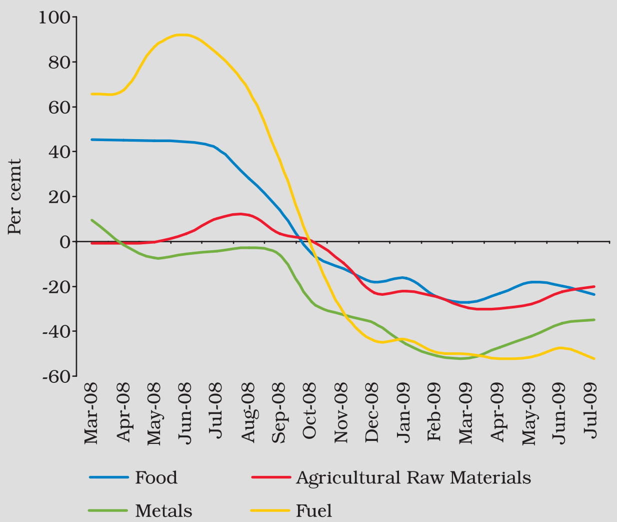
Table 2.30: International Commodity Prices

Commodity	Unit	2004 Market Price	Index (2004=100)								Variation (Per cent)	
			2005	2006	2007	2008-09					Mar.09 over Mar. 08	Mar.09 over Jul.08
						Mar.	Jun.	Sep.	Dec	Mar		
1	2	3	4	5	6	7	8	9	10	11	12	13
Energy												
Coal	$/mt	53.0	90	93	124	223	302	283	149	115	-48.4	-66.1
Crude oil (Average)	$/bbl	37.7	142	170	188	270	349	264	110	124	-54.2	-64.9
Non-Energy Commodities												
Palm oil	$/mt	471.3	90	101	165	265	257	164	107	127	-52.2	-47.1
Soybean oil	$/mt	616.0	88	97	143	240	250	199	120	118	-50.9	-52.0
Soybeans	$/mt	306.5	90	88	125	188	203	166	117	123	-34.3	-40.4
Rice	$/mt	237.7	120	128	137	250	318	288	224	247	-1.0	-19.6
Wheat	$/mt	156.9	97	122	163	280	222	188	140	147	-47.5	-29.6
Maize	$/mt	111.8	88	109	146	210	257	209	142	147	-29.8	-38.0
Sugar	c/kg	15.8	138	206	141	184	169	189	164	187	1.5	-5.8
Cotton A Index	c/kg	136.6	89	93	102	129	124	119	90	83	-35.8	-33.4
Aluminium	$/mt	1716.0	111	150	154	175	172	147	87	78	-55.5	-56.5
Copper	$/mt	2866.0	128	235	248	294	288	244	107	131	-55.6	-55.4
Gold	$/toz	409.2	109	148	170	237	217	203	199	226	-4.6	-1.6
Silver	c/toz	669.0	110	173	200	287	255	182	154	196	-31.8	-27.4
Steel cold-rolled coilsheet	$/mt	607.1	121	114	107	132	181	181	181	148	12.5	-18.2
Steel hot-rolled coilsheet	$/mt	502.5	126	119	109	149	199	199	199	159	6.7	-20.0
Tin	c/kg	851.3	87	103	171	233	261	216	132	125	-46.1	-53.9
Zinc	c/kg	104.8	132	313	309	240	181	166	105	116	-51.5	-34.3

$: US dollar. c : US cent. bbl : barrel. mt : metric tonne. kg : Kilogram. toz : troy oz.

Source: Based on World Bank's actual commodity price data. The year 2004 has been taken as the base to better exhibit price trends over the relevant period.

Chart II.22: Increase in International Commodity Prices (year-on-year)



Source: IMF Primary Commodity Price Data

II.3.31 The boom in international commodity prices up to July 2008 was driven by a number of factors. Since 2007, the demand-supply balance in markets for many commodities remained tight against the backdrop of already low inventory levels. This was further amplified by the strong demand from emerging economies, which accounted for much of the incremental increase in commodity consumption. Diversion of arable land to bio-fuel production affected the supply of certain food commodities like corn and sugar. Effective depreciation of the US dollar against major currencies and increased interest of financial market participants in commodity futures also contributed to the increase in prices.

II.3.32 The sharp decline in international commodity prices during July-December 2008 was largely driven by the indications that the slowdown in economic growth in both advanced as well as emerging economies may turn out to be much deeper and prolonged than what was expected earlier. Some part of the decline in prices could also be attributed to unwinding of commodity investment positions by financial market investors on account of the tight liquidity conditions in financial markets.

Inflation Conditions in India

II.3.33 The Annual Policy Statement for 2008-09 (April 2008) of the Reserve Bank was announced in the background of elevated inflation levels, and the Policy Statement reaffirmed its resolve to bring down inflation to around 5.5 per cent in 2008-09 with a preference for bringing it as close to 5.0 per cent as early as possible, recognising the evolving complexities in the underlying determinants of inflation, spearheaded by transmission of higher inflation from the global market. Inflation hardened during the first quarter of 2008-09 on account of strong demand and significant international commodity price pressures. It was recognised in that context that an adjustment of overall aggregate demand on an economy-wide basis was warranted to ensure that generalised instability did not develop and erode the hard-earned gains in terms of both outcomes of and positive sentiments on India's growth momentum. Accordingly, the Reserve Bank increased the cash reserve ratio (CRR) by a total of 125 basis points between May and August 2008 to 9.0 per cent and the repo rate under the Liquidity Adjustment Facility (LAF) was increased by a total of 125 basis points to 9.0 per cent during June-July 2008.

II.3.34 WPI inflation started to decline from August 2008, mainly on account of decline in prices of freely priced petroleum products, edible oils and textiles. The Mid-Term Review of Annual Policy for the Year 2008-09 observed that in the absence of further shocks, generalised inflation could not be sustained, especially with money supply contained at the average rate of 2003-08, a period when inflation was low and stable. The challenge for the setting of monetary policy was identified to be balancing the costs of lowering inflation in terms of output volatility against the risk of then prevailing levels of inflation persisting and getting embedded in inflation expectations. Starting from September 2008, the Reserve Bank shifted its policy stance from containing aggregate demand to supporting demand expansion with a view to arresting the moderation in growth. Accordingly, between

October 2008 and March 2009, the Reserve Bank reduced the repo rate under the LAF from 9.0 per cent to 5.0 per cent, the reverse repo rate under the LAF from 6.0 per cent to 3.5 per cent and the CRR from 9.0 per cent to 5.0 per cent. The aim of these measures was to augment domestic liquidity and to ensure that credit continues to flow to productive sectors of the economy. The Third Quarter Review of the Annual Statement on Monetary Policy for 2008-09 also noted that the consumer price inflation was yet to moderate and the decline in inflation expectations had not been commensurate with the sharp fall in WPI inflation.

II.3.35 The Annual Policy Statement of the Reserve Bank for the year 2009-10 observed that with WPI inflation falling to near zero, possibly likely to get into a negative territory, *albeit* for a short period, CPI inflation was expected to moderate indicating that inflationary risks had clearly abated. The policy statement assessed that WPI inflation could be around 4.0 per cent by end-March 2010. Given this background of abating inflationary pressures, the Reserve Bank announced further monetary stimulus measures in terms of reduction in the repo rate under the LAF from 5.0 per cent to 4.75 per cent and the reverse repo rate under the LAF from 3.5 per cent to 3.25 per cent on April 21, 2009.

WPI Inflation

II.3.36 During 2008-09, inflation in India, based on year-on-year variation in the wholesale price index (WPI), firmed up to an intra-year peak of 12.9 per cent on August 2, 2008 from 7.7 per cent at end-March 2008. The rapid increase in international commodity prices and the partial pass-through of high international crude oil prices to domestic prices as well as elevated levels of prices of iron and steel, basic heavy inorganic chemicals, machinery and machine tools, oilseeds/oil cakes, raw cotton and textiles were the key drivers of inflation during this period (Table.2.31). The increase in inflation during this period also reflected strong demand pressures emanating from the high growth that the Indian economy witnessed during this period.

II.3.37 As a response to increasing inflation concerns, apart from the monetary policy responses discussed above, a number of fiscal

Table 2.31: Key Commodity Price Movements – Global *vis-à-vis* Domestic

(per cent)

	Item	Phase I (End-March 2008 to July 2008)		Phase II (July 2008 to end-March 2009)		Annual March 2009 over March 2008	
		Global	India	Global	India*	Global	India*
	1	2	3	4	5	6	7
1.	Rice	23.2	1.2	-19.6	13.6	-1.0	12.8
2.	Wheat	-25.4	4.1	-29.6	0.5	-47.5	5.2
3.	Raw Cotton	-3.6	24.3	-33.4	-17.6	-35.8	2.5
4.	Oilseeds	10.3	6.5	-40.4	-7.7	-34.3	-2.3
5.	Sugar	7.8	0.1	-5.8	18.5	1.5	18.4
6.	Coal mining	52.2	0.0	-66.1	-1.0	-48.4	-1.0
7.	Minerals Oil	30.4	17.8	-64.9	-22.5	-54.2	-8.7
8.	Edible Oils	2.4	2.5	51.9	-12.4	-50.7	-10.2
9.	Oil Cakes	14.7	21.2	-32.5	-9.9	-22.6	19.4
10.	Basic Heavy Inorganic Chemicals	..	8.5	..	-19.9	..	-13.7
11.	Iron and Steel	34.2	2.8	-23.5	-20.6	2.7	-18.4
12.	Non-Ferrous Metals #	34.2	0.1	-45.0	-9.1	-48.2	-9.1

* : Based on WPI as on March 28, 2009.
\# : Global prices are represented by IMF metals price index, which covers copper, aluminium, iron ore, tin, nickel, zinc, lead and uranium.
Note: Global price increases are based on the World Bank and IMF primary commodity prices data.

policy initiatives were undertaken by the Government to moderate the impact of high international commodity prices. These included reduction/abolition of import duty in the case of commodities like rice, pulses, wheat, edible oils, maize, milk, iron and steel, cotton, crude oil and petroleum products. Exports of essential commodities like pulses, edible oils and non-basmati rice were banned in April 2008. Export duties were also imposed on commodities like iron and steel products and the tax benefits made available to cotton exporters were withdrawn. Apart from these direct measures, the Government, by not fully passing on the impact of international oil prices to domestic prices of administered petroleum products and issuing oil bonds for the state run oil companies also pursued the strategy of burden sharing.

II.3.38 WPI inflation exhibited strong downward trend starting from August 2008 and reached 0.8 per cent as on March 28, 2009. Between August 2, 2008 and March 28, 2009, WPI declined by 5.3 per cent, driven by the reduction in the administered prices of petroleum products and electricity as well as decline in prices of freely priced minerals oil items, iron and steel, oilseeds, edible oils, oil cakes and raw cotton. Significant part of the end year reduction in WPI inflation could also be attributed to the base effect reflecting the rapid increase in inflation recorded during the last quarter of 2007-08. This decline in WPI, however, does not represent the prevalence of deflationary conditions in India (Box II.16).

II.3.39 Although high volatility in fuel prices has been the major driver of inflation outcome during 2008-09, a look at the inflation excluding the fuel component suggests the generalised nature of inflation. The y-o-y inflation, excluding fuel, was at 2.7 per cent as on March 28, 2009 as compared with 8.0 per cent a year ago. It could be observed that during the period June-October 2008, when WPI inflation was at substantially high levels, overall inflation was higher than the WPI excluding fuel inflation. Since October 2008 the overall inflation has been lower than the inflation excluding fuel (Chart II.23) indicating that the non-fuel components of inflation have not been as volatile as the fuel group. The annual average WPI inflation rate (average of 52 weeks) increased to 8.3 per cent as on March 28, 2009 from 5.8 per cent at end-June 2008 and 4.7 per cent at end-March 2008.

II.3.40 Amongst the major commodity groups, primary articles inflation, y-o-y, increased from 9.7 per cent at end-March 2008 to a peak of 12.7 per cent on November 15, 2008. This mainly reflected increase in the prices of food articles as well as non-food articles. It is important to note that since April 2007, the rate of increase in food prices in India has been much lower than in other emerging economies (Chart. II.24). The y-o-y increase in food prices was 9.6 per cent in July 2008 as against 41 per cent increase in IMF food price index during the same period. This could be attributed to the various supply-side measures undertaken by the Government as well as improved domestic supply conditions in several items in relation to the world supply situation.

II.3.41 Primary articles inflation eased substantially starting from January 2009 and reached 5.2 per cent as on March 28, 2009 as prices declined in the case of food articles, especially vegetables and fruits and non-food articles like raw cotton, oilseeds and minerals. While the decline in prices of food articles partly reflected the improved *rabi* crops during 2008-09 as well as seasonal pattern, the decline in non-food primary articles prices was largely driven by decline in international prices of cotton, oilseeds and minerals. Prices of food articles such as, rice, pulses and vegetables continue to be at elevated levels.

II.3.42 As international crude oil prices increased considerably during the first half of 2008-09, fuel group inflation, increased to an intra-year peak of 18.0 per cent on August 2, 2008 from 6.8 per cent at end-March 2008. This was driven by increase in the prices of mineral oils reflecting the effect of the hikes in the prices of petrol (Rs.5 per litre), diesel (Rs.3 per litre) and LPG (Rs.50 per cylinder) on June 4, 2008 as well as increase in the prices of freely priced petroleum products.

Box II.16
The Deflation Perceptions

In India, the inflation rate dropped from a high of 12.9 per cent on August 02, 2008 to below one per cent by end-March, 2009, with the outlook at that point suggesting the possibility of inflation dropping to sub-zero level temporarily, or even for a longer period, giving rise to the emerging perceptions of a deflation. The year-on-year WPI inflation turned negative since the first week of June 2009. Despite growing concerns, however, there was neither any technical deflation, nor any visible evidence of the severe adverse effects that often accompany a deflation.

According to Bernanke (2002), "Deflation is defined as a general decline in prices, with emphasis on the word 'general'." Thus, price declines in specific sectors, cannot be considered as deflation. Decline in a representative wide-spread broad based index of prices alone could signal deflation. Moreover, the falling prices must be sustained over some time to be seen as a deflation.

The primary causative factor behind a deflation is the collapse of aggregate demand even though deflation could also result from a sudden, large expansion in aggregate supply because of rapid gains in productivity and sharply declining costs. Supply-side deflation though could be more rare.

In the context of the technical definition and the primary factor causing deflation, it could be seen that India's WPI declined over a period of close to six months between September 2008 to February 2009, not on account of any sharp contraction in domestic aggregate demand nor because of a strong favourable domestic supply shock, but because of a sharp correction in international prices. Moreover, the CPI based inflation continued to remained high at around 9 per cent when the WPI inflation was hovering around zero.

The sudden contraction in aggregate demand could result from a bursting of an asset-price bubble, sudden change in over-optimistic growth and productivity expectations, or increase in uncertainty associated with geopolitical or other reasons. None of these factors were present in the case of India, and as against contraction in output alongside negative inflation, despite some deceleration in growth, the output actually expanded by 6.7 per cent in 2008-09, which was one of the highest in the world.

Notwithstanding the fact that India never experienced any deflation, it is, however, important to recognise the severe adverse effects of a deflation and the policies that could be used to counter the deflationary forces. Deflation invariably leads to a situation where a central bank exhausts its conventional policy tool, as the interest rate drops to zero in the process of containing falling aggregate demand. The "liquidity trap" associated with "zero bound" nominal interest rate constraint gives rise to positive real rates, which become worse when falling prices create expectations of even more decline in inflation in future. This scenario not only encourages postponement of consumption, particularly credit financed consumption, but may also give rise to a severe "debt deflation". Besides the loss in output and employment, the debt deflation could lead to rising default, which in turn may degenerate fast to cause a financial crisis. Preventing a deflation is often viewed, therefore, as even more important than containing inflation.

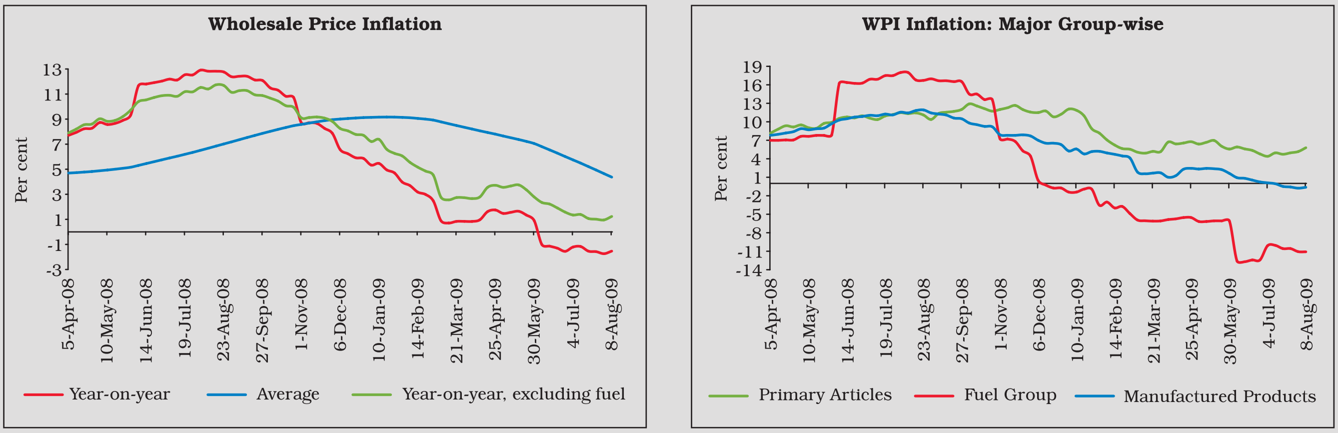
Despite the general perception that a central bank runs out of instruments when it confronts a zero-bound limit on its interest rate actions, Bernanke (2002) viewed that a central bank "definitely (does) *not* run out of ammunition. … a central bank, either alone or in cooperation with other parts of the government, retains considerable power to expand aggregate demand and economic activity even when its accustomed policy rate is at zero". According to Bernanke, a healthy, well capitalised banking system and smoothly functioning capital markets constitute an important line of defence against deflationary shocks. Nominal wage flexibility, *i.e.* wages falling more than the drop in inflation could also help in dealing with a deflation. Svensson (2003) suggested specific options to counter deflationary forces: (a) money financed fiscal expansion, (b) a depreciation of the currency, (c) a tax on money (to escape the zero-bound constraint), (d) expand money base (till it raises inflation expectations), and (e) announce a positive (credible) inflation target.

In India, the policy rates are nowhere in the "zero bound" trap, and the banking system is sound and resilient, and the financial markets also remain orderly. There is no evidence of any debt deflation as a source of vulnerability to the banks. Moreover, despite the decline in WPI inflation, inflation expectations do not seem to have come down at the same rate. The transmission lag from lower policy rates to lower lending rates and the possibility of some pressure on asset quality of the banks because of the current slowdown are issues of some concern; but that is not because of the presence of any deflationary forces in India. As noted in the Annual Policy Statement of the Reserve Bank for 2009-10, negative inflation "...should not be interpreted as deflation for policy purposes. This expected negative inflation in India has only statistical significance and is not a reflection of demand contraction as is the case in advanced economies".

References:

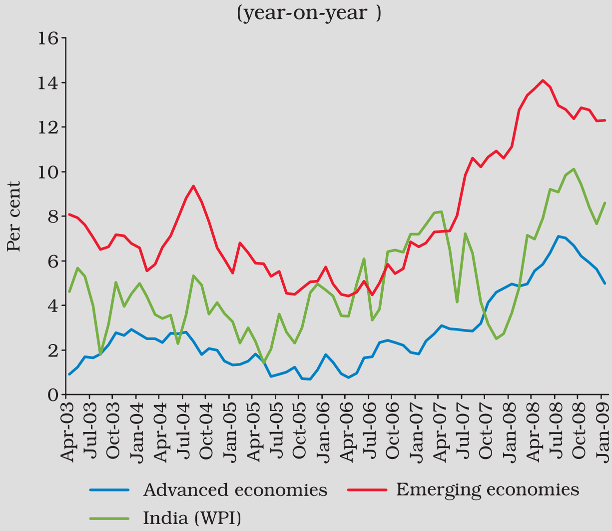
1. Bernanake, Ben S. (2002), "Deflation: Making Sure it Doesn't Happen Here", Remarks before that National Economists Club, Washington DC, November 21, 2002.
2. Svensson, Lars E O. (2003), "Escaping from a Liquidity Trap and Deflation: The Foolproof Way and Others", *Journal of Economic Perspectives* 17, 145-166.
3. Reserve Bank of India (2009), *Annual Policy Statement for the Year 2009-10*, April, 21, 2009.

Chart II.23: Annual WPI Inflation



II.3.43 International crude oil prices started to decline from July 2008, and domestic prices of freely priced petroleum products followed the trends in international prices and declined substantially. As international crude oil prices continued to remain considerably low at around US$ 40 per barrel, the Government decided to cut the prices of administered petroleum products twice (price of petrol by Rs. 5 per litre and diesel by Rs. 2 per litre effective from December 6, 2008 and price of petrol by Rs. 5 per litre, diesel by Rs. 2 per litre and LPG for domestic use by Rs.25 per cylinder, effective from January 28, 2009). Reflecting these, the fuel group inflation turned negative (-6.1 per cent) as on March 28, 2009.

Chart II.24: Food Price Inflation
(year-on-year)



Note: Data for advanced and emerging economies are from IMF, World Economic Outlook, 2009

II.3.44 Manufactured products inflation, year-on-year, increased to a peak of 11.9 per cent in mid-August 2008 from 7.3 per cent at end-March 2008 (Table 2.32). This was mainly driven by sharp increase in prices of iron and steel, sugar, edible oils/oil cakes, textiles, chemicals, and machinery and machine tools. Starting from September 2008, manufactured products inflation declined substantially and reached 1.7 per cent as on March 28, 2009.

II.3.45 Among the major manufactured food products, the sharp increase in domestic edible oils and oil cake prices up to August 2008 reflected increase in demand, lower domestic *rabi* oilseeds production during 2007-08 as well as sharp increase in international prices. Thereafter, oilseeds and edible oils/oil cakes prices declined reflecting the effect of fiscal measures as well as easing international prices on the back of projected increase in global production. However, the risks on further firming up of prices remain as the Fourth Advance Estimates for 2008-09 predict 5.4 per cent decline in domestic oilseeds production. Sugar prices continued to firm up during 2008-09 and have now emerged as one of the major drivers of inflation. The increasing sugar prices partly reflected the firm international prices as well as considerable decline in production in India (22.1 per cent decline

Table 2.32: Wholesale Price Inflation in India (year-on-year)

(Per cent)

Commodity		2007-08 (March 29)		2008-09 (March 28)		2009-10 (Aug. 8)P	
	Weight	Inflation	WC	Inflation	WC	Inflation	WC
1	2	3	4	5	6	7	8
All Commodities	**100.0**	**7.7**	**100.0**	**0.8**	**100.0**	**-1.5**	**100.0**
1. Primary Articles	**22.0**	**9.7**	**28.2**	**5.2**	**141.4**	**5.8**	**85.7**
Food Articles	15.4	6.5	13.2	7.0	128.9	10.5	104.1
i. Rice	2.4	9.1	2.5	14.9	38.7	15.4	20.8
ii. Wheat	1.4	5.1	1.0	4.5	7.7	3.6	3.2
iii. Pulses	0.6	-1.9	-0.2	9.4	7.4	17.6	7.6
iv. Vegetables	1.5	14.2	2.3	-5.2	-8.2	39.7	37.6
v. Fruits	1.5	4.1	1.0	5.9	12.4	-0.5	-0.5
vi. Milk	4.4	8.7	4.7	7.0	35.6	4.2	11.2
vii. Eggs, Fish and Meat	2.2	2.4	0.8	3.2	8.9	8.7	12.8
Non-Food Articles	6.1	11.4	8.8	0.1	1.0	-1.5	-6.3
i. Raw Cotton	1.4	14.0	2.0	2.5	3.5	-10.8	-9.5
ii. Oilseeds	2.7	20.3	6.7	-1.6	-5.6	-1.1	-2.0
iii. Sugarcane	1.3	-0.4	-0.1	0.0	0.0	0.0	0.0
Minerals	0.5	49.9	6.2	7.2	11.6	-14.4	-12.4
2. Fuel, Power, Light and Lubricants	**14.2**	**6.8**	**18.9**	**-6.1**	**-155.7**	**-11.1**	**-162.3**
i. Coal Mining	1.8	9.8	2.5	-1.0	-2.4	-1.0	-1.2
ii. Minerals Oil	7.0	9.3	15.1	-8.7	-132.8	-16.1	-150.6
iii. Electricity	5.5	1.5	1.4	-2.6	-21.1	-2.6	-10.8
3. Manufactured Products	**63.7**	**7.3**	**52.8**	**1.7**	**114.0**	**-0.6**	**-22.4**
i. Food Products	11.5	9.4	12.4	8.8	108.7	9.6	63.6
of which: Sugar	3.6	1.1	0.4	18.4	52.8	34.3	51.1
Edible Oils	2.8	20.0	5.5	-7.6	-21.6	-9.9	-14.5
Oil Cakes	1.4	27.2	5.6	19.3	43.2	6.3	8.6
ii. Cotton Textiles	4.2	-6.8	-2.8	16.2	53.5	-0.7	-1.5
iii. Man -made Fibres	4.4	2.8	0.7	-1.5	-3.2	-6.1	-7.4
iv. Chemicals and Products	11.9	6.0	8.7	2.0	26.4	1.9	13.5
of which : Fertilisers	3.7	5.1	2.0	4.8	17.5	-0.5	-1.0
v. Non-Metallic Mineral Products	2.5	6.4	2.0	1.9	5.4	4.5	6.7
of which: Cement	1.7	5.1	1.1	2.2	4.4	3.4	3.5
vi. Basic Metals, Alloys and Metal Products	8.3	20.3	25.2	-12.2	-155.9	-15.0	-101.5
of which: Iron and Steel	3.6	34.2	20.1	-18.4	-124.4	-21.1	-75.1
vii. Machinery and Machine Tools	8.4	3.5	2.9	2.6	18.9	-2.5	-9.9
of which: Electrical Machinery	5.0	4.8	2.0	1.1	4.2	-4.6	-9.4
viii. Transport Equipment and Parts	4.3	3.9	1.7	3.1	12.0	-0.1	-0.1
Memo:							
Food Items (Composite)	**26.9**	**7.7**	**25.6**	**7.7**	**237.6**	**10.2**	**167.7**
WPI Excluding Food	**73.1**	**7.8**	**74.4**	**-1.6**	**-137.6**	**-5.5**	**-267.7**
WPI Excluding Fuel	**85.8**	**8.0**	**81.1**	**2.7**	**255.7**	**1.2**	**62.3**

WC : Weighted Contribution. P : Provisional.

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

as per the Fourth Advance Estimates for 2008-09). Responding to the price pressures, on May 26, 2009, the Forwards Markets Commission banned futures trading in sugar.

II.3.46 Metal prices were one of the key drivers of inflation in India during 2008-09. Domestic iron and steel prices inflation had reached 36 per cent, y-o-y, by end-August 2008 reflecting sharp increases in global prices. Since then, iron and steel prices have shown a decline and y-o-y change has turned negative (-18.4 per cent as on March 28, 2009). This decline in domestic iron and steel prices could be attributed to declining global prices, expected deceleration in demand, both domestic and external, as well as various fiscal measures in the form of reductions in customs duties and imposition of export duties on various steel items announced by the Government since April 2008. Overall, thus, changes in the prices of minerals oil, iron and steel, edible oils/oilseeds and oilcakes, cotton and sugar along with primary food articles were the key drivers of the WPI inflation trend in India during 2008-09.

II.3.47 One of the notable features of inflation trends during 2008-09 has been its relationship with the movements in the exchange rate of the rupee. Inflation increased significantly in India during November 2007-August 2008, a period when the exchange rate underwent appreciation largely on account of increased inflows of foreign capital, which should have benefitted inflation management through favourable pass-through effects. Since August 2008, inflationary pressures subsided considerably even though the exchange rate depreciated. While this might have enhanced the price competitiveness of Indian exports at a time when external demand was contracting, the pass-through effects on domestic inflationary conditions should have worked towards moderating the rapid decline in prices. A *prima facie* observation of the trends in the behaviour of the nominal exchange rate and inflation may suggest that the exchange rate pass-through effects on prices were working in the opposite direction in relation to the expected normal behaviour. However, in view of the leads and lags in transmission of effects from exchange rate to inflation, as also the unprecedented volatility seen in the primary determinants of inflation during 2008-09, empirical evidence on pass-through has to be seen as a dynamic process (Box II.17).

Box II. 17
Pass-through of Exchange Rate Movements to Inflation in India

Exchange rate pass-through, as a concept, refers to the degree of change in domestic prices that may result in response to movements in exchange rates of the domestic currency. The degree of pass-through from exchange rate movements to import prices and subsequently to general price level in the economy may depend on a number of microeconomic and macroeconomic factors. Microeconomic factors include price discrimination by producers, mark-up adjustments, local distribution costs, non-tariff barriers, the degree of returns to scale, and the price elasticity of demand for imported goods. The macroeconomic factors include the level of inflation, perception about the nature of exchange rate movements (temporary or permanent), invoicing pattern of trade, tariffs structure, the size and openness of an economy, and the monetary policy environment. The interactions among these host of factors often give rise to incomplete pass-through, suggesting that domestic prices do not change exactly in the same magnitude as the rate of change in the nominal exchange rate.

Available empirical findings in the Indian context provide broadly similar results as suggested in the literature, although the size of the pass-through coefficient differs. An analysis of exchange rate pass-through to domestic prices for the period 1970 to 2004, found the coefficient of exchange rate pass-through to be in the range of 8-17 basis points for different price indices (RBI, 2004). The same study using a different methodology for the period 1993-2004 found that a 10 per cent depreciation of the exchange rate increases wholesale prices by 0.4 per cent. Almost 60 per cent of this pass-through takes place within one year while 80 per cent of the pass-through is completed within two years of a shock to the exchange rate. With regard to the sensitivity of inflation to exchange rate movements, it was estimated that an increase of 10 per cent in import price inflation raises domestic inflation by up to 1.1 percentage points. The effect is the minimum for CPI inflation (0.5 percentage points) followed by GDP deflator (0.8 percentage points) and wholesale inflation (1.1 percentage points). These differences could be on account of the varied significance of imported goods in the respective baskets. Covering the period 1980-2005, Ghosh and Rajan (2006) found evidence of stronger pass-through in the post-reform period. Using Nominal Effective Exchange Rate (NEER), however, the pass-through coefficient was found to be statistically not significant. Moreover, estimated results from the Error Correction Models (ECM) showed little evidence of short run pass-through, whether for nominal Rupee-US Dollar or NEER.

The above results were also corroborated in the study by Khundrakpam (2007) for the post-reform period (August 1991 to March 2005). The study estimated the pass-through coefficients and found that a 10 per cent change in exchange rate leads to change in final prices by about 0.6 per cent in the short-run and 0.9 per cent in the long-run. The statistical tests on temporal behaviour of pass-

(Contd....)

(....Concld.)

through obtained from rolling regressions showed that, unlike in many countries, there was no evidence of decline in pass-through. A recent BIS study by Mihaljek and Klau (2008) provides estimates of the pass through from exchange rate and foreign price changes to inflation in 14 emerging market countries for the period 1994 to mid-2006. For India, this study suggests that 10 per cent change in exchange rate could lead to change in inflation to up to 2 per cent. Using recursive VAR models, Samantaraya (2009) found modest exchange rate pass-through to CPI inflation during the study period April 1993 to March 2008. Contrary to expectations, the exchange rate appreciation was found to be associated with rising WPI inflation in India, which could be attributed to several factors, like, administered fuel prices, progressive reduction of import tariffs and government incentives to domestic exporters in the face of the exchange rate appreciation.

To sum up, the various empirical studies for India show evidence of incomplete exchange rate pass-through to domestic prices. Since November 2007, both variables have moved in the same direction (*i.e.*, inflation increased when exchange rate was appreciating and inflation declined when exchange rate was depreciating). This could be attributed to the dominating effects of sharp international commodity price movements on domestic inflation, which might have more than swamped the pass-through effects of exchange rate changes. In an extremely volatile inflation environment, particularly in the face of equally volatile international commodity prices and exchange rates, empirical estimates of pass-through may turn out to be noisy, and even misleading, unless the estimates of pass-through control for the variations in other sources of inflation, including international commodity prices.

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International commodity prices increased at a much faster rate than the rate of appreciation in the exchange rate during the first phase and, as a result, the net effect on inflation through import prices still remained positive and strong. Similarly, since August 2008, the decline in global commodity prices has been much sharper than the exchange rate depreciation, causing the net effect on import costs to be negative and significant.

Consumer Price Inflation

II.3.48 Inflation, based on y-o-y variations in consumer price indices (CPIs), increased starting from June 2008, mainly due to increase in the prices of food, fuel and services (represented by the 'miscellaneous' group). Various measures of consumer price inflation remained high in the range of 8.0-9.7 per cent in March 2009 as compared with 7.3-8.8 per cent in June 2008 and 6.0-7.9 per cent in March 2008 (Table 2.33). The higher order of increase in consumer price inflation as compared to WPI inflation in recent months could be attributed to higher weight of food articles in CPIs and higher prices of food articles.

II.3.49 The recent divergence between inflation, as measured by wholesale price index and consumer price indices has been viewed in many quarters as a challenge for the conduct of monetary policy. In view of the large difference between WPI and CPI inflation, and inflation expectations not tracking the WPI inflation Reserve Bank uses full array of available information on inflation. For the conduct of policy, any index providing lead information and which is more representative could meet the necessary requirements of a price series. An important statistical issue of relevance to policy has been to examine why divergences between different price indices become large and particularly, if the divergences persist longer, then what are the lags in the transmission of wholesale price changes to retail prices (Box II.18).

Table 2.33 : Consumer Price Inflation - Major Groups

(Year-on-year variation in per cent)

CPI Measure	Weight	Mar-07	Mar-08	Jun-08	Sep-08	Dec-08	Mar-09	Apr-09	May-09	Jun-09
1	2	3	4	5	6	7	8	9	10	11
CPI-IW (Base: 2001=100)										
General	**100.0**	**6.7**	**7.9**	**7.7**	**9.8**	**9.7**	**8.0**	**8.7**	**8.6**	**9.3**
Food Group	46.2	12.2	9.3	10.5	13.1	13.1	10.6	10.4	11.7	–
Pan, Supari *etc.*	2.3	4.4	10.9	7.1	7.8	8.5	8.3	6.7	7.5	–
Fuel and Light	6.4	3.2	4.6	8.4	9.1	9.7	7.4	6.6	5.9	–
Housing	15.3	4.1	4.7	4.7	3.8	3.8	6.0	6.0	6.0	–
Clothing, Bedding *etc.*	6.6	3.7	2.6	2.5	2.5	4.2	5.0	4.2	4.1	–
Miscellaneous	23.3	3.3	6.3	6.2	7.6	8.3	7.4	7.4	7.4	–
CPI-UNME (Base: 1984-85=100)										
General	**100.0**	**7.6**	**6.0**	**7.3**	**9.5**	**9.8**	**9.3**	**8.8**	**9.7**	**9.6**
Food Group	47.1	10.9	7.8	9.6	13.2	13.4	12.2	11.1	12.9	13.6
Fuel and Light	5.5	6.4	4.6	5.3	6.2	7.7	5.9	6.7	5.8	1.3
Housing	16.4	5.6	4.0	3.8	3.5	3.5	5.8	6.0	6.0	6.0
Clothing, Bedding *etc.*	7.0	3.6	4.3	3.4	3.1	2.7	3.3	4.2	4.2	4.2
Miscellaneous	24.0	4.4	4.8	6.6	8.4	9.3	8.6	7.6	8.1	7.3
CPI-AL (Base: 1986-87=100)										
General	**100.0**	**9.5**	**7.9**	**8.8**	**11.0**	**11.1**	**9.5**	**9.1**	**10.2**	**11.5**
Food Group	69.2	11.8	8.5	9.6	12.0	11.9	9.7	9.1	11.2	12.4
Pan, Supari *etc.*	3.8	5.7	10.4	11.2	12.8	13.7	15.3	14.5	14.4	14.2
Fuel and Light	8.4	6.9	8.0	8.9	10.2	11.3	11.5	10.9	10.6	11.0
Clothing, Bedding *etc.*	7.0	3.5	1.8	3.1	6.0	7.0	7.4	7.9	7.6	8.3
Miscellaneous	11.7	6.8	6.1	6.5	7.1	7.0	6.5	6.2	6.6	6.1
CPI-RL (Base: 1986-87=100)										
General	**100.0**	**9.2**	**7.6**	**8.7**	**11.0**	**11.1**	**9.7**	**9.1**	**10.2**	**11.3**
Food Group	66.8	11.5	8.2	9.6	12.0	11.9	10.0	9.1	11.2	12.4
Pan, Supari *etc.*	3.7	5.7	10.6	10.9	12.5	13.4	15.0	14.0	14.1	14.1
Fuel and Light	7.9	6.9	8.0	8.9	10.5	11.3	11.5	10.9	10.6	11.0
Clothing, Bedding *etc.*	9.8	3.1	2.8	4.1	6.5	7.3	8.2	8.4	8.3	8.8
Miscellaneous	11.9	6.3	6.2	6.8	7.4	7.5	6.7	6.2	6.4	6.2
Memo:										
WPI Inflation (end of period)		5.9	7.7	12.0	12.1	5.9	0.8	1.7	0.9	-1.6
GDP Deflator based Inflation*		5.5	4.9	8.0	10.6	8.3	7.8	–	–	–

* : Data for March pertain to full year.
IW : Industrial Workers. UNME : Urban Non-Manual Employees. AL : Agricultural Labourers. RL : Rural Labourers.
Source : Ministry of Commerce and Industry, Labour Bureau and Central Statistical Organisation, Government of India.

Asset Prices

II.3.50 Asset price cycles regained renewed interest in the aftermath of the sub-prime crisis, with increasing realisation that asset price cycles could lead and even to some extent condition the course of the business cycle. Despite the absence of any one convergent view on the monetary policy response to asset price cycles, asset prices clearly represent lead indicators of growth and inflation outcome, even though the exact magnitude of the impact of asset price cycles on inflation and growth and the timing and duration of the impact could be country specific and empirical in nature. In the context of India, the wealth effect associated with the significant correction in stock prices during the global crisis could be viewed as not very significant (Box II.20).

Box II.18
WPI and CPIs : Divergence in Inflation

WPI based inflation has been generally considered as the measure of headline inflation in India, even though the Reserve Bank monitors the full set of available price indices for its overall macroeconomic assessment. Apart from WPI, four different consumer price indices targeting at different sections of the labour force *viz.*, industrial workers (IW), urban non-manual employees (UNME), agricultural labourer (AL) and rural labourer (RL) are also available in India.

In the recent period, the large difference between WPI based and CPI based inflation has raised some confusion about the information properties of such data for meaningful economic analysis. The differences in CPI and WPI inflation could emerge, to a large extent, on account of the differences in the coverage of commodities/target groups in the different indicators (Table A).

The WPI and CPIs differ in terms of their weighting pattern. While food items get the maximum weight ranging from 46 per cent in CPI-IW to 69 per cent in CPI-AL, food articles in the primary group and food products in the manufactured group in the WPI series together have a weight of only 27 per cent. The CPIs are, therefore, more sensitive to changes in prices of food articles. The fuel group on the other hand gets a much higher weight in the WPI series (14.23) than the CPIs (ranging from 5.5 to 8.4). While services do not come under the ambit of present WPI, the coverage of non-agricultural products or tradable items is better in WPI than CPI.

The prices of primary food articles remained high both in WPI and CPIs during 2008-09. As CPIs have higher weights, prices of food articles dominated the current inflation more in CPI than that of WPI. In addition, the fall in the prices of manufactured food products though contributed to a part of the decline in WPI during the second half of 2008-09, it did not get reflected with the same impact in CPI due its lower weight. The CPI fuel group continued to register inflation in the range of 9 per cent due to the high prevailing price of LPG. It may be mentioned that even after the recent downward revision (from the increase of Rs.50 to Rs.25 per cylinder) of LPG price, it is still higher than the levels a year ago.

The CPI inflation generally tends to lag behind the WPI inflation, and the lag pattern is not static. Some part of the divergence between CPI and WPI may also be attributed to actual price differences at the wholesale and retail levels. As the retail market receives commodities from wholesale market, it is expected that the changes in the wholesale prices will be reflected in retail prices after some time lag.

Econometric evidence indicates that the divergence between CPI-IW and WPI is a stationary series (*i.e.*, deviations are around the mean) with zero mean implying that there exists no secular upward or downward movement in the difference between CPI and WPI. The contemporaneous correlation between WPI and CPIs continue to be high and statistically significant. Their association, though, is gradually falling over the years. Thus it is the differences between the commodity baskets and the weights which largely explain the difference between the WPI and CPI based inflation in India. Moreover, the past empirical behaviour suggests that with a lag, the CPI exhibits better correlation with the WPI. As the headline inflation, WPI continues to be relevant indicator of inflation in India, though persistent divergence between different price series, when observed, could weaken the case for use of WPI alone for price analyses. In this context, the plans to generate data on two new price series, namely, CPI(Rural) and CPI(Urban) could be useful (Box II.19).

Table A: Salient features of price indices

Sr.No.	Item	CPI-UNME*	CPI-IW	CPI-AL	CPI-RL	WPI
	1	2	3	4	5	6
1	Weights allocated on the basis of	Consumer Expenditure Survey				Weights allocated based on wholesale transactions
		First:1958-59 Latest: 1982-83	First:1958-59 Latest: 2001	First:1956-57 Latest: 1983	First:1983 Latest: 1983	
2	Base year of the current series	1984-85	2001	1986-87	1986-87	1993-94
3	No. of items/commodities in basket	146-365	120-160	260	260	435
4	No. of centres/villages/quotations	59	76	600	600	1918
5	Time lag of the index	2 Weeks	1 month	3 weeks	3 weeks	2 weeks
6	Frequency	Monthly	Monthly	Monthly	Monthly	Weekly

* : Price collection for CPI-UNME was discontinued with effect from April 2008 and CPI-UNME is now compiled based on ratio method after aggregating the subgroup level indices of CPI-IW using CPI-UNME weights at group/sub-group level for all India.

Source : Government of India, Economic Survey 2006-07.

Box II.19
CPI for the Urban and Rural Population: The Approach

The National Statistical Commission (2001) has recommended, *inter alia*, that the current CPIs do not provide information on changes in the prices for the entire rural and urban population since they are designed to measure the changes in the prices of goods and services consumed by specific segments of the population and hence, there is a need to compile the CPI separately for the entire rural and urban population. Ideally, a measure of inflation should cover the entire gamut of goods and services being purchased by an average consumer in the domestic market. At present, there is no common measure of inflation arising from consumer prices in India, which covers all the population groups and a common set of transactions. The existing CPI measures differ also in terms of basket of goods and services and their weights, geographical areas, base period, etc. These indices do not, as such, reflect the change in the price behaviour and effect of price fluctuations of various goods and services consumed by the population of the country. Therefore, there is a need to construct a harmonised measure of CPI, which can provide a common measure of consumer price-based inflation for the country as a whole. The compilation of CPI (Urban(U)) would be a major step towards this direction. Similar exercise for CPI(Rural(R)) could be taken up at the time of revision of CPI (Agricultural Labour(AL)) and CPI (Rural Labour(RL)), in keeping with the recommendations of the National Statistical Commission.

For monetary policy purpose, a measure of inflation that truly reflects the purchasing power of domestic currency in domestic market would be appropriate. The way the existing CPIs are compiled renders the interpretation of inflationary pressures difficult. The analytical value of information provided by CPIs for the measurement of inflation could be enhanced if the coverage represents the entire population of consumers. The CPI(U) would be a building block towards this goal and is expected to provide a useful tool for monitoring the underlying price movements of the target group. As Consumer Expenditure Survey (CES) is conducted by NSSO once in every five years, it would be possible to construct weighting diagram of CPI(U) afresh every time this survey is conducted. As the sample size of the detailed quinquennial CES is fairly large, CPI(U) is expected to adequately capture the underlying price movements of urban population.

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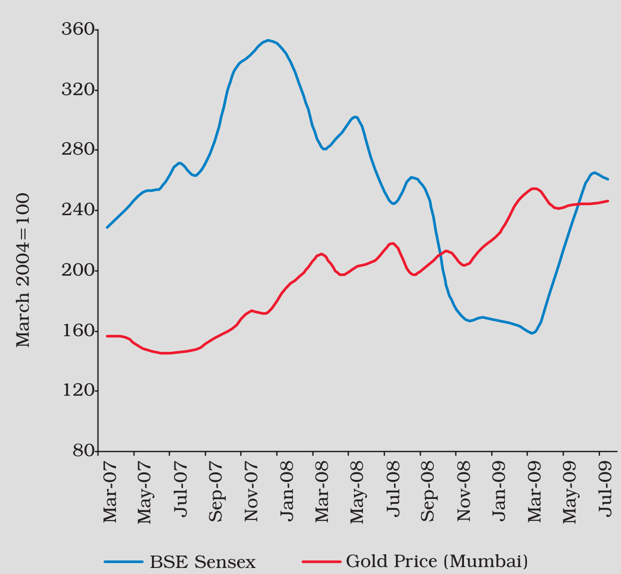
2. Report of the National Statistical Commission, Volume II, August 2001, pp.333-334.

II.3.51 The trends in equity prices during 2008-09 were largely in consonance with trends in major international financial markets, which declined substantially in the wake of deepening turmoil in international financial markets, and the associated concerns about slowdown in the domestic economy (Section V on financial markets of this Chapter for more detailed analysis). Domestic gold prices, which had eased somewhat during the second quarter of 2008-09 mirroring movements in international prices, hardened subsequently to around Rs.15,255 per 10 grams in March 2009 as international prices recorded further increase (Chart II.25).

II.3.52 Apart from the information on equity and gold prices, information on other major assets of the households like house prices have become increasingly important, both for monitoring price trends in these fronts and as leading indicators of economic activity. There have been substantial methodological improvements in recent years in terms of collection and compilation of data pertaining to house prices (Box. II.21).

Chart II.25: Asset Price Movements



Box II.20
Wealth Effects of Corrections in Stock Prices in India

Since the onset of the global crisis, stock markets around the world have delivered significant negative wealth effects, and in country specific conditions the associated effects on aggregate demand, particularly consumption demand, could have been varied. Transmission of assert price cycles to business cycles and even to headline inflation cycles through the wealth effect is an issue which has assumed enormous policy significance in the aftermath of the sub-prime crisis.

A stock market boom may increase consumption demand, whereas a decline in stock market wealth may either contribute to a slowdown in economic activity or accelerate an existing slowdown (Deaton, 1992). Estimates of stock market wealth effects for a 10 per cent change in equity prices range from 0.15 to 0.30 per cent in Japan and 0.1 to 0.3 per cent in various European countries to 0.3 to 0.7 per cent in the United States (IMF, 2002).

This issue of stock market wealth effect in India is relevant in the context of a sharp upswing in stock prices between April 2003 and November 2008, followed by an equally steep decline. The BSE Sensex *average* monthly index declined by about 55 per cent between December 2007 (the peak) and March 2009 (the trough), from 19,827 to 8,966. Such a large swing in stock prices could have resulted in substantial erosion of household wealth, with associated implications for the consumption demand, which may be relevant for the countercyclical demand management policies.

In a structural VAR model, four variables are used for examining the impact of changes in stock market wealth effect on consumption demand, *i.e.*, y = real income, c = real consumption demand, r = short-term interest rate, and w = real stock price. These are the key variables which could influence real consumption demand; nominal interest rate has the combined effects of inflation and real interest rate, both of which may influence consumption demand in opposite directions. Data for the period 1996:Q2 to 2008:Q4 were used, *i.e.*, the period coinciding with significant changes observed in the Indian stock price cycles.

The estimated model shows that a positive real income shock causes a persistent increase in real consumption demand. The magnitude of the shock reveals that one per cent increase in real income causes on an average 0.57 per cent increase in the real consumption demand. The stock price shock, signifying the stock market wealth effect, has only short-run and marginal effect on consumption demand. The estimates suggest that a 10 per cent positive shock (increase) to stock prices raises consumption demand by 0.44 per cent in the next quarter. There does not seem to be any long-run effect of stock market wealth effect on consumption demand. The variance decomposition analysis explains the contribution of various factor specific shocks to overall fluctuation in real consumption demand. It is the real income shocks that explain the movement of real consumption demand over the medium to long-run horizon (Table A). Short run interest rate and stock wealth shocks explain only marginal fluctuations in real consumption demand.

Table A: Percentage Variance of Consumption Demand Explained by Various Shocks

Quarter	Income shock	Interest rate	Stock wealth	Consumption demand shock
1	13.1	0.0	0.0	86.9
4	29.8	4.4	5.9	59.9
8	46.9	3.8	6.5	42.9
12	57.4	3.1	7.4	32.1
16	63.9	2.7	8.2	25.2
20	68.5	2.5	8.7	20.4

Note: Shocks to real consumption demand itself explains the role of missing variables (which may include housing wealth as well), and the aggregation of variation in consumption demand on account of all factors should add to 100 (*i.e.,* the total for each row).

Leverage could have a critical role in magnifying and propagating the adverse effects of a major asset price correction, and in the Indian stock market, possible absence of large leveraged positions (unlike in developed countries) could be one of the main factors that could yield weak effects on consumption demand. When leverage is used to build assets, correction in asset prices could entail negative wealth effects, but the contractual liabilities have to be serviced at the contracted rate. Such eventualities could have two major ramifications of significance to a central bank: (a) with lower asset prices (implying lower value of the collaterals), the capacity of the borrowers to borrow would be constrained on the one hand, and on the other, banks may also tighten the credit standards (in terms of asking for more margins and collaterals, since banks address the problem of information asymmetry to a large extent through collaterals), which together could further dampen credit growth, and (b) to offset the negative effect of wealth erosion arising from asset price correction, public in general may save more from current income and deleverage as well, which could delay the recovery process. For explaining the pace and timing of recovery from a slowdown, the wealth effects associated with asset price cycles could be useful.

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Box II.21
House Price Index: Recent Developments

In recent years, many countries have experienced wide swings in the housing prices. In the context of the sub-prime crisis, collection of representative data on house price indices and analytical interpretation of the dynamics of house price changes in relation to the macroeconomic conditions of a country has assumed critical significance for conduct of policies. Housing serves as a major source of individual wealth. Hence, changes in its value may influence consumer spending and saving decisions, in turn, could affect the overall economic activity. Changes in housing prices could also both impact and reflect the health of the residential investment sector, which is a major source for employment generation. Furthermore, house prices represent one of the key determinants of housing affordability, which is an important public policy goal in many countries. To understand the behavior of housing prices and their influence on the economy, it is crucial to have an accurate measure of aggregate housing prices. In practice, however, it is difficult to develop such a measure. Housing is an extremely heterogeneous good, and houses are sold only infrequently. Heterogeneity makes it difficult to distinguish between aggregate and individual price variations. The infrequency of sales implies that, in any time period, prices are not observed for most houses.

Academic research shows that a house price index should be estimated using the finest disaggregation of time variable as possible. There is an obvious benefit of building an index at a higher frequency level, for facilitating empirical research and conduct of policies. A timely and frequently reported index could unsmooth the true price movements and tend to better address market efficiency questions. Two criteria have to be taken into account, however, when using a small data set at a higher frequency level for index reporting. The first criterion is the index's stability at various sample sizes. The second criterion is the index's consistency when updated. In other words, what the overall index's volatility could be when the next period's sales or previous period's late sales get recognised and updated.

From a statistical point of view, shortening the data collection time could imply that: a smaller sample size (sub-sample) will have to be used; and such a collected sub-sample will at best represent the sample population only. The sample size is related to the precision of the estimate (usually precision is inversely proportional to the square root of the sample size). Often it uses a confidence interval to express the precision. The other thing which one needs to be concerned about, when a small sample size is used, is that whether we can assume normality of the population. Asymptotic normality is assumed for many econometric estimators but it only holds if the sample contains large number of observations. How "large" a sample size should be for asymptotic analysis to be appropriate depends on the underlying population distribution. Obviously, there is a balance between the sample size and temporal aggregation in real estate index construction.

In the face of such challenges, three methodologies have been developed to measure the aggregate price of housing. One approach takes a simple average of all house prices observed in a period—usually a mean or median. Doing so essentially ignores the problems raised by heterogeneity and infrequent sales. The benefit is that price series employing this average methodology can often summarise an immense number of transactions on a timely basis. A second approach—the repeat sales methodology—focuses on houses that have been sold more than once. So long as the quality of the houses remain unchanged, their rate of price appreciation is expected to be the same as the rate of aggregate house price appreciation. Price data employing the repeat sales methodology do a very good job of controlling for heterogeneity, while providing aggregate price estimates for numerous geographies. A third approach the hedonic methodology—uses statistical techniques to control for differences in quality. In particular, correlations between the sale price of homes and their attributes are used to estimate "prices" for various attributes, which are then used to calculate the sum total price of a representative bundle of attributes. Unfortunately, properly implementing the hedonic approach requires more detailed data attributes than are typically available. Nevertheless, a leading series employing the hedonic approach does an excellent job in pricing an approximately constant-physical-quality new house over time.

Which of these measures could provide the best estimates may very much depend on one's purpose. One possible purpose relevant to policy is to estimate the increase in homeowners' wealth from increase in house prices. To estimate such an aggregate price rise, the repeat sales index is best; it does a reasonably good job of controlling for variations in the quality houses. The main caveat is that the typical rate of price change as per this measure could be somewhat overstated, due both to the failure to control for home improvement and the unrepresentative nature of homes with repeat sales. A second related purpose could be to estimate the aggregate change in household net worth due to the increase in house prices. In other words, rather than estimating the typical gain, this purpose seeks to estimate the total gain. A third possible purpose could be to gauge the health of the residential construction sector. Rising prices are an obvious stimulant to residential investment. On the one hand, developers have a greater incentive to build. On the other, owners of existing homes could extract equity and engage in home improvement. A fourth possible purpose for estimating the aggregate price of housing could be to gauge average affordability.

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II.3.53 Information on other asset prices like housing has not been available in India on a continuous basis. The Economic Survey, Government of India, in recent years presents details of house price indices of select cities in India. To improve the data availability on house prices the Reserve Bank constituted a Technical Advisory Group (TAG) on Development of Housing Start Up Index (HSUI). The details of the recent developments in initiatives for constructing a house price index as well as recommendations of the TAG are given in Box II.22.

Box II.22
Housing Start-Up Index in India

Information on housing start ups is considered to be one of the leading economic indicators. As high financial outlays are included in new construction projects, that could symbolises the outlook for investment, business and consumer confidence. Trends in the housing start ups may also provide valuable clues to homebuilders, banks, lenders, and home furnishings companies.

Keeping in mind the importance of such an indicator for Central Banks, Reserve Bank of India constituted a Technical Advisory Group on Development of Housing Start Up Index (TAG on HSUI) under the Chairmanship of Prof. Amitabh Kundu, Jawaharlal Nehru University, New Delhi. The TAG comprised top officials from RBI, CSO, NSSO, NHB, NBO, HUDCO, SBI, 4 state DES and renowned academicians in the field. The Group submitted its Report in the final meeting of the TAG on HSUI, held on 3rd March 2009. The major recommendations of the Group are summarised as follows:

The HSUI may be constructed based on two sets of data: (a) The start up coefficients reflecting the recent experience of conversion of housing permits into housing starts and (b) the number of permits issued during the last two years or so. The Group observed that the present system of data collection, as reported by National Building Organisation (NBO), Ministry of Housing and Urban Poverty Alleviation, GoI along with its formats may be fine tuned to obtain the requisite data on building permits on a quarterly basis. Conducting a field survey with adequate coverage of the urban centres that can be representative of the country as a whole would be the first step in institutionalising a system for regular release of HSUI. The Group recommended that the survey may be conducted once in three years for estimating/updating the start rate matrices for each of the selected centres. The Group recommended that as an initial effort, the HSUI may be launched in six Metros and a select sample of Class I towns. The field survey for estimating the start rate matrices can be done in two phases. In the first phase, the data on building permits can be collected in the selected centres using Survey on Building Permits (SBP). The SBP can be conducted by collecting the details of all permits issued for new residential construction from permit issuing authorities of the selected centres. In the second phase, a Survey on the Housing Starts (SHS) based on a sample of permits issued for new residential buildings can be identified. The follow-up of this sample permits can be done by canvassing a Schedule.

Based on this data corresponding to each quarter of any year, 9 start rates (1 for the quarter in which permits are issued + 7 for the 7 succeeding quarters + 1 for all the starts after 2 years) corresponding to 4 different quarters of a year can be worked out and a 4x9 matrix of start rates (coefficients) can be obtained. These start rate (coefficient) matrices can be used to obtain the housing starts for the selected Metros and Class I towns for which the regular data on building permits can be obtained on quarterly basis. For All India level Index the formulae given below can be used to estimate the HSUI for the quarter t.

$$HSUI_t = \frac{\sum_{i=1}^{n} A_{i0} S_{it}}{\sum_{i=1}^{n} A_{i0} S_{i0}}$$

Where **n** is the number of centres, $\mathbf{A_{i0}}$ is the average FSA of the i^{th} centre in the base period; $\mathbf{S_{it}}$ is the number of housing starts in the t^{th} quarter in i^{th} centre; $\mathbf{S_{i0}}$ is the number of housing starts in the base period in the i^{th} centre.

The Group recommended a Standing Committee to be set up by the Reserve Bank of India to launch the initiative, monitor its progress, commission and overview the surveys for constructing start up matrices and consider increasing the scope and coverage of HSUI over time. It also suggested constituting an Advisory Committee on HSUI to be formed at the NBO to guide and oversee the entire process of compilation of housing permit data from concerned local bodies and the Department of Economics and Statistics of the state governments on a regular basis.

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Developments during 2009-10

II.3.54 WPI inflation (y-o-y) declined further from 0.8 per cent at end-March 2009 and turned negative in June 2009 and continued to remain negative since then (-1.5 per cent as on August 8, 2009) largely reflecting the base effect of sharp increase in prices recorded during the first half of 2008-09. During 2009-10 (up to August 8, 2009), however, the WPI has increased by 3.8 per cent indicating the existence of price pressures. Consumer price inflation, as reflected in various consumer price indices, increased further and remained in the range of 9.3-11.5 per cent in June 2009.

II.3.55 To sum up, the large volatility in inflation conditions during 2008-09, which was driven largely by non-monetary factors, posed complex challenges for the conduct of monetary policy in India. Significant divergence between CPI and WPI based inflation and major corrections in asset prices added to the complexity of the challenges. Before the ramifications of the financial crisis became visible, global commodity and food prices had escalated to crisis proportions, which fell equally sharply in the second half of the year as the global recession deepened. In both phases of the cycles, the transmission of the global inflation to Indian inflation was fast and significant, notwithstanding the fiscal measures taken to reduce import costs of certain price sensitive items and the limited pass-through because of administered pricing of certain commodities. The stance of monetary policy also shifted the balance of focus from containing inflation in the first half of the year to arresting slowdown in growth and preserving financial stability in the second half of the year. During 2009-10, year-on-year WPI inflation has remained low and turned negative since June 2009, which is on account of the high base of sharp increases in prices during the first half of 2008-09. Thus, the low WPI inflation reflects mostly a statistical phenomenon, and should not be interpreted as structural deflation arising from demand contraction.

IV. GOVERNMENT FINANCES

II.4.1 The stabilising role of fiscal policy assumed centre stage in the face of a slowing economy confronted with a decline in external demand as well as domestic private demand. This necessitated significant and swift change in the fiscal stance from gradual consolidation in the previous years to proactive counter-cyclical expansion in 2008-09, which led to considerable deviation from the recent trends in all deficit parameters.

II.4.2 The concern over high inflation in the first half of the year was addressed by appropriate fiscal measures in the form of tax cuts and subsidies. During the second half, concerns relating to growth slowdown and associated widespread demand for government support gave rise to use of a fiscal strategy combining both higher expenditure and tax cuts, the aggregate magnitude of which turned out to be significant at 3.1 per cent of GDP (including subsidies and agricultural debt waiver). In a globalised world facing synchronised recession, appropriate use of discretionary fiscal stabilisation has been a common response across several countries, even though the magnitude and content of measures have varied, depending on country specific needs and conditions.

II.4.3 The combined finances of the Central and State Governments deteriorated considerably in the revised estimates (RE) for 2008-09 owing to the impact of global economic slowdown and fiscal stimulus measures by way of indirect tax cuts and additional expenditure through three supplementary demands for grants undertaken by the Central Government to support growth. Consequently, revenue buoyancy dipped substantially resulting in lower revenue receipts to GDP ratio, while total expenditure to GDP ratio increased sharply (Table 2.34). As a result, the key deficit indicators, *viz.*, gross fiscal deficit (GFD), revenue deficit and primary deficit in 2008-09 (RE) widened substantially from the budgeted levels, and were higher than those of 2007-08 by 4.2-4.8 percentage points of GDP. It may be noted that the

Table 2.34: Major Fiscal Indicators: Combined Finances

(Per cent of GDP)

Item	1990-91	1995-96	2007-08	2008-09 RE
1	2	3	4	5
1. Gross Fiscal Deficit	9.4	6.5	4.2	8.9
2. Revenue Deficit	4.2	3.2	0.2	4.4
3. Primary Deficit	5.0	1.6	-1.3	3.5
4. Revenue Receipts	18.6	18.3	22.2	21.9
(i) Tax Revenues	15.4	14.7	18.5	18.1
Direct Taxes	2.5	3.5	7.5	7.4
Indirect Taxes	12.9	11.2	11.0	10.7
(ii) Non-tax Revenue	3.2	3.6	3.7	3.8
5. Total Expenditure	28.7	25.4	27.4*	31.2
(i) Developmental Expenditure	17.1	13.9	14.7*	18.6
(ii) Non-developmental Expenditure	11.5	11.5	12.7	12.6
of which: Interest Payments	4.4	5.0	5.5	5.4
6. Debt@	64.7	61.0	75.1	74.7
		Per cent		
Extra-Budgetary Items	0.2	0.3	0.8	1.8
Capital Outlay/ Total Expenditure	13.1	10.8	17.0	14.2
Interest Payments/ Revenue Receipts	23.6	27.2	24.6	24.5
Revenue Deficit/ Gross Fiscal Deficit	44.6	48.8	4.7	49.6

RE : Revised Estimates.

* : Includes an amount of Rs.35,531 crore on account of acquisition of the Reserve Bank's stake in State Bank of India (SBI) by the Government of India.

@ : Includes 'reserve funds' and 'deposits and advances'.

Note : 1. All indicators are based on combined data of the Centre and States with inter-Governmental transactions netted out.

2. Data in respect of the State Governments are provisional for the years 2007-08 onwards and relate to budgets of 27 State Governments of which 2 are *vote on account*.

3. The fiscal ratios of combined finances are based on latest GDP available from the Central Statistical Organisation.

gains acquired in terms of fiscal consolidation in the recent years through the concerted efforts of the Central and State Governments provided the fiscal space to the Government to pursue counter-cyclical fiscal policy.

CENTRAL GOVERNMENT FINANCES – 2008-09

Revised Estimates

II.4.4 The Union Budget for 2008-09 was presented against the backdrop of robust average GDP growth of 8.8 per cent witnessed during the period 2003-04 to 2007-08, and accordingly the Budget had set somewhat optimistic targets for the key deficit indicators for 2008-09. The key deficit indicators of the Central Government in the revised estimates, however, turned out to be significantly higher than the budget estimates (Table 2.35 and Chart II.26), reflecting the impact of adequate fiscal interventions that became necessary to deal with the challenges of high inflation in the first half and the slowing economy in the second half. The deviations in the deficit indicators as given in the revised estimates from their respective budgeted levels need to be seen in the context of the unprecedented and unexpected post-budget developments in the economy and the fiscal response to the same. During the first half of 2008-09, the Government undertook fiscal measures in the form of tax cuts in primary and manufactured products to contain the inflationary pressures arising from high global commodity prices, which led to some revenue loss. During the second half of the year, as concerns relating to growth moderation increased, the Government had to undertake additional spending and effect further tax cuts as part of the fiscal stimulus package to support aggregate demand in the face of sharp deceleration in private consumption demand.

II.4.5 When contraction in private demand leads to decline in output to below its potential level, higher government expenditure directly helps in generating supply response, given the existence of excess capacity on account of the decline in private demand. As a result, the output-gap gets narrowed down. This is as per the normal counter-cyclical stabilising effect of fiscal policy. Moreover, national income accounting practices impute the output of the Government as equivalent of expenditure incurred by the Government for provision of its services. While a part of the total increase in

Table 2.35: Major Fiscal Indicators of the Central Government

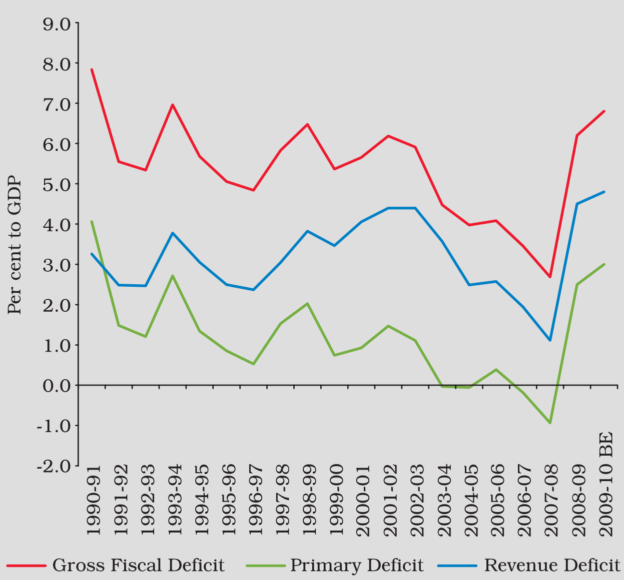
(Amount in Rupees crore)

Item	2008-09 (BE)	2008-09 (RE)	2009-10 (BE)	Variation (3 over 2)		Variation (4 over 3)	
				Amount	Per cent	Amount	Per cent
1	2	3	4	5	6	7	8
1. Revenue Receipts	6,02,935	5,62,173	6,14,497	-40,762	-6.8	52,324	9.3
2. Disinvestment	10,165	2,567	1,120	-7,598	-74.7	-1,447	-56.4
3. Revenue Expenditure	6,58,119	8,03,446	8,97,232	1,45,327	22.1	93,786	11.7
of which: (a) Interest Payments	1,90,807	1,92,694	2,25,511	1,887	1.0	32,817	17.0
4. Capital Outlay	84,522	83,305	1,11,267	-1,217	-1.4	27,962	33.6
of which:							
Defence	48,007	41,000	54,824	-7,007	-14.6	13,824	33.7
5. Net Lending	3,746	4,504	8,114	758	20.2	3,610	80.2
6. Aggregate Expenditure	7,50,884	9,00,953	10,20,838	1,50,069	20.0	1,19,885	13.3
7. Revenue Deficit (3-1)	55,184 (1.0)	2,41,273 (4.4)	2,82,735 (4.8)	1,86,089	337.2	41,462	17.2
8. Gross Fiscal Deficit (4+5+7-2)	1,33,287 (2.5)	3,26,515 (6.0)	4,00,996 (6.8)	1,93,228	145.0	74,481	22.8
9. Primary Deficit (8-3a)	-57,520 (-1.1)	1,33,821 (2.5)	1,75,485 (3.0)	1,91,341	332.7	41,664	31.1

BE : Budget Estimates. RE : Revised Estimates.
Note: Figures in parentheses are percentages to GDP.

expenditure by the Government in 2008-09 relates to transfers, the remaining relates to expansion in both consumption and investment demand. The

Chart II.26: Deficit Indicators of the Central Government



Central Government's net additional expenditure of Rs.1,58,858 crore provided for in the supplementary demand for grants during 2008-09 included transfers such as fertiliser subsidies (Rs.38,863 crore) and agricultural debt waiver (Rs.15,000 crore). The remaining net additional expenditure of Rs.1,04,995 crore could be broadly segregated into consumption of goods and services (Rs.66,255 crore) and the investment component (Rs.38,740 crore). The fiscal multiplier is generally observed to be higher for investment expenditure than consumption expenditure, though the impact of investment expenditure could be felt over a longer period.

II.4.6 Reflecting the large variations in the economic conditions during the year, the gross tax revenue of the Central Government, which witnessed a growth of 25.3 per cent during the first half of 2008-09 over the corresponding period of the preceding year, declined by 11.6 per cent during the third quarter of the year over the corresponding quarter of the preceding year. This was primarily on account of post-budget tax cuts as well as dampened revenue effects of growth moderation. The gross tax revenue in the revised estimates for 2008-09 was, thus, placed lower than the budget estimates, on account of changes in the indirect taxes such as customs and excise duties and lower realisation in direct taxes due to the economic slowdown, which together affected collections under all the major forms of taxes. Collections under service tax and taxes such as banking cash transaction tax, fringe benefit tax, taxes of UTs and other taxes and duties, which constitute a small proportion of the gross taxes, however, were somewhat higher than the budgeted level (see Table 2.43). Consequently, the net tax revenue (*i.e.,* net of tax revenue transferred to the States) was also placed lower than the budgeted level. Non-tax revenue, however, was placed higher in 2008-09 (RE) than the budget estimates for the year due to an increase of 10.0 per cent in 'other non-tax revenue', such as, economic services, other general services and grants-in-aid and contributions. Other major components, *viz.,* dividends and profits and interest receipts were lower in the revised estimates than in the budget estimates. The revenue receipts (net) of the Centre in the revised estimates for 2008-09 were, therefore, lower than the budgeted level.

II.4.7 On the expenditure front, large sums were provided for under the three supplementary demands for grants with a view to meeting the resource needs of the fiscal stimulus measures and other expenditures. The aggregate expenditure of the Central Government, as a result, were substantially higher in the revised estimates for 2008-09 than the budget estimates, particularly in the revenue account (see Table 2.35). The increase in revenue expenditure was on account of subsidies and defence expenditure in the non-plan component and rural development under the plan component. Subsidies in the revised estimates were higher by 80.9 per cent, primarily due to increase in fertiliser and food subsidies that were necessary to soften the impact of significant rise in international commodity prices (Table 2.36). Implementation of the Sixth Pay Commission award for defence personnel increased defence revenue expenditure. With regard to capital expenditure, while the defence capital outlay declined during 2008-09, non-defence capital outlay increased. Net lending was also higher in the revised estimates for 2008-09, with loan disbursements more than offsetting loan recoveries.

II.4.8 In view of the sharp increase in expenditure and the deceleration in tax revenue, the key deficit indicators, *viz.,* revenue deficit, gross fiscal deficit (GFD) relative to GDP, widened significantly in the revised estimates for 2008-09 over the budget estimates and primary balance was a high deficit in contrast to the budgeted primary surplus for 2008-09 (see Table 2.35).

Table 2.36: Subsidies of the Centre

Item	2005-06	2006-07	2007-08	2008-09BE	2008-09RE	2009-10BE
1	2	3	4	5	6	7
Subsidies	47,522 (1.3)	57,125 (1.4)	70,926 (1.5)	71,431 (1.3)	1,29,243 (2.4)	111276 (1.9)
of which:						
i. Food	23,077 (0.6)	24,014 (0.6)	31,328 (0.7)	32,667 (0.6)	43,627 (0.8)	52490 (0.9)
ii. Fertiliser	18,460 (0.5)	26,222 (0.6)	32,490 (0.7)	30,986 (0.6)	75,849 (1.4)	49,980 (0.8)
iii. Petroleum	2,683 (0.1)	2,699 (0.1)	2,820 (0.1)	2,884 (0.1)	2,877 (0.1)	3,109 (0.1)

RE : Revised Estimates BE : Budget Estimates
Note : Figures in parentheses are percentages to GDP.

II.4.9 Reflecting the financing needs of an enlarged fiscal deficit, the net market borrowings were over two and a half times the budgeted levels and financed over four-fifths of the GFD in the revised estimates as compared with the budgeted financing of about three-fourths of the GFD during 2008-09. Short-term borrowings financed about one-fifth of GFD in the revised estimates (9.3 per cent in the budget estimates). Draw down of cash balances financed nearly a tenth of GFD (5.4 per cent in budget estimates). Contribution to GFD financing from 'deposit and advances' and 'external assistance' were less in the revised estimates than in the budget estimates (see Table 2.47).

II.4.10 The widening of key fiscal deficit indicators during 2008-09 has been the result of the combined effect of the operation of automatic stabilisers due to economic slowdown and the discretionary policy measures to contain the slowdown. Thus, while the economic slowdown has widened the deficit indicators through direct effects in terms of compressing revenue receipts, the fiscal response to the slowdown has been manifested in the form of higher expenditure and tax cuts, which together have contributed to wider deficits. In the cross-country context, the size of discretionary fiscal stimulus appears to have been determined partly by the magnitude of economic slowdown, as in the G-20 countries, and partly by the size of automatic stabilisers, as in the OECD countries (Box II.23). Despite India being one of the least affected countries in relation to the other G-20 countries in terms of the scale of growth deceleration, the fiscal stimulus used by India has been one of the largest as percentage of GDP.

II.4.11 As against the large dose of discretionary stimulus, the size of automatic stabilisers in India could be at around 0.5 per cent of GDP in 2008-09. This may appear to be on the lower side when compared with those in the advanced economies but is comparable with those in EMEs such as Brazil, China, Indonesia, and South Africa (Box II.24).

Provisional accounts

II.4.12 The provisional accounts for 2008-09 released by the Controller General of Accounts indicate that the revenue deficit and the GFD relative to GDP deteriorated by 0.2 percentage points each *vis-à-vis* the revised estimates mainly on account of lower revenue receipts (Table 2.36). It may be noted that although total expenditure in the provisional accounts was lower than the revised estimates by Rs.19,484 crore, it is the deterioration in revenue receipts (by Rs.17,522 crore), recovery of loans (by Rs.3,540 crore) and other receipts (by Rs.2,021 crore), which led to further widening of deficit indicators.

Debt Position of the Central Government

II.4.13 The outstanding domestic liabilities of the Central Government comprising of internal debt and other liabilities such as National Small Savings Fund (NSSF), state provident funds, other accounts, reserve funds and deposits declined to 56.6 per cent of GDP at end-March 2009 (RE) from 57.7 per cent at end-March 2008. The reduction in debt to GDP ratio, despite the sharp increase in Government borrowings to finance the higher deficits and increased recourse to extra-budgetary liabilities such as special securities to oil marketing and fertiliser companies, was enabled by a higher nominal GDP growth relative to the growth in domestic liabilities and a sharp reduction in government's liabilities under the MSS. Internal debt continues to be the largest component of the outstanding liabilities of the Central Government (64.2 per cent of the total debt at end-March 2009) followed by liabilities on account of NSSF and other accounts (15.2 per cent and 10.2 per cent, respectively).

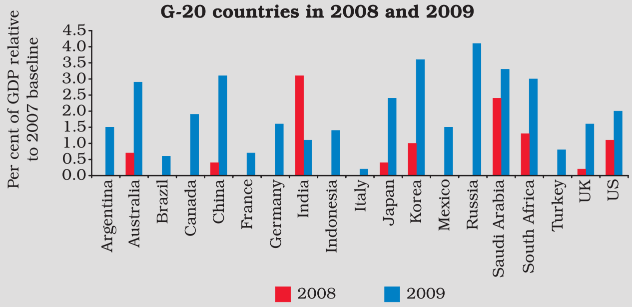
Box II.23
Fiscal Stimulus Measures: Cross-Country Evidence

In the context of the fiscal policy response to the current crisis there has been a renewed debate on the role of discretionary fiscal policy as a counter-cyclical measure. Several countries have undertaken fiscal stimulus measures to boost aggregate demand and thereby support growth. The types of instruments used and the quantum of stimulus have, however, varied across countries, depending upon the severity of the crisis, the country-specific significance of automatic stabilisers, the accompanying monetary policy actions and most importantly, the availability of fiscal space. In the OECD countries, though most have adopted broad ranging stimulus programmes that involve adjusting various taxes and spending simultaneously, a larger number of them have given priority to tax cuts over boosting expenditure. Most of the countries have concentrated their tax cuts on personal income tax and to a lesser extent on business tax. Among expenditure measures, a large number of countries have increased expenditure on investment (infrastructure) and provision of safety nets through transfers (OECD, 2009). Among the G-20 countries, almost all the expenditure measures announced have been temporary in nature. On the other hand, the cuts announced on personal income tax have been permanent in nature in almost all the countries. Indirect tax exemptions have been permanent in some and temporary or self-reversing in others (IMF, 2009).

The size of these discretionary measures varies substantially across the countries. For the G-20 countries, the weighted average of the stimulus in 2009 is placed at about 2.0 per cent of GDP, with the range moving from no stimulus in Turkey to 3.3 per cent of GDP in Saudi Arabia (Chart A).

Unlike the magnitude of fiscal stimulus measures, the actual impact of these measures on economic activity may be difficult to quantify as the multiplier-accelerator interactions may remain highly uncertain during a global crisis of this severity. This is evident from the wide range of outcomes arrived at by different empirical studies depending upon the econometric models and specifications used to estimate the fiscal multipliers. The wide range of results point to a variety of empirical problems, most notably, the difficulty in distinguishing passive changes in taxes, transfers, and spending from those that represent true discretionary adjustments in fiscal policy. Multipliers also depend on country-specific circumstances, including type of instruments used, trade openness, constraints on borrowing, the response of monetary policy, and long-term sustainability. With the above caveats, the IMF's broad estimates of multiplier for the G-20 as a group range from 0.3 to 0.6 for tax cuts, 0.5 to 1.8 per cent for investment in infrastructure and 0.3 to 1.0 for other measures. With similar caveats, the fiscal multipliers estimated for the OECD countries show that spending measures have a higher multiplier than revenue measures and that the multiplier is higher in the second year than in the first year. Among the spending measures, infrastructure investment was found to have the highest multiplier, followed by direct government purchase of goods and government transfers. Among the revenue measures, cut in personal income tax was likely to have higher multiplier effects than cut in indirect tax. The growth impact of the announced stimulus package in the OECD countries was found to be small (less than 1.0 per cent of GDP) as compared to the magnitude of the impending output gap, barring six countries (Australia, Canada, New Zealand, Poland, Spain and the United States) (OECD, 2009).

Chart A:Discretionary measures taken by G-20 countries in 2008 and 2009



Note : 1. The data reflect the budgetary cost of crisis related discretionary measures and do not include 'below the line' operations that involve acquisition of assets.
2. Data for India relates to the Reserve Bank's estimate for 2008-09, which include additional expenditure through supplementary demand for grants.

Source : 1. World Economic Outlook, IMF, April, 2009.
2. IMF, Update on Fiscal Stimulus and Financial Sector

For India, following IMF (2009), the three stimulus packages announced by the Union Government during December 2008-February 2009 and the additional expenditure through three supplementary demands for grants during October-December 2008 and February 2009 were segregated into the three categories *viz.,* revenue loss due to tax cuts, investment expenditure and other expenditures. In 2008-09, tax reductions, investment and other expenditure as per cent of GDP amounted to 0.2 per cent, 0.8 per cent and 1.4 per cent, respectively. Based on the IMF estimated multipliers, the stimulus measures adopted by India could help in containing growth deceleration in the range of 0.7 per cent and 2.3 per cent. While the wide range does not suggest any point estimate of the impact, one could infer that the rate of deceleration in growth would have been sharper without the fiscal stimulus.

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3. Organisation of Economic Cooperation and Development (2009), "The Effectiveness and Scope of Fiscal Stimulus", *OECD Economic Outlook*.

Box II.24
Role of Automatic Fiscal Stabilisers

Aggregate demand could be influenced by fiscal measures in the form of government purchases, taxes and transfer payments. When a government deliberately changes its spending or taxation policies in order to influence aggregate demand, it is known as 'discretionary fiscal policy'. Spending and taxation may also automatically change in response to the fluctuations in economic activity during the course of the business cycles. Under a progressive tax system, when income rises during an economic upswing, the tax collection may increase more than proportionately due to higher tax rate on higher incomes and more people moving to the higher tax brackets and *vice versa* during economic downturns. In contrast, transfer payments under unemployment compensation, government purchases and income supplements for the poor increase during economic downswing as more people become eligible for these transfers and services and *vice versa* during economic upswings. These automatic changes in taxes, transfers, and purchases driven by the different phases of the business cycles, often lead to widening/narrowing of deficit during economic downswing/upswing by raising/reducing aggregate demand and act as automatic stabilisers of the economy.

The magnitude of automatic stabilisers depends upon several factors such as the size of the public sector, the cyclicality of the tax base, the design of the public social security system, the progressive nature of the tax system and the degree of output fluctuation. As these conditions differ across countries, the impact of automatic stabilisers on fiscal outcomes also varies across countries. Automatic stabilisers tend to be smaller in emerging market economies (EMEs), reflecting lower magnitude of social transfers and less progressive income taxes. In the OECD countries, it is found that the size of discretionary fiscal stimulus is inversely related to the size of the automatic stabilisers (OECD, 2009). In other words, greater the operation of automatic stabilisers, smaller could be the required magnitude of discretionary fiscal intervention.

Automatic stabilisers are believed to have played an important role of stabilisation in the earlier episodes of business downturn in the G-20. In many countries, changes in discretionary policy were found to have been not well synchronised with the business cycle, suggesting that automatic stabilisers are often a more important source of systematic counter-cyclical policy actions. Thus, in the counter-cyclical role of fiscal policy, there is the need for further augmenting the role of automatic stabilisers, which could be achieved in several alternative ways. In the current downturn, which is deeper and prolonged, however, it has often been emphasised that the operation of automatic stabilisers would not be enough to stabilise the economy, and therefore, well designed discretionary fiscal policy should be activated (see Box II.1).

The automatic stabilisers (AS) for India was estimated as the change in cyclical deficit (COB) between two consecutive years defined as,

$$AS_t = \Delta COB_t = \Delta\, [(\eta_{Rt} - \eta_{Gt})] * GAP_t$$

Where $\eta_{Rt} = (\varepsilon_R - 1)\frac{R_t}{Y_t}$ and $\eta_{Gt} = (\varepsilon_G - 1)\frac{G_t}{Y_t}$, ε_R and ε_G are non-interest revenue and expenditure elasticities with respect to the output gap (GAP_t) assumed to be constant over time and $\frac{R_t}{Y_t}$ and $\frac{G_t}{Y_t}$ are ratios of primary revenue and expenditure to GDP.

The automatic stabilisers is estimated to be about 0.5 per cent of GDP in 2008-09, which compares well with the estimates for the G-20 countries by the IMF (2009).

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II.4.14 The ratio of interest payments to revenue receipts increased from 31.6 per cent in 2007-08 to 34.3 per cent in 2008-09 (RE) largely on account of increase in the net market borrowings on the one hand and slowdown in the growth of revenue receipts on the other (Chart II.27). The average interest rate on outstanding market loans, however, declined during the year (Table 2.38).

Extra - Budgetary Items

II.4.15 In addition to providing explicit subsidies through the Budget, the Central Government has, over the years, also been providing implicit subsidies to Food Corporation of India (FCI), fertiliser companies and oil marketing companies through issuance of special bonds to compensate

Table 2.37 : Key Deficit Indicators of the Centre for 2008-09 - Provisional Accounts

(Rupees crore)

Indicator	Budget Estimates	Revised Estimates	Provisional Accounts	Variation (per cent)	
				Col. 4 over Col.3	Col.4 over Col.2
1	2	3	4	5	6
Revenue Deficit	55,184 (1.0)	2,41,273 (4.4)	2,47,046 (4.6)	2.4	347.7
Gross Fiscal Deficit	1,33,287 (2.5)	3,26,515 (6.0)	3,30,114 (6.2)	1.1	147.7
Primary Deficit	-57,520 (-1.1)	1,33,821 (2.5)	1,39,629 (2.6)	4.3	-342.7

Note: Figures in parentheses are percentages to GDP.

for under-recoveries arising from keeping retail prices below the input costs. These bonds are considered to be fiscal deficit neutral since they do not involve immediate cash outflow and are, therefore, not treated as part of budgetary expenditure/receipts. However, these bonds have fiscal implications as they carry repayment obligations at a later date and, hence, add to the fiscal liabilities of the Government. Furthermore, as interest payments on such bonds are treated as part of the revenue expenditure, they affect the revenue deficit and, thereby, the fiscal deficit. During 2008-09, special bonds amounting to Rs.75,942 crore and Rs.20,000 crore were issued to oil marketing companies and fertiliser companies, respectively, together accounting for 1.8 per cent of GDP. Along with explicit subsidies provided for food, fertiliser and petroleum in the Budget, the total subsidy burden of the Central Government in 2008-09 was about 4.2 per cent of GDP.

Chart II.27: Debt Service Burden of the Central Government

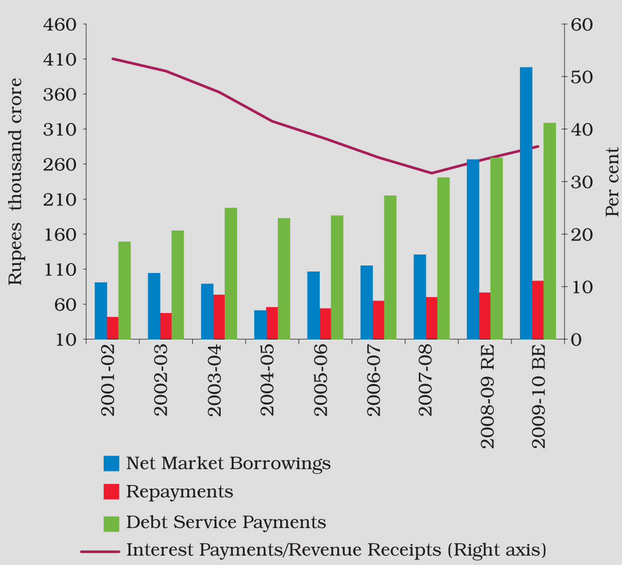


Table 2.38: Average Interest Rates on Outstanding Domestic Liabilities of the Centre

(Per cent)

Year	Market Loans	Small Savings / NSSF	State Provident Funds	Special Deposits
1	2	3	4	5
1990-91 to1994-95 (Average)	10.86	10.85	11.63	11.53
1995-96 to1999-2000 (Average)	12.39	11.62	11.62	10.93
2000-01	12.99	11.6	10.54	9.87
2001-02	12.83	11.61	9.09	10.5
2002-03	12.11	11.56	8.53	8.82
2003-04	11.11	10.88	7.39	7.94
2004-05	9.87	9.37	7.99	7.65
2005-06	10.07	8.90	7.46	7.25
2006-07	8.90	8.91	7.63	6.85
2007-08	9.89	8.37	7.26	5.60
2008-09(RE)	9.14	8.86	8.04	4.73

RE : Revised Estimates.

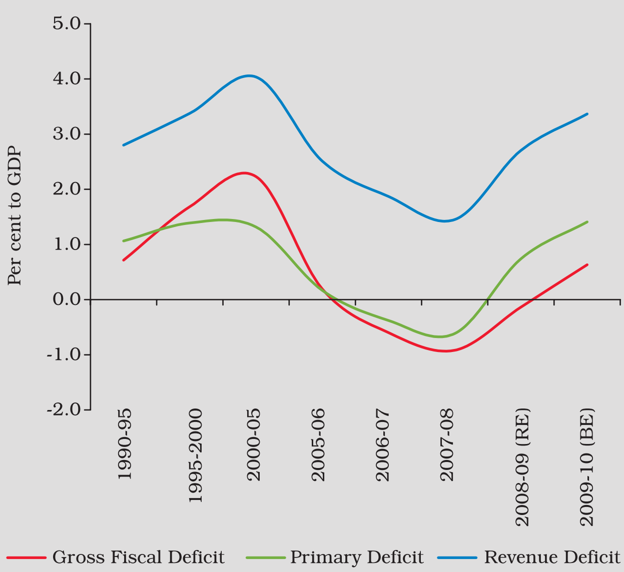
Note: 1. Market loans represent dated securities.

2. Small savings represent small saving deposits, certificates and public provident fund. Since 1999-2000, interest on small savings represents interest on Central Government Special Securities issued to the National Small Savings Fund (NSSF).
3. The Government notified the freezing of the corpus of the Special Deposit Scheme as on June 30, 2003.
4. The interest rate for each component is computed by dividing the interest payments in a year by the outstanding liabilities at the end of the preceding year.

STATE GOVERNMENT FINANCES: 2008-09[10]

II.4.16 The fiscal correction and consolidation path followed by the State Governments in the recent years had enabled them to achieve considerable improvement in their finances up to 2007-08, with the revenue surplus of States reaching 0.9 per cent of GDP and gross fiscal deficit (GFD) moderating to 1.5 per cent of GDP in 2007-08. Reflecting the ramifications of the overall macroeconomic slowdown, however, the consolidated fiscal position of States witnessed deterioration in revised estimates (RE) for 2008-09 *vis-à-vis* the budget estimates (BE). The consolidated revenue surplus of twenty-seven States at 0.1 per cent of GDP in 2008-09 (RE) was lower by 0.4 percentage points than the budget estimates for the year (Chart II.28, see Table 2.49). Out of 27 States, the revenue account of 23 States continued to be in surplus in 2008-09 (RE) *albeit* at a lower level. The decline in revenue surplus in the revised estimates for 2008-09 over the budgeted level was mainly on account of higher growth in revenue expenditure (5.2 per cent above the budgeted level) than in revenue receipts (2.5 per cent above the budgeted level).

Chart II.28: Major Deficit Indicators of the State Governments



II.4.17 During 2008-09 (RE), increase in grants from Centre (by 8.2 per cent) and States' own non-tax revenue (by 19.4 per cent) over their respective budgeted levels contributed to higher than budgeted revenue receipts, despite a decline in States' own tax revenue (by 1.9 per cent). The increase in revenue expenditure in 2008-09 (RE) over the budgeted level was solely contributed by higher development expenditure (by 10.9 per cent) on education, sports, art and culture, medical and public health, expenditure on natural calamities, power and transport. Implementation of the Sixth/State Pay Commission awards by some State Governments also contributed to the increase in revenue expenditure.

II.4.18 The consolidated GFD of States at 2.7 per cent of GDP in 2008-09 (RE) was around 30.3 per cent higher than the budget estimates. Apart from the decline in revenue surplus, the increase in GFD in 2008-09 (RE) was on account of increase in capital outlay (by 8.6 per cent) coupled with the decline in non-debt capital receipts (by 64.6 per cent) over the budgeted level. The capital outlay was higher on account of increase in expenditure on irrigation and flood control, transport, education, sports, art and culture. In order to address the overall macroeconomic slowdown, the Central Government allowed the States to raise additional market borrowings to the extent of 0.5 per cent of gross state domestic product (GSDP) in 2008-09 for undertaking capital investment. Several State Governments implemented various fiscal stimulus measures. Reflecting the deteriorating fiscal situation, the primary deficit re-emerged at 0.7 per cent of GDP in 2008-09 (RE) after the primary balance remained in surplus in the previous two years (Appendix Table 30).

II.4.19 The financing pattern of GFD at the State level has undergone a significant change in recent years on account of decline in collections under the NSSF. Market borrowings continued to be the major source of financing of GFD in 2008-09 (RE), contributing more than two-third of the financing needs, while the special securities issued to

[10] Based on the budget documents of twenty-seven State Governments, of which two are Vote on Account.

NSSF financed merely 1.5 per cent of GFD (Appendix Table 31).

COMBINED GOVERNMENT BUDGETARY POSITION OF CENTRE AND STATES - 2008-09

II.4.20 The combined finances of the Central and State Governments in terms of the key deficit indicators showed significant deterioration during 2008-09 (RE) as compared with the budget estimates due to decline in revenue receipts coupled with sharp increase in expenditure (Table 2.39). The tax receipts in the revised estimates as per cent to GDP declined due to the combined impact of economic slowdown and fiscal stimulus measures in terms of tax cuts to support growth. Aggregate expenditure was higher than budget estimates mainly on account of additional expenditure incurred by the Central Government for the implementation of Sixth Pay Commission Award, agricultural debt waiver scheme, rural employment programme and infrastructure. Some of the State Governments also announced the measures akin to the Central Government and effected pay revisions consequent upon the implementation of Sixth Pay Commission by the Central Government.

Combined Debt

II.4.21 The combined outstanding liabilities as a proportion of GDP at 74.7 per cent showed a marginal decline over end-March 2008 despite the substantial increase in fiscal deficit. This was mainly due to the growth in nominal GDP surpassing the growth in liabilities (Table 2.40).

II.4.22 Rising deficits associated with counter-cyclical expansionary fiscal policy and the revenue loss arising from economic slowdown could impinge

Table 2.39: Indicators of Combined Finances of the Centre and States

(Amount in Rupees crore)

Items	1990-91	1995-96	2000-01	2007-08	2008-09 BE	2008-09 RE	Variation (RE over BE)	
							Amount	Per cent
1	2	3	4	5	6	7	8	9
Gross Fiscal Deficit [II-IA-IB(a)]	**53,580**	**77,671**	**1,99,852**	**1,97,037**	**2,42,273**	**4,71,520**	**2,29,247**	**94.6**
	(9.4)	**(6.5)**	**(9.5)**	**(4.2)**	**(4.6)**	**(8.9)**		
Revenue Deficit [II1-IA]	**23,871**	**37,932**	**1,38,803**	**9,163**	**30,147**	**2,33,938**	**2,03,791**	**676.0**
	(4.2)	**(3.2)**	**(6.6)**	**(0.2)**	**(0.6)**	**(4.4)**		
Primary Deficit	**28,585**	**18,598**	**75,035**	**-60,495**	**-43,604**	**1,86,034**	**2,29,638**	**-526.6**
	(5.0)	**(1.6)**	**(3.6)**	**(-1.3)**	**(-0.8)**	**(3.5)**		
I. Total Receipts(A+B)	1,51,593	2,96,629	5,94,804	13,11,589	14,70,354	16,42,815	1,72,461	11.7
A. Revenue Receipts (1+2)	1,05,757	2,17,526	3,78,817	10,48,406	11,93,487	11,66,470	-27,017	-2.3
1. Tax Receipts (a+b)	87,564	1,74,851	3,05,374	8,73,779	10,12,456	9,65,102	-47,354	-4.7
a) Direct Taxes	14,267	41,603	80,215	3,55,929	4,08,571	3,93,060	-15,511	-3.8
b) Indirect Taxes	73,297	1,33,248	2,25,159	5,17,850	6,03,885	5,72,042	-31,843	-5.3
2. Non-Tax Receipts	18,193	42,675	73,443	1,74,627	1,81,031	2,01,368	20,337	11.2
B. Capital Receipts	45,836	79,102	2,15,987	2,63,183	2,76,867	4,76,345	1,99,478	72.0
a) Non Debt Capital Receipts	3,531	6,968	12,591	50,460	32,267	21,119	-11,148	-34.5
b) Debt Capital Receipts	42,305	72,134	2,03,396	2,12,723	2,44,600	4,55,226	2,10,626	86.1
II. Aggregate Expenditure (1+2+3 = 4+5)	1,62,868	3,02,166	5,91,258	12,95,903	14,68,027	16,59,109	1,91,082	13.0
1. Revenue Expenditure	1,29,628	2,55,457	5,17,618	10,57,569	12,23,634	14,00,408	1,76,774	14.4
2. Capital Outlay	21,353	32,594	55,875	2,19,853	2,24,159	2,34,906	10,747	4.8
3. Loans and Advances	11,887	14,115	17,766	18,481	20,234	23,795	3,561	17.6
4. Development Expenditure	97,149	1,65,361	3,08,546	6,96,200	8,22,517	9,88,513	1,65,996	20.2
5. Non-Development Expenditure	65,719	1,36,805	2,82,712	5,99,703	6,45,510	6,70,596	25,086	3.9

RE : Revised Estimates. BE : Budget Estimates

Notes: 1. Inter-Governmental transactions have been netted out.
2. Figures in parentheses are percentages to GDP.
3. Data in respect of States are provisional from 2007-08 onwards and relate to 27 States of which 2 are *vote on account.*

Table 2.40: Combined Liabilities of the Centre and States

End-March	Outstanding Liabilities (Rupees crore)			Debt-GDP Ratio (per cent)		
	Centre	States	Combined	Centre	States	Combined
1	2	3	4	5	6	7
1990-91	3,14,558	1,28,155	3,68,824	55.2	22.5	64.7
1995-96	6,06,232	2,49,535	7,26,854	50.9	20.9	61.0
2000-01	11,68,541	5,94,147	14,84,106	55.6	28.3	70.6
2005-06	22,60,145	11,67,866	28,79,705	63.0	32.6	80.3
2006-07	25,38,596	12,50,819	31,90,698	61.5	30.3	77.3
2007-08	28,37,425	13,14,355	35,47,790	60.1	27.8	75.1
2008-09 RE	31,36,075	14,44,165	39,73,203	58.9	27.1	74.7
2009-10 BE	34,95,452	16,12,377	44,85,955	59.7	27.5	76.6

RE : Revised Estimates. BE : Budget Estimates.

Note: 1. Data in respect of the States are provisional from 2007-08 onwards and relate to 27 States of which 2 are *vote on account.*
2. Under 'combined liabilities', inter-governmental transactions are netted out.
3. Data include 'reserve funds' and 'deposits and advances'.

on the sustainability of debt in the near term. This could potentially lead to adverse market reactions and may, thereby, render the fiscal stimulus partly counterproductive. The steady state debt dynamics show that the debt sustainability condition in terms of maintaining debt-GDP ratio constant was comfortably satisfied in 2007-08, even after including all off-budget borrowings but this condition would be significantly violated in 2008-09. The debt service burden in terms of the ratio of interest payments to revenue receipts which had continuously declined since 2001-02 has also reversed during 2008-09. Therefore, there would be a need for reverting to fiscal consolidation as outlined in the Fiscal Responsibility and Budget Management (FRBM) Act, 2003 in the medium-term. In India, progress on fiscal consolidation has been associated with higher growth momentum and once the recovery from the current phase of slowdown becomes visible, consolidation may have to be pursued with renewed focus (Box II.25).

Box II.25
Fiscal Stimulus and Debt Sustainability in India

Fiscal solvency requires that government debt should not slip to an explosive path. The substantial widening of deficit indicators due to fiscal stimulus could be expected to alter adversely the debt sustainability conditions, which must reverse with the return to normalcy in economic situation. Taking into account the debt position, nominal GDP growth and nominal interest on debt for the years 2007-08 and 2008-09 (RE), the required primary balance to keep the debt-GDP ratio constant for these two years could be estimated using the following steady state identity.

$$\Delta\left(\frac{D}{Y}\right)_t = \left\{\frac{r-g}{1+g}\right\}\left\{\frac{D}{Y}\right\}_{t-1} - pb \qquad (1)$$

Where D is the debt stock[11], Y is GDP, r is the nominal interest rate, g is the nominal growth rate, pb is the primary fiscal balance as a share of GDP, and Δ indicates a change over the previous year. From (1) it can be derived that the debt ratio is constant when

$$(D/Y)\,(r-g)\,/(1+g) = pb \qquad (2)$$

The primary balance was inclusive of all off-budget borrowings such as oil and fertiliser bonds, as these borrowings are included in the outstanding liabilities. The estimates suggest that, for 2007-08, given the excess of nominal growth over nominal interest rate, a primary deficit of 2.72 per cent of GDP could keep the debt–GDP ratio constant. The debt sustainability condition was comfortably satisfied, with the primary balance recording a surplus of 0.1 per cent of GDP. For 2008-09, however, the recorded primary deficit of 4.3 per cent of GDP would be significantly higher than the threshold primary deficit of 2.73 per cent of GDP to keep the debt-GDP ratio constant.

Another indicator of debt sustainability is the debt service burden measured in terms of interest payments to revenue receipts ratio. It indicates the extent of pre-emption of government's current receipts by its past fiscal actions. This ratio, which had fallen continuously since 2001-02, also shows a reversal during 2008-09 that may continue during 2009-10.

Therefore, debt sustainability parameters, measured in terms of the actual primary balance relative to required primary balance to keep debt-GDP ratio constant and also in terms of the ratio of interest payments to revenue receipts, indicate some deterioration in 2008-09.

[11] An adjusted debt stock concept removing those components not related to the size of fiscal deficit from the total outstanding has been considered. The components are National Small Savings Fund (NSSF) utilised by the States and the outstanding stock of market stabilisation bonds (MSS). NSSF utilised by the States is already reflected in the outstanding debt stock of the State Governments and the interest dues are also met by the States. MSS is backed by a corresponding equivalent amount of cash balances with the Reserve Bank and has no direct relationship with the movement in fiscal deficit. To make the exercise consistent, interest payment on MSS was excluded from the total interest payments.

Contingent Liabilities/Guarantees of the Government

II.4.23 The outstanding amount under guarantees of the Central Government continued to decline during 2007-08 and stood at Rs.1,04,872 crore at end-March 2008 (Table 2.41). The net depletion in the stock of contingent liabilities in the form of guarantees extended by the Central Government was 0.5 percentage points of GDP. During 2008-09, the assumption of contingent liability in the form of guarantee will amount to Rs.36,606 crore, which includes Rs.10,000 crore for India Infrastructure Finance Company Limited (IIFCL) to support the financing of infrastructure projects under the public-private partnership (PPP) mode. Although this would lead to a deviation from the limit of 0.50 per cent of GDP on net accretion to contingent liabilities under the FRBM Rules, it was necessary to stimulate demand and increase investment in infrastructure projects which is expected to help re-invigorate the economy and contribute to higher revenue buoyancy.

FISCAL OUTLOOK FOR 2009-10[12]

Central Government

II.4.24 The Union Budget for 2009-10 was presented against the backdrop of continued uncertainties in the global economy and its attendant effects on Indian economy. It reiterated the objective of the Government to keep the economy on a high growth trajectory amidst global slowdown by creating demand through increased public expenditure in identified sectors. The fiscal stimulus needed to do so has necessitated the continuance of the deferment in attaining the FRBM targets for the year 2009-10 also. As a medium term objective, however, the imperative to revert to fiscal consolidation process at the earliest has been recognised. The key deficit indicators, *viz.,* GFD, revenue deficit and primary deficit, as per cent of GDP, were budgeted higher than their revised estimates in the preceding year (see Table 2.35). The share of revenue deficit which had been declining since 2003-04 increased to nearly three fourths of GFD in 2008-09 and continued to remain high in 2009-10 (Table 2.42).

Pattern of Receipts

II.4.25 The adverse impact of economic slowdown on the revenue receipts is expected to continue during 2009-10, *albeit*, with some moderation. Revenue receipts are budgeted to be higher in 2009-10 than in 2008-09 mainly on account of non-

Table 2.41 : Outstanding Government Guarantees

(Amount in Rupees crore)

End-March	Centre		States		Total		End-March	Centre		States		Total	
	Amount	Per cent of GDP	Amount	Per cent of GDP	Amount	Per cent of GDP		Amount	Per cent of GDP	Amount	Per cent of GDP	Amount	Per cent of GDP
1	2	3	4	5	6	7	1	2	3	4	5	6	7
1995	62,468	6.1	48,479	4.8	1,10,947	10.9	2002	95,859	4.2	1,65,386	7.3	2,61,245	11.5
1996	65,573	5.5	52,631	4.4	1,18,204	9.9	2003	90,617	3.7	1,84,294	7.5	2,74,911	11.2
1997	69,748	5.1	65,339	4.7	1,35,087	9.8	2004	87,780	3.2	2,19,658	8.0	3,07,438	11.2
1998	73,877	4.8	73,751	4.8	1,47,628	9.7	2005	1,07,957	3.4	2,04,426	6.5	3,12,383	9.9
1999	74,606	4.3	79,457	4.5	1,54,063	8.8	2006	1,10,626	3.1	1,96,914	5.5	3,07,540	8.6
2000	83,954	4.3	1,32,029	6.8	2,15,983	11.1	2007	1,09,826	2.7	1,54,183	3.7	2,64,009	6.4
2001	86,862	4.1	1,68,719	8.0	2,55,581	12.2	2008	1,04,872	2.2	1,71,058 P	3.6	2,75,930 P	5.8

P : Provisional.

Note : Ratios to GDP may not add up to the total due to rounding off.

Source : 1. Data on Centre's guarantees are from budget documents of the Central Government.

2. Data on States' guarantees are based on the information received from State Governments and pertain to 17 major States. Data for 2007 and 2008 pertain to 19 major States and 17 major States, respectively.

[12] All comparisons of 2009-10 in this section are with the revised estimates of 2008-09, unless stated otherwise.

Table 2.42: Decomposition of the GFD of the Central Government

(Per cent)

Year	Revenue Deficit	Capital Outlay	Net Lending	Other
1	2	3	4	5
1990-91	41.6	27.2	31.9	-0.7
1995-96	49.4	23.4	29.6	-2.3
2000-01	71.7	20.8	9.2	-1.8
2005-06	63.0	37.6	0.5	-1.1
2006-07	56.3	42.3	1.8	-0.4
2007-08	41.4	56.3 *	4.9	-2.6
2008-09 (RE)	73.9	25.5	1.4	-0.8
2009-10 (BE)	70.5	27.7	2.0	-0.2

* : Net of acquisition cost of transfer of Reserve Bank's stake in SBI to the Central Government at Rs. 35,531 crore.

tax revenue (Table 2.43). The growth in gross tax revenue is budgeted to be lower than in 2008-09; as a ratio to GDP, it is slated to further decline in 2009-10 (Table 2.44). Non-tax revenue, however, is budgeted to reverse the decline in 2008-09 and record a substantially higher growth in 2009-10, mainly on account of anticipated receipts of Rs.35,000 crore from the auction of third generation (3G) spectrum and Rs.28,000 crore (58 per cent higher than the previous year) in dividend/surplus transfer from the Reserve Bank, nationalised banks and financial institutions. As a result, non-tax revenue to GDP ratio is budgeted higher at 2.4 per cent of GDP (as against a decline to 1.8 per cent of GDP in 2008-09). The non-debt capital receipts are budgeted to decline due to lower disinvestment proceeds during 2009-10 than in 2008-09.

Pattern of Expenditure

II.4.26 Aggregate expenditure is budgeted to increase to 17.4 per cent of GDP in 2009-10 as compared with 16.9 per cent in the preceding year despite moderation in growth, indicating the continued thrust of fiscal stimulus in 2009-10. Both revenue expenditure and capital expenditure as proportion of GDP are budgeted to increase in 2009-10 over the previous year (Table 2.45). The moderation in the growth of aggregate expenditure in 2009-10 would emanate mainly from revenue expenditure, particularly through cutback in fertiliser subsidy, which had risen sharply during 2008-09 due to rapid rise in international fertiliser prices.

II.4.27 Capital expenditure is budgeted to increase in 2009-10 as compared with that in 2008-09, mainly on account of higher growth in capital outlay which is budgeted to increase by 33.6 per cent in 2009-10 as against a decline of 22.1 per cent in 2008-09. Defence outlay would account for nearly half of the budgeted increase in capital outlay; increase in non-defence capital outlay is mainly attributable to economic services. An analysis of expenditure pattern in terms of plan and non-plan components shows that in 2009-10, the budgeted moderation in the growth of plan expenditure would be greater than that of non-plan expenditure. Interest payments and defence would mainly account for the increase in non-plan expenditures. The increase in interest payments would result from the substantial hike in the size of government borrowings and special securities issued to oil marketing and fertiliser companies during 2008-09. Sizeable rise in budgeted non-Plan expenditure in defence services is on account of enhanced provision for pay and allowances, maintenance expenditure, and modernisation of defence services. The Budget has also proposed to provide higher grants to the States. Among the major development expenditures, expenditures on education, health, rural development and irrigation are budgeted to increase in 2009-10 from the levels in 2008-09 (RE). As per cent to GDP, major developmental expenditures would increase, barring agriculture and rural development (Table 2.46).

Financing of Gross Fiscal Deficit

II.4.28 The financing pattern of GFD reveals that the Government would finance almost the entire fiscal deficit for 2009-10 through market borrowings (dated securities and 364-days Treasury Bills). While external borrowings and securities against small savings would contribute more towards GFD financing in 2009-10 than in 2008-09, deposits and

Table 2.43 : Revenue Position of the Centre

(Amount in Rupees crore)

Item	2007-08	2008-09 (RE)	2009-10 (BE)	Variation 2008-09 Amount	Variation 2008-09 Per cent	Variation 2009-10 Amount	Variation 2009-10 Per cent
1	2	3	4	5	6	7	8
Total Receipts (1+2)	**6,78,362 * (14.4)**	**9,00,953 (16.9)**	**10,20,838 (17.4)**	**2,22,591**	**32.8**	**1,19,885**	**13.3**
1. Revenue Receipts	5,41,864 (11.5)	5,62,173 (10.6)	6,14,497 (10.5)	20,309	3.7	52,324	9.3
Tax Revenue (Net)	4,39,547 (9.3)	4,65,970 (8.8)	4,74,218 (8.1)	26,423	6.0	8,248	1.8
Non-Tax Revenue	1,02,317 (2.2)	96,203 (1.8)	1,40,279 (2.4)	-6,114	-6.0	44,076	45.8
2. Capital Receipts	1,36,498 * (2.9)	3,38,780 (6.4)	4,06,341 (6.9)	2,02,282	148.2	67,561	19.9
Non-Debt Capital Receipts	9,586 * (0.2)	12,265 (0.2)	5345 (0.1)	2,679	27.9	-6,920	-56.4
Debt Capital Receipts	1,26,912 (2.7)	3,26,515 (6.1)	4,00,996 (6.8)	1,99,603	157.3	74,481	22.8
Memo :							
Gross Tax Revenue	**5,93,147 (12.6)**	**6,27,949 (11.8)**	**6,41,079 (10.9)**	**34,802**	**5.9**	**13,130**	**2.1**
i) Corporation Tax	1,92,911 (4.1)	2,22,000 (4.2)	2,56,725 (4.4)	29,089	15.1	34,725	15.6
ii) Income Tax@	1,02,644 (2.2)	1,08,000 (2.0)	1,06,800 (1.8)	5,356	5.2	-1,200	-1.1
iii) Customs Duty	1,04,119 (2.2)	1,08,000 (2.0)	98,000 (1.7)	3,881	3.7	-10,000	-9.3
iv) Union Excise Duty	1,23,425 (2.6)	1,08,359 (2.0)	1,06,477 (1.8)	-15,066	-12.2	-1,882	-1.7
v) Service Tax	51,301 (1.1)	65,000 (1.2)	65,000 (1.1)	13,699	26.7	0	0.0
vi) Securities Transaction Tax	8,576 (0.2)	5,500 (0.1)	6,000 (0.1)	-3,076	-35.9	500	9.1
vii) Banking Cash Transaction Tax	586 (0.0)	600 (0.0)	50 (0.0)	14	2.4	-550	-91.7
viii) Fringe Benefit Tax	7,098 (0.2)	8,500 (0.2)	– (0.0)	1,402	19.8	-8,500	–

BE : Budget Estimates. RE : Revised Estimates.

* : Adjusted for an amount of Rs. 34,309 crore which represents Reserve Bank's profit on account of transfer of its stake in SBI to the Central Government.

@ : Excluding Fringe Benefit Tax. Fringe Benefit Tax has been withdrawn with effect from July 7, 2009.

Note : Figures in parentheses are percentages to GDP.

Table 2.44 : Gross Tax Revenues of the Central Government

(Per cent to GDP)

Year	Direct Tax	Indirect Tax	Total
1	2	3	4
1991-92	2.3	8.0	10.3
1995-96	2.8	6.5	9.3
2001-02	3.0	5.2	8.2
2002-03	3.4	5.4	8.8
2003-04	3.8	5.4	9.2
2004-05	4.2	5.5	9.7
2005-06	4.6	5.6	10.2
2006-07	5.6	5.9	11.5
2007-08	6.6	5.9	12.6
2008-09 (RE)	6.5	5.3	11.8
2009-10 (BE)	6.3	4.6	10.9

RE : Revised Estimates. BE: Budget Estimates.

advances would contribute less than in the previous year. The Budget has made no provision in 2009-10 for drawdown of cash balances, which had financed nearly a tenth of GFD during 2008-09 (Table 2.47).

II.4.29 Both revenue and fiscal deficits have been budgeted to be larger than the Eleventh Plan projections for 2009-10, with total expenditure higher by 3.6 percentage points of GDP and revenue receipts lower by 0.1 percentage point of GDP from their respective Plan projections. The expenditure would be higher than projected mainly due to the non-plan (primarily the interest payments

Table 2.45 : Expenditure Pattern of the Central Government

(Amount in Rupees crore)

Item	2007-08	2008-09 RE	2009-10 BE	Variation 2008-09 Amount	2008-09 Per cent	2009-10 Amount	2009-10 Per cent
1	2	3	4	5	6	7	8
Total Expenditure (A+B=1+2)	**6,77,140 * (14.3)**	**9,00,953 (16.9)**	**10,20,838 (17.4)**	**2,23,813**	**33.1**	**1,19,885**	**13.3**
A. Revenue Expenditure	**5,94,433 (12.6)**	**8,03,446 (15.1)**	**8,97,232 (15.3)**	**2,09,013**	**35.2**	**93,786**	**11.7**
B. Capital Expenditure	**82,707 * (1.8)**	**97,507 (1.8)**	**1,23,606 (2.1)**	**14,800**	**17.9 ***	**26,099**	**26.8**
1. Non-Plan Expenditure	**4,72,058 * (10.0)**	**6,17,996 (11.6)**	**6,95,689 (11.9)**	**1,45,938**	**30.9**	**77,693**	**12.6**
i) Interest Payments	1,71,030 (3.6)	1,92,694 (3.6)	2,25,511 (3.9)	21,664	12.7	32,817	17.0
ii) Defence Expenditure	91,681 (1.9)	1,14,600 (2.2)	1,41,703 (2.4)	22,919	25.0	27,103	23.7
iii) Subsidies	70,926 (1.5)	1,29,243 (2.4)	1,11,276 (1.9)	58,317	82.2	-17,967	-13.9
iv) Grants to States	35,769 (0.8)	38,421 (0.7)	48,570 (0.8)	2,652	7.4	10,149	26.4
v) Other non-Plan Expenditure	1,02,652 * (2.2)	1,43,038 (2.7)	1,68,629 (2.9)	4,0386	39.3 *	25,591	17.9
2. Plan Expenditure	**2,05,082 (4.3)**	**2,82,957 (5.3)**	**3,25,149 (5.6)**	**77,875**	**38.0**	**42,192**	**14.9**
i) Budgetary Support to Central Plan	1,48,669 (3.1)	2,04,129 (3.8)	2,39,840 (4.1)	55,460	37.3	35,711	17.5
ii) Central Assistance for State and UT Plans	61,614 (1.3)	78,828 (1.5)	85,309 (1.5)	17,214	27.9	6,481	8.2
Memo:							
Grants	1,09,978	1,26,132	1,46,147	16,154	14.7	20,015	15.9
Loans	11,298	14,202	12,339	2,904	25.7	-1,863	-13.1

BE : Budget Estimate. RE : Revised Estimate.
* : Excludes acquisition cost of Reserve Bank's stake in SBI at Rs. 35,531crore.
Note : Figures in parentheses are percentages to GDP.

Table 2.46 : Expenditure on Select Development Heads of the Central Government

(Amount in Rupees crore)

Item	2008-09(RE)	2009-10(BE)
1	2	3
Agriculture	1,23,038 (2.3)	1,07,441 (1.8)
Education	34,429 (0.6)	42,339 (0.7)
Health	16,277 (0.3)	22,733 (0.4)
Rural Development	40,799 (0.8)	43,554 (0.7)
Irrigation	579 (0.0)	664 (0.0)

Note: Figures in parentheses are percentages to GDP.

and subsidies). Even though, plan expenditure or the gross budgetary support to Plan would also be higher than the Eleventh Plan projections, the revenue component would be far higher than the projected, implying major shortfall in the capital component of plan expenditure (Table 2.48).

II.4.30 The fiscal deficit and debt of the Central Government in India continued to be higher than several other emerging market economies in Asia in 2008 (Table 2.49). The deterioration in the deficit position for India also appeared to be the sharpest, reflecting the large size of India's fiscal stimulus.

Table 2.47 : Financing Pattern of Gross Fiscal Deficit of the Central Government

(Amount in Rupees crore)

Item	2008-09 (BE)	2008-09 (RE)	2009-10 (BE)
1	2	3	4
Gross Fiscal Deficit	1,33,287	3,26,515	4,00,996
Financed by:			
Market Borrowings	99,000	2,66,539	3,97,957
	(74.3)	(81.6)	(99.2)
Securities against Small Savings	9,873	1,323	13,256
	(7.4)	(0.4)	(3.3)
External Assistance	10,989	9,603	16,047
	(8.2)	(2.9)	(4.0)
State Provident Funds	4,800	4,800	5,000
	(3.6)	(1.5)	(1.2)
NSSF	53	11,206	-103
	(0.0)	(3.4)	(0.0)
Reserve Funds	-972	-16,808	-8,428
	(-0.7)	-(5.1)	-(2.1)
Deposit and Advances	8,629	12,788	9,026
	(6.5)	(3.9)	(2.3)
Postal Insurance and Life Annuity Funds	4,123	2,594	2,672
	(3.1)	(0.8)	(0.7)
Draw Down of Cash Balances	7,225	29,984	0
	(5.4)	(9.2)	(0.0)
Others	-10,433	4,486	-34,431
	(-7.8)	(1.4)	-(8.6)

Note: Figures in parentheses are percentages to GFD.

Table 2.48 : Eleventh Plan Projections for the Central Government *vis-à-vis* the Budget Estimates

(Per cent to GDP)

Item	2009-10	
	Eleventh Plan Projections	Budget Estimates
1	2	3
1. Gross Budgetary Support to Plan	5.0	5.6
of which:		
(i) Plan revenue Expenditure	2.9	4.8
2. Total Non-Plan	8.9	11.9
of which:		
(i) Interest Payments	3.0	3.9
(ii) Defence	2.3	2.4
(iv) Non-Plan grants to States	0.6	0.8
(v) Subsidies	1.0	1.9
3. Total Expenditure (1+2)	13.8	17.4
4. Gross tax revenue	12.2	11.0
Less: Share of States	3.3	2.8
5. Net Tax to the Centre	8.9	8.1
6. Non-tax Revenue	1.8	2.4
7. Total Revenue Receipts	10.6	10.5
8. Gross Fiscal Deficit	3.0	6.9
9. Revenue Deficit	0.0	4.8

State Budgets 2009-10

II.4.31 The fiscal correction and consolidation at the State Government level during the past few years has suffered a setback in view of the moderation in economic activities. The consolidated revenue account of the State Governments is budgeted to turn into deficit of 0.6 per cent of GDP

Table 2.49: Deficit and Debt Indicators of the Central Government-Select Countries

(As per cent of GDP)

	Fiscal Deficit				Public Debt			
	2005	2006	2007	2008	2005	2006	2007	2008
1	2	3	4	5	6	7	8	9
China	1.2	0.8	-0.6	0.4	17.9	17.3	n.a.	n.a.
Republic of Korea	-0.4	-0.4	-3.8	-1.2	29.5	32.2	32.1	29.1
India	4.1	3.5	2.7	6.1	63.0	61.5	60.1	58.9
Indonesia	0.2	0.9	1.2	0.0	45.6	39.0	35.0	31.2
Malaysia	3.6	3.3	3.2	4.8	43.8	42.2	41.6	41.4
Thailand	-0.2	-0.1	1.1	0.3	47.3	40.3	37.5	38.1

n.a. : Not Available.

Note : Negative sign indicates surplus.

Source : 1) Asia Economic Monitor, December 2008 and July 2009, Asian Development Bank;
2) Union Budget documents and Provisional Accounts of Government of India.

Table 2.50 : Major Deficit Indicators of the State Governments

(Amount in Rupees crore)

Item	2005-06	2006-07	2007-08*	2008-09* BE	2008-09* RE	2009-10* BE
1	2	3	4	5	6	7
Gross Fiscal Deficit	90,084	77,509	68,572	1,10,465	1,43,924	1,97,186
	(2.5)	(1.9)	(1.5)	(2.1)	(2.7)	(3.4)
Revenue Deficit	7,013	-24,857	-43,405	-25,036	-7,336	37,058
	(0.2)	-(0.6)	-(0.9)	-(0.5)	-(0.1)	(0.6)
Primary Deficit	6,060	-15,672	-29,044	3,681	39,283	82,488
	(0.2)	-(0.4)	-(0.6)	(0.1)	(0.7)	(1.4)

BE : Budget Estimates. RE: Revised Estimates.

*: Data from 2007-08 onwards pertain to 27 State Governments, of which two are Vote on Accounts.

Note: 1. Negative (-) sign indicates surplus.

2. Figures in parentheses are percentages to GDP.

3. Data on GDP for 2007-08 are based on CSO's Quick Estimates, while for 2008-09 are based on its Revised Estimates. Data on GDP for 2009-10 are as per the Union Budget Documents, 2009-10.

Source: Budget Documents of the State Governments.

after being in surplus in the previous three years (Table 2.50 and Appendix Table 30). As a result, GFD is budgeted to be higher at 3.4 per cent of GDP as compared with that in 2008-09 (RE). The consolidated primary deficit is budgeted to increase to 1.4 per cent of GDP in 2009-10 from 0.7 per cent in 2008-09 (RE). Out of 27 States, 13 States have budgeted revenue surplus in 2009-10 as against 23 States during 2008-09 (RE). The progress with respect to implementation of Fiscal Responsibility Legislation (FRL) at State level has, therefore, suffered a setback (Box II.26).

II.4.32 The deterioration in revenue account of State Governments during 2008-09 (RE) and 2009-10 (BE) reflects the combined impact of sluggishness in own tax collections and devolution from the Centre along with higher expenditure commitment to implement recommendations of the Sixth Pay Commission by many of the State Governments. During 2009-10, the increase in revenue expenditure is budgeted to be higher than the increase in revenue receipts. The increase in revenue receipts would be contributed by States' own taxes, share in Central taxes and grants from the Centre (Table 2.51).

II.4.33 Revenue expenditure is budgeted to increase sharply during 2009-10 over 2008-09 (RE) (Table 2.52). This would be mainly on account of increase in non-development expenditure (contributing around 56.0 per cent of the increase in revenue expenditure). Higher expenditure on administrative services (like expenditure on wages and salaries on account of implementation of recommendations of the Sixth Central Pay Commission), pension and interest payments together would contribute around 63.1 per cent of the increase in revenue expenditure during 2009-10. Increase in development expenditure would be mainly on account of education, sports, art and culture, family welfare, rural development and irrigation and flood control.

II.4.34 The worsening of gross fiscal deficit to 3.4 per cent of GDP in 2009-10 (BE) from 2.7 per cent in 2008-09 (RE) would be mainly due to deterioration in the revenue account coupled with an increase in net lending. The consolidated capital outlay as a percentage to GDP is budgeted to decline in 2009-10 by 0.2 percentage points to 2.6 per cent. The Central Government allowed the State Governments to raise additional market borrowing to the extent of 0.5 per cent of their GSDP during 2009-10. The GFD would be financed mainly through market borrowings (57.7 per cent) followed by provident funds (10.5 per cent) (Table 2.53 and Appendix Table 31).

Box II.26
Implementation of Fiscal Responsibility Laws at State Level – Recent Developments

The enactment of Fiscal Responsibility Legislations (FRLs) at the State level has been one of the major institutional reforms undertaken for promoting rule-based fiscal policy. Karnataka was the first State to implement FRL in August 2002, followed by Tamil Nadu, Kerala and Punjab in 2003. Following the recommendations of the Twelfth Finance Commission (TFC), which had incentivised adoption of fiscal responsibility framework by the State Governments by linking debt relief mechanism to enactment of FRL, 22 more States enacted the FRLs in subsequent years. Although there are variations across States in the choice of target and the time frame for achieving the target, most of the FRLs stipulated elimination of revenue deficit by March 31, 2009 and reduction in GFD as per cent of gross state domestic product (GSDP) to 3 per cent by March 31, 2010, in line with the targets prescribed by the TFC. In addition, several States targeted to reduce their liabilities.

Progressive enactment of FRLs by the States (except Sikkim and West Bengal) provided impetus to the process of attaining fiscal sustainability. The movements in the key deficit indicators show that at the consolidated level, States made considerable progress in bringing down their deficits till 2007-08. Despite the overall improvement in consolidated fiscal position of the States, wide variations across the State Governments with regard to fiscal performance were observed. While some State Governments were able to achieve the TFC targets with regard to several indicators well ahead of the time frame, there were some other States where the fiscal correction was slow.

Despite the fact that the enactment of FRLs by most of the States has ushered in a rule-based fiscal policy framework at the State level, the fiscal position of States has come under strain in view of the ongoing global turmoil. Given the moderation in economic growth in 2008-09, the revenue buoyancy achieved up to 2007-08 may not be realised. Thus, the pace of fiscal correction and consolidation which was witnessed in recent years is likely to pause or even suffer a setback on account of the growth deceleration and most States could overshoot the target of maintaining GFD-GSDP ratio within 3 per cent. States are also under pressure to increase both their revenue and capital expenditure in order to boost the demand in the economy. In fact, the Central Government allowed the States to raise additional market borrowings to the extent of 0.5 per cent of GSDP during 2008-09 and increase the limit of fiscal deficit to 3.5 per cent of GSDP for undertaking capital expenditure, thereby providing them additional fiscal space. In Union Budget 2009-10, States have been allowed to raise additional market borrowings of 0.5 per cent of GSDP, thus increasing the limit of GFD to 4.0 per cent of GSDP during 2009-10.

The impact of the overall macroeconomic slowdown on State finances is discernible from the deterioration in deficit indicators across the States. In majority of the States revenue surplus as percentage to GSDP has shown a decline in 2008-09 (RE) over 2007-08, resulting an increase in GFD. Out of 27 States, 18 States recorded GFD-GSDP ratio higher than 3.0 per cent in 2008-09 (RE). The fiscal position of the States is budgeted to deteriorate further in 2009-10. Out of 27, 13 States have presented budgets with revenue deficit for 2009-10. This indicates that some States may have to amend their respective FRLs to accommodate slippages in deficit targets.

Once the economic recovery gathers momentum, the foremost task for the State Governments should be to revert back to the path of fiscal correction. The design of post-FRL framework at the State level, therefore, has to aim at regaining and sustaining the fiscal correction. The FRL regime of State Governments since 2003-04 has been associated with a phase of high GDP growth. The resultant high growth in their own tax revenues and higher Central transfers, aided to some extent by reduction in revenue expenditure, enabled the States to bring about reduction in deficits and step up capital outlay and developmental expenditure. In the absence of such conducive economic conditions, States may need to place greater emphasis on expenditure rationalisation to curb wasteful expenditure and expenditure reorientation towards more productive expenditure. Presently, the FRLs of the States do not provide for any expenditure rules. In the post-FRL regime, certain numerical targets in respect of certain categories of expenditure may be stipulated so as to make the expenditure allocation process more efficient. At present, a few States have debt-GSDP rules and interest payment-revenue receipts (IP-RR) targets in their FRLs. With a view to attaining debt sustainability, each State may prescribe a target for debt-GSDP and IP-RR.

The recent downturn in the economy and the associated impact on State finances reflects the need for introducing the counter-cyclical clause in the post-FRL fiscal architecture. Given the lack of standardisation across States in terms of budgetary practices and transparency rules, the post-FRL framework may place emphasis on institutional reforms towards adoption of common practices.

To sum up, the post-FRL framework may be designed keeping in view the experience gained so far from implementation of FRLs. The post-FRL framework may build in specific rules for debt and expenditure besides the current focus on deficits. The States may place emphasis on transparency in budgetary operations. The need for counter-cyclical fiscal policy framework may also be explored.

Table 2.51: Aggregate Receipts of the State Governments

(Amount in Rupees crore)

Item	2007-08*	2008-09*	2008-09* RE	2009-10* BE	Percentage variations Col.4/2	Col.4/3	Col.5/4
1	2	3	4	5	6	7	8
Aggregate Receipts (1+2)	7,47,364 (15.8)	8,76,991 (16.5)	9,05,381 (17.0)	10,02,710 (17.1)	21.1	3.2	10.8
1. Total Revenue Receipts (a+b)	6,10,261 (12.9)	7,04,518 (13.2)	7,22,054 (13.6)	7,85,046 (13.4)	18.3	2.5	8.7
(a) States Own Revenue	3,60,363 (7.6)	3,99,851 (7.5)	4,06,198 (7.6)	4,46,310 (7.6)	12.7	1.6	9.9
States Own Tax	2,84,169 (6.0)	3,34,143 (6.3)	3,27,711 (6.2)	3,63,511 (6.2)	15.3	-1.9	10.9
States Own non-Tax	76,194 (1.6)	65,708 (1.2)	78,487 (1.5)	82,798 (1.4)	3.0	19.4	5.5
(b) Central Transfers	2,49,898 (5.3)	3,04,667 (5.7)	3,15,856 (5.9)	3,38,736 (5.8)	26.4	3.7	7.2
Shareable Taxes	1,50,063 (3.2)	1,71,162 (3.2)	1,71,421 (3.2)	1,83,856 (3.1)	14.2	0.2	7.3
Central Grants	99,835 (2.1)	1,33,505 (2.5)	1,44,436 (2.7)	1,54,879 (2.6)	44.7	8.2	7.2
2. Capital Receipts (a+b)	1,37,103 (2.9)	1,72,473 (3.2)	1,83,327 (3.4)	2,17,664 (3.7)	33.7	6.3	18.7
(a) Loans from Centre	6,789 (0.1)	14,741 (0.3)	9,786 (0.2)	17,284 (0.3)	44.1	-33.6	76.6
(b) Others Capital Receipts	1,30,314 (2.8)	1,57,732 (3.0)	1,73,540 (3.3)	2,00,380 (3.4)	33.2	10.0	15.5

BE : Budget Estimates. RE : Revised Estimates

*: Data pertain to 27 State Governments, of which two are Vote on Accounts.

Note : Figures in parentheses are percentages to GDP.

Source : Budget Documents of the State Governments.

Combined Finances: 2009-10

II.4.35 The combined budgetary position of the Central and State Governments for 2009-10 indicates that the key deficit indicators as per cent of GDP are budgeted to remain at elevated levels mainly due to sharp rise in expenditure (Table 2.54).

II.4.36 Combined revenue receipts are budgeted to grow mainly on account of increase in both tax and non-tax revenue. The combined tax-GDP ratio, however, is budgeted to decline in 2009-10 over 2008-09 (Table 2.55). On the expenditure side, the share of development expenditure in total expenditure (and as a ratio to GDP) would decrease to 56.8 per cent (18.1 per cent) in 2009-10 BE from 59.6 per cent (18.6 per cent) during 2008-09 RE. In contrast, non-developmental expenditure would grow substantially and show a rise in terms of GDP. As a result of the increase in non-developmental expenditure, total expenditure as a ratio to GDP would increase moderately.

II.4.37 Market borrowings are budgeted to finance a higher proportion of the combined GFD during 2009-10 than in the preceding year. While the share of State Provident Funds is budgeted to increase marginally, the contribution of small savings to GFD

Table 2.52: Expenditure Pattern of the State Governments

(Amount in Rupees crore)

Item	2007-08*	2008-09* BE	2008-09* RE	2009-10* BE	Percentage variations		
					Col.4/2	Col.4/3	Col.5/4
1	2	3	4	5	6	7	8
Aggregate Expenditure	7,31,679	8,74,663	9,21,673	10,34,426	26.0	5.4	12.2
(1+2 =3+4+5)	(15.5)	(16.4)	(17.3)	(17.7)			
1. Revenue Expenditure	5,66,856	6,79,482	7,14,718	8,22,104	26.1	5.2	15.0
of which:	(12.0)	(12.8)	(13.4)	(14.0)			
Interest Payments	97,615	1,06,783	1,04,641	1,14,698	7.2	-2.0	9.6
	(2.1)	(2.0)	(2.0)	(2.0)			
2. Capital Expenditure	1,64,823	1,95,181	2,06,956	2,12,322	25.6	6.0	2.6
of which:	(3.5)	(3.7)	(3.9)	(3.6)			
Capital Outlay	1,12,912	1,39,636	1,51,601	1,53,528	34.3	8.6	1.3
	(2.4)	(2.6)	(2.8)	(2.6)			
3. Development Expenditure	4,50,391	5,45,287	6,01,061	6,44,454	33.5	10.2	7.2
	(9.5)	(10.2)	(11.3)	(11.0)			
4. Non-Development Expenditure	2,26,962	2,69,929	2,61,521	3,22,012	15.2	-3.1	23.1
	(4.8)	(5.1)	(4.9)	(5.5)			
5. Others#	54,326	59,447	59,092	67,960	8.8	-0.6	15.0
	(1.2)	(1.1)	(1.1)	(1.2)			

BE: Budget Estimates. RE: Revised Estimates.
* : Data pertain to 27 State Governments, of which two are Vote on Accounts.
\# : Comprises Compensation and Assignments to local bodies, Grants-in-Aid and Contributions, Discharge of Internal Debt, Repayment of loans to the Centre.
Note : Figures in parentheses are percentages to GDP.
Source : Budget Documents of the State Governments.

financing is budgeted to increase substantially during 2009-10 (Table 2.56).

Social Sector Expenditure

II.4.38 The combined social sector expenditure as per cent to GDP is budgeted to increase moderately during 2009-10 (BE) over 2008-09 (RE). The share of expenditure on education and medical and public health is budgeted at higher level (Table 2.57).

II.4.39 The combined finances of Central and State Governments are budgeted to show some moderation in the key deficit indicators during 2009-10 *vis-a-vis* 2008-09, but would continue to remain at elevated levels comparable to the pre-FRBM period. In the case of State Governments, the surpluses recorded in the revenue accounts consecutively for three years are budgeted to be wiped out in 2009-10. However, the deterioration in combined finances is perceived to be a temporary phenomenon arising from the use of discretionary fiscal stimulus to deal with the effects of exceptional global economic conditions besides the autonomous effects on the revenue side arising from the domestic economic slowdown.

II.4.40 To sum up, during 2008-09, the fiscal policy responded to the challenges emerging from contracting external and domestic private demand and deceleration in growth. Preserving the growth momentum necessitated appropriate use of discretionary stabilisers, notwithstanding the associated unavoidable deviation from fiscal consolidation path under the FRBM Act. The fiscal stimulus, in the form of both tax cuts and higher

Table 2.53: Decomposition and Financing Pattern of Gross Fiscal Deficit of States

(Per cent)

Item	2007-08*	2008-09* BE	2008-09* RE	2009-10* BE
1	2	3	4	5
Decomposition (1+2+3-4)	100.0	100.0	100.0	100.0
1. Revenue Deficit	-63.3	-22.7	-5.1	18.8
2. Capital Outlay	164.7	126.4	105.3	77.9
3. Net Lending	8.8	9.8	3.5	4.5
4. Non-debt Capital Receipts$	10.1	13.6	3.7	1.1
Financing (1 to 11)				
1. Market Borrowings	73.4	57.3	68.5	57.7
2. Loans from Centre	-1.9	5.8	1.4	4.6
3. Loans against Securities Issued to NSSF	7.6	19.5	1.5	4.0
4. Loans from LIC, NABARD, NCDC, SBI & Other Banks	5.4	5.9	5.8	4.2
5. Provident Fund, *etc.*	17.1	11.2	9.7	10.5
6. Reserve Funds	-8.6	1.0	1.3	1.1
7. Deposits & Advances	21.4	4.6	4.2	4.9
8. Suspense & Miscellaneous	5.5	-1.7	-2.4	-2.1
9. Remittances	1.6	0.1	0.1	0.0
10. Others	1.4	-1.6	-1.4	-0.9
11. Overall Surplus (-)/Deficit (+)	-22.9	-2.1	11.3	16.1

BE : Budget Estimates. RE : Revised Estimates.

* : Data pertain to 27 State Governments, of which two are Vote on Accounts.

$: Includes proceeds from disinvestment and sale of land.

Note : “Others” include Compensation and Other Bonds, Loans from Other Institutions, Appropriation to Contingency Fund, Inter-state Settlement and Contingency Fund.

Source : Budget Documents of the State Governments.

Government expenditure, was significant at about 3.1 per cent of GDP, which though relatively higher than several emerging market economies, was appropriate given the critical importance for India to revert to the high growth trajectory as a matter of policy. Applying the different multiplier effects as

Table 2.54: Measures of Deficit of the Central and State Governments

Year	Amount (Rupees crore)			Per cent to GDP		
	Gross Fiscal Deficit	Revenue Deficit	Primary Deficit	Gross Fiscal Deficit	Revenue Deficit	Primary Deficit
1	2	3	4	5	6	7
1990-91	53,580	23,871	28,585	9.4	4.2	5.0
1995-96	77,671	37,932	18,598	6.5	3.2	1.6
2000-01	1,99,852	1,38,803	75,035	9.5	6.6	3.6
2003-04	2,34,501	1,59,408	56,928	8.5	5.8	2.1
2004-05	2,34,721	1,14,761	42,408	7.5	3.6	1.3
2005-06	2,39,560	99,312	35,583	6.7	2.8	1.0
2006-07	2,30,432	55,366	-399	5.6	1.3	0.0
2007-08	1,97,037	9,163	-60,495	4.2	0.2	-1.3
2008-09 RE	4,71,520	2,33,938	1,86,034	8.9	4.4	3.5
2009-10 BE	5,95,090	3,19,793	2,66,430	10.2	5.5	4.5

BE: Budget Estimates. RE: Revised Estimates.

Note : Data in respect of the States are provisional from 2007-08 onwards and relate to the Budgets of 27 States of which 2 are *vote on accounts.*

Table 2.55: Combined Receipts and Disbursements of the Centre and States

(Amount in Rupees crore)

Items	2008-09 RE	2009-10 BE	Variation	
			Amount	Per cent
1	2	3	4	5
Total Receipts(A+B)	16,42,815	18,39,239	1,96,424	12.0
A. Revenue Receipts (1+2)	11,66,470 (21.9)	12,65,947 (21.6)	99,477	8.5
1. Tax Receipts (a+b)	9,65,102 (18.1)	10,21,585 (17.4)	56,483	5.9
a) Direct Taxes	3,93,060 (7.4)	4,30,428 (7.3)	37,368	9.5
b) Indirect Taxes	5,72,042 (10.7)	5,91,157 (10.1)	19,115	3.3
2. Non Tax Receipts	2,01,368 (3.8)	2,44,362 (4.2)	42,994	21.4
B. Capital Receipts	4,76,345 (9.0)	5,73,292 (9.8)	96,947	20.4
Total Disbursements (C+D)	16,59,109 (31.2)	18,70,955 (31.9)	2,11,846	12.8
C. Development Expenditure	9,88,513 (18.6)	10,62,099 (18.1)	73,586	7.4
D. Non-Development Expenditure	6,70,596 (12.6)	8,08,856 (13.8)	1,38,260	20.6

RE: Revised Estimates. BE: Budget Estimates.

Note: 1. Figures in parentheses are percentages to GDP.

2. Data in respect of the States are provisional from 2007-08 onwards and relate to the Budgets of 27 States of which 2 are *vote on accounts.*

estimated by the IMF for tax cuts, investment in infrastructure and other public expenditure to the Indian fiscal response, the beneficial impact on growth was found to be in the range of 0.7-2.3 percentage points. During 2008-09, the deviations in the deficit parameters of the Central Government

Table 2.56: Financing of Gross Fiscal Deficit of the Centre and States

(Rupees crore)

Year	Market Borrowings	State Provident Funds	Small Savings	External Borrowings	Others	Gross Fiscal Deficit
1	2	3	4	5	6	7
2006-07	1,27,858 (55.5)	15,188 (6.6)	63,746 (27.7)	8,472 (3.7)	15,168 (6.6)	2,30,432 (100.0)
2007-08	1,80,945 (91.8)	14,216 (7.2)	-4,474 (-2.3)	9,315 (4.7)	-2,965 (-1.5)	1,97,037 (100.0)
2008-09 BE	1,62,302 (67.0)	16,033 (6.6)	28,498 (11.8)	10,989 (4.5)	24,451 (10.1)	2,42,273 (100.0)
2008-09 RE	3,65,131 (77.4)	18,086 (3.8)	4,450 (0.9)	9,603 (2.0)	74,250 (15.7)	4,71,520 (100.0)
2009-10 BE	5,11,669 (86.0)	24,269 (4.1)	24,999 (4.2)	16,047 (2.7)	18,106 (3.0)	5,95,090 (100.0)

BE : Budget Estimates. RE : Revised Estimates.

Note : 1. Figures in parentheses are percentages to GFD.

2. Data in respect of the States are provisional from 2007-08 onwards and relate to the Budgets of 27 States of which 2 are *vote on accounts*.

from the FRBM targets and the set back in the fiscal consolidation path of the State Governments were conditioned by the needs of the exceptional circumstances. With economic recovery, the automatic stabilisers operating to restore revenue buoyancy could create the necessary fiscal space for the reversion of discretionary fiscal policy stance to the previous path of correction and consolidation, thereby alleviating current concerns associated with the stimulus driven widening of the deficit parameters.

Table 2.57: Combined Expenditure of the Centre and States on Social Sector

(Amount in Rupees crore)

	2007-08	2008-09 BE	2008-09 RE	2009-10 BE
1	2	3	4	5
Expenditure on Social Sector *	3,71,435	4,42,777	5,25,052	6,07,651
Of which:				
Social Services	2,88,500	3,52,188	3,98,828	4,45,751
Of which:				
i) Education	1,27,547	1,58,823	1,67,981	1,98,842
ii) Medical & Public Health	60,869	73,164	76,488	89,305
Per cent of GDP				
Expenditure on Social Sector	7.9	8.3	9.9	10.4
Of which:				
Social Services	6.1	6.6	7.5	7.6
Of which:				
i) Education	2.7	3.0	3.2	3.4
ii) Medical & Public Health	1.3	1.4	1.4	1.5
Per cent of Total Expenditure				
Expenditure on Social Sector	28.7	30.2	31.6	32.5
Of which:				
Social Services	22.3	24.0	24.0	23.8
Of which:				
i) Education	9.8	10.8	10.1	10.6
ii) Medical & Public Health	4.7	5.0	4.6	4.8

* : Expenditure on social sector includes expenditure on social services, rural development and food subsidies.

Note : Data in respect of the States are provisional from 2007-08 onwards and relate to the Budgets of 27 States of which 2 are *vote on accounts*.

V. FINANCIAL MARKETS

II.5.1 The financial markets of the advanced countries were disrupted and at times even turned dysfunctional during 2008-09 as the sub-prime crisis affected the financial markets first, before transmitting to financial institutions and the real economy. With the adverse feedback loop becoming stronger over time, failing institutions and weakening growth prospects increased the level of stress in the financial markets. The significant deterioration in global financial conditions, particularly since mid-September 2008, led to severe disruptions in the short-term funding markets, widening of risk spreads, rapid fall in equity prices and inactivity in the markets for private asset-backed securities and related derivatives. Price patterns over time began to mirror the strains of the economic recession and remained highly volatile given the environment of uncertainty and changing risk perceptions. The crisis that originated in the financial sector in the US, led to collapse or near collapse of some large financial institutions and banks. Every major entity with large financial investment portfolio had to suffer substantial losses due to mark-to-market accounting in the face of collapsing asset prices. Banks, investment banks, non-banks such as insurance companies, pension funds, private equity funds, shadow banks such as structured investment vehicles (SIVs), mutual funds and money market mutual funds came under stress following evaporation of market liquidity. With significant erosion of banks' balance sheets, mistrust among banks intensified, as a result of which inter-bank markets choked and money markets dried up. This engendered a credit squeeze that amplified under deleveraging and got transmitted to the real economy.

II.5.2 The main impact of the unfolding global financial crisis on the Indian financial markets, particularly following the collapse of Lehman Brothers in September 2008, was in the form of reduction in net capital inflows and significant correction in the domestic stock markets on the back of sell-off in the equity market by the foreign institutional investors (FIIs). The withdrawal of funds from the Indian equity markets, as in the case of other emerging market economies (EMEs) and reduced access of the Indian entities to funds from the international markets put significant pressure on dollar liquidity in the domestic foreign exchange market. These developments created adverse expectations of the BoP difficulties and led to depreciation pressure and higher volatility in the foreign exchange market. The constrained access to foreign funding and the lacklustre domestic capital market put pressures on some segments of the financial system, such as NBFCs and mutual funds. Liquidity pressures on mutual funds, which in turn were provider of funds to other sectors, like NBFCs, further stifled the flow of funds. Consequently, the pressure for funding liquidity came to rest on banks.

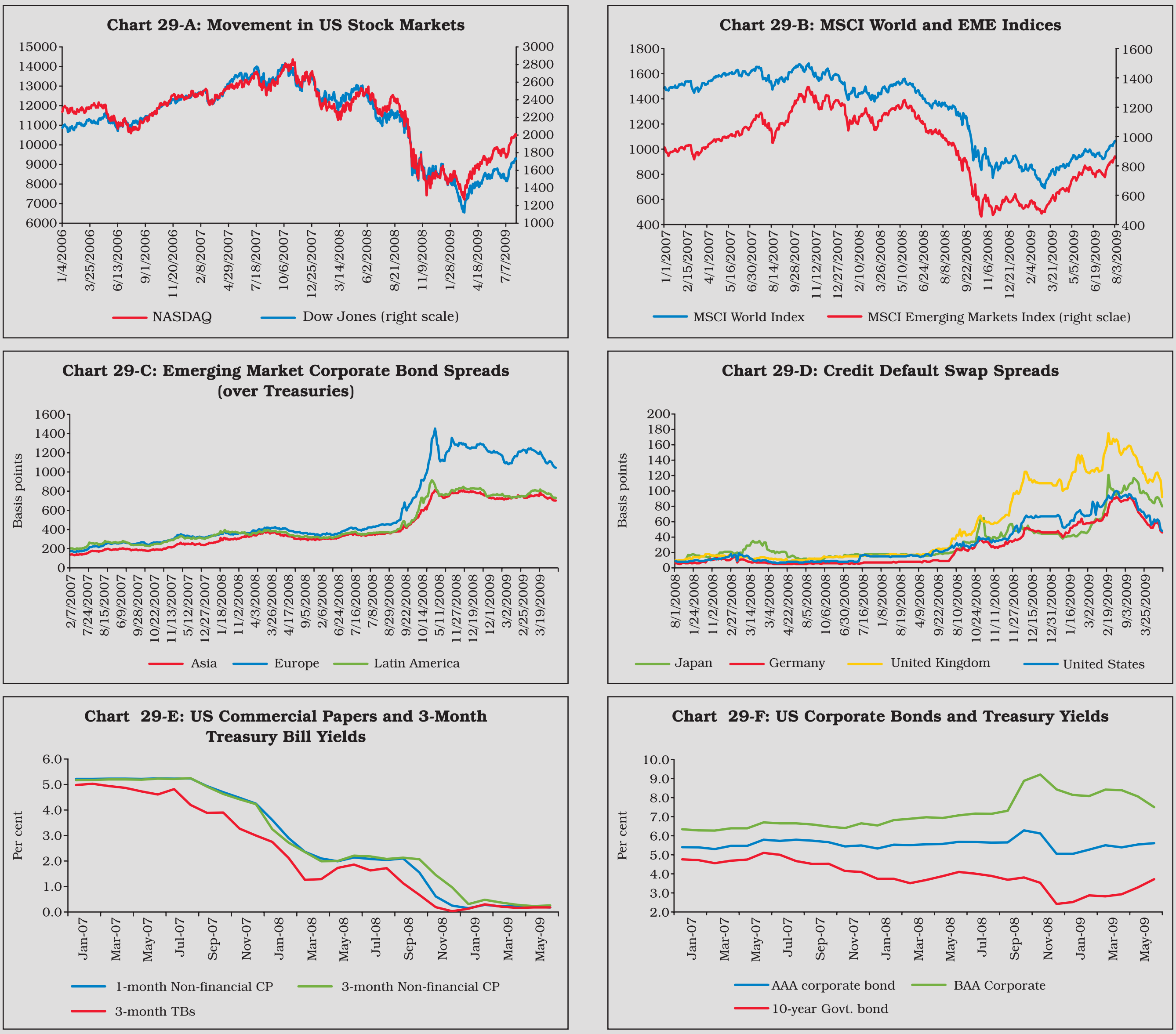
INTERNATIONAL FINANCIAL MARKETS

II.5.3 Many systemically important commercial banks, investment banks, insurance companies and other financial institutions in the US and Europe suffered large losses that undermined their capital bases. The credit spreads for corporate papers went up sharply. The US Federal Reserve and other central banks/governments had to rescue a number of failing financial institutions through large scale bailout packages, but financial markets continued to suffer from a crisis of confidence. The unfolding developments entailed broader ramifications for both growth and stability in an integrated world, where cross-exposures, particularly among banks/ financial institutions, and trade links are inextricably strong and complex.

II.5.4 The EMEs, which showed considerable resilience in weathering the crisis up to September 2008, came under strain in the last quarter of 2008 through the spread of contagion. As a sign of flight to safety, capital flows from developed countries to the EMEs declined sharply in 2008. Reflecting lower flows through current and capital accounts, currencies of the EMEs depreciated against the US dollar. EME equity markets suffered large losses in the wake of reversal of portfolio flows. Bank lending to the EMEs declined and credit spreads increased sharply due to the prevailing credit crunch in advanced economies. Notwithstanding, the financial market environment in the EMEs remained quite different. By and large, their financial institutions did not exhibit fragility; inter-bank confidence was relatively normal and inter-bank money markets also continued to function. The crisis affected the EMEs mainly through three key financial channels. The first was the exit of foreign portfolio equity investments, resulting in decline in stock markets which together with rapid decline in export demand, exerted significant pressures on the exchange rate. The second channel was the drying up of overseas lines of credit for banks and corporates, which shifted demand to the domestic credit market. Third, there was severe constraint on trade emanating from drying up of trade finance. Monetary policy actions by the EMEs, therefore, had to respond more to emerging real economy problems rather than financial sector problems.

II.5.5 The extent of disruptions and volatility in the global financial markets could be seen from the behaviour of key indicators in Chart II.29. While the stock market corrections were sharp (Chart 29-A and 29-B), the volatility rose to unprecedented levels; yield spreads on EME corporate bonds escalated significantly, reflecting the rising risk premium (Chart 29-C); and credit default swap premia, signifying the cost of insurance against default, rose sharply (Chart 29-D). Reflecting the pressure on short-term funding markets, the spread on CPs widened (Chart 29-E) and yields on lower rated corporate bonds increased significantly (Chart 29-F). These trends in the financial markets of the advanced countries had the potential to affect the Indian financial markets, in view of the growing globalisation and rising integration of the financial markets. The EMEs in general experienced contagion from the adverse global financial markets in the form of significant corrections in their stock prices (Table 2.58), besides notable depreciation of their currencies.

Chart II.29: Indicators of Global Financial Market Developments



Source: Global Financial Stability Report and World Economic Outlook databases, IMF; Federal Reserve, US.

II.5.6 As a reflection of the economic and financial markets outlook, the year 2008-09 was characterised by depressed equity valuations. Equity price indices in most advanced economies were relatively flat during July and August 2008, but caught on the downward spiral subsequently, which continued into the fourth quarter of 2008-09 (Table 2.58). The volatility in the markets in the fourth quarter was compounded by the lack of detailed information about government rescue packages.

II.5.7 The US dollar generally appreciated against most of the currencies, except Japanese yen and Chinese yuan, during 2008-09. The US dollar commenced the year on a weak note, exhibiting depreciating trend against most of the currencies during April-July 2008 due to factors such as slowing growth, lowering consumer confidence, weaker equity markets and non-farm payroll employment. However, from early August 2008, the US dollar started strengthening mainly on account

Table 2.58: International Stock Markets

Country (Index)	Percentage variation (year-on-year)		P/E Ratio		Coefficient of variation
	End-March 2008	End-March 2009	End-March 2008	End-March 2009	2008-09 (April-March)
1	2	3	4	5	6
Emerging Market					
Indonesia (Jakarta Composite)	33.7	-41.4	14.8	17.7	26.6
Brazil (Bovespa)	33.1	-32.9	13.8	14.4	25.3
Thailand (SET)	21.3	-47.2	16.5	15.1	27.9
India (BSE Sensex)	19.7	-37.9	16.2	11.0	24.2
South Korea (KOSPI)	17.3	-29.2	12.6	26.0	20.4
China (Shanghai Composite)	9.1	-31.7	26.1	23.0	23.4
Taiwan (Taiwan Taiex)	8.7	-39.2	14.3	65.8	27.6
Russia (RTS)	6.1	-66.4	9.4	5.7	54.3
Malaysia (KLCI)	0.1	-30.1	13.7	15.0	15.4
Singapore (Straits Times)	-4.9	-43.5	10.8	9.4	26.5
Developed Markets					
US (Dow Jones Industrial)	-0.7	-38.0	15.2	18.8	19.3
US (Nasdaq Composite)	-5.9	-32.9	27.3	22.6	21.7
Euro Area (FTSE Eurotop 100)	-15.7	-40.1	11.2	15.4	20.4
UK (FTSE 100)	-9.6	-31.1	11.4	17.4	16.8
Memo:					
MSCI World	-5.1	-44.0	14.2	15.1	24.9
MSCI Emerging	18.9	-48.4	13.9	12.9	34.0

Source : Bloomberg and Bombay Stock Exchange Limited (BSE).

of decline in the risk appetite of the US investors induced by the financial crisis in the US. This resulted in liquidation of their positions in overseas equity and bond markets on flight to safety considerations. During 2009-10 so far, the appreciating trend has been reversed because of declining safe haven flows to the US, large-scale quantitative easing in the US and change in the market sentiment against the dollar. Between end-March 2009 and August 13, 2009, the US dollar depreciated by 6.9 per cent, 13.7 per cent and 2.0 per cent against the euro, the pound sterling and the Japanese yen, respectively. Among the Asian currencies, it depreciated against the Indian rupee, Indonesian rupiah, Malaysian ringgit, South Korean won and Thai baht (Table 2.59).

DOMESTIC FINANCIAL MARKETS

II.5.8 The direct impact of the sub-prime crisis on Indian banks/financial sector was almost

Table 2.59: Appreciation (+)/Depreciation (-) of the US dollar *vis-à-vis* other Currencies

(Per cent)

Currency	End-March 07 @	End-March 08 @	End-March 09 @	August 13, 2009*
1	2	3	4	5
Euro	-9.12	-15.77	18.82	-6.89
Pound Sterling	-11.40	-1.53	38.67	-13.74
Japanese Yen	0.21	-14.92	-2.00	-2.04
Chinese Yuan	-3.53	-9.25	-2.61	-0.02
Russian Ruble	-6.06	-9.68	44.25	-5.18
Turkish Lira	3.23	-5.75	27.69	-11.87
Indian Rupee	-2.46	-8.30	27.47	-5.52
Indonesian Rupiah	0.47	1.09	25.58	-14.04
Malaysian Ringgit	-6.24	-7.77	14.42	-3.52
South Korean Won	-3.65	5.47	38.86	-11.15
Thai Baht	-9.90	-10.16	12.85	-4.21
Argentine Peso	0.65	2.08	17.32	3.29
Brazilian Real	-6.41	-16.99	31.20	-17.83
Mexican Peso	1.27	-3.48	32.90	-9.09
South African Rand	17.24	11.34	17.22	-16.38

@ : Year-on-year variation.
* : Variation over end-March 2009.

negligible till mid-September 2008 because of the limited exposure to the troubled assets and the failing institutions, prudential policies put in place by the Reserve Bank and relatively low presence of foreign banks in the domestic banking sector. There was, however, a sudden change in the external environment following Lehman Brothers' failure in mid-September 2008. As in the case of other major EMEs, there was a large withdrawal of funds from the Indian equity markets by the FIIs, reflecting the credit squeeze and global deleveraging, which resulted in large capital outflows during September-October 2008, with concomitant pressures in the foreign exchange market. Moreover, Indian corporates found their overseas financing drying up, forcing them to shift their credit demand to the domestic banking sector. The substitution of overseas financing by domestic financing brought both money markets and credit markets under pressure.

II.5.9 With a view to maintaining orderly conditions in the foreign exchange market which had turned volatile, the Reserve Bank conducted foreign exchange market operations, particularly in October 2008. In addition, the Reserve Bank instituted a rupee-dollar swap facility for Indian banks with overseas branches/subsidiaries to give them comfort in managing their short-term foreign funding requirements. It also continued with the Special Market Operations (SMO) which were instituted in June 2008 for meeting the foreign exchange requirements of public sector oil marketing companies, taking into account then prevailing extraordinary situation in the money and foreign exchange markets. Finally, measures to ease foreign exchange liquidity also included those aimed at encouraging capital inflows, such as an upward adjustment of the interest rate ceiling on the foreign currency deposits by non-resident Indians, substantially relaxing the external commercial borrowings (ECB) regime for corporates, and allowing NBFCs and housing finance companies access to foreign borrowings (Box II.27).

II.5.10 Reflecting the impact of the measures taken by the Reserve Bank, call rates in the money market settled back into the informal LAF corridor starting November 2008, having breached the upper bound in the preceding two months. In the foreign exchange market, the Indian rupee generally depreciated against major currencies up to the end of the financial year, before appreciating in the first quarter of 2009-10 (Table 2.60). In the credit market, the lending rates of scheduled commercial banks (SCBs) began to soften at a gradual pace from November 2008. The government securities market was bearish for most of the fourth quarter of 2008-09, however yields, particularly in the medium to long-term maturity strengthened. Indian equity markets, picking up global cues, staged some recovery in the last week of March 2009, which continued in Q1 of 2009-10 and thereafter.

II.5.11 As a fallout of the global financial crisis, foreign funding dwindled and the domestic capital market slumped, which, in turn, put pressure on some segments of the Indian financial system such as mutual funds and NBFCs. The Reserve Bank addressed the financial stress faced by non-banks indirectly through the banking channel and through an SPV, without compromising either on the eligible counter-parties or on the asset quality of its balance sheet.

MONEY MARKET

Call/Notice Money Market

II.5.12 Reflecting the orderly conditions in the money market during the first half of 2008-09, the call rate remained largely within the informal corridor of the reverse repo and repo rates. The failure of Lehman Brothers, however, led to volatile conditions in the domestic foreign exchange market. Responding to the situation, the Reserve Bank made available substantial dollar liquidity with a view to curbing excessive volatility, which also had a tightening impact on rupee liquidity. The impact was magnified on account of domestic factors such as advance tax outflows from the banking system. The call rate moved above the repo rate in mid-

Box II.27
Policy Response of the Reserve Bank since mid-September 2008

Monetary Measures

- Cut in the repo rate under the LAF by a cumulative 425 basis points from 9.0 per cent to 4.75 per cent.
- Cut in the reverse repo rate by a cumulative 275 basis points from 6.0 per cent to 3.25 per cent.

Rupee Liquidity/Credit Delivery

- Cut in the CRR by a cumulative 400 basis points of NDTL from 9.0 per cent to 5.0 per cent.
- Introduction of a special refinance facility up to March 31, 2010 under which all SCBs (excluding RRBs) are provided refinance from the Reserve Bank equivalent to 1.0 per cent of each bank's NDTL as on October 24, 2008.
- Term repo facility under the LAF to enable banks to ease liquidity stress faced by mutual funds, NBFCs and housing finance companies (HFCs) with associated SLR exemption of 1.5 per cent of NDTL. This facility is available up to March 31, 2010.
- Reduction in statutory liquidity ratio (SLR) from 25 per cent to 24 per cent of NDTL with effect from the fortnight beginning November 8, 2008.
- Introduction of a mechanism to buyback dated securities issued under the MSS.
- Extension of the period of entitlement by 90 days of the first slab of pre-shipment and post-shipment rupee export credit with effect from November 15, 2008 and November 28, 2008, respectively.
- Increase in the eligible limit of the ECR facility for scheduled banks (excluding RRBs) from 15 per cent to 50 per cent of the outstanding export credit eligible for refinance.
- Amounts allocated, in advance, from SCBs for contribution to the SIDBI and the NHB against banks' estimated shortfall in priority sector lending in March 2009.
- Reduction in the provisioning requirements for all types of standard assets to a uniform level of 0.40 per cent except in case of direct advances to agricultural and SME sector which shall continue to attract provisioning of 0.25 per cent.
- All unrated claims on corporates and claims secured by commercial real estate attract a uniform risk weight of 100 per cent as against the risk weight of 150 per cent prescribed earlier. Claims on rated as well as unrated non-deposit taking systemically important NBFCs are uniformly risk weighted at 100 per cent.
- In order to provide liquidity support to housing, export and MSE sectors, the Reserve Bank provided a refinance facility to NHB, EXIM Bank and SIDBI up to March 2010.
- The scope of OMO widened by including purchases of government securities through an auction-based mechanism.

Foreign Exchange Liquidity

- Sold foreign exchange (US dollars) through agent banks to augment supply in the domestic foreign exchange market or intervene directly to meet any demand-supply gaps.
- Special market operations to meet the foreign exchange requirements of public sector oil marketing companies against oil bonds.
- The ceiling rate on export credit in foreign currency increased to LIBOR plus 350 basis points.
- Authorised Dealer (AD) category - I banks allowed to borrow funds from their head office, overseas branches and correspondents and overdrafts in nostro accounts up to a limit of 50 per cent of their unimpaired Tier 1 capital or US$ 10 million, whichever was higher.
- HFCs registered with the NHB were allowed to raise short-term foreign currency borrowings under the approval route, subject to compliance with prudential norms laid down by the NHB.
- A foreign exchange swap facility with tenure up to three months to Indian public and private sector banks having overseas operations in order to provide them flexibility in managing their short-term funding requirements at their overseas offices.
- Cumulative increase in the interest rate ceilings on FCNR(B) and NR(E)RA term deposits by 175 basis points each since September 16, 2008.
- Proposals from Indian companies to prematurely buyback their FCCBs considered under the approval or automatic route. Extension of FCCBs also permitted.
- The all-in-cost ceiling for ECBs dispensed with up to December 31, 2009 and enhanced for trade credit less than 3 years (6-month LIBOR plus 200 basis points).
- ECBs up to US$ 500 million per borrower per financial year were permitted for rupee/foreign currency expenditure for permissible end-uses under the automatic route.
- The definition of infrastructure sector for availing ECB was expanded and the requirement of minimum average maturity period of 7 years for ECB of more than US$ 100 million for rupee capital expenditure was dispensed with.
- Systemically important non-deposit taking NBFCs were permitted to raise short-term foreign currency borrowings under the approval route, subject to compliance with the prudential requirements of capital adequacy and exposure norms.

Table 2.60: Domestic Markets at a Glance

Year/ Month	Call Money		Govt. Securities		Foreign Exchange				Liquidity Management		Equity			
	Average Daily Turnover (Rs.crore)	Average Call Rates* (Per cent)	Average Turnover (Rs. crore)+	Average 10-year Yield@ (Per cent)	Average Daily Inter-bank Turnover (US$ million)	Average Exchange Rate (Rs. per US$)	RBI's net Foreign Currency Sales (-)/ Purchases (+) (US$ million)	Average 3-month Forward Premia (Per cent)	Average MSS Out-standing# (Rs. crore)	Average Daily LAF Out-standing (Rs. crore)	Average Daily BSE Turnover (Rs. crore)	Average Daily NSE Turnover (Rs. crore)	Average BSE Sensex **	Average S & P CNX Nifty **
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2006-07	**21,725**	**7.22**	**4,863**	**7.78**	**18,717**	**45.28**	**26,824##**	**2.14**	**37,698**	**21,973**	**3,866**	**7,812**	**12,277**	**3,572**
2007-08	**21,393**	**6.07**	**8,104**	**7.91**	**34,044**	**40.24**	**78,203##**	**2.16**	**1,28,684**	**4,677**	**6,275**	**14,148**	**16,569**	**4,897**
2008-09	**22,436**	**7.06**	**7,344**	**7.54**	**34,812**	**45.92**	**-34,922##**	**3.47**	**1,48,889**	**2,885**	**4,498**	**11,325**	**12,366**	**3,731**
Jan-08	27,531	6.69	19,182	7.61	38,676	39.37	13,625	2.07	1,59,866	15,692	8,071	19,441	19,326	5,756
Feb-08	22,716	7.06	12,693	7.57	42,068	39.73	3,884	0.24	1,75,166	-1,294	5,808	13,342	17,728	5,202
Mar-08	22,364	7.37	5,881	7.69	39,087	40.36	2,809	1.25	1,70,285	-8,271	6,166	14,056	15,838	4,770
Apr-08	19,516	6.11	6,657	8.10	37,580	40.02	4,325	2.68	1,70,726	26,359	5,773	13,561	16,291	4,902
May-08	19,481	6.62	6,780	8.04	32,287	42.13	148	2.45	1,75,565	11,841	6,084	13,896	16,946	5,029
Jun-08	21,707	7.75	6,835	8.43	38,330	42.82	-5,229	3.69	1,74,433	-8,622	5,410	12,592	14,997	4,464
Jul-08	24,736	8.76	5,474	9.18	37,173	42.84	-6,320	6.04	1,72,169	-27,961	5,388	12,862	13,716	4,125
Aug-08	23,408	9.10	7,498	9.06	38,388	42.94	1,210	4.71	1,71,944	-22,560	4,996	11,713	14,722	4,417
Sep-08	23,379	10.52	10,418	8.45	44,700	45.56	-3,784	2.35	1,75,666	-42,591	5,147	12,489	13,943	4,207
Oct-08	28,995	9.90	4,321	7.85	36,999	48.66	-18,666	1.13	1,69,123	-45,612	3,911	10,810	10,550	3,210
Nov-08	21,812	7.57	5,866	7.41	31,322	49.00	-3,101	4.20	1,47,648	-8,017	3,539	9,618	9,454	2,835
Dec-08	21,641	5.92	11,451	5.55	34,874	48.63	-318	4.59	1,24,848	22,294	3,851	10,141	9,514	2,896
Jan-09	18,496	4.18	9,568	5.84	27,895	48.83	-29	3.10	1,13,535	45,474	3,526	9,559	9,350	2,854
Feb-09	22,241	4.16	5,916	5.98	25,068	49.26	230	2.68	1,02,934	50,649	2,859	7,887	9,188	2,819
Mar-09	23,818	4.17	5,322	6.59	33,126	51.23	-3,388	3.99	88,077	33,360	3,489	10,140	8,966	2,802
Apr-09	21,820	3.28	7,998	6.55	27,796	50..06	-2,487	3.34	75,146	1,01,561	5,232	15,688	10,911	3,360
May-09	19,037	3.17	7,292	6.41	32,227	48.53	-1,437	3.42	45,955	1,25,728	6,427	19,128	13,046	3,958
Jun-09	17,921	3.21	7,288	6.83	32,431	47.77	1,044	3.30	27,140	1,23,400	7,236	21,928	14,782	4,436
July-09	14,394	3.21	-	-	-	48.48	-	2.60	22,159	1,30,891	6,043	18,528	14,635	4,343

* : Average of daily weighted call money borrowing rates.
@ : Average of daily closing rates.
** : Average of daily closing indices.
\- : Not available.
LAF : Liquidity Adjustment Facility.
BSE : Bombay Stock Exchange Limited.
+ : Average of daily outright turnover in Central Government dated securities.
# : Average of weekly outstanding MSS.
: Cumulative for the financial year.
MSS : Market Stabilisation Scheme.
NSE : National Stock Exchange of India Limited.

Note: In column 11, (-) indicates injection of liquidity, while (+) indicates absorption of liquidity.

September 2008 (Chart II.30). The weighted average daily call rate increased to 9.46 per cent in the second quarter of 2008-09 from 6.83 per cent in the first quarter (Table 2.60). The concomitant tightening of liquidity conditions coupled with weak market sentiment put pressures on some segments of the financial system, such as NBFCs and mutual funds. A substantial proportion of collections of mutual funds reflected bulk funds from the corporate sector under the money market schemes, partly reflecting tax and other regulatory arbitrage. As sources of funding dried up due to risk aversion, there was large redemption pressure on mutual funds. Drying up of funds with mutual funds, which in turn were providers of funds to other sectors such as the NBFCs, further attenuated the flow of funds. Consequently, the entire pressure for funds came to rest on banks: from the corporate sector unable to get external funds or new financing from the equity market, NBFCs and mutual funds; and from the growing perception of an emerging credit crunch.

II.5.13 The pressure on money markets continued to prevail in the beginning of the third quarter of 2008-09. The call rate remained above the informal corridor in the first half of October 2008. Subsequently, the call rate declined under the impact of the reduction in the cash reserve ratio (CRR) with effect from the fortnight beginning October 11, 2008. As the series of measures initiated by the Reserve Bank to augment liquidity began to take effect, the weighted average call money rate declined and mostly remained within the LAF corridor from November 2008 onwards (Chart II.30). Moreover, volumes in the money market picked-up since November 2008 (Chart II.31), which suggests that there has not been any adverse perception of counter-party risk and consequently, the inter-bank money market functioned normally in India, in contrast to those of certain advanced economies. Reflecting the easy liquidity conditons, the call rate continued to hover around the lower bound of the LAF corridor during the last quarter of 2008-09 and averaged 4.17 per cent. During 2009-10 so far, in consonance with the reduction in policy rates in April 2009 and the further easing of liquidity conditions, the call rate declined and continued to stay close to the lower bound of the LAF corridor. The call rate averaged at 3.22 per cent in the first quarter of 2009-10 and was placed at 3.24 per cent on August 18, 2009.

II.5.14 The collateralised segment now dominates activity in the money market with a share of over 75 per cent. The interest rate in market *repo* (outside the LAF) and the Collateralised Borrowing and Lending Obligation (CBLO) segments moved in consonance with the call rate but remained below the call rate during 2008-09 in general. The tightening of liquidity conditions till around October 2008, with banks resorting to central bank liquidity facility, led to a decline in average daily volumes in the collateralised segment (see Chart II.31). The volumes, however, picked up substantially in the last quarter of 2008-09, largely reflecting the easing of liquidity conditions and enhanced lending capacity of mutual funds (Table 2.61).

Certificates of Deposit

II.5.15 The indirect impact of the global financial turmoil was also evident in the activity in the certificates of deposit (CD) market. The outstanding amount of CD issued by SCBs, after increasing between March and September 2008, declined thereafter till December 2008, as the global financial market turmoil intensified. With the easing

Chart II.30: Movement of the LAF and Call Money Rate

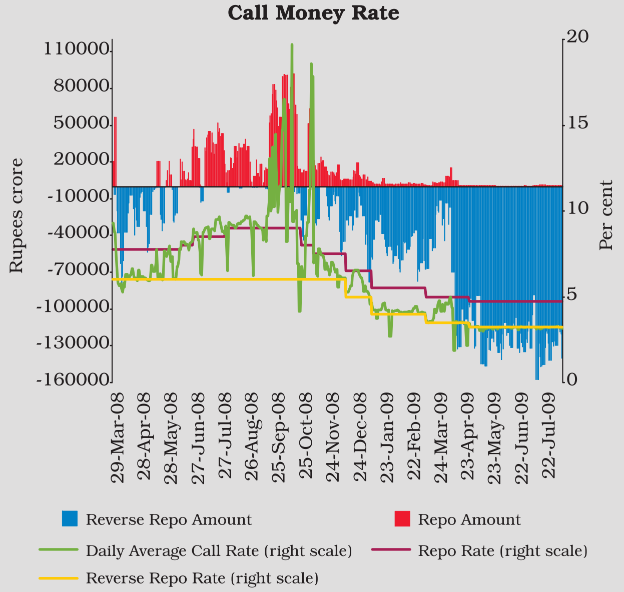


Chart II.31: Volumes and Rates in the Money Market

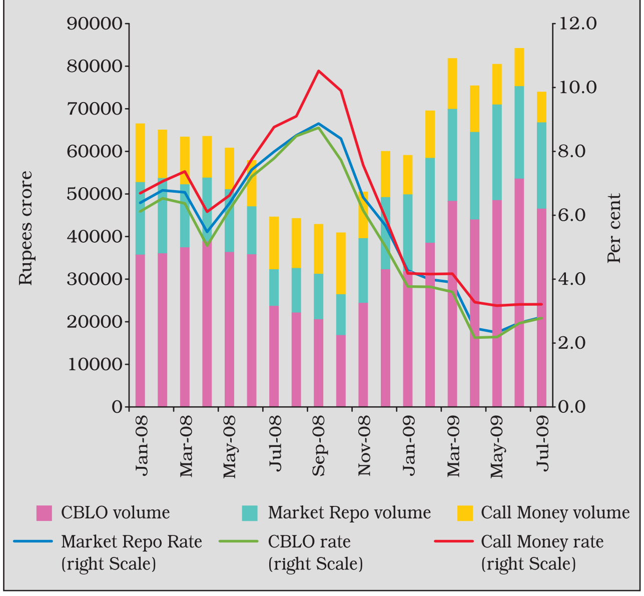


Table 2.61: Activity in Money Market Segments

(Rs. Crore)

Year/Month	Average Daily Volume (One Leg)					Commercial Paper		Certificates of Deposit	
	Call Money Market	Market Repo (Outside LAF)	CBLO	Total (2+3+4)	Term Money Market	Out-standing	WADR (Per cent)	Out-standing	WADR (Per cent)
1	2	3	4	5	6	7	8	9	10
2006-07	**10,863**	**8,419**	**16,195**	**35,477**	**506**	**21,336**	**8.08**	**64,821**	**8.24**
2007-08	**10,697**	**13,684**	**27,813**	**52,194**	**352**	**33,813**	**9.20**	**1,17,186**	**8.94**
2008-09	**11,218**	**14,330**	**30,776**	**56,323**	**397**	**47,183**	**10.54**	**1,62,574**	**9.31**
Apr-07	14,845	7,173	18,086	40,104	440	18,759	10.52	95,980	10.75
May-07	10,238	8,965	20,810	40,013	277	22,024	9.87	99,715	9.87
Jun-07	8,413	10,295	20,742	39,450	308	26,256	8.93	98,337	9.37
Jul-07	8,290	12,322	20,768	41,380	288	30,631	7.05	1,05,317	7.86
Aug-07	11,802	16,688	26,890	55,380	319	31,784	8.30	1,09,224	8.67
Sep-07	10,995	17,876	29,044	57,915	265	33,614	8.95	1,18,481	8.57
Oct-07	9,275	15,300	29,579	54,154	221	42,183	7.65	1,24,232	7.91
Nov-07	10,073	12,729	28,614	51,416	184	41,308	9.45	1,27,142	8.48
Dec-07	8,124	13,354	30,087	51,565	509	40,243	9.27	1,23,466	8.81
Jan-08	13,765	17,029	35,711	66,505	312	50,062	11.83	1,29,123	8.73
Feb-08	11,358	17,682	36,007	65,047	525	40,642	9.73	1,39,160	9.94
Mar-08	11,182	14,800	37,413	63,395	571	32,952	10.38	1,47,792	10.00
Apr-08	9,758	14,966	38,828	63,552	374	37,584	8.85	1,50,865	8.49
May-08	9,740	14,729	36,326	60,795	420	42,032	9.02	1,56,780	8.95
Jun-08	10,854	11,262	35,774	57,890	253	46,847	10.03	1,63,143	9.16
Jul-08	12,368	8,591	23,669	44,628	226	51,569	10.95	1,64,892	10.23
Aug-08	11,704	10,454	22,110	44,268	501	55,036	11.48	1,71,966	10.98
Sep-08	11,690	10,654	20,547	42,891	335	52,038	12.28	1,75,522	11.56
Oct-08	14,497	9,591	16,818	40,906	345	48,442	14.17	1,58,562	10.00
Nov-08	10,906	15,191	24,379	50,476	319	44,487	12.42	1,51,493	10.36
Dec-09	10,820	16,943	32,261	60,024	415	40,391	10.70	1,51,214	8.85
Jan-09	9,248	18,053	31,794	59,095	454	51,668	9.48	1,64,979	7.33
Feb-09	11,121	19,929	38,484	69,534	669	52,560	8.93	1,75,057	6.73
Mar-09	11,909	21,593	48,319	81,821	451	44,171	9.79	1,92,867	7.53
Apr-09	10,910	20,545	43,958	75,413	332	52,881	6.29	2,10,954	6.48
May-09	9,518	22,449	48,505	80,472	338	60,740	5.75	2,18,437	6.20
Jun-09	8,960	21,694	53,553	84,207	335	68,721	5.00	2,21,491	4.90
July-09	7,197	20,254	46,501	73,952	389	-	-	2,28,638 *	4.92 *

* : As on July 3, 2009. - : Not available. WADR : Weighted Average Discount Rate.

of liquidity conditions, the CD volumes picked up in the last quarter of 2008-09. Most of the CD issued were of more than six months duration. As the financial market turmoil deepened and the liquidity conditions worsened, the weighted average discount rate (WADR) of CD increased steadily between end-June and October 10, 2008, and declined thereafter (Chart II.32).

Commercial Paper

II.5.16 Reflecting indirect effects of the global financial turmoil, the commercial paper (CP) market also exhibited difficulties faced by the corporates in raising funds, particularly during September and mid-December 2008. A few cases of defaults by issuers in meeting the redemptions were also reported by the Issuing and Paying Agents (IPAs).

Chart II.32: Movement of WADR of CD and Average Call Money Rate

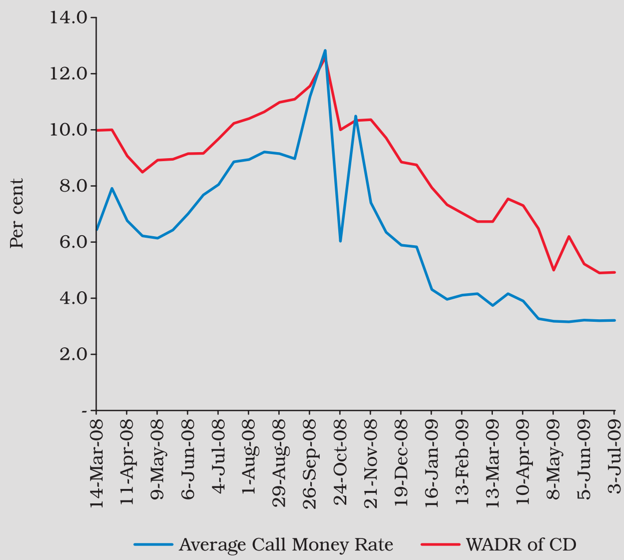
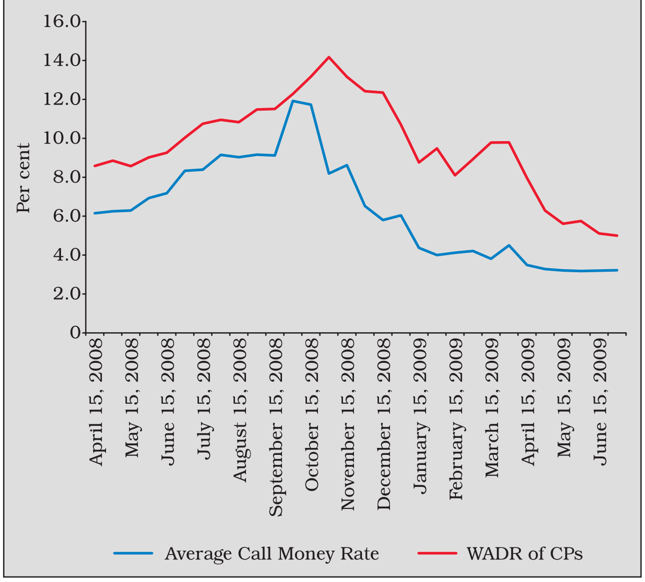


Chart II.33: Movement of WADR of CPs and Average Call Money Rate



Subsequently, as liquidity conditions eased, the outstanding amount of CPs picked up (refer Table 2.60). Leasing and finance companies continued to be the major issuers of CPs, followed by 'manufacturing and other companies' and financial institutions (Table 2.62). The WADR on CPs, which was witnessing a steadily declining trend till mid-May 2008, increased sharply thereafter till end-October 2008. With the easing of liquidity conditions, the WADR significantly moderated in the subsequent period (Chart II.33). The most preferred tenor for issuance of CPs was more than 180 days.

Table 2.62: Commercial Paper - Major Issuers

(Rs. crore)

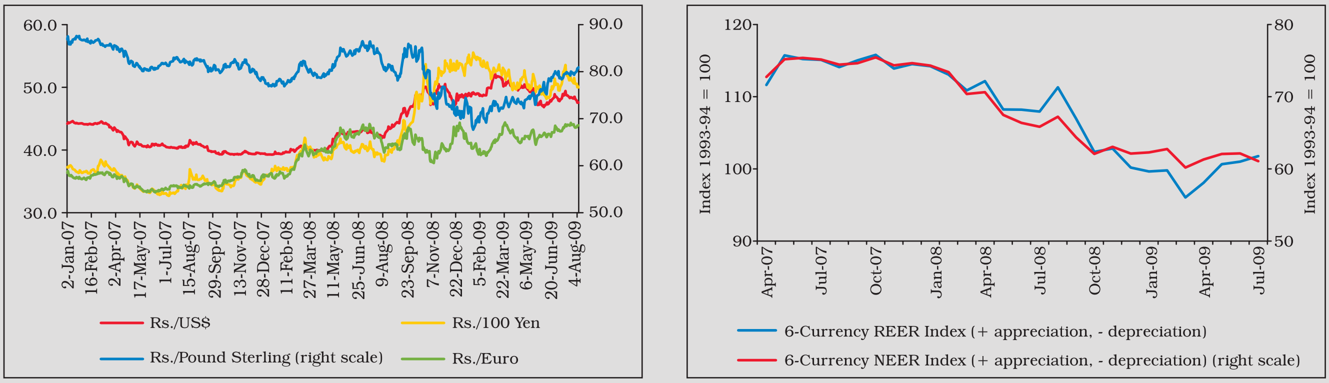
Category of Issuer	End-Jun-08	End-Sep-08	End-Dec-08	End-Mar-09	End-Jun-09
1	2	3	4	5	6
Leasing and Finance	34,957	39,053	27,965	27,183	34,437
	(74.6)	(75.0)	(73.5)	(61.5)	(50.1)
Manufacturing	8,150	9,925	6,833	12,738	23,454
	(17.4)	(19.1)	(18.0)	(28.9)	(34.1)
Financial Institutions	3,740	3,060	3,257	4,250	10,830
	(8.0)	(5.9)	(8.5)	(9.6)	(15.8)
Total	46,847	52,038	38,055	44,171	68,721

Note : Figures in brackets are percentages to total.

FOREIGN EXCHANGE MARKET

II.5.17 The cascading effect of the global financial crisis on the domestic foreign exchange market was felt through the dollar liquidity shocks emanating from the lower level of net capital inflows. Consistent with its policy objective of maintaining orderly conditions in the foreign exchange market, the Reserve Bank sold foreign exchange to meet the mismatch in the market. Despite the deepening of the financial crisis and weakness in economic activity in the US, the flight to safety considerations helped the US dollar to strengthen against most currencies during 2008-09, including the Indian rupee, particularly since the middle of August 2008. The Indian rupee exhibited greater two-way movements during 2008-09, moving between Rs.39.89 and Rs.52.09 per US dollar (Charts II.34). The rupee generally depreciated during the first half of 2008-09, reflecting FIIs outflows, high inflation and higher crude oil prices, indicating higher demand for dollars. The rupee, which stood at 39.99 per US dollar as at end-March 2008, was generally range bound up to April 2008 but subsequently depreciated and moved in a narrow range of Rs. 42-43 per US dollar from the third week of May to the middle of August 2008. With the intensifying external shocks, it depreciated sharply thereafter

Charts II.34: Nominal and Real Exchange Rates of Indian Rupee



breaching the level of Rs.50 per US dollar on October 27, 2008. Despite significant easing of crude oil prices and inflationary pressures in the second half of the year, declining exports, sustained capital outflows and strength of the US dollar against other major currencies continued to exert depreciating pressure on the rupee, taking the rupee-US dollar exchange rate to a low of Rs. 52.09 per US dollar on March 5, 2009.

II.5.18 The rupee generally appreciated against the US dollar during 2009-10 up to mid-August on the back of significant turnaround in FII inflows, continued inflows under FDI and NRI deposits, better than expected macroeconomic performance in Q4 of 2008-09 and weakening of the US dollar in the international markets. Additionally, the outcome of the general elections, which generated expectations of political stability, buoyed the market sentiment and strengthened the rupee, especially in the second half of May 2009. As a result, during 2009-10 (up to August 14, 2009), the rupee appreciated by 5.5 per cent against the US dollar and 2.5 per cent against the Japanese yen. The rupee, however, depreciated by 8.9 per cent against the pound sterling and 2.0 per cent against the euro.

II.5.19 The Reserve Bank's actions in the foreign exchange markets, which were guided by the influence of large volatility created by capital inflows till May 2008, shifted to meet the rising demand of foreign exchange on account of the widening trade deficit and capital outflows in the subsequent period (Table 2.63). The market operations, however, have eased since December 2008 as the liquidity conditions in the foreign exchange markets returned to normalcy.

Table 2.63: Purchases and Sales of US dollar by the Reserve Bank

(US$ million)

Year/ Month	Purchase	Sale	Net Purchases(+)/ Sales(-)	Outstanding Net Forward Purchases(+)/ Sales(-)
1	2	3	4	5
2005-06	15,239	7,096	(+)8,143	0
2006-07	26,824	0	(+)26,824	0
2007-08	79,696	1,493	(+)78,203	(+)14,735
2008-09	26,563	61,485	(-)34,922	(-)2,042
Apr-08	4,325	0	(+)4,325	(+)17,095
May-08	1,625	1,477	(+)148	(+)15,470
Jun-08	1,770	6,999	(-)5,229	(+)13,700
Jul-08	3,580	9,900	(-)6,320	(+)11,910
Aug-08	3,770	2,560	(+)1,210	(+)9,925
Sep-08	2,695	6,479	(-)3,784	(+)2,300
Oct-08	1,960	20,626	(-)18,666	(+)90
Nov-08	2,355	5,456	(-)3,101	(-)487
Dec-08	2,005	2,323	(-)318	(-)1,752
Jan-09	1,055	1,084	(-)29	(-)1,723
Feb-09	1,063	833	(+)230	(-)1,953
Mar-09	360	3,748	(-)3,388	(-)2,042
Apr-09	204	2,691	(-)2,487	(-)1,071
May-09	923	2,360	(-)1,437	(+)131
June-09	1,279	235	(+)1,044	(+)745

(+) : Purchases including purchase leg under swaps and outright forwards.

(-) : Sales including sale leg under swaps and outright forwards.

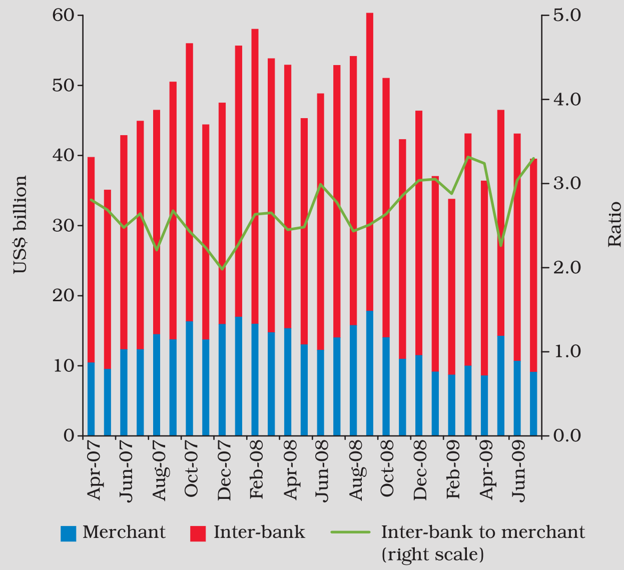
Note : Based on value dates and data are inclusive of transactions under the India Millennium Deposits.

II.5.20 The 6-currency trade-based REER (base: 1993-94=100) depreciated by 13.4 per cent between March 2008 and March 2009 (Chart II.34, Appendix Table 38). The broader 36-currency trade-weighted REER also depreciated by 13.3 per cent during the same period. The sharp depreciation of REER during 2008-09 was mainly on account of significant depreciation of the rupee against the US dollar and against other major currencies such as the euro, the Japanese yen and the Chinese yuan and significant moderation in the inflation rate in India. The 6-currency REER stood at 100.5 on August 14, 2009.

II.5.21 During 2008-09, forward premia showed large volatility reflecting the swift changes in the underlying demand-supply conditions and the relative interest rates (Chart II.35). The one, three and six-month premia exhibited movements in consonance with the evolving liquidity conditions in the domestic money market and recourse to buy-sell swaps by banks on account of shortage of dollar liquidity in the international inter-bank markets. However, after November 2008, with easing dollar liquidity, the forward premia have generally exhibited moderating trend. During 2009-10 (up to July), forward premia generally exhibited declining trend, reflecting the easing supply conditions in the market led by revival of capital flows.

Chart II.35: Rupee-US Dollar Forward Premia

Chart II.36: Average Daily Turnover in the Foreign Exchange Market



II.5.22 Reflecting significant deceleration in cross-border trade flows and large capital outflows, the total turnover in the foreign exchange market declined by 1.3 per cent during 2008-09 as compared with a robust growth of 86.4 per cent in the previous year (Chart II.36 and Appendix Table 39). The average daily turnover in the foreign exchange market also declined marginally. The ratio of inter-bank to merchant turnover increased from 2.5 in 2007-08 to 2.8 in 2008-09. The declining trend in the total turnover in the foreign exchange market continued in April-July 2009-10. The daily average turnover in the foreign exchange market after showing signs of improvement in May-June 2009, exhibited some moderation in July 2009.

GOVERNMENT SECURITIES (SECONDARY) MARKET

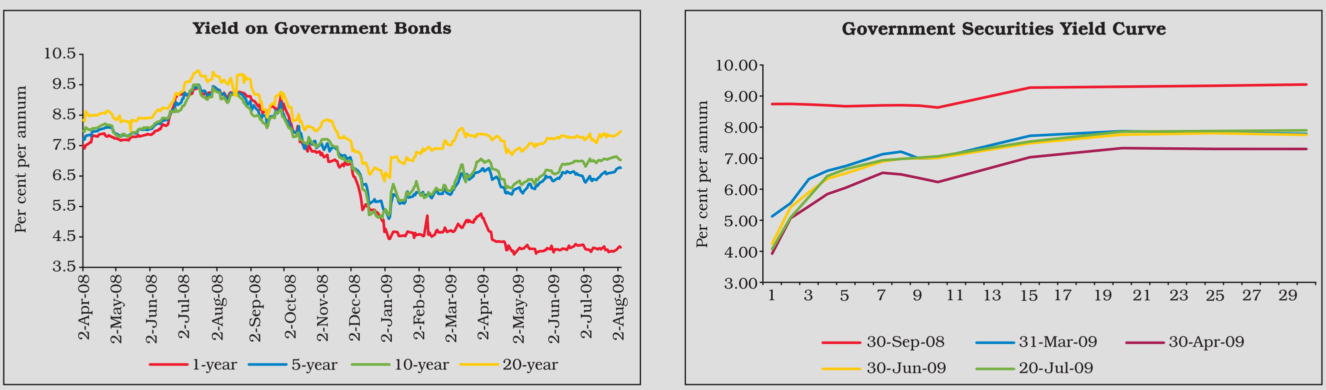
II.5.23 The yields in the secondary market for government securities hardened in Q1 of 2008-09 on account of heightened inflationary expectations in the face of sharp increase in global commodity prices and concomitant monetary policy response in the form of hikes in the CRR and the LAF repo rate. Subsequently, the yields generally eased around mid-September 2008 following some reduction in inflationary pressures due to lower crude oil prices. The yields, however, hardened moderately towards end-September 2008 when liquidity conditions tightened due to advance tax outflows and the adverse developments in international financial markets. In Q3 of 2008-09, the yields sharply moderated, reflecting lower policy rates and injection of ample liquidity to ease the pressure on money markets arising from the financial market turmoil.

II.5.24 Notwithstanding further reduction in the CRR and LAF rates in January 2009, market sentiment worsened in January and February 2009, following the large and abrupt increase in the Government's market borrowing programme that became necessary to deliver fiscal stimulus. Further, the large market borrowing requirements of the Government for 2009-10 also weighed on the market. Subsequent to the announcement of the Interim Budget on February 16, 2009, even as the Reserve Bank initiated a series of auction-based purchases of government dated securities in addition to its purchases through the NDS-OM, the 10-year yield increased from 6.02 per cent at end-February 2009 to 6.88 per cent on March 12, 2009, notwithstanding a further cut in the LAF interest rates effective March 5, 2009 (Chart II.37). The increased borrowings by the State Governments also impacted the sentiment adversely. The subsequent announcement of enhanced amounts of auction-based purchases of government dated securities by the Reserve Bank helped to improve market sentiment with moderation in yield. The yields again hardened on the back of announcement of government dated securities auction calendar on March 26, 2009. During the initial period of 2009-10, the yield declined on account of easing of liquidity, OMO purchases and reduction in policy rates; however, since the second half of May, yield started hardening.

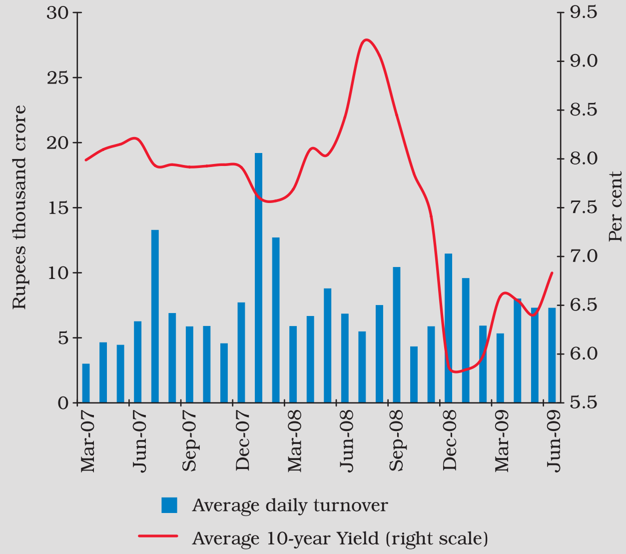
II.5.25 Movements in the yield curve during 2008-09 are largely reflective of the changes in monetary conditions and the higher Government borrowings. The yield curve moved upwards and peaked by end-July 2008 and thereafter shifted downwards steadily till end-December 2008, while again firming up over the last quarter of 2008-09 (Chart II.37). The yield curve continued to move upwards in Q1 of 2009-10 (barring April 2009) even as the comfortable liquidity conditions prevailed. The yield curve revealed moderation in rates towards the short end on account of abundant liquidity, while the medium to long-term yields hardened on concerns of higher Government borrowings.

II.5.26 The daily average turnover in the government securities market witnessed some variation due to market uncertainties. The impact of liquidity injected by the Reserve Bank and low credit demand together partly contributed to drive the volumes in the government securities market, particularly since November 2008 (Chart II.38).

Chart II.37: Yield on Government Bonds



Source: FIMMDA



CREDIT MARKET

II.5.27 Bank deposit and lending rates, which hardened up to October 2008, started easing somewhat from November 2008, reflecting measures taken by the Reserve Bank with a view to containing the spillovers of the global financial crisis on the domestic credit markets. Interest rates offered by PSBs on deposits of all maturities eased moderately between March 2008 and March 2009, while those of private sector banks on deposits of one year to three years firmed up (Table 2.64). The actual lending rates, other than export credit on demand and term loans for the SCBs, increased between March 2008 and December 2008. This complicated the transmission mechanism in the face of falling policy rates and declining inflation. Although the policy rates have been substantially

Table 2.64: Movements in Deposit and Lending Rates

(Per cent)

Interest Rates	March 2007	March 2008	September 2008	December 2008	March 2009	April 2009	May 2009	July 2009
1	2	3	4	5	6	7	8	9
Term Deposit Rates								
Public Sector Banks								
a) Up to 1 year	2.75-8.75	2.75-8.50	2.75-10.25	2.75-10.25	2.75-8.25	2.50-7.50	2.50-7.50	1.00-7.00
b) Over 1 year and up to 3 years	7.25-9.50	8.25-9.25	8.75-10.25	8.50-10.75	8.00-9.25	7.00-8.75	6.50-8.50	6.50-8.00
c) Over 3 years	7.50-9.50	8.00-9.00	8.50-9.75	8.50-9.75	7.50-9.00	7.25-8.50	7.00-8.50	6.75-8.25
Private Sector Banks								
a) Up to 1 year	3.00-9.00	2.50-9.25	3.00-9.75	3.00-10.00	3.00-8.75	2.75-8.50	2.75-8.25	2.00-7.50
b) Over 1 year and up to 3 years	6.75-9.75	7.25-9.25	8.30-10.50	9.00-11.00	7.50-10.25	7.50-9.25	7.00-9.00	5.25-8.25
c) Over 3 years	7.75-9.60	7.25-9.75	8.25-10.25	8.50-11.00	7.50-9.75	7.50-9.25	7.00-9.00	5.75-8.50
Foreign Banks								
a) Up to 1 year	3.00-9.50	2.25-9.25	3.50-9.75	3.50-9.75	2.50-8.50	2.25-8.25	2.25-8.25	1.25-8.00
b) Over 1 year and up to 3 years	3.50-9.50	3.50-9.75	3.50-10.50	3.50-11.25	2.50-9.50	2.25-9.00	2.25-9.00	2.25-8.50
c) Over 3 years	4.05-9.50	3.60-9.50	3.60-11.00	3.60-11.00	2.50-10.00	2.25-9.50	2.25-9.50	2.25-9.50
BPLR								
Public Sector Banks	12.25-12.75	12.25-13.50	13.75-14.75	12.50-14.00	11.50-14.00	11.50-13.50	11.00-13.50	11.00-13.50
Private Sector Banks	12.00-16.50	13.00-16.50	13.75-17.75	13.00-17.25	12.75-16.75	12.50-16.75	12.50-16.75	12.50-16.75
Foreign Banks	10.00-15.50	10.00-15.50	10.00-16.00	10.00-17.00	10.00-17.00	10.00-17.00	10.00-17.00	10.50-16.00
Actual Lending Rates*								
Public Sector Banks	4.00-17.00	4.00-17.75	6.00-18.75	5.25-18.00	3.50-18.00	-	-	-
Private Sector Banks	3.15-25.50	4.00-24.00	5.06-23.00	5.06-30.00	4.75-26.00	-	-	-
Foreign Banks	5.00-26.50	5.00-28.00	5.00-25.50	5.00-26.00	5.00-25.50	-	-	-
Weighted Average Lending Rates#								
Public Sector Banks	11.81	12.18	-	-	10.99 @	-	-	-
Private Sector Banks	11.91	12.68	-	-	12.54 @	-	-	-
Foreign Banks	13.03	13.05	-	-	10.73 @	-	-	-

* : Interest rate on non-export demand and term loans above Rs.2 lakh excluding lending rates at the extreme five per cent on both sides.
# : Data based on the accounts with credit limit of over Rs.2 lakh and are exclusive of inland and foreign bills purchased and discounted. Outstanding amounts are used as weights for calculating average lending rates.
@ : The data are provisional and are based on 32,693 branches only.

eased since early October 2008, significant rigidity has been witnessed in banks' deposit and lending rates, which continue to be high despite some moderation in the past few months. This rigidity could be attributed to a number of factors. First, the interest rate on small savings continues to be administered and a reduction in interest rates on bank deposits could make bank deposits relatively unattractive, which could lead to some deceleration of growth in bank deposits, as was witnessed in the past. Second, while interest rates on incremental time deposits are coming down, the average cost of deposits still remains high as the bulk of banks' time deposits raised in the past continue to be at higher interest rates. This, in turn, constrains an immediate substantial reduction in lending rates. Third, with increase in risk aversion, lending rates tend to be high even during periods of falling credit demand.

II.5.28 In 2009-10 so far, the reduction in the deposit and lending rates was somewhat more pronounced as the liquidity conditions remained easy and risks seemed to have abated and the impact of policy easing appeared to have worked through. There has been a reduction in the term deposit rates and the BPLRs across bank groups (Table 2.65).

II.5.29 The reduction in BPLRs of most public sector banks was in the range of 125-275 basis points, followed by 100-125 basis points for most private sector banks. The changes in BPLR, however, do not fully reflect the changes in the effective lending rates. During the pre-policy consultations with the Reserve Bank, banks pointed out that lending rates should not be assessed only in terms of reduction in BPLRs since as much as three-quarters of lending is made at rates below BPLR which includes lending to agriculture, export sector, and well-rated companies, including PSUs. The weighted average lending rate increased from 11.9 per cent in 2006-07 to 12.3 per cent in 2007-08, but is estimated to have declined to 11.1 per cent by March 2009. The effective lending rate is expected to have declined further in 2009-10 so far.

Table 2.65: Changes in Deposit and Lending Rates

(Per cent)

Interest Rates	October 2008	End-Jul 2009	Variation* (basis points)
1	2	3	4
Term Deposit Rates			
Public Sector Banks			
a) Up to 1 year	2.75-10.25	1.00-7.00	175-325
b) Over 1 year and up to 3 years	9.50-10.75	6.50-8.00	275-300
c) Over 3 years	8.50-9.75	6.75-8.25	150-175
Private Sector Banks			
a) Up to 1 year	3.00-10.50	2.00-7.50	100-300
b) Over 1 year and up to 3 years	9.00-11.00	5.25-8.25	275-375
c) Over 3 years	8.25-11.00	5.75-8.50	250
Five Major Foreign Banks			
a) Up to 1 year	3.50-9.50	2.25-7.00	125-250
b) Over 1 year and up to 3 years	3.60-10.00	2.25-7.00	135-300
c) Over 3 years	3.60-10.00	2.25-7.00	135-300
BPLR			
Public Sector Banks	13.75-14.75	11.00-13.50	125-275
Private Sector Banks	13.75-17.75	12.50-16.75	100-125
Five Major Foreign Banks	14.25-16.75	14.25-15.50	0-125

* : Variation of July 31, 2009 over October 2008.

EQUITY AND DEBT MARKETS

Primary Market

II.5.30 The primary issuances in the Indian capital market remained subdued during 2008-09, reflecting depressed secondary markets, deceleration in the domestic output growth and associated contraction in investment demand, a sharp drop in FII exposure to Indian capital market and the overall adverse sentiment on account of the global crisis. The global financial crisis adversely affected the primary markets since January 2008. There were withdrawals of planned public issues, under-subscription and innovative attempts at repricing issues immediately after allotment due to large swings in prices. The trend continued with the primary capital market exhibiting a sluggish trend. Resource mobilisation through public issues, private placement, Euro issues and mutual funds witnessed a sharp decline due mainly to postponement of resource raising plans by corporates on the back of uncertain conditions in the secondary market. As a result, resources raised by the corporate sector from the primary market through public issues contracted sharply during 2008-09 along with shrinkage in the average size of public issues (Table 2.66 and Appendix Table 42).

II.5.31 The pattern of resource mobilisation in the primary market revealed two key developments. First, there was a sharp fall in the resources mobilised by the private sector, both through public issues and private placement. Second, resources mobilised by the public sector companies through private placements did show some resilience even in the face of adverse market developments, perhaps due to the perception of less credit risk in such issues. The share of the initial public offerings (IPOs), both in terms of number of issues and resources mobilised, declined significantly during 2008-09. Out of the 45 public issues in 2008-09, 21 IPOs issued by private sector companies constituted 13.9 per cent and 20 rights issues accounted for 81.8 per cent of the total resources mobilised. Furthermore, all IPOs issued during 2008-09 were in the nature of equity issues. The share of private non-financial companies in equity issues was substantial, whereas private financial companies had only two issues during the year, reflecting the difficulties faced by certain segments of the non-bank financial sector in accessing funds

Table 2.66: Mobilisation of Resources from the Primary Market

(Amount in Rupees crore)

Item	2007-08		2008-09 P	
	No. of Issues	Amount	No. of Issues	Amount
1	2	3	4	5
A. Prospectus and Rights Issues*				
1. Private Sector (a+b)	**115**	**63,638**	**45**	**14,671**
		(107.9)		**(-76.9)**
a) Financial	11	14,676	2	466
b) Non-financial	104	48,962	43	14,205
2. Public Sector (a+b+c)	**4**	**20,069**	**-**	**-**
a) Public Sector Undertakings	-	-	-	-
b) Government Companies	2	2,516	-	-
c) Banks/Financial Institutions	2	17,553	-	-
3. Total (1+2)	**119**	**83,707**	**45**	**14,671**
of which:		**(158.5)**		**(-82.5)**
(i) Equity	116	82,398	45	14,671
(ii) Debt	3	1,309	-	-
B. Private Placement				
1. Private Sector (a+b)	**1,616**	**1,29,677**	**1,053**	**93,036**
a) Financial	905	88,291	683	60,246
b) Non-financial	711	41,386	370	32,790
2. Public Sector (a+b)	**199**	**83,048**	**228**	**1,09,709**
a) Financial	132	56,185	123	64,608
b) Non-financial	67	26,863	105	45,101
3. Total (1+2)	**1,815**	**2,12,725**	**1,281**	**2,02,745**
of which:				
(i) Equity	2	1,410	8	960
(ii) Debt	1,813	2,11,315	1,273	2,01,785
C. Euro Issues (ADRs and GDRs)	**26**	**26,556**	**13**	**4,788**

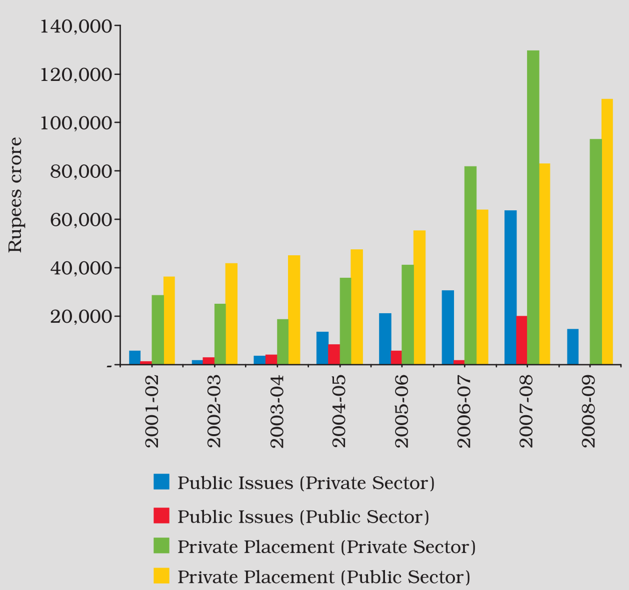
P : Provisional. * : Excluding offers for sale.
- : Nil/Negligible.
Note : Figures in parentheses are percentage variations over the previous year.
Source : Securities and Exchange Board of India and various merchant bankers.

because of spillover effects of the global financial crisis. During 2008-09, the difficulties involved in raising resources from the primary segment of the capital market were evident even in terms of instances of extension of cut-off dates and withdrawal of some public issues due to low subscription.

II.5.32 The domestic private placement market, which has emerged as a major alternative source of funding for the Indian corporate sector in the recent years, also witnessed a slowdown during 2008-09 due to adverse capital market conditions. Mobilisation of resources through private placement was lower during 2008-09 than in 2007-08. Public sector entities accounted for a larger share in total private placement in 2008-09 (Chart II.39). The resource mobilisation through financial intermediaries registered a decline during 2008-09; however, non-financial intermediaries registered an increase.

II.5.33 Resources raised by Indian corporates through Euro issues – American Depository Receipts (ADRs) and Global Depository Receipts (GDRs) – declined significantly owing to difficult liquidity conditions in the international financial markets.

Chart II.39: Resource Mobilisation in Primary Market



Secondary Market

II.5.34 The global stock market crash was widespread as the stock prices in almost all countries around the world witnessed substantial correction, notwithstanding the differences across countries in terms of fundamentals and the extent of impact of the financial crisis on the real economies. Many EMEs became part of the global asset price bubble, as the turmoil in the advanced countries became widespread. The domestic equity market remained generally weak during 2008-09 and witnessed one of the highest degrees of volatility in stock prices in recent years. The BSE Sensex fell to a low of 8160 on March 9, 2009, witnessing a decline of 60.9 per cent from the peak of January 8, 2008. The corresponding decline in market capitalisation was 63 per cent. During 2008-09, the BSE Sensex and S&P CNX Nifty decreased by 37.9 per cent and 36.2 per cent, respectively. The slide in the stock prices during 2008-09 reflected the response to a series of negative news (Box II.28).

II.5.35 The market capitalisation of BSE contracted sharply by 39.9 per cent by end-March 2009, reflecting fall in stock prices and significantly lower listing of new securities (Table 2.67 and Appendix Table 44). The price-earning (P/E) ratio of BSE Sensex also declined significantly. Volatility in the stock markets increased sharply during 2008-09 with a significant drop in the turnover – both in cash and derivatives segments (Appendix Table 45).

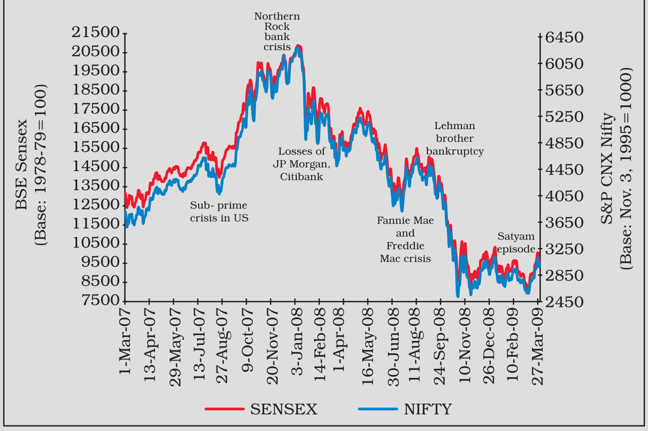
II.5.36 The losses suffered in the domestic stock market during 2008-09 were spread across stocks in all sectors. Consumer durables, metal, capital goods and banking sector indices suffered higher losses than the average BSE Sensex during 2008-09, while information technology, auto, oil and gas, public sector units, healthcare and fast moving consumer goods sectoral indices posted relatively lower losses. The higher losses encountered by the former group of sectors of BSE Sensex perhaps revealed the greater sensitivity of these sectors to economic slowdown and the impact of the global financial crisis. The BSE mid-cap and BSE small-

Box II.28
Turmoil in Global Financial Markets – Impact on Indian Capital Market

The capital markets across the world reacted sharply to the gradually unfolding severity of the sub-prime crisis with steep downward corrections. This created a major negative wealth effect that precipitated the contraction in aggregate demand. While the initial impetus for price corrections came through deleveraging and weakening earning prospects on account of deteriorating growth, adverse expectations gaining prominence over time and the persistent uncertainty left the markets depressed. The Indian stock prices responded significantly to the global developments, partly reflecting the growing integration of the Indian stock market with the global markets, as reflected in a higher correlation of the BSE Sensex with MSCI (Emerging) at 0.63 during 2008-09 as compared to 0.13 and 0.37 with Dow Jones and FTSE, respectively. Although the sub-prime crisis erupted in the latter part of 2007, the effects on the Indian equity markets were felt only in early January 2008. After touching an all-time high of 20873 on January 8, 2008, the BSE Sensex started declining rapidly. During 2008-09, Indian equity markets largely remained weak and volatile, in line with the trends in international equity markets.

In terms of the sequence of major events and their impact on the stock prices in India (Chart A), the turbulence in global financial markets began to deepen in July 2008 when the US Government sponsored mortgage guarantors, Fannie Mae and Freddie Mac, which had guaranteed over US$ 12 trillion in US home mortgage loans, reported a drastic drop in the fair value of their assets. The BSE Sensex dipped to 12576 on July 16, 2008, lower by 19.6 per cent from end-March 2008, and 39.8 per cent from January 8, 2008 peak level. The next round of sell-off pressure in equities was felt after September 15, 2008, when a major US investment bank, Lehman Brothers filed for bankruptcy protection, another major investment bank, Merill Lynch was rescued by merging with Bank of America and the largest US insurer, AIG had to be saved with the largest ever support from the Fed. The BSE Sensex closed lower at 13531 on September 15, 2008, a decline of 3.4 per cent over the previous trading day and it was 35.2 per cent lower than the peak reached on January 08, 2008 (Chart A). The market capitalisation declined by 13.5 per cent on September 15, 2008 over March 2008 and the P/E ratio also fell sharply to 16.77 from 20.11 during the same period.

Chart A: Indian Stock Markets



As the real effects of the financial crisis became visible in the form of a global recession, the depressed conditions in the market continued and got aggravated with further bad news flowing in the form of corporate governance at the Satyam. The BSE Sensex fell to a new low on March 9, 2009, a decline of 60.9 per cent over the peak (as on January 8, 2008). The volatility of the BSE Sensex (coefficient of variation) increased, the market capitalisation fell and P/E ratio declined significantly.

The capital outflows that ensued in the wake of the crisis, particularly in the form of FII disinvestment, affected the Indian equity markets directly. During 2008-09, Indian stock markets witnessed an outflow of around US$ 15 billion. FII outflows raised concerns about the pressures on India's BoP, which were manifested in the form of depreciating rupee and loss of reserves. The confidence factor also weakened on account of deteriorating earnings prospects of the listed companies, thereby further undermining the market sentiment.

cap recorded higher losses during 2008-09, which could be partly because of the greater impact of credit squeeze on these categories of companies and also the greater impact of export slowdown on small and medium sized companies (Table 2.68).

II.5.37 As a part of the global deleveraging process and general increase in risk aversion towards EMEs, the foreign institutional investors (FIIs) withdrew large amount of their investments from the Indian market. According to the data released by the SEBI, FIIs made swift reversals from large net purchases in the Indian equity market during 2007-08 to large net sales during 2008-09. Investments by mutual funds in equities also declined during 2008-09, whereas their investments

Table 2.67: Indian Equity Markets - Key Indicators

Indicator	BSE			NSE		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
1	2	3	4	5	6	7
1. BSE SENSEX / S & P CNX Nifty						
(i) Average	12277	16569	12366	3572	4897	3731
(ii) End of the year	13072	15644	9709	3822	4735	3021
2. Coefficient of variation (per cent)	11.1	13.7	24.2	10.4	14.4	23.2
3. Price-Earning Ratio@	20.3	20.1	13.7	18.4	20.6	14.3
4. Price-Book Value Ratio@	5.1	5.2	2.7	4.9	5.1	2.5
5. Yield (per cent per annum)@	1.3	1.1	1.8	1.3	1.1	1.9
6. Listed Companies (number)	4,821	4,887	4,929	1,228	1,381	1,432
7. Cash Segment Turnover (Rupees crore)	9,56,185	15,78,858	11,00,074	19,45,285	35,51,038	27,52,023
8. Derivative Segment Turnover (Rupees crore)	59,007	2,42,308	12,268	73,56,242	1,30,90,478	1,10,10,482
9. Market Capitalisation(Rupees crore)#	35,45,041	51,38,015	30,86,076	33,67,350	48,58,122	28,96,194
10. Market Capitalisation to GDP Ratio (Per cent)	85.5	108.8	58.0	81.6	102.9	54.4

@ : Based on 30 scrips included in the BSE Sensex and are as at end-March.
# : As at end-March.
Source : Bombay Stock Exchange Limited (BSE) and National Stock Exchange of India Limited (NSE).

in debt increased, reflecting the lesser risk involved in government debt (Table 2.69).

Table 2.68: BSE Sectoral Stock Indices

(Base: 1978-79=100)

Sector	Year-on-year Growth (per cent)		Variation (per cent)	
	End-March 2008	End-March 2009	End-March 2008 over January 08, 2008	End-March 2009 over January 08, 2008
1	2	3	4	5
Auto	-7.1	-32.3	-19.1	-45.3
Bankex	18.0	-41.8	-36.1	-62.8
Capital Goods	54.4	-53.8	-30.7	-68.0
Consumer Durables	8.8	-58.1	-40.9	-75.3
Fast Moving Consumer Goods	31.7	-11.1	-8.6	-18.7
Health Care	5.4	-26.5	-10.4	-34.1
Information Technology	-27.6	-35.6	-16.4	-46.2
Metal	65.2	-58.7	-28.2	-70.3
Oil & Gas	56.0	-29.6	-28.7	-49.8
Public Sector Undertakings	25.4	-29.6	-31.2	-51.6
BSE 500	**24.3**	**-42.8**	**-30.0**	**-60.0**
BSE Sensex	**19.7**	**-37.9**	**-25.1**	**-53.5**
BSE Mid-cap	19.4	-54.0	-34.5	-69.9
BSE Small-cap	21.2	-58.6	-42.0	-76.0

Source : Bombay Stock Exchange Limited (BSE).

II.5.38 During the first quarter of 2009-10, the domestic stock markets witnessed a recovery commensurate with international stock markets and the rate of recovery turned sharper since the announcement of the general election results. The upward trend could be attributed to a number of positive developments such as reduction in policy rates in April 2009, positive results for Q4 of 2008-09 by some Indian banks and corporates, greater political stability in the post-election period and expectations of a larger stimulus in the Union Budget for 2009-10 and resumption of FIIs' interest in the domestic equity market. The BSE Sensex

Table 2.69: Trends in Institutional Investments

(Rupees crore)

Year	FIIs		Mutual Funds	
	Net Investment in Equity	Net Investment in Debt	Net Investment in Equity	Net Investment in Debt
1	2	3	4	5
2003-04	43,631	5,534	1,308	22,701
2004-05	40,991	1,927	448	16,987
2005-06	48,487	-7,334	14,302	36,801
2006-07	26,031	5,881	9,062	52,543
2007-08	52,574	12,499	15,775	73,790
2008-09	-48,248	1,866	6,985	81,803

Source: Securities and Exchange Board of India.

and the S&P CNX Nifty as on August 17, 2009, showed gains of 52.3 per cent and 45.2 per cent, respectively, over end-March 2009.

II.5.39 Activity in the Wholesale Debt Market segment of the NSE improved in 2008-09 with the turnover increasing by 19.0 per cent.

Mutual Funds

II.5.40 As a consequence of the global liquidity squeeze, Indian banks and corporates found their overseas financing drying up, forcing corporates to shift their credit demand to the domestic banking sector. Also, in their frantic search for substitute financing, corporates withdrew their investments from domestic money market mutual funds, putting redemption pressure on the mutual funds, which affected the NBFCs, where the MFs had invested a significant portion of their funds. A substantial proportion of collections of mutual funds reflected bulk funds from the corporate sector under the money market schemes, partly reflecting tax and other regulatory arbitrage. While the mutual funds promised immediate redemption, their assets were relatively illiquid. Maturity mismatches between assets and liabilities of mutual funds further aggravated the problems. Substantial outflows occurred from mutual funds in June, September and October 2008 due to the uncertain conditions in the stock markets and redemption pressures from banks and corporates. Net assets managed by mutual funds also declined by 17.4 per cent during 2008-09 (Table 2.70). The Reserve Bank then announced immediate measures to provide liquidity support to mutual funds through banks. With the easing of overall liquidity conditions, investment in mutual funds again became attractive (Box II.29). During November 2008 – February 2009, net resource mobilisation by mutual funds turned positive, which reversed with considerable outflows during March 2009.

II.5.41 Both the number of schemes and net resource mobilisation by mutual funds declined significantly during 2008-09 as compared to the previous year (Table 2.71).

Table 2.70: Resource Mobilisation by Mutual Funds

(Rupees crore)

Category	2007-08		2008-09P	
	Net Mobili-sation@	Net Assets #	Net Mobili-sation@	Net Assets #
1	2	3	4	5
Private Sector	1,33,304	4,15,621	-34,018	3,35,527
Public Sector *	20,497	89,531	5,721	81,772
Total	**1,53,801**	**5,05,152**	**-28,297**	**4,17,299**

P : Provisional @ : Net of redemptions.
: End-period. * : Including UTI Mutual fund.

Note : Data exclude funds mobilised under Fund of Funds Schemes.

Source : Securities and Exchange Board of India.

All-India Financial Institutions

II.5.42 All-India Financial Institutions (AIFIs) can raise resources, both short-term and long-term, provided the total outstanding at any time does not exceed 10 times of their net owned funds (NOF) as per their latest audited balance sheet. Within this overall ceiling, four FIs, *viz.*, EXIM Bank, SIDBI, NHB and NABARD were provided with umbrella limits to raise resources equivalent to 100 per cent of their NOF through instruments such as term money, term deposit, inter-corporate deposits, CDs and CPs. In case of EXIM Bank and NHB, this has been raised to 200 per cent of their respective NOF since December 2008 and January 2009, respectively. The aggregate umbrella limit for resource mobilisation by these FIs increased to Rs. 26,292 crore as on March 31, 2009. The outstanding resources mobilised, mostly through CPs and CDs, increased significantly in 2008-09.

II.5.43 Total resources mobilised by select AIFIs in the form of bonds and debentures declined by 54.0 per cent during 2008-09 (Table 2.72, Appendix Table 46). This mainly reflected the adverse financial market conditions that reduced the access of most financial institutions to domestic capital markets.

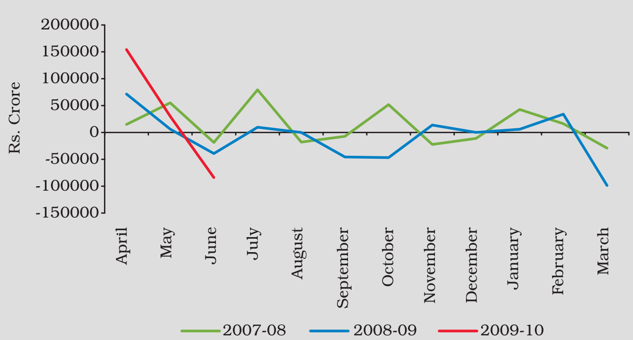
II.5.44 To sum up, the adverse confidence channel emanating from the global financial crisis generally magnified the effects of the trade and finance

Box II.29
Mutual Funds Industry in India - Current Issues

In a phase of significant downward correction in stock prices, the falling value of financial savings of small and retail investors and more importantly their confidence in the capital market emerged as significant concerns for the mutual funds industry in India. The mutual funds industry in India has come a long way since 1963, when the Unit Trust of India was set up at the initiative of the Government of India and the Reserve Bank. The industry was opened up to public sector entities such as government-owned banks, life insurance companies and GIC between 1987 and 1993, and to private sector players in 1993. For over a decade, with a view to broadening the range of investor participation, promoting equity culture and spreading the benefits of a deep and liquid capital market, policymakers in India encouraged mutual funds as a safe vehicle of investment for retail or small investors. Fiscal incentives in the form of tax breaks were provided to help the industry to scale up their size and importance in the market.

The growing popularity of mutual funds is clearly evident from the growth of assets over the years. The buoyancy in stock markets during 2004-07 enabled mutual funds to attract fresh inflow of funds. During the first eight months of 2008-09, however, with downtrend in stock markets and in view of the tight liquidity conditions precipitated by a variety of reasons including advance tax outflows, suppliers' credit withdrawal partly on account of freezing of external credit markets and drying up money market liquidity, the mutual fund industry faced unprecedented level of stress. The decline in the net resource mobilisation was especially pronounced in the months of June, September, October, 2008 and March 2009 (Chart A).

Chart A: Resource Mobilisation by the Mutual Funds



The Reserve Bank announced some quick measures in October 2008 to make available liquidity support to mutual funds through banks. With a view to helping redemptions without affecting the cash position of the mutual funds, SEBI announced that for all close-ended schemes (except Equity Linked Savings Schemes) to be launched on or after December 12, 2008, the units must be mandatorily listed. As per the SEBI circular dated January 19, 2009, the tenure of the securities held in the portfolio of liquid schemes was reduced. These measures along with the fiscal–monetary stimuli measures to improve the overall liquidity position seem to have helped the mutual funds industry to reposition itself to face the challenges arising in the light of the ongoing global financial turmoil. Some systemic issues have come up which, however, are crucial for the future of the industry.

Despite a significant growth in the number of schemes and assets under management of mutual funds in India in recent years, their level of penetration remains limited in comparison with other countries. This is reflected in the small size of assets managed by them (amounting to less than 5 per cent of GDP as against 70 per cent in the US, 61 per cent in France and 37 per cent in Brazil) and small share of household savings in units of mutual funds. As per a recent research report on 'Indian Mutual Fund Industry' published by RNCOS, however, the asset size of the industry is projected to touch US$ 300 billion by 2015. Despite immense growth potential, limited involvement of the rural sector due to lack of awareness and limited banking services in the rural regions, could prove to be a constraining factor.

Although the share of equity-oriented schemes has increased significantly in recent years, these still account for less than 25 per cent of the assets of the industry. Most of the funds mobilised by mutual funds are through liquid/ money market schemes, which remain attractive for parking of funds by corporates and other large institutional investors with a short-term perspective. A high dependence on corporates for funds implies a lesser role for retail investors. Moreover, it makes the funds more volatile as corporate and other institutional investors can withdraw funds at short notice. Attempts to ring-fence them in the form of segregation of schemes into institutional and retail have not worked so far, and SEBI is currently contemplating a more detailed disclosure norm for corporate investments.

The proliferation of schemes (1,000 to 5,000 variants) leads to confusion among investors. Over four lakh systematic investment plan (SIP) accounts have been closed over the last few months. Some consolidation in the industry could be effected by linking the number of schemes permitted to the net owned funds. Though the investment by asset management companies in debt papers of realty firms was being viewed with some amount of scepticism in the current backdrop of the sub-prime crisis, SEBI is reported to have issued detailed regulations governing real estate mutual funds, under which mutual funds would be allowed to invest directly or indirectly in real estate assets or other permissible assets.

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2. Tarapore, S.S. (2009), "Mutual Funds: Need for Reforms", editorial in *Business Line*, April 10.

Table 2.71: Funds Mobilised by Mutual Funds - Type of Schemes

(Amount in Rupees crore)

Scheme	2007-08			2008-09 P		
	No. of Schemes	Net Mobilisation	Net Assets*	No. of Schemes	Net Mobilisation	Net Assets*
1	2	3	4	5	6	7
A. Income/Debt Oriented Schemes	**593**	**1,03,867**	**3,12,997**	**599**	**-32,161**	**2,94,349**
(i) Liquid/Money Market	58	14,976	89,402	56	-3,599	90,594
(ii) Gilt	30	434	2,833	34	3,606	6,413
(iii) Debt (other than assured return)	505	88,457	2,20,762	509	-32,168	1,97,343
(iv) Debt (assured return)	0	0	0	0	0	0
B. Growth/Equity Oriented Schemes	**313**	**46,933**	**1,72,742**	**340**	**4,024**	**1,08,244**
(i) Equity Linked Savings Schemes	43	6,151	16,020	47	2,969	12,428
(ii) Others	270	40,782	1,56,722	293	1,055	95,816
C. Balanced Schemes	**37**	**5,768**	**16,283**	**35**	**61**	**10,629**
D. Exchange Traded Fund +	**13**	**-2,767**	**3,130**	**17**	**-998**	**1,396**
(i) Gold ETF	5	276	483	5	84	736
(ii) Other ETFs	8	-3,043	2,647	12	-1,083	660
E. Fund of Funds Scheme	**37**	**1,162**	**3,742**	**10**	**778**	**2,681**
F. Total #	**956**	**1,53,801**	**5,05,152**	**1001**	**-28,296**	**4,17,300**

* : As at end-March. # : Total excludes Fund of Funds Schemes.
P : Provisional.
+ : Exchange Traded Funds first introduced *vide* SEBI circular no. IMD/CIR No. 4158422/06 dated January 24, 2006.
Source : Securities and Exchange Board of India.

channels, leading to sharp corrections in asset prices of EMEs, with large volatility. Subsequently weakening growth prospects extended the depressed and volatile phase for the financial markets. The EMEs, despite considerable resilience in weathering the crisis up to September 2008, came under strain in the last quarter of 2008 through contagion from the global deleveraging

Table 2.72: Resources Raised by way of Bonds/Debentures by Select All-India FIs

(Rupees crore)

Institution	Resources Mobilised		Outstanding Borrowings		Weighted Average Cost of Funds (Per cent)		Weighted Average Maturity (Years)	
	2007-08	2008-09	End- March 2008	End- March 2009	2007-08	2008-09	2007-08	2008-09
1	2	3	4	5	6	7	8	9
EXIM Bank	3,555	2592	11,871	11950	8.11	8.74	4.09	4.09
SIDBI	..	..	5,415	1,353	6.84	8.56	3.88	7.29
NABARD	13,620	4,251	32,630	23,704	9.50	9.16	3.95	7.09
NHB	..	1,063	7,262	4,001	..	8.94	..	6.65
Total	**17,175**	**7,906**	**57,178**	**41,008**	..	..	..	..

.. : Nil/Not applicable.
Note: 1. Data relate to rupee resources only.
2. Data on resources raised include long-term resources mobilised through bonds/debentures, short-term resources mobilised through commercial papers, certificates of deposit, inter-corporate deposits, term deposits and term money.
3. Data are provisional.

by large financial entities to meet the capital needs in the parent countries and a rise in overall risk towards EMEs. EME equity markets suffered large losses in the wake of reversal of portfolio flows, bank lending declined and credit spreads increased sharply. The financial institutions in EMEs, however, did not exhibit the type of fragility and the magnitude of stress that was seen in the advanced economies. By the second quarter of 2009, the international markets gained a modicum of stability following greater public policy action, however, some segments of financial market still appear vulnerable.

II.5.45 Like other EMEs, although India remained immune to the direct impact of mortgage crisis on the Indian financial markets till September 2008, reduction in net capital inflows following failure of Lehman Brothers and the significant correction in the domestic stock markets on the back of sell-off by FIIs created stress on various segments of the Indian financial market, particularly the foreign exchange and the money markets. The Reserve Bank took a number of conventional and unconventional measures to augment the domestic and foreign exchange liquidity. An important distinction between the actions taken by the Reserve Bank and other central banks is that the operations were conducted through the banking channel and even the measures aimed at addressing the liquidity and redemption needs of mutual funds, NBFCs and housing finance companies were directed through the banks. Monetary transmission weaknesses emerged as an issue as the adjustment in market interest rates in response to changes in policy rates got reflected with some lag and at a slow pace. In India, the monetary transmission has a differential impact across different segments of the financial market. While the transmission turned out to be faster in the money and bond markets, it was relatively muted in the credit market on account of several structural rigidities. Overall, although the shocks emanating from the global financial crisis created liquidity strains on the domestic money and foreign exchange markets, besides triggering major asset price correction in the stock market, the stress impact remained generally temporary and was adequately and swiftly addressed through the policy actions taken by the Reserve Bank. The Indian markets had functioned normally even during the peak of the financial crisis, and the excessive volatility was contained by November 2008 through appropriate policy response from the Reserve Bank. The credit market witnessed some tightening of interest rates due to general risk aversion. With receding risks and volatility, markets improved further in the first quarter of 2009-10 as spreads narrowed significantly and market activity picked up. In Q1 of 2009-10, the bond yield, particularly in the medium to long-term maturity, exhibited increase due to concerns arising from large government borrowings. The equity markets, on the back of some positive global cues and domestic developments, have witnessed significant gains, which may help in reviving the primary equity markets when the investment demand starts looking up.

VI. EXTERNAL SECTOR

INTERNATIONAL DEVELOPMENTS

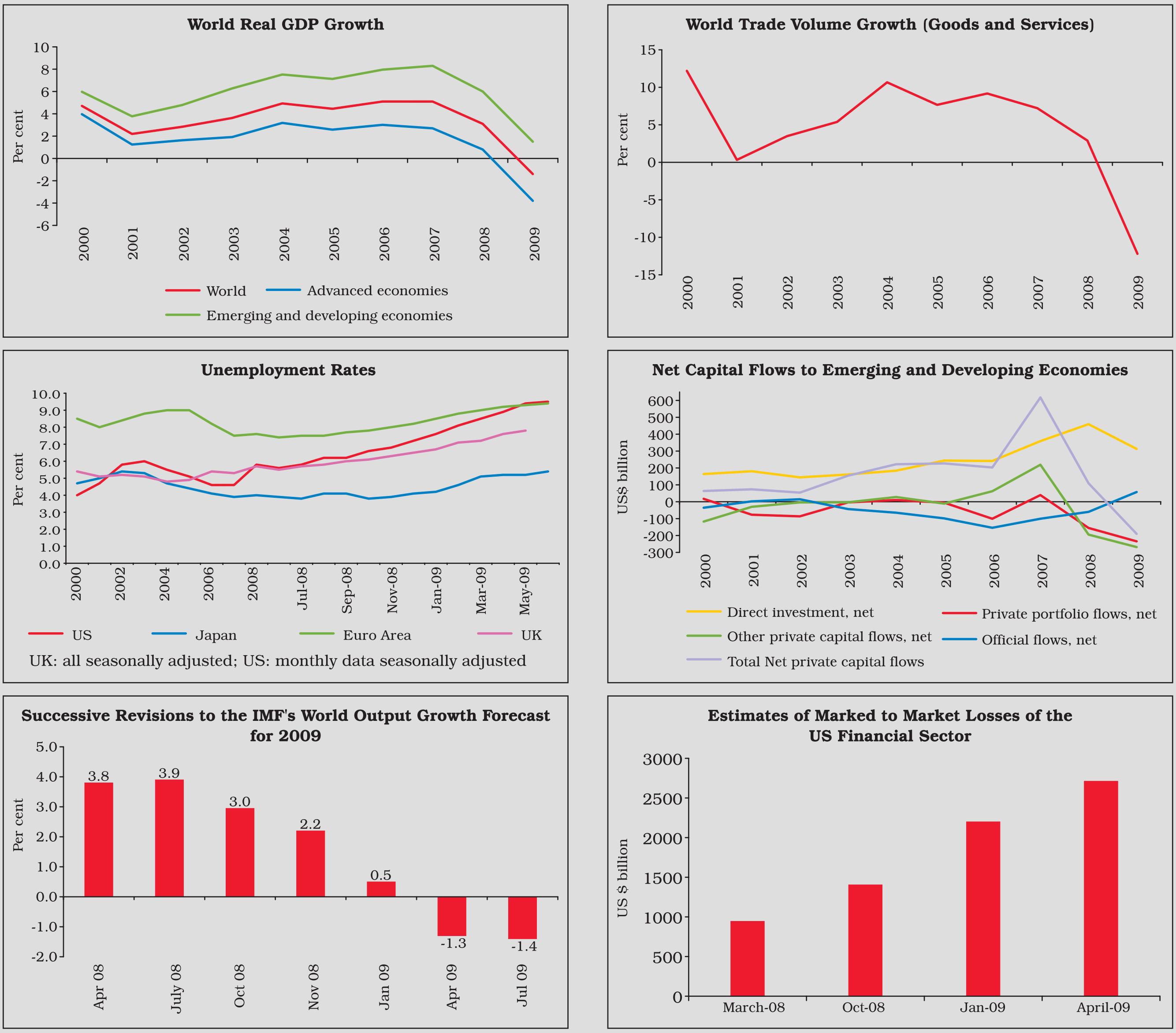
II.6.1 The global economic and financial market conditions deteriorated to unprecedented proportions during 2008-09, creating one of the severest external shocks not only for advanced economies but also for all emerging market economies (EMEs), including India. Irrespective of the degree of globalisation of a country and soundness of respective domestic policy environments, the deepening of crisis in the advanced countries snowballed into a synchronised global contraction with specific channels of transmission of contagion gathering speed and intensity over time. The 'negative feedback loop' contaminated each and every sector and the downward spiral turned almost resistant to large doses of policy stimulus engineered and delivered by countries around the world, revealing thereby the complex nature and the enormous dimensions of the crisis.

II.6.2 The subprime crisis that emanated from the US housing mortgage market in the second half of 2007 snowballed into a global financial crisis with the global financial landscape changing significantly during the course of 2008 wherein several large international financial institutions either failed or were restructured to avoid failure. With the unfolding of financial crisis, the strains on the balance sheets of financial institutions increased over time, which further threatened the viability of some of the leading global financial entities. The multi-dimensional ramifications of the crisis were manifested in intense deleveraging, extreme levels of risk aversion, mounting losses of banks and financial institutions, the collapse of commodity prices from their peaks and sharp corrections in asset prices. All these together led to a sharp slowdown in growth and trade flows, and rising unemployment, besides triggering large scale reversals in capital flows (Chart II.40). The deleveraging by large financial institutions was disorderly under the pressure of market driven contraction in their balance sheets on the asset side and inadequacy of capital in the face of rising losses. This deleveraging process created severe disruptions in the short-term funding markets, as reflected in the tightening access and widening of risk spreads. A wide range of non-bank financial institutions also came under strain during the crisis with rapidly falling asset prices. While the pension funds exhibited rapid decline in their asset values, life insurance companies experienced losses on equity and corporate bond holdings. The massive erosion of financial wealth arising from asset price shocks had severe adverse impact on both the corporate and the household balance sheets, which was amplified by the deteriorating employment conditions. These, in turn, led to deterioration in consumer confidence and contraction in consumption demand, while at the same time reducing the values of collaterals of the corporates and their ability to raise resources. The financial crisis, thus, had cascading effects on the global economy through financial, trade and confidence channels. The deceleration in growth outlook was so rapid that the IMF had to repeatedly revise its global growth projections downwards for 2009, i.e. from a somewhat healthy 3.8 per cent in April 2008 to (-) 1.4 per cent in July 2009, which is the deepest recession seen since the post-World War II (IMF, 2009). While major advanced economies slipped into recession, the EMEs - which were perceived to be decoupling till the early part of 2008- also experienced significant growth deceleration.

II.6.3 Apart from the intensity, the global slowdown also remained more widespread and synchronised due to the much higher degree of global integration through international trade and finance. Even EMEs with sound macroeconomic and financial pre-conditions have been strongly affected by the financial contagion, which in late 2008 spilled over to the real sector, with export and GDP growth rates plunging and trade finance contracting across the world. Thus, the notion of decoupling of EMEs, which was held until early 2008, faded as the crisis intensified and spread across countries with greater speed (Box II.31). In the EMEs, the adverse impact of the crisis was transmitted through both financial and trade channels, particularly to the East Asian countries that rely heavily on manufacturing exports and the emerging European and Commonwealth of Independent States (CIS) economies, which excessively depended on capital inflows to propel growth. Latin America, the Middle East and Africa suffered from falling commodity prices and weak export demand. Although emerging and developing economies as a group are projected to grow by 1.5 per cent in 2009, real GDP is expected to contract across many countries under the drag of falling export demand, lower commodity prices and tighter financing constraints.

II.6.4 One of the important manifestations of the global financial crisis was in the form of massive erosion in the capital base of the large financial institutions across countries. IMF's Global Financial Stability Report (April 2009) projected that the write-downs suffered by all holders of the US-originated assets since the outbreak of the crisis until 2010 could increase from an initial estimate of US $ 945

Chart II.40: Key Global Indicators



Source: World Economic Outlook Database and Global Financial Stability Reports, IMF; Official data from the websites of the respective countries.

billion to US $ 2.7 trillion, largely as a result of the worsening growth scenario (see Chart II.40). The estimates for write-downs extended to include other assets, although more uncertain, could reach a total of around US $ 4 trillion, about two-thirds of which would be incurred by banks.

II.6.5 The significance of the trade channel was evident in the global world trade decelerating from a growth of 7.2 per cent in 2007 to 2.9 per cent in 2008 and according to the latest IMF projections, it is expected to decline by 12.2 per cent in 2009. The World Trade Organisation (WTO) (2009) estimates also suggest that the world exports could contract by 10.0 per cent in volume terms in 2009 - the largest such contraction witnessed since the Second World War.

II.6.6 The transmission of shocks through the financial channel was largely evident in a flight to safety and rising home bias, besides the compulsions of deleveraging that created selling

Box II.30
Globalisation and the Pattern of World Growth: Issues of Decoupling

When the financial crisis started in the advanced countries, the immediate concern of a vast majority of EMEs was to preserve financial stability at home. As it turned out, the financial system of EMEs, particularly India, remained largely insulated from the direct adverse impact due to limited exposure to the failing financial institutions and to the troubled assets. This started the perception of possible 'decoupling' and the argument was extended that even if the advanced countries experienced significant deceleration in growth, the growth prospects of countries, which are less dependent on external demand, may remain decoupled.

The decoupling hypothesis was driven by the perception that if advanced economies went into a synchronised downturn, emerging economies could remain unscathed because of their substantial foreign exchange reserves, improved policy framework, robust corporate balance sheets and relatively healthy banking sector. An intense recession in the advanced countries, undermined the perception of decoupling at some stage, which later became evident when most of the countries participating in the globalisation started to experience and recognise the impact of the global crisis during the course of 2008-09.

The global economic landscape has shifted dramatically since the mid-1980s. EMEs have increasingly become major players and they now account for about a quarter of world output and a major share of global growth. In a recent study, Kose, Otrok and Prasad (2008) found that during the period of globalisation (1985-2005), there has been some convergence of business cycle fluctuations among the group of industrial economies and among the group of EMEs. Surprisingly, there has been a concomitant decline in the relative importance of the global factors. In other words, there is evidence of business cycle convergence within each of these two groups of countries but divergence (or decoupling) between them. The rising financial linkages could result in a higher degree of business cycle co-movement *via* the wealth effects of external shocks. However, they could reduce cross-country output correlations by stimulating specialisation of production through the reallocation of capital in a manner consistent with countries' comparative advantages. Trade linkages generate both demand-side and supply-side spillovers across countries, which could result in more highly correlated output fluctuations. On the other hand, if stronger trade linkages facilitate increased specialisation of production across countries, and if sector-specific shocks are dominant, then the degree of co-movement of output could fall (Baxter and Kouparitsas, 2005).

The phenomenon of decoupling in the early part of the current global crisis was explained in different ways. It was observed that the correlation of business cycles is specific to the shocks driving the cycles. In 2001 and 2002, the sharp decline in growth in the foreign countries soon after the US economy slowed reflected the global nature of the bursting of the technology bubble and its worldwide transmission through equity markets and manufacturing. In the current slowdown, however, the implosion of the housing sector played the most prominent role in dragging down the US GDP growth. As construction utilises local inputs and results in an output that is not traded internationally, its spillovers abroad were expected to be limited. But financial innovations had made housing tradable and the role of the derivatives was large in relation to the underlying housing loans with major financial institutions exposed to this market.

According to the IMF, the Financial Stress Indices for Advanced Economies turned positive in the second quarter of 2007 and then rose rapidly. In contrast, the Financial Stress Indices for EMEs stayed significantly negative until the first quarter of 2008. It turned positive only in the second quarter of 2008 and then magnified in the third and particularly in the fourth quarter. In this episode, there was a limited early response in emerging economies, but then there was a sharp catch-up. Thus, there was some initial 'decoupling', and subsequent 'recoupling' as the crisis deepened over time. In a rapidly globalising world, the decoupling hypothesis was never totally persuasive. Reinforcing the notion that in a globalised world no country can be an island, growth prospects of EMEs have been undermined by the cascading financial crisis with, of course, considerable variations across countries.

References:

1. IMF (2009), World Economic Outlook, April.
2. Kose, M. Ayhan and Otrok, Christopher and Prasad, Eswar (2008), "Global Business Cycles: Convergence or Decoupling?" *IMF Working Paper*, WP/08/143, June.
3. Baxter, Marianne and Kouparitsas, Michael (2005), "Determinants of Business Cycle Co-movement: A Robust Analysis", *Journal of Monetary Economics*, Vol. 52, pp. 113-57.

pressures around the world. Private capital flows are expected to decline in 2009 in line with the projected contraction in world growth. On a net basis, capital flows have been attracted by countries with the most liquid and safe government securities markets. According to the IMF, private capital flows to emerging and developing countries in 2008 declined significantly to US$ 109 billion from US$

618 billion in 2007 (see Chart II.40). Amongst the major components, although foreign direct investment flows are estimated to have increased by around US$ 100 billion to US$ 459 billion in 2008 from the levels during the previous year, net private portfolio flows and 'other capital flows' comprising bank and other borrowings recorded significant outflows during 2008. Overall, emerging markets are expected to experience net capital outflows in 2009 of more than 1 per cent of their GDP.

II.6.7 According to the International Labour Organisation's Global Employment Trends (2009), depending on the developments in the labour market and the timeliness and effectiveness of recovery efforts, the global unemployment rate could rise to 7.1 per cent and result in an increase in the number of unemployed by more than 50 million in the worst case scenario. The global financial system, thus, remained under severe stress as the crisis spread to engulf households, corporations, and the banking sectors in both advanced and emerging market countries.

II.6.8 With inflation concerns waning, advanced and emerging market economies have implemented wide ranging monetary and fiscal stimulus measures to address the financial market problems and support the domestic demand. According to the IMF, based on measures already taken and planned, it is estimated that government debt ratios and fiscal deficits, particularly in advanced economies, may increase significantly. For the G-20 as a whole, the general government balance could deteriorate substantially as governments implement fiscal stimulus plans of the order of 2.0 per cent of GDP in 2009 and 1.6 per cent of GDP in 2010. While the fiscal cost for some countries will be large in the short-run, the alternative of providing no fiscal stimulus or financial sector support could be extremely costly in terms of the lost output and employment as well as the intensity and duration of the crisis (IMF, 2009). The macroeconomic developments in India during 2008-09, thus, need to be seen in the context of these adverse global conditions.

II.6.9 International co-operation is recognised to be critical in resolving the crisis of this proportion. In this context, the G-20 leaders exhibited exemplary solidarity in their London Summit on April 2, 2009 and underscored the need to build a stronger supervisory and regulatory framework in the future. Various Working Groups constituted by the G-20 have emphasised that future regulation and supervision must strengthen risk management capacity, promote transparency, avoid regulatory arbitrage and ensure greater cross-border co-operation. One of the major outcomes of this process is the establishment of a new Financial Stability Board (FSB) with a strengthened mandate, as a successor to the Financial Stability Forum (FSF), including all G-20 countries, FSF members, Spain, and the European Commission. Further, G-20 members have called on the IMF to complete the process of quota and voice reform by January 2011. To alleviate the problem of emerging market and developing economies, G-20 members have agreed to substantially increase the IMF's resources by US$ 250 billion through bilateral borrowing from members, which would be subsequently incorporated into an expanded and more flexible New Arrangements to Borrow (NAB) and to be increased by up to US$ 500 billion. Further, the IMF has approved an increase in SDR allocation to members by US$ 250 billion to strengthen global liquidity. It has also enhanced its crisis lending by modernising conditionality, introducing a new flexible credit line, doubling access limits and rationalising the costs and maturity structures for its lending. The IMF is also rationalising its concessional lending facilities and financial framework for low income countries.

II.6.10 The global economy, however, continues to experience weaknesses in various segments of the financial sector. Rising defaults of the households and corporate sector could lead to further deterioration in the banking sector balance sheets. Although the fiscal stimulus measures seem to have stabilised financial markets, weakness in certain segments could continue to adversly impact the growth prospects. The concerns arising from large fiscal stimulus plans and consequent widening of fiscal deficit and debt have raised renewed challenges for economies. In addition, the pace and timing of fiscal and monetary unwinding have emerged as important challenges.

INDIA'S BALANCE OF PAYMENTS DEVELOPMENTS

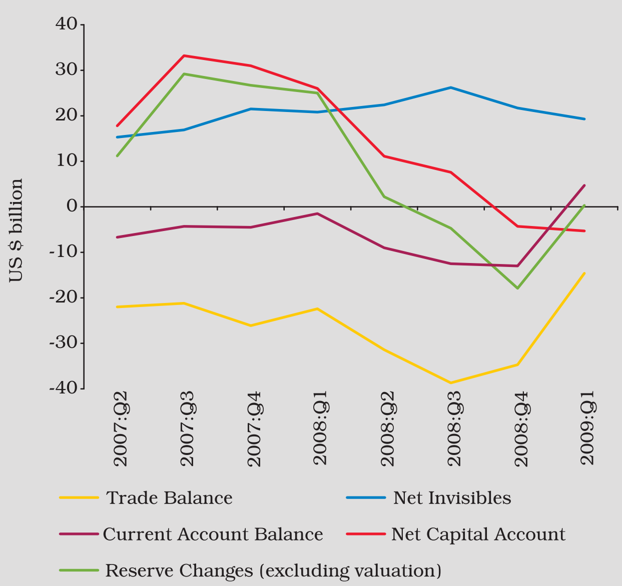
II.6.11 In the face of one of the severest external shocks, India's balance of payments (BoP) exhibited resilience, characterised by a current account deficit (CAD) well within the sustainable limits, and limited use of foreign exchange reserves despite the pressure of large capital outflows. The direct impact of the global financial crisis was transmitted to India through various external sector transactions, some of which exhibited notable trend reversals during the year. The transmission of external demand shocks was much more swift and severe on export growth, which, on BoP basis, declined from a peak of 43 per cent in Q1 of 2008-09 to (-)9 per cent in Q3 and further to (-)24 per cent in Q4 – a fall for the first time since 2001-02. Import demand growth, which remained robust till the Q2 of 2008-09, collapsed to a single digit level in Q3, followed by a substantial decline in Q4 (-27 per cent), moving in tandem with the slowdown in the domestic industrial demand and the sharp decline in international crude oil and other primary commodity prices. Thus, trade deficit generally expanded in the first three quarters of 2008-09 due to the combined effect of high crude oil prices driven increases in imports and the collapse in external demand. However, in Q4 of 2008-09, with the pace of decline in imports outpacing that in exports, trade deficit narrowed down significantly. For the fiscal year 2008-09, trade deficit witnessed a marked expansion to 10.3 per cent of GDP. Two components of the current receipts, which remained relatively resilient in the face of the global slowdown were software services and workers' remittances. The remittance inflows from overseas Indians, though witnessed a slowdown in the second half of 2008-09, still remained relatively stable as compared to the earlier shocks during the Gulf crisis and the Asian crisis. Despite higher invisibles surplus, which turned the current account into a surplus in Q4 of 2008-09, the large expansion in trade deficit led to a higher current account deficit of 2.6 per cent of GDP in 2008-09 (1.5 per cent of GDP a year ago).

II.6.12 The impact of the crisis through the financial channel was reflected in the sharp turnaround in the capital flows cycle from a sustained phase of surges in capital inflows in to large outflows, particularly in Q3 of 2008-09, which continued during Q4 as well. The early signs of the impact of financial crisis on capital inflows were evident in the portfolio outflows that started in February 2008. Following the failure of Lehman Brothers, there was a sudden change in the external environment, which led to a sell-off in domestic equity markets by portfolio investors, reflecting deleveraging, as evidenced in the case of other major EMEs. Thus, there were large capital outflows by portfolio investors during September-October 2008, with concomitant pressures in the foreign exchange market. The deteriorating external financing conditions also rendered Indian firm's access to external commercial borrowings and trade credits somewhat difficult. The resilience shown by foreign direct investment (FDI) inflows, however, reflects the continued confidence in the Indian economy as a long-term investment destination (Appendix Table 51).

II.6.13 Although during the recessions of the early 1990s and the Asian crisis India had witnessed capital outflows, the current crisis is marked by large volatile movements in capital flows under the pressure of intense deleveraging. Thus, while the policy focus until Q1 of 2008-09,was the management of the surges in capital inflows, with gradually evolving global developments and slowing down of capital inflows since Q2 of 2008-09, the balance of policy emphasis shifted to the financing of the widening current account deficits. The adverse impact of the global trade and financial shocks on the BoP of India could be contained due to the adequate cushion in the form of foreign exchange reserves. The foreign exchange reserves of India (excluding valuation effects) fell by US$ 20.1 billion during 2008-09, even though the foreign exchange reserves level (including valuation effects) fell by US$ 57.7 billion during the year, reflecting the impact of appreciation of the US dollar against major international currencies (Chart II.41).

II.6.14 Responding to the severity of the crisis and its rapid adverse impact on exports, the Reserve Bank took several measures to support exports in the form of liberalisation of export credit and its refinancing; changes in ceiling interest rates on such credit; liberalisation of interest rate on overseas lines of credit and the limit of the standing liquidity facility for providing flexibility in the dollar liquidity management of banks. The measures taken by the Reserve Bank since September 2008 were essentially to improve foreign exchange liquidity by way of selling dollar into market, forex swap facility to banks, raising interest rate ceilings on Non-Resident Indian (NRI) deposits, providing flexibility to banks to borrow in overseas markets, liberalising premature buyback of foreign currency convertible bonds (FCCBs) and relaxation of ceiling interest rates on short-term trade credit and external commercial borrowings (ECBs). India's BoP situation remained relatively more resilient as reflected by the fact that India did not have to resort to extraordinary measures. Both the Government and the Reserve Bank responded to the challenge

Chart II.41: Key Balance of Payments Indicators



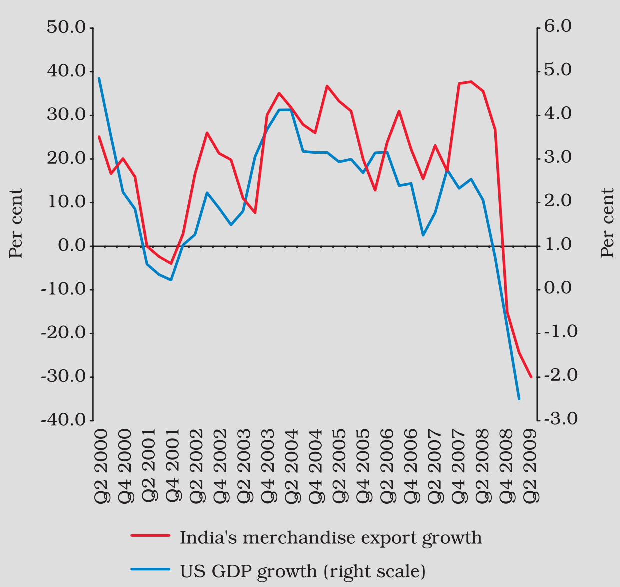
of minimising the impact of the crisis on India in co-ordination and consultation. The thrust of the various policy initiatives by the Reserve Bank has been ensuring comfortable dollar liquidity and maintaining a market environment conducive to the continued flow of credit to productive sectors. At the same time, the process of capital account liberalisation has been continued by further relaxing the regulations governing the movements of cross-border capital flows, while keeping in view the risks emanating from higher levels of capital outflows.

II.6.15 The resilience of the Indian financial sector in the face of the worst global financial crisis can also be attributed to India's approach to financial globalisation. The key features of this approach are reflected in a full opening up of the current account but a more calibrated approach towards the opening up of the capital account. While foreign investment flows, especially FDI inflows are encouraged, debt flows in the form of ECBs are generally subject to ceilings and some end-use restrictions. Macro ceilings have also been stipulated for portfolio investment in government securities and corporate bonds. Capital outflows have also been progressively liberalised. Along with the calibrated approach to opening of the capital account, the prudential regulation for banks have also been strengthened to promote financial stability.

Merchandise Trade

II.6.16 The trade channel of the contagion that intensified in the post-September 2008 phase of the crisis, adversely impacted India's merchandise trade with exports declining in greater intensity and more swiftly as compared to the recession of the early 2000s. According to the provisional trade data released by the DGCI&S, India's merchandise exports growth during 2008-09 sharply decelerated to 3.4 per cent from 29.0 per cent during 2007-08, with large intra-year volatility. Although export growth was buoyant till August 2008 (35.6 per cent during April-August 2008), it decelerated significantly in September 2008 to 14.2 per cent, and subsequently exports declined in all the remaining months of 2008-09, in tandem with the deepening of recession in the developed countries (Chart II.42 and Box II.31). Import growth decelerated to 14.3 per cent in 2008-09 from 35.5 per cent a year ago; however, the slowdown in imports was delayed due to resilient domestic demand. Synchronised with the moderation in domestic economic activity and movement in crude oil and other commodity prices, merchandise imports, which showed a high growth during the first half of 2008-09 (43.9 per cent during April-September 2008) decelerated sharply during October and November and declined thereafter during the period December 2008 to March 2009. Oil imports, after increasing by 60.0 per cent during April-October 2008, declined by 29.0 per cent during November 2008-March 2009, due to sharp decline in oil prices. Non-oil imports, although remained resilient during the first three quarters of 2008-09 (22.7 per cent growth), declined by 15.3 per cent during Q4 of 2008-09, mainly due to slowdown in the growth in imports of capital goods and gold and silver. Trade deficit during 2008-09 showed a substantial expansion to US$ 119.1 billion from US$ 88.5 billion in 2007-08 (Appendix Table 48).

Chart II.42: External Demand and India's Export Growth



II.6.17 In a phase of weakening export prospects for all countries around the world, the relative performance of countries on the export front, however, varied significantly. The decline in India's exports since Q3 of 2008-09, when the global recession intensified, was lower than the fall in export growth of some of the advanced economies as well as some of the EMEs (Chart II.43).

II.6.18 The commodity-wise exports data available for 2008-09 (April-February) indicated that manufactured goods continued to maintain the largest share followed by petroleum products and primary products (Appendix Table 49). Within the manufactured exports, leather and manufactures, textiles and textile products and chemicals and related products witnessed moderation in growth and gems and jewellery showed decline as these sectors were more severely affected by the demand recession in the developed countries (Chart II.44). Gems and jewellery exports during 2008-09 (April-February) registered a decline, reflecting mainly the recessionary conditions in the largest export destination *viz.*, the US. Exports of textiles and textile products, an important employment intensive sector, also exhibited significant moderation in growth during 2008-09 (April-February). Engineering goods exports, which constitute more than one-fourth of India's total exports, however, showed a high growth at 23.5 per cent during 2008-09 (April-February) on the top of 24.4 per cent during 2007-08 (April-February), contributed largely by transport equipments, iron and steel and electronic goods.

II.6.19 India's export growth to the EU, OPEC, Eastern Europe and Latin American developing countries decelerated, while exports to North America, Asia and Oceania and Asian and African developing countries showed decline. During 2008-09 (April-February), the US continued to be the single largest market for India, despite a fall in its share to 11.7 per cent from 12.8 per cent a year ago, followed by the UAE, China and Singapore (Table 2.73).

Box II.31
Impact of the Global Crisis on India's Exports

India's integration into the world economy over the last decade has been remarkably rapid. India's merchandise trade has been on a high growth path since 2002-03, a trend which continued up to the first five months of 2008-09 (April-August). The sustained export growth witnessed in recent years was facilitated, *inter alia*, by conducive policy environment, changes in the commodity basket, market diversification, exchange rate stability and terms-of-trade benefits stemming from general increase in the prices of certain export items. In spite of the special policy focus accorded to the traditional sectors like textiles, leather and handicrafts, their performance during the high export phase was relatively sluggish due to structural reasons. At the same time, manufactured products like engineering goods, petroleum products and chemicals have emerged as the major drivers of export growth.

The slowdown in exports during 2008-09 was mainly due to demand recession in OECD as well as developing countries, both of which have major shares of about 38 per cent each in India's exports. During 2008-09 (April-February), exports growth to OECD countries decelerated mainly due to slowdown in exports to European Union, North America and Asia and Oceania. Exports to developing countries showed a decline primarily due to moderation in export growth/decline in exports to SAARC and other Asian developing countries as also to African and Latin American developing countries. OPEC, which has about 19 per cent share in India's exports, however, maintained the high growth momentum.

Except 'engineering goods', which has withstood the impact of global economic crisis and continued to exhibit high growth, all other sectors have been adversely affected. Exports of agriculture and allied products, gems and jewellery and ores and minerals have declined, while the other sectors showed sharp deceleration in export growth. Growth in exports of primary products during April 2008-February 2009 declined by 3.6 per cent against a growth of 38.6 per cent during the corresponding period of the previous year. This was due to the decline in exports of agricultural and allied products and ores and minerals (Chart A).

Growth in exports of textiles and textile products during April 2008-February 2009 sharply slowed down with all the major components, especially the readymade garments, which accounted for about 52 per cent share in textiles and textile products exports, witnessing a slowdown in growth (Chart B). Gems and jewellery exports recorded a decline, reflecting mainly the recessionary conditions in the largest destination *viz.*, the US (Chart C). Petroleum products exports, which constituted the second largest component of India's exports, witnessed a sharp deceleration in growth both because of the sharp reduction in international POL prices and recessionary conditions in major export destinations of India (Chart D). Leather and manufactures exports also decelerated. Slowdown in exports of labour-intensive sectors, *viz.*, gems and jewellery, textiles and textile products and leather and manufactures is a concern because of its adverse implications for employment. Thus, the concentration of export slowdown in employment intensive and relatively low technology sectors could potentially enhance the adverse effects of a global slowdown because of the loss of employment associated with such decline in exports.

Chart A: Growth Rate of Exports of Agricultural and Allied Products

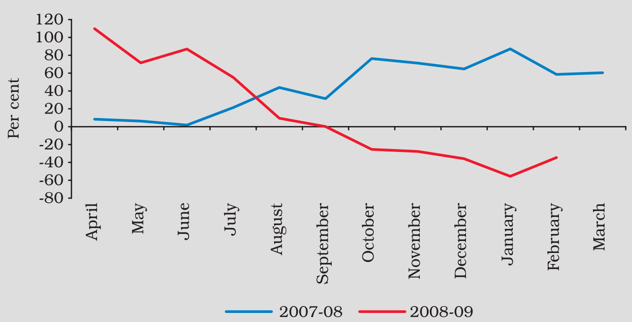


Chart B: Growth Rate of Exports of Textiles and Textile Products

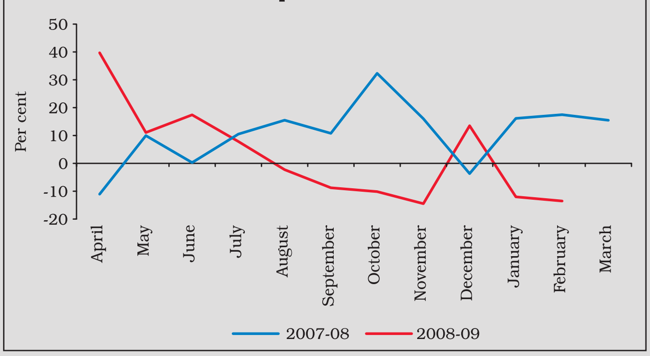


Chart C: Growth Rate of Exports of Gems and Jewellery

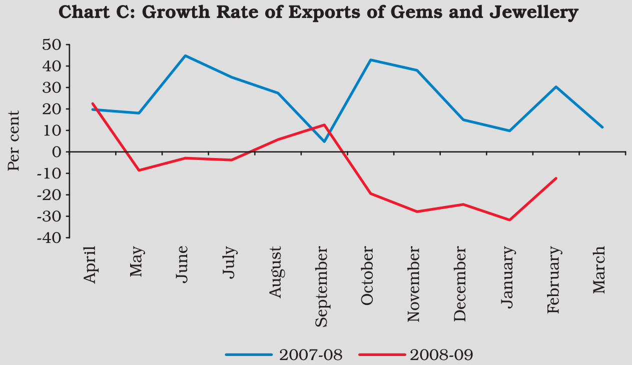


Chart D: Growth Rate of Exports of Petroleum Products

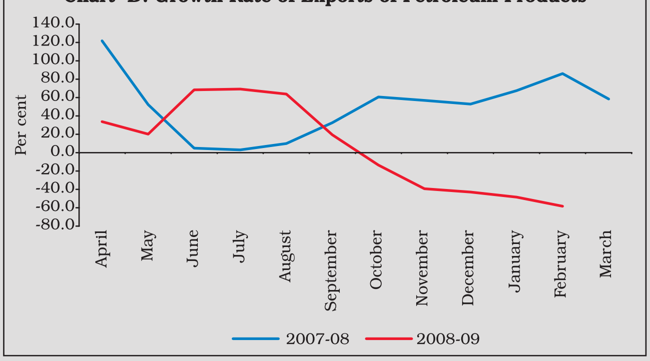
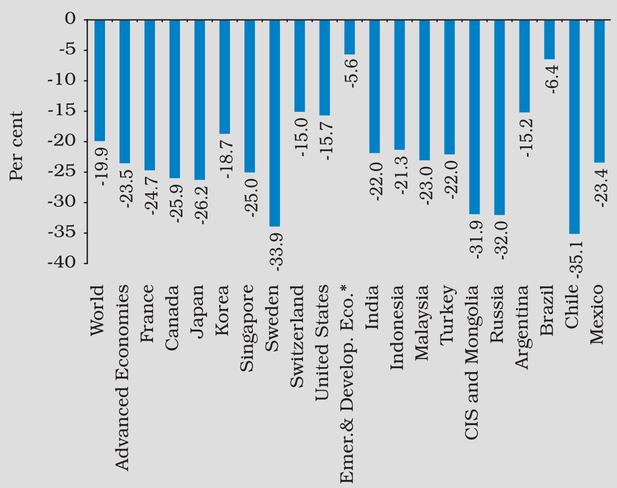
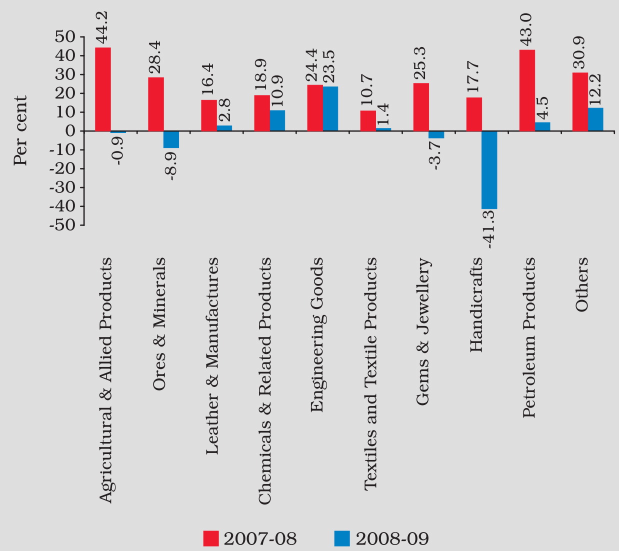


Chart II.43: Export Growth of India *vis-a-vis* Advanced Economies and EMEs during October 2008 - April 2009



* October 2008 to January 2009.

Chart II.44: India's Export Growth - Principal Commodities (April-February)



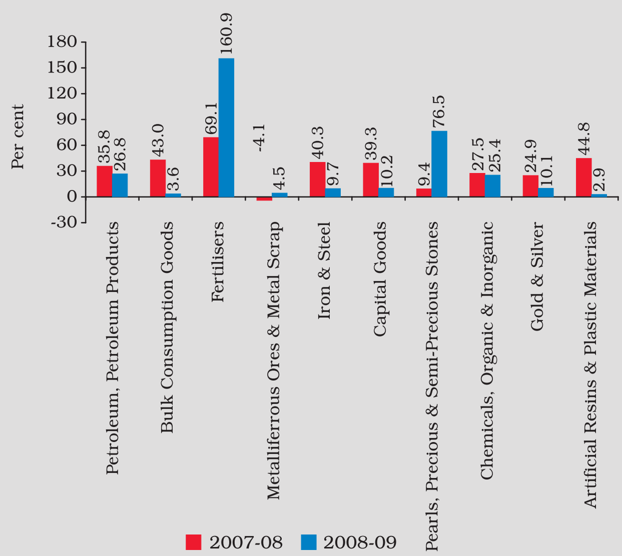
II.6.20 A commodity-wise analysis of imports in 2008-09 reveals that import growth of petroleum, oil and lubricants (POL) significantly moderated to 26.8 per cent from 35.8 per cent in 2007-08, mainly due to sharp decline in international crude oil prices during the second half of the financial year 2008-09 (Chart II.45). During 2008-09, the monthly average price of the Indian basket of crude oil declined from US$ 132.5 per barrel in July 2008 to a low of US$ 40.6 per barrel in December 2008, though it increased to US$ 46.0 per barrel in March 2009. For the full fiscal year, the average price of Indian basket of crude oil stood at US$ 82.7 per barrel. In tandem with the movement in crude prices, POL

Table 2.73: Direction of India's Exports

Group / Country	US $ billion			Variation (per cent)		
	2007-08	2007-08R	2008-09P	2007-08	2007-08	2008-09
		April-February			April-February	
1	2	3	4	5	6	7
1. OECD Countries	62.6	57.2	60.1	20.4	20.2	5.1
of which						
a) EU	32.9	30.6	34.1	27.6	27.5	11.4
b) North America	22.0	19.8	19.7	10.0	10.4	-0.9
US	20.7	18.7	18.4	9.8	10.2	-1.6
2. OPEC	26.7	23.9	29.6	28.8	26.7	24.1
of which						
UAE	15.6	14.0	16.6	29.9	29.3	18.0
3. Developing Countries	69.6	60.5	60.2	37.1	33.6	-0.5
of which						
Asia	51.5	45.0	44.5	36.9	33.0	-1.0
People's Republic of China	10.8	9.5	7.7	30.6	27.1	-18.1
Singapore	7.4	6.4	7.3	21.4	17.3	13.0
4. Total Exports	163.1	145.9	157.2	29.0	28.5	7.8

R: Revised. P: Provisional.
Source : DGCI&S.

Chart II.45: India's Import Growth - Principal Commodities (April- February)



imports showed a secular decline during the period November 2008 to March 2009. Non-POL imports in 2008-09 also recorded a decelerated growth of 13.2 per cent (33.5 per cent a year ago). This deceleration reflects the contraction in domestic demand led by economic slowdown. Non-POL imports, which grew by 22.7 per cent during April-December 2008, declined every successive month during January-March 2009. Within non-POL imports, capital goods imports growth decelerated to 10.2 per cent during 2008-09 (April-February) (39.3 per cent a year ago), while gold and silver imports grew by 10.1 per cent (24.9 per cent in previous year) (Chart II.45 and Appendix Table 50). China was the main source of imports, accounting for 10.3 per cent of India's total imports (Table 2.74). The other major sources of imports were Saudi Arabia, the UAE, the US, Iran and Switzerland.

II.6.21 Though both exports and imports of India slowed down in the second half of 2008-09, the decline in exports during this period was sharper than the decline in imports, as the export demand was more severely affected by the sharp downturn in the advanced economies, which are key market for India's export (Box II.32). Moreover, while the exports showed signs of slowdown since September 2008, imports witnessed a slowdown since October 2008 due to both decline in oil prices

Table 2.74: Direction of India's Imports

Group / Country	US $ billion			Variation (per cent)		
	2007-08	2007-08R	2008-09P	2007-08	2007-08	2008-09
		April-February			April-February	
1	2	3	4	5	6	7
1. OECD Countries	87.4	70.6	82.4	36.6	30.4	16.7
of which						
a) EU	36.8	31.6	35.5	29.5	30.4	12.2
Germany	9.9	8.6	9.6	30.8	27.7	11.2
UK	5.0	4.6	5.5	18.7	25.1	18.3
b) North America	23.0	14.0	17.8	70.1	33.7	27.0
US	21.0	12.2	15.7	79.1	31.8	29.1
2. OPEC	76.1	68.8	87.5	35.7	34.7	27.2
of which						
UAE	13.5	12.2	17.0	55.6	60.5	39.1
3. Developing Countries	80.6	72.4	86.0	34.9	35.7	18.8
of which						
Asia	64.1	58.6	69.4	35.4	37.3	18.5
People's Republic of China	27.1	24.8	28.1	55.2	58.1	13.3
Singapore	8.1	7.1	6.6	47.9	43.5	-6.6
South Korea	6.0	5.4	7.5	25.6	25.4	38.8
4. Total Imports	251.7	228.1	272.2	35.5	35.3	19.3

R: Revised. P: Provisional.
Source : DGCI&S.

Box II.32
The Export Demand Function for India: Some Inferences on the Impact of the Global Recession on India

The net exports of goods and services are conventionally regarded as external demand that supplements aggregate domestic demand in conditioning the growth process. In India, despite the dominant role of domestic demand in shaping the growth path, exports have become increasingly important in raising the country's GDP. During a global recession, when global trade contraction has been sharper than the rate of deceleration in global growth, the performance and prospects of Indian exports have also been affected adversely. Even though export performance could be influenced by a host of factors, both domestic and external, in a phase of global slowdown, it is important to assess the impact of contraction in world GDP and trade volume on Indian exports.

In most empirical studies, export demand, proxied by export volumes, is explained in terms of variation in effective exchange rates, relative export price and world real income. In the Indian context, earliest estimates of India's export demand parameters appear in Murti and Sastri (1951) and Agarwala (1970). As per the export demand function estimated by Agarwala (1970), the income and price elasticities were 0.35 and -0.44, respectively. In more recent period, export demand function for India was estimated by Virmani (1991), Sharma (2000) and RBI (2001). The RBI (2003) study found that the long run elasticity of demand for India's exports with respect to growth in world GDP was 1.5, confirming that with high global growth, the pull factor operating on India's exports could be sizeable. The short-run elasticity was however lower at 0.8.

An estimate of India's exports for the period 1980-81 to 2007-08 reveals that the long run elasticity of demand for India's exports with respect to world GDP is 3.7 and -1.9 with respect to India's relative export price. The empirical relationship could be seen from the viewpoint of statistically significant impact that both world GDP and relative prices have on India's exports.

$$\underset{(-7.72)}{\text{Ln } X = -56.96} + \underset{(8.43)}{3.73 \text{ Ln } YW} - \underset{(-1.78)}{1.94 \text{ Ln } RXP} + \underset{(7.28)}{0.81 \text{ AR}(1)}$$

$R^2 = 0.99$ DW = 1.65 SEE = 0.07

where, X = Quantity index of India's exports, YW = World GDP at constant prices in US dollar terms, RXP = ratio of India's export price (unit value index of India's exports deflated by the rupee-US dollar nominal exchange rate) to world export price (unit value index of world exports in US dollar terms).

Based on the export demand function, the current global crisis is expected to have a negative impact on India's exports. This has been amply borne out by the secular decline in India's exports during the period October 2008 to June 2009. According to the IMF's WEO update (July 2009), the world merchandise trade volume (goods and services) is projected to decline by 12.2 per cent in 2009. The volume of merchandise exports in respect of advanced economies and emerging and developing economies is projected to decline by 15.0 per cent and 6.5 per cent, respectively, during 2009. In US dollar terms, the merchandise exports of emerging and developing economies are projected to decline by 27.1 per cent in 2009. A key concern is that a deeper and prolonged recession in advanced economies outside Asia may reduce external demand even further, thereby adversely affecting the export prospects of India.

References:

1. Reserve Bank of India (2004), *Report on Currency and Finance 2002-03*.
2. Virmani, A. (1991), "Demand and Supply Factors in India's Trade", *Economic and Political Weekly*, 26 (6) February.
3. Murti, V. N. and Sastry, V. K. (1951), "Elasticities of Demand for Certain Indian Imports and Exports, *Sankhya*, Vol. 11.

and non-oil import demand. Imports also recorded negative growth *albeit* with a lag in relation to the exports (Chart II.46).

II.6.22 India's exports continued to deteriorate during the first quarter of 2009-10 (April-June), with a decline of 31.3 per cent as against a growth of 43.6 per cent in April-June 2008. The rate of decline in exports, however, started moderating and showed consistent improvement. Imports during April-June 2009 also registered a decline of 36.5 per cent (34.7 per cent growth a year ago) with the rate of decline progressively accelerating till May 2009 (39.2 per cent), which improved subsequently in June 2009, reflecting the signs of recovery in domestic demand. Non-POL imports during April-June 2009 recorded a sharp fall of 24.6 per cent as against a growth of 19.1 per cent in April-June 2008, while POL imports declined substantially by 56.8 per cent (growth of 73.8 per cent a year ago), mainly due to sharp

Chart II.46: Monthly Movements in Exports, Imports and Trade Balance

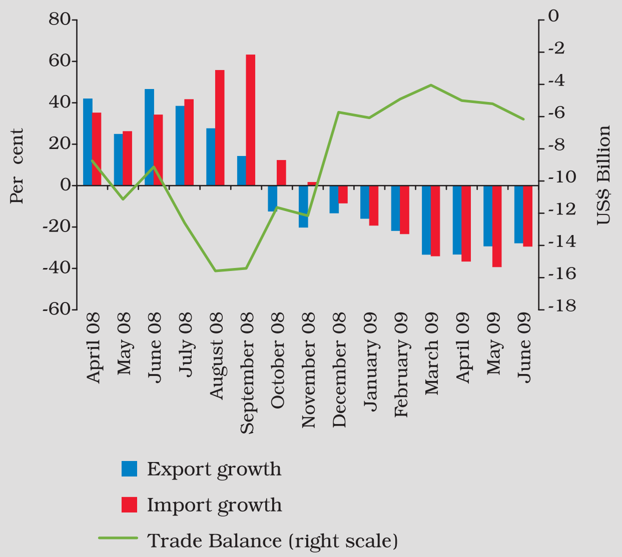
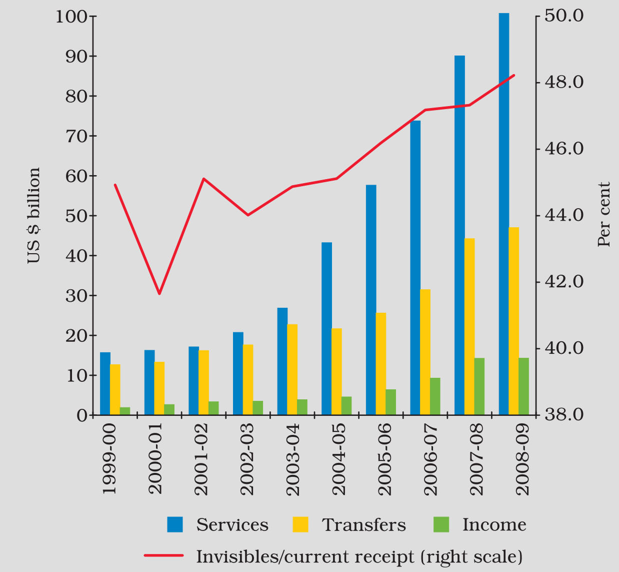


Chart II.47: India's Gross Invisible Receipts



reduction in international crude oil prices. The average price of Indian basket of crude oil during April-June 2009 stood at US$ 59.1 per barrel (ranged between US$ 50.1 - 69.1 per barrel), much below the level of US$ 118.8 per barrel (ranged between US$ 105.8 - 129.7 per barrel) in April-June 2008. Trade deficit during the first quarter of 2009-10 declined to US$ 15.5 billion from US$ 28.6 billion during April-June 2008, due to higher decline in imports than exports during the quarter.

Invisibles: Services, Income and Transfers

II.6.23 The invisibles account reflects the combined effects of the transactions relating to international trade in services, income associated with non-resident assets and liabilities, labour and property and cross border transfers, mainly workers' remittances. Receipts under invisibles, particularly since the beginning of the current decade, have grown significantly on the back of extended period of high global growth and low inflation. India's net invisibles (invisible receipts *minus* payments) increased by 20.1 per cent in 2008-09, led mainly by receipts under private transfers and software services (Appendix Table 52). Growth in gross invisible receipts moderated from 29.7 per cent in 2007-08 to 9.4 per cent in 2008-09 under the influence of the global economic slowdown impacting mainly the growth in software services and private transfer receipts along with decline in travel, business services and investment income receipts (Chart II.47). Invisibles payments showed a marginal decline of 1.4 per cent in 2008-09 as against an increase of 18.7 per cent in 2007-08, mainly on account of slowdown in payments relating to travel and transportation, and decline in payments under software, business and financial services, and investment income account. The net invisibles surplus increased from 6.4 per cent of GDP in 2007-08 to 7.7 per cent of GDP during 2008-09 (Table 2.75).

Services

II.6.24 Services have shown relative resilience *vis-à-vis* other components of India's BoP in the face of the global economic slowdown, with net services surplus expanding from US $ 37.6 billion during 2007-08 to US $ 49.8 billion during 2008-09, led primarily by software services exports. Services exports, however, declined marginally by 0.5 per cent in the second half of 2008-09, after a long phase of around 20 per cent average growth. India's services receipts are dominated by travel earnings, software and business services, reflecting a strong

Table 2.75: Balance of Payments : Key Indicators

Item/Indicator	1990-91	2001-02	2004-05	2005-06	2006-07	2007-08PR	2008-09P
1	2	3	4	5	6	7	8
Items (US $ billion)							
i) Trade Balance	-9.4	-11.6	-33.7	-51.9	-61.8	-91.6	-119.4
ii) Invisibles, net	-0.2	15.0	31.2	42.0	52.2	74.6	89.6
iii) Current Account Balance	-9.7	3.4	-2.5	-9.9	-9.6	-17.0	-29.8
iv) Capital Account	7.1	8.6	28.0	25.5	45.2	108.0	9.1
v) Foreign Exchange Reserves* (Increase -/Decrease +)	1.3	-11.8	-26.2	-15.1	-36.6	-92.2	20.1
Indicators (in Per cent)							
1. Trade							
i) Exports/GDP	5.8	9.4	12.1	13.0	14.1	14.2	15.1
ii) Imports/GDP	8.8	11.8	16.9	19.4	20.9	22.0	25.5
iii) Trade Balance /GDP	-3.0	-2.4	-4.8	-6.4	-6.8	-7.8	-10.3
iv) Export Volume Growth	11.0	3.9	17.5	11.8	15.8	5.4	..
2. Invisibles							
i) Invisibles Receipts/GDP	2.4	7.7	9.9	11.1	12.5	12.7	14.0
ii) Invisibles Payments/GDP	2.4	4.6	5.5	5.9	6.8	6.3	6.3
iii) Invisibles (Net)/GDP	-0.1	3.1	4.4	5.2	5.7	6.4	7.7
3. Current Account							
i) Current Receipts@/GDP	8.0	16.9	21.9	24.0	26.6	26.8	29.1
ii) Current Payments/GDP	11.2	16.3	22.4	25.3	27.7	28.3	31.8
Iii) Current Receipts Growth@	6.6	4.5	29.3	26.0	25.1	29.3	7.4
iv) Current Account Balance/GDP	-3.1	0.7	-0.4	-1.2	-1.1	-1.5	-2.6
4. Capital Account							
i) Foreign Investment to India(net)/GDP	-	1.7	2.2	2.6	3.3	5.4	1.8
ii) Capital Flows(net)/GDP	2.2	1.8	4.0	3.1	4.9	9.2	0.8
iii) Capital Inflows/GDP	7.2	9.1	14.0	17.9	25.4	36.9	26.1
iv) Capital Outflows/GDP	5.0	7.3	10.0	14.7	20.5	27.7	25.3
5. Others							
i) Debt - GDP Ratio	28.7	21.1	18.5	17.2	18.1	19.0	22.0
ii) Debt - Service Ratio	35.3	13.7	6.1	9.9	4.7	4.8	4.6
iii) Liability - Service Ratio	35.6	14.9	7.1	11.2	6.1	5.9	5.5
iv) Import Cover of Reserves (in months)	2.5	11.5	14.3	11.6	12.5	14.4	10.3

PR: Partially Revised. P : Preliminary. @ : Excluding official transfers. - : Negligible
* : Excluding valuation. .. : Not Available.

international tourist interest in India, rising importance of India's highly skilled workers and comparative advantage in exports of technology enabled services (Table 2.76). Similarly, the services payments have increased on account of robust expansion in domestic economy, rising freight costs, growing outbound tourist traffic, payments related to business and management consultancy, architectural, engineering and other technical services.

II.6.25 Reflecting the positive developments in terms of the comparative advantage in certain segments of services exports, India was ranked 11th in terms of its market share in the World services exports in 2007 with a market share of 2.6 per cent as compared with 0.6 per cent in 1995 (Table 2.77).

II.6.26 The impact of the global economic shocks on the software exports of India was evident during 2008-09, especially in the second half of the year when it registered a marginal growth of 0.9 per cent (Chart II.48). Notwithstanding this, software exports during 2008-09 (US$ 47.0 billion) recorded a growth of 16.6 per cent (28.8 per cent during 2007-08). Despite global slowdown and increasing competitive pressures, India has been able to maintain a steady software export growth in the recent years due to its low cost operations, high quality of services and readily available skilled

Table 2.76: Structure of India's Service Exports

Year	Total Services Exports (US $ billion)	Share in Total Services Exports (Per cent)					
		Travel	Transportation	Insurance	G.N.I.E.	Software	Miscellaneous*
1	2	3	4	5	6	7	8
1970-71	0.3	16.8	49.7	5.5	13.7	0.0	14.4
1980-81	2.8	43.5	16.3	2.3	4.0	0.0	33.9
1990-91	4.6	32.0	21.6	2.4	0.3	0.0	43.6
2000-01	16.3	21.5	12.6	1.7	4.0	39.0	21.3
2005-06	57.7	13.6	11.0	1.8	0.5	40.9	32.1
2006-07	73.8	12.4	10.8	1.6	0.3	42.4	32.4
2007-08	90.1	12.6	11.1	1.8	0.4	44.7	29.4
2008-09	101.2	10.8	10.9	1.4	0.4	46.4	30.1

*: Excluding Software Services. G.N.I.E.: Government not included elsewhere.

manpower (Box II.33). India remained as the leading exporter of computer and information services in the world in 2007 (Table 2.78).

II.6.27 Among other major services, travel receipts were adversely affected by the global economic slowdown during 2008-09 as the growth of tourist arrivals in the country significantly moderated (Table 2.79). This is in contrast to the buoyancy in tourism earnings witnessed during 2003-04 to 2007-08, led by business and leisure travel associated with liberalisation of payments system, growing globalisation and rising services exports. On the other hand, with sustained growth in outbound tourism, travel payments also increased during the period, reflecting rising business and leisure travel in consonance with growing merchandise and services trade, growing disposable incomes of residents and a liberalised payments regime.

II.6.28 Against the backdrop of slowdown in global trade, business services exports declined marginally in 2008-09, with growth remaining volatile over the quarters and exhibiting a significant decline in the second half of the year. While receipts under business and management consultancy services increased, the receipts under trade related services and architectural, engineering and other technical services declined during 2008-09. The payments also declined on account of reduced demand for all the key components of the business services. The receipts relating to financial services increased during 2008-09 while payments registered decline, mainly on account of significant decline during the last quarter of the year (Table 2.80).

Table 2.77: India's Share in World Exports of Goods and Services

(Per cent)

Year	Goods	Services
1	2	3
1995	0.6	0.6
2000	0.7	1.1
2005	1.0	2.2
2007	1.1	2.6

Source : Balance of Payments Statistics Year Book 2008, IMF; and Reserve Bank of India.

Chart II.48: Growth of India's Software Services Exports

Box II.33
Software Exports: Outlook and Prospects

India's information technology and business process outsourcing (IT-BPO) industry, which experienced exceptional growth benefitting from growing globalisation, has emerged over time as a key sector of the economy in terms of contribution to growth, export earnings, investment, employment and overall economic and social development. In view of the significant dependence of this sector on external demand, the global recession emerged as a key concern for this sector. Notwithstanding increasing competitive pressures, India continues to remain as an attractive source due to its low cost of operations, high quality of product and services, and readily available skilled manpower. Furthermore, a favourable time zone difference with North America and Europe helps Indian companies achieve round the clock international operations and customer service. India's software exports have been offsetting trade deficit significantly in recent years, which has helped in containing current account deficit at comfortable level. Despite the global economic and financial crisis and the related pressures on external demand, exports of software and IT-enabled services exhibited a steady growth of around 16 per cent during 2008-09. Out of total software exports, IT services contributed 57.2 per cent, followed by BPO exports (27.4 per cent) and engineering services and product exports (15.3 per cent) during 2008-09. Software exports were supported by increase in fixed price contract, shift from onsite to offshore and end-to-end transformational deals. At the same time, the thrust on diversification saw emerging verticals and geographies grow almost three times than the core markets.

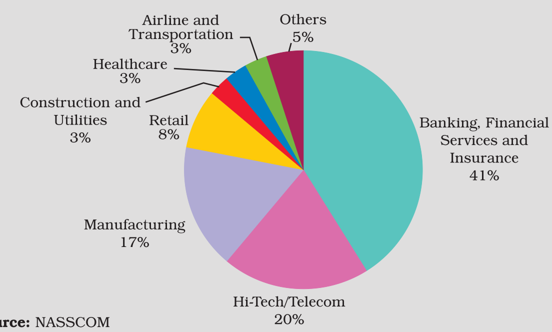
Although India's software exports remained strong over the years, slowdown in global demand due to the crisis did affect the export performance to some extent. Since some of the big global banks, which were severely hit by the current global financial crisis have been large customers of the Indian service providers, it is expected that some of the contracts may be cancelled while others could probably be downsized for keeping the costs under check. Therefore, National Association of Software and Service Companies (NASSCOM) has projected that India's software exports would grow by 4-7 per cent (to about US$ 48-50 billion) in 2009-10 on the back of absence of large deals; vendor consolidation and pricing pressures. According to a Report of NASSCOM entitled '*Perspective 2020: Transform Business, Transform India*', the global economic crisis is likely to result in short-term reduction in client budgets (*e.g.,* discretionary IT investments) and pricing pressures in certain segments, particularly in the core verticals (*e.g.,* banking, financial sector and insurance or BFSI) and geographies (*e.g.,* the US, Western Europe).

According to the NASSCOM, while the US (60 per cent) and the UK (19 per cent) remained India's largest markets for IT-BPO export in 2007-08, the industry has also been steadily expanding to other regions - with exports to continental Europe, in particular, growing at a compound annual rate of more than 51 per cent during 2003-04 to 2007-08. The strategy of geographical diversification along with strong focus on productivity, benchmarking, and enhanced operational efficiencies will help the industry to retain its competitive edge as the global leader in software services exports.

According to the NASSCOM, the industry's vertical market exposure was well diversified across several mature and emerging sectors. Banking, financial services and insurance (BFSI) remained the largest vertical market for Indian IT-BPO exports, followed by high-technology and telecommunications, together accounting for nearly 61 per cent of the Indian IT-BPO exports in 2007-08 (Chart A). From a customers' point of view, the focus has been on consolidation, integration and regulation – all of which are expected to drive newer business opportunities for the Indian IT industry.

The market (total revenue potential) for global technology services exports, according to the NASSCOM, in core geographies (the US, Western Europe and Japan) will continue to grow and is likely to reach US$ 500 billion to US$ 550 billion by 2020. Including total revenue potential for business services of US$ 610 billion to US$ 720 billion, the global megatrends are likely to expand the market from the current level of US$ 500 billion to about US$ 1.5 trillion by 2020. India's IT related exports are expected to expand three-fold and reach US$ 175 billion by 2020, driven by both increase in demand of the customers and supply of large talent pools. According to the NASSCOM, decline in global IT spending due to the global slowdown in the near-term, however, could imply that India's technology and business services exports may remain in the range of US$ 65 billion to US$ 75 billion by 2011-12.

Chart A: Vertical Market for Indian IT-BPO Exports in 2007-08



Source: NASSCOM

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1. NASSCOM (2009), Perspective 2020: Transform Business, Transform India, April.
2. ____ (2009), Press Release, July 29.
3. ____ (2009), Strategic Review 2009 - The IT Industry in India, February.

Table 2.78: Computer & Information Services Exports

(US$ billion)

Rank	Country	2000	2005	2007
1	2	3	4	5
1	**India**	**6.3**	**22.0**	**37.0**
2	Ireland	7.5	19.6	26.1
3	U.K.	4.3	11.2	14.1
4	U.S.A.	5.6	7.3	12.7
5	Germany	3.8	8.4	12.2
6	Sweden	1.2	2.7	6.5
7	Israel	4.2	4.5	5.8
8	Spain	2.0	3.6	5.3
9	Canada	2.4	3.6	4.4
10	China	0.4	1.8	4.3

Source: Balance of Payments Statistics Year Book 2008 and Reserve Bank of India.

Table 2.79 : Foreign Tourists Arrival in India and Outbound Tourist Traffic

Year (Calendar)	Arrivals (millions)	Growth Rate (%)	Departure (millions)	Growth Rate (%)
1	2	3	4	5
2000	2.65	6.7	4.42	7.3
2001	2.54	-4.2	4.56	3.4
2002	2.38	-6.0	4.94	8.2
2003	2.73	14.3	5.35	8.3
2004	3.46	26.8	6.21	16.1
2005	3.92	13.3	7.18	15.6
2006	4.45	13.5	8.34	16.1
2007	5.08	14.3	9.78	17.3
2008	5.37	5.6	..	..

.. : Not available.
Source: Ministry of Tourism, Government of India.

Private Transfers

II.6.29 Private transfers include inward remittances from Indian workers abroad for family maintenance, local withdrawal from NRI Rupee deposits, Gold and silver brought through passenger baggage, and personal gifts/donations to charitable/religious institutions. Private transfer receipts, comprising mainly remittances from Indians working overseas, increased in 2008-09 over the previous year (Table 2.81). The quarterly movement in remittances, however, reveals moderation in the second half of 2008-09, with deepening global financial crisis affecting the employment prospects and sharp decline in oil prices affecting the demand for expatriate labour in the oil exporting Gulf countries from where a major share of remittances to India originates (Chart II.49).

II.6.30 A major part of outflows from NRI deposits is in the form of local withdrawals, which are not actually repatriated out of the country but utilised domestically, making them equivalent of unilateral transfers without any *quid pro quo*. Such local withdrawals/redemptions cease to exist as external liability in the capital account. India maintained its position as the leading remittance receiving country in the world during 2008 with relative stability in such inflows (Table 2.82). In the context of the recent global financial crisis and its impact on

Table 2.80: Non-Software Miscellaneous Receipts & Payments

(US$ billion)

	Receipts			Payments		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
1	2	3	4	5	6	7
1. Communication	2.3	2.4	2.2	0.8	0.9	1.0
2. Construction	0.7	0.8	0.9	0.7	0.8	0.9
3. Financial	3.1	3.2	3.9	3.0	3.1	3.0
4. News Agency	0.3	0.5	0.8	0.2	0.3	0.4
5. Royalties, Copyrights & Licence Fees	0.1	0.2	0.1	1.0	1.1	1.8
6. Business Services	14.5	16.8	16.3	15.9	16.7	15.3
7. Personal, Cultural, Recreational	0.2	0.6	0.7	0.1	0.2	0.3
8. Others	2.6	2.1	5.6	4.5	4.2	1.9
Total (1 to 8)	**23.9**	**26.4**	**30.5**	**26.2**	**27.3**	**24.5**

Table 2.81: Composition of Private Transfers to India

(US$ billion)

Year	Total Private Transfers	*of which*			
		Inward Remittances for Family Maintenance	Local Withdrawals/ Redemptions from NRI Deposits	Local Withdrawals/Redemptions from NRI Deposits	
				As % of Total Private Transfers	As % of Total NRI Deposit Redemptions
1	2	3	4	5	6
2005-06	25.0	10.5	12.5	49.9	82.8
2006-07	30.8	14.7	13.2	42.8	84.7
2007-08 PR	43.5	21.9	18.9	43.5	64.7
2008-09 P	46.4	23.1	20.6	44.5	62.9

PR : Partially Revised. P : Preliminary.

remittance inflows to developing countries, concerns have been raised that given the developments in the host countries, there could be a significant slowdown in remittance inflows to India. The evidence so far, however, indicates that the global financial crisis did not have much adverse impact on the remittance inflows to India (Box II.34).

Current Account Balance

II.6.31 The global economic shocks impacted the current account of India's BoP mainly through the trade channel. A swifter response of exports to the slowdown in global demand and relatively lagged response of imports to domestic demand slowdown tended to widen the trade deficit, notwithstanding the sharp decline in international crude oil prices in the second half of 2008-09. Some of the adverse impact of large widening of the trade deficit on the overall current account during the year was, however, partly contained by the relative resilience of software services exports and remittances from the overseas Indians. A notable feature in the last quarter of 2008-09, however, was a narrowing down of trade deficit on account of larger decline in imports relative to exports, which along with sustained invisibles surplus led to a modest current account surplus during the quarter. Despite increase in invisibles surplus to 7.7 per cent of the

Chart II.49: Movement in Oil Price and Remittance Inflows to India

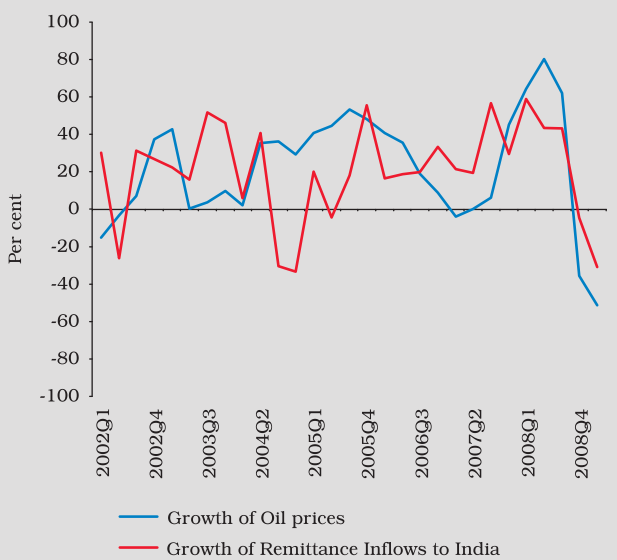

Table 2.82: Migrant Remittances: Top Recipients

(US$ billion)

	Country	2000	2005	2006	2007	2008#
	1	2	3	4	5	6
1	**India**	**12.9**	**21.3**	**25.4**	**38.7**	**52.0**
2	China	6.2	20.3	23.3	32.8	40.6
3	Mexico	7.5	23.1	26.9	27.1	26.3
4	Philippines	6.2	13.6	15.3	16.3	18.6
5	France	8.6	11.9	12.3	13.7	15.1
6	Spain	4.5	8.0	8.9	10.7	11.8
7	Germany	3.6	6.9	7.6	9.8	11.1
8	Poland	1.7	6.5	8.5	10.5	10.7
9	Nigeria	1.4	3.3	5.4	9.2	10.0
10	Egypt	2.9	5.0	5.3	7.7	9.5

#: Estimates
Source: World Bank.

Box II.34
Impact of the Global Slowdown on Remittances

Workers' remittances to India have imparted significant resilience and strength to India's balance of payments in the past, particularly in conditions of notable capital outflows or adverse external shocks. There is a perception that global recession and the weakening employment prospects in the host countries could affect India's inward remittance flows. According to the World Bank estimates (July 2009), remittance flows to developing countries, which increased to US$ 328 billion in 2008 from US$ 285 billion in 2007, are projected to decline by 7.3 per cent in 2009. India, China and Mexico retain their position as the top recipients of migrant remittances among developing countries. According to the World Bank's revised outlook, the slowdown in remittance flows that became evident in the last quarter of 2008 has continued into the first half of 2009. As the US job market weakness continues, officially recorded remittance flows to the Latin America and the Caribbean region have dropped significantly in the first half of 2009. In contrast, remittance flows to South Asia and East Asia have continued to post strong growth in 2009. This is in part due to the fact that the Gulf Cooperation Council (GCC) countries, a major destination for Asian migrants, have not significantly reduced hiring migrants. GCC countries are following a long-term strategy of infrastructure development funded by accumulated reserves and are unlikely to slow down such investments and lay off migrant workers in large numbers. A second reason for the growth of remittances to South Asia and East Asia appears to be a switch in the motivation for remittances from consumption to investment: falling asset prices, rising interest rate differentials and a depreciation of the local currency have attracted investments from migrants. This is the dominant reason for the sharp increase in remittances to India in 2008. Remittance flows to all the developing regions are expected to decline in 2009. Europe and Central Asia is expected to experience the largest decline (15 per cent) among all developing regions in 2009. However, remittance flows to South Asia are expected to decline more modestly by 4 per cent. These flows are expected to return to positive growth territory in 2010 and 2011.

The surge in workers' remittances to India, responding to oil boom in the Middle East during the 1980s and the information technology revolution in the 1990s, has put India among the top remittance receiving countries in the World. Remittances have helped in offsetting India's merchandise trade deficit to a large extent. The relative stability in such transfers, compared to other capital account items, such as NRI deposits, foreign direct investment and portfolio investment, has also enabled the containment of the current account deficits at modest levels in the face of pressures on other accounts. In the aftermath of the global meltdown, however, it is feared that recession induced rising job losses in the US and Europe could impact migrant workers more severely. Even if there is no lay-off, workers may often have to accept lower wages as employers worldwide are seeking to cut costs in an attempt to cope with the financial crisis. Fears have also been expressed about reverse migration of Indian labourers working in Gulf countries, which could result in a decline in inflows of remittances and NRI deposits to India. The construction industry in the Gulf region, especially in the UAE, is facing a difficult time due to global meltdown and has left millions of construction workers with uncertain future. Furthermore, declining oil prices, by reducing incomes of workers in the Gulf countries, could also lead to reduced remittances flows to India.

Available information indicates that inward remittances to India have not been impacted significantly by the global economic crisis. According to the World Bank estimates, India received significantly higher remittances to the tune of US$ 52 billion in 2008 as compared with US$ 38.7 billion in 2007. This could be attributed to a number of factors, such as, depreciation of the rupee, hike in interest rate ceilings on NRI deposits since September 2008 and uncertainties in oil-prices, which might have induced the workers to remit their money to India as a hedging mechanism due to its relatively better growth prospects. According to an earlier study by the Reserve Bank of India, region-wise, North America accounts for nearly 44 per cent of the total remittances to India, followed by the Middle East (24 per cent) and Europe (13 per cent). In view of the recessionary conditions in the advanced economies and sharp moderation in growth in the Middle East, some slowdown in remittances could be experienced in the near term.

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GDP, the current account deficit (CAD) increased to 2.6 per cent of GDP in 2008-09, mainly on account of the widening trade deficit. India's current account balance averaged a deficit of 1.0 to 1.5 per cent of GDP during 2005-06 to 2007-08 supported by the steadily rising invisibles surplus.

II.6.32 The global financial crisis led to deterioration in the current account position of most of the EMEs in 2008, except Russia and Malaysia. Some EMEs like China, Indonesia and Argentina experienced reduction in their surpluses, while others like Brazil, Korea and Thailand witnessed their surpluses turning into deficits. Unlike other EMEs, India and Mexico, which were recording current account deficits in the recent past, have witnessed some widening of the deficits (Table 2.83).

Capital Account

II.6.33 The sudden change in the external environment that started around mid-September 2008 led to an adverse situation characterised by global liquidity squeeze and increased risk aversion on the part of international investors. As in the case of other major EMEs, there was some withdrawal of funds from the domestic equity markets by portfolio investors as part of the global deleveraging process as also a significant reduction in access of Indian corporates to overseas financing. Consequently, there were large capital outflows by portfolio investors in the third quarter of 2008-09. While FDI flows exhibited resilience, access to ECBs and trade credits was rendered somewhat difficult. On the whole, the adverse impact of the global financial market turmoil was reflected in lower gross capital inflows during 2008-09 (Table 2.84). In fact, the capital account balance turned negative during the third quarter (October-December) of 2008-09, the first time since the first quarter of 1998-99, mainly due to net outflows under portfolio investment, banking capital and short-term trade credit. This trend continued during Q4 of 2008-09. Notwithstanding these adverse developments, the resilience of FDI inflows reflected the growing perception of India as a long-term investment destination.

II.6.34 In rapidly growing economies such as India, high real GDP growth needs concomitant growth in monetary aggregates, which also needs expansion of base money. To this extent, the capital flows and accretion of unsterilised foreign exchange reserves to the central bank's balance sheet is helpful in expanding base money at the required rate. However, capital flows in excess of such requirements necessitate sterilisation and more active monetary and macroeconomic management. Thus, large inflows of capital, far in excess of the current financing needs, can lead to high domestic credit and monetary growth, boom in equity and

Table 2.83: Trade and Current Account Balances in Select Countries

(Per cent to GDP)

Country	2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
1	2	3	4	5	6	7	8	9	10	11	12	13
	Current Account Balance						Trade Balance					
Argentina	6.3	2.1	1.7	2.3	1.6	1.4	13.2	8.7	7.2	6.6	5.1	4.9
Brazil	0.8	1.8	1.6	1.3	0.1	-1.8	4.5	5.1	5.1	4.3	3.0	1.6
China	2.8	3.6	7.2	9.5	11.0	10.0	2.7	3.1	6.0	8.2	9.3	..
India #	2.3	-0.4	-1.2	-1.1	-1.5	-2.6	-2.3	-4.8	-6.4	-6.8	-7.8	-10.3
Indonesia	3.5	0.6	0.1	3.0	2.4	0.1	10.5	7.8	6.1	8.1	7.6	4.6
Korea	1.9	3.9	1.8	0.6	0.6	-0.7	3.4	5.2	3.9	2.9	2.8	0.6
Malaysia	12.0	12.1	15.0	16.7	15.4	17.4	23.3	22.1	24.0	23.4	20.0	..
Mexico	-1.0	-0.7	-0.5	-0.5	-0.8	-1.4	-0.8	-1.2	-0.9	-0.6	-1.0	-1.6
Russia	8.2	10.1	11.0	9.5	5.9	6.1	13.9	14.5	15.5	14.1	10.1	10.7
Thailand	3.4	1.7	-4.3	1.1	5.7	-0.1	7.8	6.7	1.9	6.7	10.4	..
Turkey	-2.5	-3.7	-4.6	-6.0	-5.8	-5.7	-4.4	-5.8	-6.8	-7.7	-7.2	-7.3

: Data pertain to financial year (April-March). .. : Not available

Note : (-) indicates deficit.

Source : World Economic Outlook and International Financial Statistics, IMF, 2009.

Table 2.84: Gross Capital Inflows and Outflows

(US $ billion)

Item	Inflows			Outflows		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
1	2	3	4	5	6	7
1. Foreign Direct Investment	23.6	36.8	36.3	15.9	21.4	18.8
2. Portfolio Investment	109.6	235.9	128.7	102.6	206.4	142.7
3. External Assistance	3.8	4.2	5.0	2.0	2.1	2.4
4. External Commercial Borrowings	20.9	30.4	15.4	4.8	7.7	7.2
5. NRI Deposits	19.9	29.4	37.1	15.6	29.2	32.8
6. Banking Capital Excluding NRI Deposits	17.3	26.4	27.9	19.7	14.8	35.6
7. Short Term Trade Credits	30.0	48.9	39.7	23.4	31.7	45.5
8. Rupee Debt service	0.0	0.0	0.0	0.2	0.1	0.1
9. Other Capital	8.2	20.9	12.4	4.0	11.4	8.2
Total (1 to 9)	**233.3**	**433.0**	**302.5**	**188.1**	**325.0**	**293.3**

other asset prices, and general excess domestic demand leading to macroeconomic and financial instability. Abrupt reversals in capital flows also lead to significant difficulties in monetary and macroeconomic management. Reversals of capital flows, as shown by the current financial crisis, could be rapid with consequent painful adjustment in bank credit and collapse of asset prices. Thus, the boom and bust pattern of capital flows, unless managed proactively, could lead to macroeconomic and financial instability (Box II.35).

Foreign Investment

II.6.35 Even in the face of severe global financial turmoil, foreign investment in India during 2008-09 was mainly driven by buoyant FDI, though large portfolio outflows took place on account of deleveraging triggered by the crisis (Chart II.50). FDI was largely driven by equity and reinvested earnings during the year (Table 2.85). During 2008-09, further measures taken to support and strengthen the equity route by widening access of foreign firms to local equity markets, had the beneficial effect of helping in reducing the market volatility experienced under the impact of global financial crisis.

II.6.36 FDI was mainly channeled into manufacturing sector with a share of 21.0 per cent, followed by financial services with a share of 19.5 per cent. Investments routed through Mauritius remained the largest, with a share of 44.8 per cent, followed by Singapore with a share of 14.8 per cent (Table 2.86). In a major break from the past, the spurt in FDI flows to India in the recent period has been accompanied by a jump in outward equity investments, as Indian firms tend to establish production, marketing and distribution networks overseas to achieve global scale along with access to new technology and natural resources.

II.6.37 Despite the deepening of the global financial crisis and pressures on the foreign exchange market, the overseas investment by the Indian corporates increased in the second half of 2008-09. Thus, despite the deterioration in global credit markets, Indian companies, particularly in the manufacturing sector continued their overseas expansion by taking recourse to the liquidity from domestic foreign exchange markets (Table 2.87). The specific measures taken during 2008-09 intended to liberalise outbound investment included raising the investment limits of Indian corporates, mutual funds registered with SEBI and permitting registered trusts and societies engaged in manufacturing/ educational/ health sector to make investment in the same sector(s) in a Joint Venture or Wholly Owned Subsidiary outside India.

Box II.35
Global Financial Crisis and Capital Flows

Private capital flows to EMEs have grown rapidly since the 1980s, but with sporadic volatility over time. Large capital flows to the EMEs could be attributed to a variety of push and pull factors. The pull factors that have led to higher capital flows include strong growth in the EMEs over the past decade, reduction in inflation, macroeconomic stability, opening up of capital accounts and buoyant growth prospects. The stance of monetary policy in the advanced economies has been recognised as an important push factor in the sense that periods of loose monetary policy and search for yield in the advanced economies encourages large capital inflows to the EMEs and *vice versa* in periods of tighter monetary policy. Thus, cycles in monetary policy in the advanced economies have affected the cycles and volatility in capital flows to the EMEs. Innovations in information technology have also contributed to the two-way movement in capital flows. Overall, in response to these factors, capital flows to the EMEs since the early 1980s have grown over time, but with large volatility (Committee on Global Financial System, 2009).

Reversals of capital flows from the EMEs, as experienced again following the current financial crisis, as in periods of previous crisis in EMEs, are generally quick, entailing painful adjustment costs in the economy. Such reversals and associated loss of foreign exchange reserves also often give rise to contraction in the central bank's balance sheet, creating challenges for monetary management in the form of offsetting adjustments in domestic assets.

As the historical evidence suggests, extended periods of monetary accommodation in the advanced economies often coincided with large capital flows to EMEs. In response to the ongoing global financial crisis, monetary policies across the advanced economies have again been aggressively eased and policy interest rates have reached levels even lower than those which were witnessed in 2002. Base money in the US has increased substantially in the recent months; similar is the case in many advanced economies. Given such a large monetary expansion and the past experiences, large capital inflows to the EMEs could resume in the foreseeable future, if the unwinding of the current monetary expansion is not made in a timely fashion (Mohan, 2009).

India received large capital inflows in recent years prior to the onset of the global financial crisis. The Reserve Bank had to sterilise the liquidity impact of large foreign exchange purchases through a series of increases in the cash reserve ratio and issuances under the Market Stabilisation Scheme. In the aftermath of the collapse of Lehman brothers, however, and the chain of events that unfolded, portfolio investors sold heavily in domestic equity markets as part of their deleveraging process and repatriated the sales proceeds, as in other major EMEs. On the whole, net capital inflows during 2008-09 were substantially lower than in 2007-08 and there was a depletion of reserves as the capital flows were insufficient to finance current account deficits. This had put pressures in the foreign exchange market as well as domestic money markets prompting the Reserve Bank to undertake various measures to augment forex as well as rupee liquidity. The debt creating flows also reduced reflecting limited availability of credits as well as higher costs of borrowings from the international credit markets. The Reserve Bank and the Government of India took a number of measures to augment capital flows, which yielded positive results in terms of a turnaround in NRI flows as well as net inflows under FIIs, especially from the beginning of the current financial year 2009-10. A positive feature, however, has been the resilience shown by foreign direct investment flows in the face of the deepening of the global financial crisis, which reflect the attractiveness of India as a preferred investment destination. Overall, the adverse impact of the global financial crisis on capital flows was managed through drawdown of reserves and policies to attract inflows without severely disrupting the financial markets. The prudent management of the capital account and the self insurance in the form of adequate foreign exchange reserves has helped India in moderating the impact of any crisis driven capital outflows from India.

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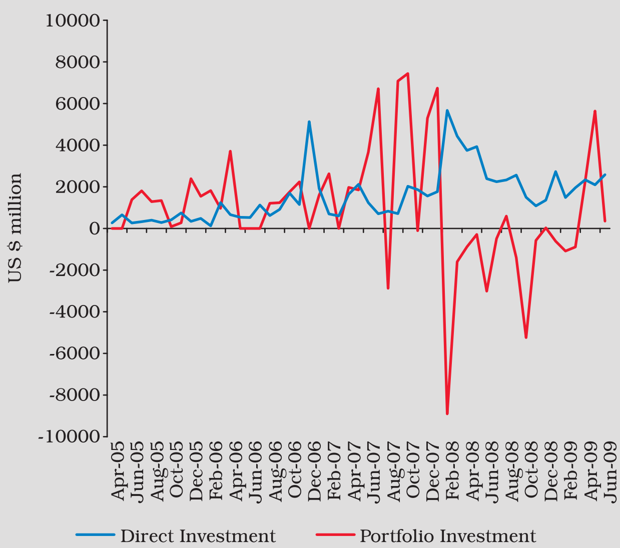
II.6.38 Although India was one of the largest recipients of portfolio inflows among the EMEs in 2007, such flows comprising foreign institutional investors' (FIIs) investments and American Depository Receipts (ADRs)/Global Depository Receipts (GDRs) witnessed large outflows in 2008-09 with the unfolding of global financial crisis (see Table 2.85). On the back of volatility and weaknesses in the major global stock markets and the process of withdrawal of funds from the EMEs, portfolio equity outflows from the Indian markets had started as early as February 2008

Chart II.50: Movements in Monthly FDI and Net Portfolio Inflows



(see Chart II.50). The significant outflow under portfolio investment reflected large sales of equities by FIIs in the Indian stock market and drying-up of liquidity in the overseas markets for ADRs/GDRs and FCCBs. During 2008-09, there were net FII outflows in every month, except August and December 2008, with the highest outflows being recorded in the month of October 2008 (US$ 5.3 billion). Inflows under ADRs/GDRs witnessed considerable decline with only negligible inflows recorded during the period September 2008 to February 2009.

Debt Flows

II.6.39 The tightening of global credit market conditions led to a decline in debt inflows to EMEs and also impacted India, particularly through ECB and trade credit flows during 2008-09 (Appendix Table 53). Reflecting the liquidity squeeze in overseas credit markets and rising risk premium on new borrowings, gross ECB disbursements to India declined sharply during 2008-09. Gross ECB repayments by Indian companies also increased marginally during 2008-09.

Table 2.85: Foreign Investment Flows to India

(US $ million)

Item	2005-06	2006-07	2007-08 (P)	2008-09 (P)
1	2	3	4	5
A. Direct Investment (I+II+III)	**8,961**	**22,826**	**34,362**	**35,168**
I. Equity (a+b+c+d)	**5,975**	**16,481**	**26,867**	**27,995**
a) Government (SIA/FIPB)	1,126	2,156	2,298	4,699
b) RBI	2,233	7,151	17,129	17,998
c) Acquisition of shares*	2,181	6,278	5,148	4,632
d) Equity capital of unincorporated bodies	435	896	2,292	666
II. Re-invested earnings	**2,760**	**5,828**	**7,168**	**6,426**
III. Other capital #	**226**	**517**	**327**	**747**
B. Portfolio Investment (a+b+c)	**12,492**	**7,003**	**27,271**	**-13,855**
a) GDRs/ADRs	2,552	3,776	6,645	1,162
b) FIIs @	9,926	3,225	20,328	-15,017
c) Off-shore funds and others	14	2	298	-
C. Total (A+B)	**21,453**	**29,829**	**61,633**	**21,313**

P : Provisional - : Nil/Negligible.

* : Relates to acquisition of shares of Indian companies by non-residents under Section 6 of the FEMA, 1999.

\# : Data pertain to inter-company debt transactions of FDI entities.

@ : Data represent net inflow of funds by FIIs.

Note: 1. Data on equity capital of unincorporated bodies and reinvested earnings for 2007-08 and 2008-09 are estimates.

2. Data on foreign investment presented in this table represent inflows into the country and may not tally with the data presented in other tables. They may also differ from data relating to net investment in stock exchanges by FIIs.

Table 2.86: Foreign Direct Investment Flows to India: Country-wise and Industry-wise*

(US $ million)

Source	2006-07	2007-08	2008-09P	Industry	2006-07	2007-08	2008-09P
1	2	3	4	5	6	7	8
Country-wise Inflows (Total)	**9,307**	**19,427**	**22,697**	**Sector-wise Inflows (Total)**	**9,307**	**19,427**	**22,697**
Mauritius	3,780	9,518	10,165	Manufacture	1,641	3,726	4,777
Singapore	582	2,827	3,360	Financial Services	1,330	3,850	4,430
U.S.A	706	950	1,236	Construction	967	2,551	2,237
Cyprus	58	570	1,211	Communication Services	423	66	2,067
United Kingdom	1,809	508	690	Real Estate Activities	431	1,336	1,886
Netherlands	559	601	682	Computer Services	824	1,035	1,647
Germany	116	486	611	Miscellaneous Services **	298	1,901	1,458
France	100	136	437	Electricity and other Energy related	174	829	669
Spain	62	48	363	Business Services	2,425	1,158	643
Russia	25	1	306	Transport	165	816	401
Japan	80	457	266	Trading	82	176	400
Italy	57	21	249	Restaurants & Hotels	153	280	343
UAE	215	226	234	Retail & Wholesale Trade	47	200	294
Hong Kong	60	106	155	Education, Research & Development	43	156	243
Switzerland	57	192	135	Mining	42	461	105
Others	1,041	2,780	2,597	Others	262	886	1,097

* : Data in this table relate to only equity capital under Automatic route and Approval route. Acquisition of shares of Indian Company by non-residents under section 6 of FEMA, 1999 and equity capital of unincorporated bodies are not included.

**: Miscellaneous services include services related to community, cultural activities, personnel, public, sanitation, health, repairing, international and others.

P : Provisional.

II.6.40 The global financial crisis severely affected the access to trade finance for EMEs (Box II.36). According to the IMF's World Economic Outlook (April 2009), the spreads on trade finance increased from 100 -150 basis points to around 400 basis points over LIBOR with increase in country and counterparty risks. As a result of difficult financing conditions prevailing in the international credit markets and increased risk aversion by the lending counterparties, gross disbursement of short-term trade credit to India was lower than that in 2007-08 (see Table 2.84). Repayments of short-term trade credit, however, increased significantly during 2008-09 mainly due to some problems in rollover observed during the second half of 2008-09.

II.6.41 Given their nature, external assistance are not pro-cyclical. The external assistance received by India during 2008-09 was higher than the previous year (Appendix Table 54). The grants and loans extended by India to other countries did not show significant decline (Table 2.88).

Table 2.87: India's Direct Investment Abroad

(US $ million)

Industry	2006-07	2007-08	2008-09*
1	2	3	4
Manufacturing	4,185	5,409	8,096
Financial Services	28	88	143
Non-Financial Services	7,527	1,748	1,154
Trading	659	1,050	937
Others	1,499	10,435	6,450
Total	**13,898**	**18,730**	**16,780**

* : Based on the latest reported revised data. Therefore, these data may differ from the data published under the Balance of Payments.

Note: 1. Data include equity and loan component.

2. Data pertains to proposals for Indian Investment abroad (US $ 5 million and above).

Box II.36
Trade Credit

The global credit squeeze in the second half of 2008-09 affected the exporters and importers in terms of the access to and the cost of trade credit. This necessitated institution of specific policy measures to address the concerns relating to trade credit. Trade finance often takes many forms depending on the extent of trust between counterparties and the degree of financing needed from the banks. When the transaction is purely between the importer and the exporter, it could be done on a *cash-in-advance basis* (payment is received before goods are shipped), or on an *open account basis* (shipment occurs before payment is received). Otherwise, banks play the role as a facilitator for the movements of merchandise around the globe and offer products to mitigate the risk of nonpayment (such as letters of credit), the credit risks (such as through export credit insurance) besides trade lending (also called export working capital) against the security of the actual goods. The developments in the international finance in recent years, however, have blurred the distinction between trade credits and financial credits, which has led to a drop in the confidence of international banks about the payment priority accorded to trade credits over others at times of crisis. Trade finance has also become more vulnerable to capital flight, induced by the dwindling confidence of international investors during the time of financial stress. With trade credit lines usually being short-term and capable of being redeemed quickly at par, they are considered operationally the easiest asset class for a bank to cut at times of heightened risk aversion, often in the form of not rolling over maturing credits, as a part of banks' policy of overall reductions in country exposures during a crisis.

The deteriorating global financial market conditions have led to a dramatic reduction in the total volume of financing flows provided by banks for all activities, including trade finance. The combination of the higher cost of funds, liquidity premiums, and higher risk have resulted in a sharp increase in the price of short-term trade finance, according to the IMF. As the increase in cost alongwith declining availability of finance has the potential to severely undermine the current efforts to stimulate domestic economies, co-ordinated initiatives globally to support trade finance have been undertaken. For instance, the G-20 has agreed to ensure availability of at least US$ 250 billion over the next two years to support trade finance. The proposals include the use of a variety of financing tools to address the general shortages in liquidity, reduction in the risk premiums by extending guarantees as well as to induce the return of private financial flows.

Although the spurt in costs of trade finance is global, the decline in availability of trade credit has been felt more by the emerging market economies (EMEs), especially the Asian EMEs, where much of inter-regional trade is in low-profit margin items that are part of manufacturing supply chain for exports to advanced economies. The IMF-Bankers' Association for Finance and Trade (BAFT)'s survey of advanced, emerging market and developing country banks on the bank-intermediated forms of international trade finance indicated that the price of trade finance increased sharply due to increased cost of funds to the banks, which has outweighed the dampening price effect of less restrictive monetary policies in many advanced economies. Higher capital requirements imposed by regulators and by banks on their own lending also increased the spreads between the banks' costs of funds and the price of trade finance to their customers. Additionally, fear of default/counterparty risk is causing banks to tighten lending guidelines. The Survey expects the current pricing trends to continue in 2009 and suggests that emerging markets and commodities trade are likely to be the hardest hit.

The trade finance problem is also sector-specific, apart from being country/region specific. India has been relatively less affected by the liquidity squeeze in international credit markets. Despite tightness in the overseas markets since September 2008, the disbursement of short-term credit to India has hovered around its monthly trend of over US$ 3 billion in the subsequent months. Although the higher repayments during the second half of 2008-09 suggested some problems in rolling over maturing trade credits, the continuing trend in disbursement indicates no significant problem in servicing short-term debt. This is also indicative of the confidence enjoyed by the Indian importers in the international financial markets. The various policy initiatives taken in this regard, such as hike in the all-in-cost ceiling for raising trade credit, enhancement of limit on overseas borrowings by banks, extending the line of credit as well as swap facility to the EXIM Bank, *etc.*, have also helped in easing the pressure on trade financing.

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Table 2.88: India's Grants and Loans to Foreign Governments

(US $ million)

Item	2007-08			2008-09		
	Grants	Loan	Total	Grants	Loan	Total
1	2	3	4	5	6	7
A. Plan (External Affairs)	**63**	**12**	**75**	**73**	**25**	**98**
B. Non-Plan (i+ii+iii)	**359**	**17**	**376**	**313**	**1**	**314**
i. External Affairs	**349**	**0**	**349**	**304**	**0**	**304**
Bangladesh	15	0	15	1	0	1
Bhutan	132	0	132	121	0	121
Nepal	25	0	25	22	0	22
Aid to African countries	12	0	12	21	0	21
Maldives	5	0	5	1	0	1
Myanmar	5	0	5	7	0	7
Sri Lanka	7	0	7	7	0	7
Central Asia	5	0	5	4	0	4
ITEC Programme	15	0	15	14	0	14
Latin African Countries	0	0	0	0	0	0
Afghanistan	83	0	83	74	0	74
Other Developing Countries	45	0	45	33	0	33
ii. Finance	**10**	**17**	**27**	**8**	**1**	**9**
iii. Shipping	**1**	**0**	**1**	**1**	**0**	**1**
C. Grand Total (A+B)	**422**	**29**	**451**	**386**	**26**	**412**

Source : Union Budgets, Government of India.

II.6.42 There was a turnaround in the flows under the NRI deposit schemes as reflected in significant rise in inflow during 2008-09, responding to the hikes in the ceiling interest rates on NRI deposit schemes by the Reserve Bank (Table 2.89). With the deepening of financial crisis in September 2008, the ceiling interest rates on NRI deposits were revised upwards thrice in order to encourage inflows (Table 2.90).

EXTERNAL DEBT

II.6.43 The outstanding external debt stock of India modestly increased at end-March 2009, mainly on account of increase in long-term debt (Table 2.91 and Appendix Table 55). The increase in long-term debt was mainly due to increase in trade credit and bilateral debt. The outstanding debt under NRI deposits declined over the level at end-March 2008 mainly due to valuation effects as there were positive

Table 2.89: Balances under NRI Deposit Schemes

(US$ million)

Scheme	Outstanding (end-March)		Net Inflows (April-March)	
	2008	2009	2007-08	2008-09
1	2	3	4	5
FCNR(B)	14,168	13,211	-960	-957
NR(E)RA	26,716	23,570	109	2,508
NRO	2,788	4,773	1030	2,738
Total	**43,672**	**41,554**	**179**	**4,289**

Table 2.90: Ceiling Interest Rates on NRI Deposits

Period	NR(E)RA Deposits	FCNR(B) Deposits
1	2	3
	(+)/ (-) LIBOR/SWAP Rate	
April 24, 2007	LIBOR/SWAP rate	-75 basis points
September 16, 2008	+ 50 basis points	- 25 basis points
October 15, 2008	+ 100 basis points	+ 25 basis points
November 15, 2008	+ 175 basis points	+ 100 basis points

Table 2.91: India's External Debt

Item	US $ million		Percentage variation	
	Mar-08	Mar-09P	Mar-08 over Mar-07	Mar-09 over Mar-08
1	2	3	4	5
1. Multilateral	39,490	39,566	11.8	0.2
2. Bilateral	19,701	20,587	22.6	4.5
3. IMF	0	0	0	0
4. Trade Credit	10,358	14,604	44.6	41.0
5. Commercial Borrowings	62,337	62,676	50.4	0.5
6. NRI Deposits	43,672	41,554	5.9	-4.8
7. Rupee Debt	2,016	1,527	3.3	-24.3
8. Short-Term Debt	46,999	49,373	67.1	5.1
Total Debt (1 to 8)	224,573	229,887	31.1	2.4
Memo Items:				
A. Long-term Debt (1 to 7)	177,574	180,514	24.0	1.7
B. Short-term Debt	46,999	49,373	67.1	5.1

P : Provisional.
Source: Ministry of Finance, Government of India and Reserve Bank of India.

inflows under NRI deposits during 2008-09. In terms of original maturity, the shares of long-term debt and short-term debt in the total debt were 78.5 per cent and 21.5 per cent, respectively, at end-March 2009. In terms of currency composition, US dollar denominated debt accounted for 57.1 per cent of total external debt at end-March 2009, followed by Japanese Yen (14.2 per cent), Indian Rupee (13.2 per cent), SDR (9.2 per cent) and Euro (4.1 per cent).

Short-term Debt

II.6.44 Despite apprehensions in the second half of 2008-09 on the availability of short-term trade credits due to tightness in the global credit markets, financing of short-term trade credit did not pose much problem in India. Based on residual maturity, the total short-term debt obligations accounted for 40.6 per cent of the total external debt outstanding at end-March 2009. The total short-term debt in terms of residual maturity (US$ 93.3 billion) at end-March 2009 consists of short term debt based on original maturity of US$ 49.4 billion and long-term external debt due for repayment within one year of US$ 43.9 billion. Out of the US$ 43.9 billion, the NRI deposits constitute the major portion (US$ 32.1 billion), which are more likely to be rolled over going by the past trend.

II.6.45 The short-term debt as ratio to total debt and to foreign exchange reserves increased at end-March 2009 (Table 2.92). The debt service ratio remained stable and reasonably low. The major indicators of external sector vulnerability reflect India's continued resilience in the face of one of the severest global crises.

II.6.46 The data released by the World Bank on external debt for the top ten debtor developing countries for the calendar year 2007 revealed that India continued to be at the fifth position among the countries having the largest external debt stocks

Table 2.92: External Debt Service Payments

Item	2006-07	2007-08	2008-09
1	2	3	4
Components (US$ million)			
1. External Assistance @	2,942	3,241	3,381
2. External Commercial Borrowings*	6,331	9,771	10,401
3. NRI Deposits (Interest Payments)	1,969	1813	1,547
4. Rupee Debt Service	162	121	101
5. Total Debt Servicing	11,404	14,946	15,430
6. Total Current Receipts#	242,811	314,014	337,095
Indicators (Per cent)			
7. External Debt to GDP Ratio	18.1	19.0	22.0
8. Short Term Debt to Total Debt Ratio	16.4	20.9	21.5
9. Short Term Debt to Foreign Exchange Reserves Ratio	14.1	15.2	19.6
10. Foreign Exchange Reserves to External Debt Ratio	116.2	137.9	109.6
11. Debt Service Ratio	4.7	4.8	4.6
12. Interest Payments to Current Receipts Ratio	2.3	2.1	1.9
13. Debt to Current Receipts Ratio	70.6	71.5	68.2
14. Liability Service Ratio	6.1	5.9	5.5

@ : Inclusive of non-Government loans.
* : Inclusive of interest components of trade credits.
# : Excluding official transfers.
Note: 1. Debt service payments in this table follow accrual method of accounting consistent with balance of payments compilation and may, therefore, vary from those recorded on cash basis.
2. The liability service represents debt service payments and payments of profits and dividends as a ratio to current receipts.

Table 2.93: International Comparison of Top Ten Debtor Countries, 2007

Country	External Debt (US$ billion)	External Debt to GNI (%)	Debt Service ratio (%)	Forex Reserves to Total Debt (%)	Concessional Debt/Total Debt (%)	Short-term Debt/ Total Debt (%)
1	2	3	4	5	6	7
China	374	11.6	2.2	413.9	10.1	54.5
Russia	370	29.4	9.1	129.1	0.4	21.4
Turkey	252	38.8	32.1	30.4	2.1	16.6
Brazil	238	18.7	27.8	75.9	1.0	16.5
India	**225**	**19.0**	**4.8**	**137.9**	**19.7**	**20.9**
Poland	195	47.7	25.6	33.6	0.4	30.9
Mexico	178	17.7	12.5	49.0	0.6	5.1
Indonesia	141	33.9	10.5	40.4	26.2	24.8
Argentina	128	49.7	13.0	36.1	1.3	29.8
Kazakhstan	96	103.7	49.6	18.4	1.0	12.2

Source : Data for India are as published by national authorities for 2007-08 and those for other countries are at end-December 2007 as available in World Bank's Global Development Finance Online Database.

(Table 2.93). India, however, was the second lowest after China in terms of debt service ratio.

FOREIGN EXCHANGE RESERVES

II.6.47 During 2008-09, the widening of current account deficit coupled with net capital outflows resulted in the drawdown of foreign exchange reserves of US $ 20.1 billion (excluding valuation) as against accretion to reserves of US$ 92.2 billion in 2007-08. Taking into account the valuation losses of US$ 37.7 billion arising out of depreciation of major currencies against the US dollar, India's foreign exchange reserves recorded a decline of US$ 57.7 billion during 2008-09 to US$ 252.0 billion as at end-March 2009 (Appendix Table 56 and Table 2.94). This magnitude of decline in reserves created some pressure on the foreign exchange market. Although both US dollar and Euro are intervention currencies, the foreign exchange reserves are denominated and expressed in US dollar only. Any change in the level of forex reserves is largely the outcome of the Reserve Bank's intervention in the foreign exchange market to smoothen excessive exchange rate volatility and the valuation changes that result from movements in the exchange rate of the US dollar against other currencies.

II.6.48 India continued to be one of the leading holders of foreign exchange reserves among the major EMEs, which helped to deal with severe external shocks (Table 2.95). India's foreign exchange reserves remained at a comfortable level despite the drawdown during the crisis, as reflected by different adequacy indicators such as merchandise import cover (10.3 months at end-March 2009) and reserves to debt ratio (109.6 per cent at end-March 2009).

Table 2.94: Sources of Variation in Foreign Exchange Reserves

(US $ million)

Item	2007-08	2008-09
1	2	3
I. Current Account Balance	**(-) 17,034**	**(-) 29,817**
II. Capital Account (net)*	**109,198**	**9,737**
Of Which:		
(i) Foreign Direct Investment	15,401	17,496
(ii) FIIs	20,327	(-) 15,017
(iii) External Commercial Borrowings	22,633	8,158
III. Valuation Change	**18,380**	**(-) 37,658**
Total (I+II+III)	**110,544**	**(-) 57,738**

*** :** Includes 'errors and omissions'.
Note: Increase in reserves (+) / Decrease in reserves (-).

Table 2.95: Foreign Exchange Reserves of the Major EMEs
(End-March 2009)

(US$ billion)

Country	Forex Reserves*
1	2
1. China	1,953.7
2. Russia	368.1
3. Taiwan	300.1
4. India	**242.4**
5. South Korea	206.3
6. Brazil	189.4
7. Hong Kong	186.2
8. Singapore	166.3
9. Thailand	113.7
10. Mexico	85.5

* : Excluding gold except China.

Note : Foreign exchange reserves of India exclude US$ 250 million invested in foreign currency denominated bonds issued by IIFC (UK) since March 20, 2009.

Source : The International Financial Statistics (IFS), IMF; and Central Bank websites.

II.6.49 The Reserve Bank's holding of reserves in the form of gold was at 357.8 tonnes as on March 31, 2009, which in value terms amounted to about 3.8 percent of the total reserves. Of this, 65 tonnes are held abroad since 1991 with the Bank of England and the Bank for International Settlements (BIS). Holdings of gold have remained unchanged and gold reserves are managed passively. Foreign currency assets (FCAs) of the RBI are held as assets in the Issue Department (foreign securities) as well as in the Banking Department (balances held abroad and investments). Gold is also held in the Issue Department (under Gold coin and bullion) and in the Banking Department as well. Although SDRs and Reserve Tranche Position (RTP) form part of India's official reserves, these are held by the Government of India and are not reflected in the Reserve Bank's balance sheet.

Management of Foreign Exchange Reserves

II.6.50 Movements in the foreign currency reserves occur mainly out of purchase and sale transactions in foreign exchange by the Reserve Bank in the market. In addition, there is income from deployment of FCAs held in the portfolio of the Reserve Bank. External aid receipts of the Government of India also flow into the reserves. In line with international practices in this regard, the Reserve Bank follows the practice of expressing the foreign exchange reserves in US dollar terms and, hence, the periodic currency revaluations also impact the level of reserves.

II.6.51 The guiding objectives of foreign exchange reserves management in India are safety, liquidity and returns in line with the broad international practices in this regard. The demands on country's foreign exchange reserves may vary widely over time, depending on a variety of factors including the exchange rate regime adopted by the country and the extent of openness of the economy.

II.6.52 The RBI Act, 1934 provides the legal framework for deployment of the FCAs as well as gold. The investment universe for the FCAs comprises deposits with other central banks, the Bank for International Settlements (BIS), foreign commercial banks, securities representing debt of sovereigns and supranational institutions with residual maturity not exceeding 10 years and any other instruments or institutions as approved by the Central Board of the Reserve Bank in accordance with the provisions of the Act (Table 2.96). In pursuance of the Act, the investment strategy aims at diversification with regard to currency, markets and instruments. As such, the FCAs are invested in multi-currency and multi-market portfolios. In response to the developments in the global financial markets in 2008-09, the strategy of the Reserve Bank was suitably adjusted in regard to exposure to the foreign commercial banks. Decisions involving the pattern of investments are driven by the broad parameters of portfolio management *viz.*, safety, liquidity and returns. The FCAs are invested in assets of the highest quality with a significant proportion convertible into cash at short notice. The foreign exchange assets have been placed in various portfolio tranches to provide better balancing of the various objectives of liquidity and return.

Table 2.96: Deployment Pattern of Foreign Currency Assets

(US $ million)

As on March 31	Foreign Currency Assets (a+b+c)	(a) Securities	(b) Deposits with other Central Banks, BIS and IMF	(c) Deposits with Foreign Commercial Banks/Funds placed with External Asset Managers
1	2	3	4	5
2004	1,07,448	35,024	45,877	26,547
2005	1,35,571	36,819	65,127	33,625
2006	1,45,108	35,172	65,399	44,537
2007	1,91,924	52,996	92,175	46,753
2008	2,99,230	1,03,569	1,89,645	6,016
2009	2,41,426*	1,34,792	1,01,906	4,728

* : Exclude US$ 250 million invested in foreign currency denominated bonds issued by IIFC (UK).

II.6.53 The Reserve Bank places in public domain data relating to the foreign exchange market and the Reserve Bank's operations in the foreign exchange market. The movements in foreign exchange reserves of the Reserve Bank are published on a weekly basis in the Weekly Statistical Supplement (WSS). Disclosure of the international reserves and foreign currency liquidity position is made under the Special Data Dissemination Standards (SDDS) of the IMF. The Reserve Bank Annual Reports and other publications also cover the subject of reserve management to disseminate appropriate information with analysis. Half-yearly reports on management of foreign exchange reserves are also placed on the Reserve Bank website.

INTERNATIONAL INVESTMENT POSITION

II.6.54 India's net international liabilities increased by US $ 12.5 billion between end-March 2008 and end-March 2009, as the decline in international assets was more than the decline in international liabilities during the period. The decline in international assets was mainly on account of decrease in reserve assets amounting to US $ 57.7 billion. The direct outward investment, however, increased by US$ 17.5 billion between end-March 2008 and end-March 2009. On the other hand, the decline in international liabilities could be mainly attributed to outflow by FIIs leading to fall in the stock of portfolio equity investment and also to the effect of valuation changes (Table 2.97).

Table 2.97: International Investment Position of India

(US $ billion)

Item	End-March			
	2006	2007	2008 PR	2009 P
1	2	3	4	5
A. Assets	**183.9**	**247.3**	**385.6**	**349.9**
1. Direct Investment	15.9	31.0	49.8	67.3
2. Portfolio Investment	1.0	0.9	1.5	0.8
2.1. Equity Securities	0.5	0.5	1.4	0.8
2.2. Debt Securities	0.5	0.4	0.1	0.0
3. Other Investment	15.4	16.2	24.5	29.9
3.1. Trade credits	-0.3	0.7	-0.1	6.8
3.2. Loans	2.4	3.5	11.6	6.2
3.3. Currency and Deposits	10.0	7.8	7.8	10.3
3.4. Other Assets	3.3	4.2	5.2	6.6
4. Reserve Assets	151.6	199.2	309.7	252.0
B. Liabilities	**243.7**	**308.7**	**438.4**	**415.3**
1. Direct Investment	52.4	77.0	118.3	124.8
2. Portfolio Investment	64.2	79.4	120.1	84.9
2.1. Equity Securities	54.7	63.3	98.6	64.8
2.2. Debt Securities	9.5	16.2	21.5	20.2
3. Other Investment	127.1	152.2	200.0	205.6
3.1. Trade credits	21.2	27.7	45.2	48.0
3.2. Loans	68.0	80.8	106.9	114.1
3.3. Currency and Deposits	37.3	41.7	44.8	42.3
3.4. Other Liabilities	0.6	2.1	3.1	1.3
C. Net Position (A-B)	**-59.8**	**-61.4**	**-52.9**	**-65.3**
Memo :				
Debt Liabilities/Total Liabilities (per cent)	56.1	55.5	51.2	55.4

PR : Partially Revised　　P : Provisional.

II.6.55 The developments during 2008-09 suggest that despite the adverse shocks from the global financial crisis, which led to considerable contraction in India's exports, widening of current account deficit, reversal in capital flows and drawdown of reserves, India's BoP position remained relatively resilient and did not become a source of major disruption in the foreign exchange market. The CAD-GDP ratio continued to remain within manageable limits. Services exports and remittances provided sustained support to India's current account position even in the face of a severe global economic slowdown. Notwithstanding some reversal of capital flows in the second half of the year, inflows under FDI and NRI deposits exhibited resilience, reflecting continuous attractiveness of India as a long-term investment destination and also the impact of various measures to attract capital flows. Various soundness indicators for the external sector relating to current account, external debt and reserve adequacy suggest that because of the continued policy emphasis on external stability, the Indian economy could manage shocks from a severe global crisis and maintained macroeconomic stability.

II.6.56 The regulations governing capital flows in India have been liberalised substantially in the past three years, taking into account the macroeconomic conditions, state of the financial sector development, risk management capabilities of financial institutions and depth of financial markets. At the same time, the Government has followed a hierarchy in the liberalisation of inflows by way of according preference to equity inflows rather than debt, besides the emphasis on a diversified capital account. The macro-level policy focus on sustainable levels of current account deficit and external debt, active capital account management while persisting with gradual liberalisation process consistent with the assessed needs of the country and strengthening self insurance in a globalised world in the form of adequate reserves, have been vindicated in the face of the current global crisis.

PART TWO : THE WORKING AND OPERATIONS OF THE RESERVE BANK OF INDIA

III MONETARY AND CREDIT POLICY OPERATIONS

Monetary management during 2008-09 had to contend with the challenges of high inflation in the first half and the high speed and magnitude of the external shock and its spill-over effects through the real, financial and confidence channels in the second half. Policy initiatives by the Reserve Bank were aimed at providing ample rupee liquidity, ensuring comfortable foreign exchange liquidity and maintaining a market environment conducive for the continued flow of credit at viable rates to productive sectors of the economy. The large government borrowings resulting from the fiscal stimulus, and net capital outflows in the second half of the year warranted simultaneous offsetting operations by the Reserve Bank in different markets, particularly the money market, the government securities market and the foreign exchange market. The flexible use of multiple instruments enabled the Reserve Bank to steer the liquidity and interest rate conditions amidst uncertain global macroeconomic environment.

III.1 The stance of monetary policy shifted in phases in response to multiple challenges that emerged during the course of the year in the form of significant changes in both outcome and outlook relating to inflation, growth and stability of financial markets. Both the Government and the Reserve Bank responded to the challenges decisively, swiftly and in close coordination and consultation. The policy stance shifted from monetary tightening in response to the elevated inflationary pressures in the first half of 2008-09 to monetary easing in the second half as significant moderation in inflationary pressures created the scope for enhancing the magnitude and speed of response to the weakening growth impulses as well as to occasional disorderly pressures in financial markets. The changing stance of policy must be seen in the context of the previous period of gradual withdrawal of monetary accommodation from September 2004 till August 2008 during which the repo/reverse repo rates had been increased by 300/150 basis points, the cash reserve ratio (CRR) for scheduled banks had been raised by 450 basis points, and risk weights and general provisioning requirements for standard advances were raised in the case of specific sectors. In response to the knock-on effects of the global economic crisis on the Indian economy, since October 11, 2008 the Reserve Bank has reduced the CRR by a cumulative 400 basis points to 5.0 per cent of NDTL, the repo rate by 425 basis points to 4.75 per cent and the reverse repo rate by 275 basis points to 3.25 per cent.

III.2 The magnitude and the pace of the response have to be seen particularly in the context of the fact that despite significant moderation, India's growth remained one of the highest in the world, at 6.7 per cent for the full year, and the minimum quarterly growth during the year was 5.8 per cent. Thus, the policy stance clearly reflected the forward looking undertone, particularly the expectations of more prolonged adverse external conditions in the face of no visible risks to inflation. Moreover, the gradual withdrawal of monetary accommodation that had started from

September 2004 was a signal of the Reserve Bank's assessment of possible overheating, even though subsequent monetary tightening was in response to building of inflationary pressures up to mid 2008-09. The need for monetary policy cycle remaining ahead of the business cycle, which emerged as a lesson from the current global crisis, was already evident in the Reserve Bank's actual conduct of policy even before the crisis. Similarly, the current post-crisis suggestion for use of pro-cyclical provisioning norms and counter-cyclical regulations as a bulwark against financial instability had already been implemented in India prior to the crisis.

Organisational Framework for Monetary Policy

Technical Advisory Committee

III.3 The Reserve Bank had constituted a Technical Advisory Committee (TAC) on Monetary Policy in July 2005 with four external experts in the areas of monetary economics, central banking, financial markets and public finance with a view to strengthening the consultative process in the conduct of monetary policy. The TAC reviews macroeconomic and monetary developments and advises the Reserve Bank on the stance of monetary policy and monetary measures. The Committee was reconstituted in April 2007 and the membership of the Committee was expanded by including two additional members of the Central Board of the Reserve Bank and one more external expert. The tenure of the reconstituted Committee was extended up to June 30, 2009. The Reserve Bank has now reconstituted the TAC on Monetary Policy with effect from July 1, 2009 with a view to obtaining continued benefit of advice from external experts. The tenure of the Committee is for two years, *i.e.*, up to June 30, 2011. The Committee is headed by Governor, with the Deputy Governor in charge of monetary policy as the vice-chairman. The other Deputy Governors of the Bank are also members of the Committee. The TAC normally meets once in a quarter. However, the meeting of the TAC could be held at any other time also, if necessary. The role of the TAC is advisory in nature. The responsibility, accountability and time path of the decision making remain entirely with the Reserve Bank. In addition to the quarterly pre-policy meeting where the TAC members contributed to enriching the inputs and processes of policy setting, there were two special meetings held on June 23, 2008 and December 17, 2008 in the context of the evolving global economic crisis and to advise the Reserve Bank on the stance of monetary policy.

Pre-policy Consultation Meetings

III.4 It has been the endeavour of the Reserve Bank to make the policy making process more consultative. As part of this outreach and the Reserve Bank's growing emphasis on strengthening the consultative process of monetary policy formulation, the Reserve Bank has constituted a process of consulting different entities/ experts before each policy Statement/Review. Accordingly, with effect from October 2005, the Reserve Bank has introduced pre-policy consultation meetings with the Indian Banks' Association (IBA), market participants (Fixed Income Money Market and Derivatives Association of India, Foreign Exchange Dealers' Association of India, and Primary Dealers Association of India), leaders of trade and industry and other institutions (urban co-operative banks, non-banking financial companies, rural co-operatives and regional rural banks). This consultative process has contributed to enriching the policy formulation process and enhanced the effectiveness of monetary policy measures.

III.5 The specific aspects of monetary policy operations of the Reserve Bank during 2008-09 and 2009-10 so far and the context against which policy decisions were formulated and implemented have been outlined in this chapter.

MONETARY POLICY OPERATIONS: 2008-09

III.6 The conduct of monetary policy during 2008-09 witnessed two distinctly different phases. The first phase up to mid-September 2008 was characterised by monetary tightening, reflecting the need to contain high inflation and adverse inflation expectations. The policy stance during the second phase starting from mid-September 2008 was guided by the ramifications of the global financial crisis for economic growth and financial markets in India.

Annual Policy Statement for 2008-09

III.7 The Annual Policy Statement (APS) for 2008-09 (April 29, 2008) had noted that there were significant shifts in both global and domestic developments in relation to initial assessments presented for 2007-08. In the backdrop of the deteriorating outlook for the global economy, the APS highlighted that the dangers of global recession had increased at the time of announcement of the Third Quarter Review of January 2008. It also added that since January 2008, the upside pressures from international food and energy prices appeared to have imparted a degree of persistent upward pressure to inflation globally. On the domestic front, the outlook remained positive up to January 2008, with some indications of moderation in industrial production, services sector activity, business confidence and non-food credit thereafter.

III.8 The initial forecast predicted a near-normal rainfall in the 2008 South-West monsoon season, suggesting sustenance of the trend growth in agriculture. The Statement noted that the expected decline in world GDP growth in 2008 in relation to the preceding year could temper the prospects of growth in the industrial and services sectors at the margin, although the underlying momentum of expansion in these sectors was likely to be maintained. In view of this overall macroeconomic scenario, the APS placed real GDP growth during 2008-09 in the range of 8.0 to 8.5 per cent for policy purposes, assuming that (a) global financial and commodity markets and real economy would be broadly aligned with the central scenario as assessed at that stage; and (b) domestically, normal monsoon conditions may prevail. In view of the lagged and cumulative effects of monetary policy on aggregate demand and assuming that supply management would be conducive, capital flows had to be managed actively and in the absence of new adversities emanating in the domestic or global economy, the Policy Statement indicated that the monetary policy endeavour would be to bring down inflation from the prevailing high level of above 7.0 per cent to around 5.5 per cent in 2008-09, with a preference for bringing it close to 5.0 per cent as soon as possible, recognising the evolving complexities in globally-transmitted inflation. The Statement also added that going forward, the Reserve Bank would continue to condition policy and perceptions for inflation in the range of 4.0-4.5 per cent so that an inflation rate of around 3.0 per cent became a medium-term objective consistent with India's broader integration into the global economy and with the goal of maintaining self-accelerating growth over the medium-term.

III.9 The Statement also noted that money supply remained above indicative projections persistently through 2005-07 on the back of sizeable accretions to the Reserve Bank's foreign exchange assets and a cyclical acceleration in credit and deposit growth. In view of the resulting monetary overhang, the Statement mentioned that there was a need to moderate monetary expansion in the range of 16.5-17.0 per cent in 2008-09 in consonance with the outlook on growth and inflation so as to ensure macroeconomic and financial stability. Consistent with the projections of money supply, the growth in aggregate deposits for 2008-09 was placed at around 17.0 per cent or around Rs.5,50,000 crore. Based on the overall assessment of the sources of funding and the overall credit requirements of various productive sectors of the economy, the growth of non-food credit, including investments in bonds/debentures/shares of public sector undertakings and private corporate sector and commercial paper (CP), was placed at around 20.0 per cent for 2008-09 consistent with the monetary projections.

III.10 Given the unprecedented complexities involved and the heightened uncertainties, a number of factors influenced the stance of monetary policy for 2008-09. First, there was the immediate challenge of escalated and volatile food and energy prices, which possibly contained some structural components apart from cyclical components. Second, while demand pressures persisted, there was some improvement in the domestic supply response. Third, previous initiatives in regard to supply-management by the Government of India and monetary measures by the Reserve Bank were in the process of impacting the economy. Fourth, policy responses emphasised managing expectations in an environment of the evolving global and domestic uncertainties. Fifth, monetary policy had demonstrated a resolve to act decisively on a continuing basis to curb any signs of adverse developments with regard to inflation expectations.

III.11 In view of the macroeconomic conditions and then prevailing inflationary condition, the Reserve Bank continued with its pre-emptive and calibrated approach to contain inflation expectations, and raised CRR by 25 basis points to 8.25 per cent with effect from the fortnight beginning May 24, 2008. This followed the hike in the CRR by 25 basis points each effective from the fortnights beginning April 26 and May 10, 2008 respectively. The Reserve Bank announced on June 11, 2008 an increase in the repo rate under the Liquidity Adjustment Facility (LAF) by 25 basis points to 8.00 per cent from 7.75 per cent with immediate effect.

III.12 Inflation, based on variations in the wholesale price index (WPI) on a year-on-year basis, increased to 11.05 per cent as on June 7, 2008 from 7.75 per cent at end-March 2008 and 4.28 per cent a year ago. At that juncture, the overriding priority for monetary policy was to eschew any further intensification of inflationary pressures and to firmly anchor inflation expectations and to urgently address aggregate demand pressures which appeared to be strongly in evidence. Accordingly, the Reserve Bank increased the repo rate under the LAF from 8.00 per cent to 8.50 per cent effective from June 25, 2008. The CRR was also raised by 50 basis points to 8.75 per cent in two stages, 25 basis points each, effective from the fortnights beginning July 5 and July 19, 2008 respectively (Table 3.1).

First Quarter Review 2008-09

III.13 The First Quarter Review of the Annual Statement on Monetary Policy for 2008-09 (July 29, 2008) noted that after the announcement of the Annual Policy Statement in April 2008, global as well as domestic developments on both supply and demand sides pointed to accentuation of inflationary pressures, especially in terms of inflation expectations. In an environment of surging global inflation, and with domestic inflation also rising to a 13-year high, the Reserve Bank noted with concern that inflation had emerged as the biggest risk to the global outlook, having risen to very high levels across the world, not generally seen for a couple of decades.

III.14 The First Quarter Review stated that inflation was expected to moderate from the then high levels in the months to come and a noticeable decline in inflation was expected towards the last quarter of 2008-09. Accordingly, it emphasised that while the policy actions would aim to bring down the prevailing intolerable level of inflation to a tolerable level of below 5.0 per cent as soon as possible and around 3.0 per cent over the medium-term, at that juncture a realistic policy endeavour would be to bring down inflation from the then prevailing level of about 11.0-12.0 per cent to a level close to 7.0 per cent by end-March 2009. It stated that taking into account aggregate demand management and supply prospects, the projection of real GDP growth of the Indian economy in 2008-09, in the range of 8.0 to 8.5 per cent as set out in the Annual Policy Statement of April 2008, might prove to be optimistic and hence, for policy purposes, a projection of around 8.0 per cent appeared to be a more realistic scenario, barring domestic or external shocks.

Table 3.1: Movement in Key Policy Rates and Reserve Requirements

(Per cent)

Effective since	Bank Rate	Reverse Repo Rate	Repo Rate	Cash Reserve Ratio	Statutory Liquidity Ratio
1	2	3	4	5	6
March 31, 2004	6.00	4.50	6.00	4.50	25
September 18, 2004	6.00	4.50	6.00	4.75 (+0.25)	25
October 2, 2004	6.00	4.50	6.00	5.00 (+0.25)	25
October 27, 2004	6.00	4.75 (+0.25)	6.00	5.00	25
April 29, 2005	6.00	5.00 (+0.25)	6.00	5.00	25
October 26, 2005	6.00	5.25 (+0.25)	6.25 (+0.25)	5.00	25
January 24, 2006	6.00	5.50 (+0.25)	6.50 (+0.25)	5.00	25
June 9, 2006	6.00	5.75 (+0.25)	6.75 (+0.25)	5.00	25
July 25, 2006	6.00	6.00 (+0.25)	7.00 (+0.25)	5.00	25
October 31, 2006	6.00	6.00	7.25 (+0.25)	5.00	25
December 23, 2006	6.00	6.00	7.25	5.25 (+0.25)	25
January 6, 2007	6.00	6.00	7.25	5.50 (+0.25)	25
January 31, 2007	6.00	6.00	7.50 (+0.25)	5.50	25
February 17, 2007	6.00	6.00	7.50	5.75 (+0.25)	25
March 3, 2007	6.00	6.00	7.50	6.00 (+0.25)	25
March 30, 2007	6.00	6.00	7.75 (+0.25)	6.00	25
April 14, 2007	6.00	6.00	7.75	6.25 (+0.25)	25
April 28, 2007	6.00	6.00	7.75	6.50 (+0.25)	25
August 4, 2007	6.00	6.00	7.75	7.00 (+0.50)	25
November 10, 2007	6.00	6.00	7.75	7.50 (+0.50)	25
April 26, 2008	6.00	6.00	7.75	7.75 (+0.25)	25
May 10, 2008	6.00	6.00	7.75	8.00 (+0.25)	25
May 24, 2008	6.00	6.00	7.75	8.25 (+0.25)	25
June 11, 2008	6.00	6.00	8.00 (+0.25)	8.25	25
June 25, 2008	6.00	6.00	8.50 (+0.50)	8.25	25
July 5, 2008	6.00	6.00	8.50	8.50 (+0.25)	25
July 19, 2008	6.00	6.00	8.50	8.75 (+0.25)	25
July 30, 2008	6.00	6.00	9.00 (+0.50)	8.75	25
August 30, 2008	6.00	6.00	9.00	9.00 (+0.25)	25
October 11, 2008	6.00	6.00	9.00	6.50 (-2.50)	25
October 20, 2008	6.00	6.00	8.00 (-1.00)	6.50	25
October 25, 2008	6.00	6.00	8.00	6.00 (-0.50)	25
November 03, 2008	6.00	6.00	7.50 (-0.50)	6.00	25
November 08, 2008	6.00	6.00	7.50	5.50 (-0.50)	24 (-1.00)
December 08, 2008	6.00	5.00 (-1.00)	6.50 (-1.00)	5.50	24
January 05,2009	6.00	4.00 (-1.00)	5.50 (-1.00)	5.50	24
January 17,2009	6.00	4.00	5.50	5.00 (-0.50)	24
March 05,2009	6.00	3.50 (-0.50)	5.00 (-0.50)	5.00	24
April 21,2009	6.00	3.25 (-0.25)	4.75 (-0.25)	5.00	24

Note: 1. With effect from October 29, 2004, the nomenclature of repo and reverse repo was changed keeping with international usage. Now, reverse repo indicates absorption of liquidity and repo signifies injection of liquidity. Prior to October 29, 2004, repo indicated absorption of liquidity while reverse repo meant injection of liquidity. The nomenclature in this Report is based on the new usage of terms even for the period prior to October 29, 2004.

2. Figures in parentheses indicate changes in policy rates/ratios.

III.15 The First Quarter Review emphasised the necessity of moderating monetary expansion and revised the projection for indicative money supply growth in the range of around 17.0 per cent in 2008-09 in consonance with the outlook on growth and inflation so as to ensure macroeconomic and financial stability in the period ahead.

III.16 The First Quarter Review noted that in view of the criticality of anchoring inflation expectations, a continuous heightened vigil over ensuing monetary and macroeconomic developments was to be maintained to enable swift responses with appropriate measures as necessary, consistent with the monetary policy stance. Furthermore, in view of the then macroeconomic and overall monetary conditions, the First Quarter Review announced an increase in fixed repo rate under the LAF by 50 basis points from 8.5 per cent to 9.0 per cent with effect from July 30, 2008 and an increase of CRR by 25 basis points to 9.0 per cent with effect from August 30, 2008.

III.17 As the global liquidity crisis deepened in September 2008, capital inflows dried up and the demand for credit from the domestic banking system increased, thereby aggravating the liquidity pressures. In the wake of the emerging stress on India's financial markets as a result of the contagion from the global financial crisis, the immediate challenge for the Reserve Bank was to infuse confidence by augmenting both domestic and foreign exchange liquidity. Accordingly, the Reserve Bank announced the first phase of measures on September 16, 2008, including increase in the interest rate ceilings on FCNR (B) deposits of all maturities and on deposits under the NR(E)RA for one to three years maturity by 50 basis points and other measures to augment liquidity (for details see Chapter II.5, Box II.27).

III.18 Liquidity conditions tightened even further after October 7, 2008 as contagion from the US financial crisis spread to Europe and Asia. Globally, money markets froze and the stock markets turned highly volatile. Even coordinated policy actions by monetary authorities in America, Europe, Asia and Australia failed to inspire the confidence of financial markets. In view of the persisting uncertainty in the global financial situation and its impact on India, and continuing demand for domestic market liquidity, the Reserve Bank took further measures in October 2008 including a cumulative reduction of 250 basis points in the CRR effective from the fortnight beginning October 11, further increase in the interest rate ceilings on FCNR (B) deposits of all maturities and on deposits under the NR(E)RA for one to three years maturity by 50 basis points each and other measures to enhance availability of liquidity in the financial system (for details see Chapter II.5, Box II.27). On October 20, 2008 in order to alleviate the pressures on domestic credit markets brought on by the indirect impact of the global liquidity constraint and, in particular, to maintain financial stability, the Reserve Bank decided to reduce the repo rate under the LAF by 100 basis points to 8.0 per cent with immediate effect.

Mid-Term Review 2008-09

III.19 The Mid-Term Review of the Annual Policy Statement 2008-09 (October 24, 2008) was set in the context of several complex and compelling policy challenges as the global financial crisis witnessed unprecedented dimensions. Governments, central banks and financial regulators around the world responded to the crisis with aggressive, radical and unconventional measures to restore calm and confidence to the markets and bring them back to normalcy and stability.

III.20 The Mid-Term Review highlighted that India's financial sector continued to remain stable and healthy. All indicators of financial strength and soundness such as capital adequacy, ratios of non-performing assets (NPA) and return on assets (RoA) for commercial banks were robust. The Review also noted that the global developments, however, had some indirect, knock-on effects on domestic financial markets.

III.21 The Mid-Term Review noted that the measures taken since mid-September 2008 substantially assuaged liquidity stress in domestic financial markets arising from the contagion of adverse external developments. The total liquidity support through reductions in the CRR, the temporary accommodation under the SLR and the first instalment of the agricultural debt waiver and debt relief scheme was of the order of Rs.1,85,000 crore. The Review further noted that the cut in the repo rate effected on October 20, 2008 was expected to ease the conditions in the money and credit markets, restore their orderly functioning and sustain financial stability.

III.22 The First Quarter Review of July 2008 had placed the projection of real GDP growth in 2008-09 at around 8.0 per cent for policy purposes. The Mid-Term Review noted that since then there had been significant global and domestic developments, which rendered the outlook uncertain, suggesting increased downside risks associated with this projection. Taking these developments and prospects into account, the Mid-Term Review revised the projection of overall real GDP growth for 2008-09 to the range of 7.5-8.0 per cent.

III.23 The Mid-Term Review assessed that inflation would remain a concern and emphasised that the Reserve Bank would keep a strong vigil on inflation. Keeping in view the supply management measures taken by the Central Government and the lagged demand response to the monetary policy measures taken by the Reserve Bank over the last one year, the Review maintained the earlier projection of inflation of 7.0 per cent by end-March 2009 for policy purposes.

III.24 The Mid-Term Review noted that India's balance of payments till then reflected strength and resilience in a highly unsettled international environment. Assessing the various factors affecting balance of payments, the Review expected somewhat higher current account deficit in 2008-09 than in the preceding year, but it also expected enough capital inflows to meet the external financing requirement in 2008-09.

III.25 The Review expressed the Reserve Bank's concerns about the depth of global financial crisis and its endeavour to remain proactive, and take measures to manage the unfolding developments by easing pressures stemming from the global crisis. Against the backdrop of the ensuing global and domestic developments and in the light of measures taken by the Reserve Bank over September-October 2008, the Bank Rate, the repo rate and the reverse repo rate and the cash reserve ratio (CRR) were kept unchanged.

III.26 Early signs of a global recession became evident by late October 2008 as global financial conditions continued to remain uncertain and unsettled. Globally, commodity prices, including crude oil prices, began to abate which reduced domestic inflationary pressures. It was also important to ensure that credit requirements for productive purposes were adequately met so as to support the growth momentum of the economy. Accordingly, the Reserve Bank announced a series of measures on November 1, 2008 including reduction in the repo rate under the LAF by 50 basis points to 7.5 per cent with effect from November 3, 2008, reduction in the CRR by 100 basis points to 5.5 per cent of NDTL and the relaxation of the SLR, on a temporary basis earlier, was made permanent and reduced to 24 per cent of NDTL effective from November 8, 2008. By mid-November 2008, there were indications that the global slowdown was deepening with a larger than expected impact on the domestic economy, particularly for the medium and small industry sector and export-oriented units. In the context of these developments, for augmenting rupee and forex liquidity, and strengthening and improving credit delivery mechanisms, the Reserve Bank announced measures on November 15, 2008 including increase in interest rate ceilings on FCNR(B) and NR(E)RA deposits by 75 basis points each to Libor/swap rates plus 100 basis points and Libor/swap rates plus 175 basis points, respectively. On a further review of the then prevailing liquidity conditions, the Reserve Bank again announced measures for liquidity management and improving credit flows on November 28, 2008.

III.27 The global outlook deteriorated further during December 2008 indicating that the recession would be deeper and the recovery longer than anticipated earlier. With indications of slowing down of the domestic economic activity while inflationary pressures abated significantly, the Reserve Bank initiated a series of measures on December 6 and 11, 2008 which included reduction in the repo rate under the LAF by 100 basis points to 6.5 per cent, reduction in the reverse repo rate by 100 basis points from 6.0 per cent to 5.0 per cent, effective from December 8, 2008 and measures relating to refinance facilities (for details see Chapter II.5, Box II.27). These measures were aimed at improving the credit flow to productive sectors to sustain the growth momentum.

III.28 While domestic financial markets continued to function in an orderly manner, India's growth trajectory was impacted by the global recession. The Reserve Bank's monetary policy stance recognised the concerns over rising credit risk together with the slowing of economic activity which appeared to affect credit growth. Accordingly, in order to stimulate growth, the Reserve Bank took the following measures on January 2, 2009: (i) the repo rate under the LAF was reduced by 100 basis points to 5.5 per cent with effect from January 5, 2009; (ii) the reverse repo rate under the LAF was reduced by 100 basis points to 4.0 per cent with effect from January 5, 2009; and (iii) the CRR was reduced from 5.5 per cent to 5.0 per cent of NDTL effective from the fortnight beginning January 17, 2009.

Third Quarter Review 2008-09

III.29 The Third Quarter Review of Monetary Policy 2008-09 (January 27, 2009) was set in the context of a deepening global crisis with persistent uncertainty in the global financial system. There was a rapid and marked deterioration in the global economic outlook after the release of the Reserve Bank's Mid-term Review in October 2008. The continued bad news from large international financial institutions on a regular basis renewed concerns about the time when the global financial sector would attain a semblance of stability. There was an emerging consensus that there might be no recovery till late 2009; indeed, some outlook suggested that the recovery might be delayed beyond 2009.

III.30 The Third Quarter Review, prepared in the backdrop of rising effects of contagion from the global crisis, observed that the Indian economy experienced a cyclical moderation in growth accompanied by high inflation in the first half of 2008-09 and there was a distinct evidence of further slowdown as a consequence of the global downturn. The knock-on effects of the global crisis, and falling commodity prices affected the Indian economy in several ways. Access to international credit continued to be constrained; capital market valuations remained low; industrial production growth slackened; export growth turned negative, and overall business sentiment deteriorated. On the positive side, the Review noted that the headline inflation decelerated, though consumer price inflation did not show any moderation. Also, the domestic financial markets continued to function in an orderly manner and in sharp contrast to their international counterparts, the financial system in India remained resilient and stable. The Review further observed that although bank credit growth was higher in 2008-09 (up to mid- January 2009) than in the previous year, the flow of overall financial resources to the commercial sector during April 2008-January 2009 declined marginally as compared with the previous year. This was on account of decline in other sources of funding such as resource mobilisation from the capital market and external commercial borrowings (ECBs).

III.31 The Third Quarter Review noted that the downside risks to growth had amplified since Mid-Term Review of October 2008 because of slowdown in industrial activity and weakening of external demand, as reflected in decline in exports. Services sector activities were likely to further decelerate in the second half of 2008-09. Keeping in view the slowdown in industry and services and with the assumption of normal agricultural production, the Third Quarter Review revised the projection of overall real GDP growth for 2008-09 downwards to 7.0 per cent with a downward bias. The Review emphasised that the fundamental strengths continued to be in place and once the global economy started to recover, India's turnaround would be sharper and swifter, backed by India's strong fundamentals and the untapped growth potential.

III.32 Since the time of presentation of the Mid-Term Review in October 2008, pressures on commodity prices had abated markedly around the world, reflecting slump in global demand. In the domestic market, WPI inflation was already below 7.0 per cent, which was projected earlier for end-March 2009. Based on the then available information, the Review assessed the inflation rate to moderate further in the last quarter of 2008-09. The Review recognised that the headline WPI inflation might fall well below 3.0 per cent in the short-run partly because of the statistical reason of high base, and the global trends caused by sharp corrections from exceptionally high oil and commodity prices prevailing in early 2008.

III.33 The Review recognised that with the decline in upside risks to inflation, monetary policy was responding to slackening economic growth in the context of significant global stress. Accordingly, in the Third Quarter Review, for policy purposes, the projection of money supply (M_3) growth for 2008-09 was raised to 19.0 per cent from 16.5-17.0 per cent projected earlier.

III.34 Based on the assessment of the global scenario and the domestic economy, particularly the outlook for growth and inflation, the Reserve Bank in the Third Quarter Review maintained its monetary policy stance of provision of comfortable liquidity to meet the required credit growth consistent with the overall projection of economic growth. Furthermore, the Reserve Bank announced that monetary policy actions would be aimed at ensuring a monetary and interest rate environment consistent with price stability, well-anchored inflation expectations and orderly conditions in financial markets. In light of the measures already taken by the Reserve Bank over November 2008-January 2009, the Review kept the Bank Rate, the repo rate and the reverse repo rate under the LAF and the CRR unchanged. On a review of the then prevailing liquidity conditions, the Reserve Bank announced the extension of the special term repo facility under the LAF and special refinance facility for banks up to September 30, 2009.

III.35 In view of the continuing uncertain credit conditions globally and domestically, the Reserve Bank, on February 5, 2009 extended the forex swap facility and restructuring of advances by banks and raised ceiling rate on export credit in foreign currency.

III.36 Subsequent to the release of the Third Quarter Review in January 2009, there was evidence of further slowing down of economic activity as manifested by the decline in exports and IIP and moderation in GDP growth (across all the sectors). The total flow of resources to the commercial sector from banks and non-banks during April-February 2008-09 was also lower than in the corresponding period of the last year. Against the backdrop of the then prevailing macroeconomic conditions, the Reserve Bank on March 4, 2009 decided to reduce both repo and reverse repo rate under the LAF by 50 basis points to 5.0 per cent and 3.5 per cent, respectively, effective from March 5, 2009.

MONETARY POLICY OPERATIONS: 2009-10

Annual Policy Statement 2009-10

III.37 The Annual Policy Statement (APS) 2009-10 (April 21, 2009) was presented in the midst of exceptionally challenging circumstances in the global economy. It noted that the global economic crisis had called into question several fundamental assumptions and beliefs governing economic resilience and financial stability. What started off as turmoil in the financial sector of the advanced economies had snowballed into the deepest and most widespread financial and economic crisis of the last 60 years. The Statement noted that although the governments and central banks around the world responded to the crisis through both conventional and unconventional fiscal and monetary measures, the global financial situation remained uncertain and the global economy continued to cause anxiety for several reasons. There was no clear estimate of the quantum of tainted assets, and doubts persisted on whether the initiatives underway were sufficient to restore the stability of the financial system. There was a continued debate on the adequacy of the fiscal stimulus packages across countries, and their effectiveness in arresting the downturn, reversing job losses and reviving consumer confidence.

III.38 The Statement mentioned that both the Government and the Reserve Bank responded to the challenge of minimising the impact of the crisis on India in co-ordination and consultation. The policy responses in India beginning September 2008 were designed largely to mitigate the adverse impact of the global financial crisis on the Indian economy. The conduct of monetary policy had to contend with the high speed and magnitude of the external shock and its spill-over effects through the real, financial and confidence channels. The evolving stance of policy had been increasingly conditioned by the need to preserve financial stability while arresting the moderation in the growth momentum. The Policy Statement also mentioned that taking a cue from the Reserve Bank's monetary easing; most banks started to reduce their deposit and lending rates.

III.39 It was viewed that the fiscal and monetary stimulus measures initiated during 2008-09 coupled with lower commodity prices could cushion the downturn in the growth momentum during 2009-10 by stabilising domestic economic activity to some extent. While based on the available information it was found that domestic financing conditions had improved, external financing conditions were expected to remain tight. Private investment demand was, therefore, expected to remain subdued. On balance, with the assumption of normal monsoon, the Statement, for policy purpose, projected real GDP growth for 2009-10 at around 6.0 per cent.

III.40 On account of a slump in global demand, pressures on global commodity prices abated markedly around the world by the end of the fiscal year 2008-09. The sharp decline in prices of crude oil, metals, foodgrains, cotton and cement had influenced inflation expectations in most parts of the world. This was also reflected in the domestic WPI inflation reaching close to zero. Keeping in view the global trend in commodity prices and domestic demand-supply balance, the Statement projected WPI inflation at around 4.0 per cent by end-March 2010. The Statement emphasised that monetary policy in India would continue to condition and contain perceptions of inflation in the range of 4.0-4.5 per cent so that an inflation rate of around 3.0 per cent becomes the medium-term objective.

III.41 Monetary and credit aggregates had exhibited deceleration from their peak levels in October 2008. The liquidity overhang emanating from the earlier surge in capital inflows had substantially moderated in 2008-09. The Reserve Bank was committed to provide ample liquidity for all productive activities on a continuous basis. As the upside risks to inflation declined, monetary policy started responding to slackening economic growth in the context of significant global stress. Accordingly, for policy purposes, the Statement projected money supply (M_3) growth at 17.0 per cent for 2009-10.

III.42 The Annual Policy Statement recognised that while continuing to support adequate liquidity in the economy, the Reserve Bank would have to ensure that as economic growth gathers momentum, the excess liquidity is rolled back in an orderly manner. Based on the overall assessment of the macroeconomic situation, the Policy Statement emphasised the need to ensure a policy regime that would enable credit expansion at viable rates while preserving credit quality so as to support the return of the economy to a high growth path. It indicated that the Reserve Bank would continuously monitor the global and domestic conditions and respond swiftly and effectively through policy adjustments as warranted so as to minimise the impact of adverse developments and reinforce the impact of positive developments. The stance further emphasised to maintain a monetary and interest rate regime supportive of price stability and financial stability taking into account the emerging lessons of the global financial crisis. Against the backdrop of global and domestic developments, the Reserve Bank reduced the repo rate under the LAF by 25 basis points from 5.0 per cent to 4.75 per cent with effect from April 21, 2009. The reverse repo rate under the LAF was also reduced by 25 basis points from 3.5 per cent to 3.25 per cent with effect from April 21, 2009.

First Quarter Review 2009-10

III.43 The First Quarter Review of Monetary Policy 2009-10 (July 28, 2009) noted that the global economy was showing incipient signs of stabilisation, *albeit* not recovery. The pace of decline in economic activity in several major advanced economies had slowed, frozen credit markets had thawed and equity markets had begun to recover. Recent months also witnessed industrial activity reviving in a number of emerging market economies. Notwithstanding some positive signs, the path and the time horizon for global recovery remained uncertain in the light of subdued consumption demand, increased unemployment levels and in anticipation of further contraction in global trade and private capital flows. While business and consumer confidence were yet to show definitive signs of revival and the financial sector appeared to be stabilising in response to concerted actions taken by governments and central banks across the world, economic recession in the real sector persisted.

III.44 The Indian economy experienced a significant slowdown in 2008-09 in comparison with the robust growth performance in the preceding five years, largely due to the knock-on effect of the global financial crisis. India's exports contracted for eight straight months which, in turn, impacted the industrial sector and the services sector. The financial sector, however, remained relatively unaffected despite the severe stress created by the global deleveraging process, which triggered capital outflows in the second half of 2008-09. Quick and aggressive policy responses both by the Government and the Reserve Bank mitigated the impact of the global financial crisis. The large domestic demand bolstered by the government consumption, provision of forex and rupee liquidity coupled with sharp cuts in policy rates, a sound banking sector and well-functioning financial markets helped to cushion the economy from the worst impact of the crisis.

III.45 The First Quarter Review noted the progressive signs of recovery in India: (i) increase in food stocks; (ii) positive industrial production growth; (iii) improved corporate performance; (iv) optimism in business confidence surveys; (v) upturn in leading indicators; (vi) easing of lending rates; (vii) pick-up in credit off-take after May 2009; (viii) rebound in stock prices; (ix) activity in the primary capital market; and (x) improved external financing conditions. On the other hand, the negative signs included: (i) delayed and deficient monsoon; (ii) food price inflation; (iii) rebound in global commodity prices; (iv) continuing weak external demand; and (v) high fiscal deficit.

III.46 It was noted that due to various policy initiatives by the Reserve Bank, the liquidity situation remained comfortable since mid-November 2008 as evidenced by the LAF window where the Reserve Bank was absorbing more than Rs.1,20,000 crore on a daily average basis. The liquidity expansion was consistent with the Reserve Bank's stance of ensuring a policy regime that would enable credit expansion at viable rates while preserving credit quality. With ample liquidity, the competitive pressure on banks to reduce lending rates increased and the transmission of policy rate changes to bank lending rates improved since the last Annual Policy Statement in April 2009. It further noted that as the short-term deposits contracted earlier at high rates mature and get repriced, it opens up room for banks to further reduce their lending rates.

III.47 The First Quarter Review revised the indicative policy projection for GDP growth in 2009-10 to 6.0 per cent with an upward bias which marked a slight improvement over the growth expectation of around 6.0 per cent indicated in the Annual Policy Statement. It was recognised that an uptrend in the growth momentum was unlikely before the middle of 2009-10. On inflation prospects, WPI inflation for end-March 2010 was projected higher at around 5.0 per cent from 4.0 per cent given in the Annual Policy Statement of April 2009. It was noted that the WPI inflation turned negative in June 2009 due to the statistical base effect as anticipated, and not because of any contraction in demand. However, the sharp decline in WPI inflation had not been commensurately matched by a similar decline in inflation expectations. Also, inflation of WPI primary articles, particularly food articles, remained significantly positive and consumer price indices (CPIs) also were elevated, indeed also hardened in recent months. The Review further noted that global commodity prices had rebounded ahead of global recovery and the uncertain monsoon outlook could further accentuate food price inflation. On balance, the risks to the revised projections of real GDP growth and inflation for 2009-10 were on the upside. The comfortable levels of food grains stocks should help mitigate the risks in the event of price pressures from the supply side. It was emphasised that the Reserve Bank will also closely monitor the level of liquidity so as to contain inflationary expectations if supply side price pressures were to rise. Further, in order to ensure that the increased Government market borrowing programme does not crowd out credit flow to the private sector, the projection of money supply (M_3) growth for 2009-10 was raised to 18.0 per cent from 17.0 per cent indicated in the Annual Policy Statement. Consistent with this, aggregate deposits and adjusted non-food credit of commercial banks were projected to grow by 19.0 per cent and 20.0 per cent, respectively.

III.48 On the basis of the overall assessment, the stance of monetary policy for the remaining period of 2009-10 was stated to be as: (i) managing liquidity actively so that the credit demand of the Government is met while ensuring the flow of credit to the private sector at viable rates (ii) keeping a vigil on the trends and signals of inflation, and be prepared to respond quickly and effectively through policy adjustments; (iii) maintaining a monetary and interest rate regime consistent with price stability and financial stability supportive of returning the economy to the high growth path.

III.49 Consistent with the assessment of macroeconomic and monetary conditions, the repo rate, the reverse repo rate and the CRR were kept unchanged. The Reserve Bank reiterated that it would maintain an accommodative monetary stance until there are definite and robust signs of recovery. This accommodative monetary stance is, however, not the steady state. On the way forward, the Reserve Bank would have to reverse the expansionary measures to anchor inflation expectations and subdue inflationary pressures while preserving the growth momentum. The exit strategy will be modulated in accordance with the evolving macroeconomic developments.

III.50 The stance of monetary policy changed swiftly during 2008-09 in response to the changing domestic and international environment. In the first half of 2008-09, the Reserve Bank continued with the tight monetary stance to contain inflationary expectations in view of the elevated inflationary pressures emanating from the substantial increase in commodity prices. All the policy rates and the CRR were accordingly increased on a continuous basis up to August 2008. However, the Reserve Bank reversed the stance of monetary policy swiftly after mid-September 2008 and moved towards monetary easing anticipating the impact of the international financial turmoil on the Indian economy, in the backdrop of declining inflation. Accordingly, the Reserve Bank reduced the CRR, cut policy rates and injected liquidity in the system to support the growth momentum of the economy and make credit available for productive purposes. During the course of last one year, thus, the stance of monetary policy had to change significantly to meet the various challenges in relation to the objectives of the monetary policy (Box III.1).

Cash Reserve Ratio

III.51 Between April-August 2008, the CRR for scheduled banks was raised by 150 basis points in six stages of 25 basis points each to 9.0 per cent of the banks' net demand and time liabilities (NDTL) (Chart III.1). Subsequently, the CRR was reduced

Box III.1
Changing Stance of Monetary Policy in India

2008-09

Annual Policy Statement (April 2008)

- To ensure a monetary and interest rate environment that accords high priority to price stability, well-anchored inflation expectations and orderly conditions in financial markets while being conducive to continuation of the growth momentum.
- To respond swiftly on a continuing basis to the evolving constellation of adverse international developments and to the domestic situation impinging on inflation expectations, financial stability and growth momentum, with both conventional and unconventional measures, as appropriate.
- To emphasise credit quality as well as credit delivery, in particular, for employment-intensive sectors, while pursuing financial inclusion.

First Quarter Review (July 2008)

- To ensure a monetary and interest rate environment that accords high priority to price stability, well-anchored inflation expectations and orderly conditions in financial markets while being conducive to continuation of the growth momentum.
- To respond swiftly on a continuing basis to the evolving constellation of adverse international developments and to the domestic situation impinging on inflation expectations, financial stability and growth momentum, with both conventional and unconventional measures, as appropriate.
- To emphasise credit quality as well as credit delivery, in particular, for employment-intensive sectors, while pursuing financial inclusion.

Mid-Term Review (October 2008)

- Ensure a monetary and interest rate environment that optimally balances the objectives of financial stability, price stability and well-anchored inflation expectations, and growth;
- Continue with the policy of active demand management of liquidity through appropriate use of all instruments including the CRR, open market operations (OMO), the MSS and the LAF to maintain orderly conditions in financial markets;
- In the context of the uncertain and unsettled global situation and its indirect impact on the domestic economy in general and the financial markets in particular, closely and continuously monitor the situation and respond swiftly and effectively to developments, employing both conventional and unconventional measures;
- Emphasise credit quality and credit delivery, in particular, for employment-intensive sectors, while pursuing financial inclusion.

Third Quarter Review (January 2009)

- Provision of comfortable liquidity to meet the required credit growth consistent with the overall projection of economic growth.
- Respond swiftly and effectively with all possible measures as warranted by the evolving global and domestic situation impinging on growth and financial stability.
- Ensure a monetary and interest rate environment consistent with price stability, well-anchored inflation expectations and orderly conditions in financial markets.

2009-10

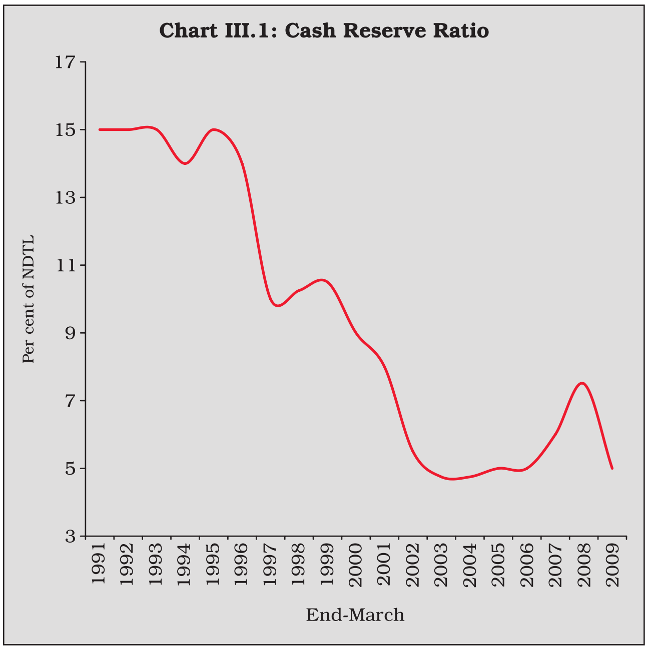
Annual Policy Statement (April 2009)

- Ensure a policy regime that will enable credit expansion at viable rates while preserving credit quality so as to support the return of the economy to a high growth path.
- Continuously monitor the global and domestic conditions and respond swiftly and effectively through policy adjustments as warranted so as to minimise the impact of adverse developments and reinforce the impact of positive developments.
- Maintain a monetary and interest rate regime supportive of price stability and financial stability taking into account the emerging lessons of the global financial crisis.

First Quarter Review (July 2009)

- Manage liquidity actively so that the credit demand of the Government is met while ensuring the flow of credit to the private sector at viable rates.
- Keep a vigil on the trends and signals of inflation, and be prepared to respond quickly and effectively through policy adjustments.
- Maintain a monetary and interest rate regime consistent with price stability and financial stability supportive of returning the economy to the high growth path.

Since September 2008, along with the usual emphasis on containment of inflation and inflation expectations, supporting growth momentum and financial stability, the balance of focus in the policy stance has changed in response to the evolving conditions with greater policy accent on adequate and swift response, using conventional and unconventional measures, to maintain orderly market conditions, and provision of adequate liquidity to support credit growth and aggregate demand without diluting the emphasis on credit quality.



by 400 basis points to 5.0 per cent in four stages between October 11, 2008 and April 21, 2009.

Statutory Liquidity Ratio

III.52 The statutory liquidity ratio (SLR) was reduced by 100 basis points to 24.0 per cent of banks' NDTL effective from November 8, 2008. Commercial banks' actual holdings of SLR securities as at end-March 2009 stood at 28.1 per cent of their NDTL as compared with 27.8 per cent at end-March 2008.

LIQUIDITY MANAGEMENT

III.53 Central banks around the world faced complex challenges in the conduct of their liquidity management operations, as the pressure on funding liquidity became unprecedented in the face of significant erosion in market liquidity. Sharp corrections in asset prices affected market liquidity, which had the potential to create insolvency problem for several leading global financial institutions. Moreover, as the liquidity needs of non-banks, ranging from investment banks, insurance companies, housing finance companies, hedge funds to even money market mutual funds increased exponentially, it came to the notice of the central banks that liquidity injected by the central banks to the commercial banks may not reach the non-banks in the face of heightened risk aversion and uncertainties about the soundness of even the most reputed global financial institutions. The global financial crisis not only tested the limits of conventional liquidity management operations of central banks, but also necessitated extensive resort to a range of unconventional measures as it became increasingly evident that to avoid a systemic financial crisis, not only the liquidity needs of "too big to fail" banks have to be met, but even the liquidity needs of "too interconnected to fail" financial institutions (such as Bear Stearns & AIG) must also be met.

III.54 Despite no direct exposure of the Indian banks and financial institutions to the failing international institutions or troubled assets, liquidity management operations of the Reserve Bank assumed greater urgency in the face of the knock-on effects of the global financial crisis, which manifested not only as reversals in capital inflows but also adverse market expectations causing sharp correction in asset prices, and pressures on the exchange rate. The Reserve Bank had to swiftly respond to the rapidly evolving macroeconomic conditions. In the initial few months of 2008-09, inflation expectations driven by surge in global commodity prices dictated a contractionary stance; during the following few months, the autonomous pressures on liquidity arising from capital outflows, and drying up of sources of overseas funding necessitated discretionary expansion; in the last few months, the surge in Government's market borrowings to deal with the slow-down of the economy elicited further accommodating response from the Reserve Bank (Table 3.2). Thus, by synchronising the liquidity management operations with those of exchange rate management and non-disruptive internal debt management operations, the Reserve Bank ensured that appropriate liquidity was maintained in the system so that all legitimate requirements of credit were met, particularly for

Table 3.2: Reserve Bank's Liquidity Management Operations

(Rupees crore)

Item	2007-08	2008-09	2008-09 Q1	2008-09 Q2	2008-09 Q3	2008-09 Q4
1	2	3	4	5	6	7
A. Drivers of Liquidity (1+2+3+4+5)	**2,03,010**	**-1,67,708**	**6,061**	**-18,851**	**-1,01,278**	**-53,640**
1. RBI's net purchases from Authorised Dealers	3,12,054	-1,78,592	-8,555	-40,249	-1,12,168	-17,620
2. Currency with the Public	-85,587	-97,921	-30,063	12,360	-40,070	-40,147
3. Surplus cash balances of the Centre with the Reserve Bank	-26,594	60,367	40,073	-3,845	36,554	-12,415
4. WMA and OD	0	0	0	0	0	0
5. Others (residual)	3,137	48,438	4,606	12,884	14,406	16,542
B. Management of Liquidity (6+7+8+9)	**-1,17,743**	**2,35,209**	**-37,659**	**7,217**	**1,33,325**	**1,32,326**
6. Liquidity impact of LAF Repos	21,165	-51,835	-18,260	24,390	-71,110	13,145
7. Liquidity impact of OMO (Net) *	13,510	1,04,480	14,642	11,949	10,681	67,208
8. Liquidity impact of MSS	-1,05,418	80,314	-6,041	628	53,754	31,973
9. First round liquidity impact due to CRR change	-47,000	1,02,250	-28,000	-29,750	1,40,000	20,000
C. Bank Reserves (A+B) #	**85,267**	**67,501**	**-31,598**	**-11,634**	**32,047**	**78,686**

(+) : Indicates injection of liquidity into the banking system.
(-) : Indicates absorption of liquidity from the banking system.
: Includes vault cash with banks and adjusted for first round liquidity impact due to CRR change.
* : Includes oil bonds but excludes purchases of government securities on behalf of State Governments.
Note : Data pertain to March 31 and last Friday for all other months.

productive purposes, consistent with the objective of price and financial stability. The management of liquidity was through appropriate use of CRR stipulations and open market operations (OMO), including MSS and LAF and a slew of special facilities (Table 3.3).

Table 3.3: Monthly Primary Liquidity Flows and Open Market Operations

(Rupees crore)

Month	RBI's Net Foreign Currency Assets #			Net Repos under the LAF			Net Open Market Operations			Market Stabilisation Scheme		
	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
1	2	3	4	5	6	7	9	10	11	12	13	14
Apr	11,935	15,059	-1,971	-19,189	-83,115	-1,06,945	-313	-111	18,591	-12,951	-4,052	17,861
May	8,138	9,447	-7,519	-5,306	3,155	-26,410	-680	-54	16,959	-11,395	-2,918	30,326
Jun	27,655	-8,971	3,245	-7,687	34,610	555	-252	8,860	6,451	4,702	929	17,000
Jul	25,219	-33,674	23,592	-3	29,325	-5,405	-664	9,488	5,243	-2,410	2,993	1,827
Aug	38,817	15,580		-13,855	-26,725		-498	1,883		-21,407	-2,218	
Sep	54,039	-13,547		22,925	48,880		-398	-836		-25,039	-146	
Oct	52,372	-42,465		-24,205	-67,285		-531	-1		-42,804	8,617	
Nov	29,994	-47,375		9,425	6,785		-146	-7		-1,103	22,821	
Dec	18,521	-2,262		31,080	-1,670		4,597	7,677		12,716	22,316	
Jan	45,251	10,557		-34,305	-48,915		680	6,621		1,607	11,286	
Feb	38,428	6,022		3,850	-5,215		2,321	5,801		-14,031	6,773	
Mar	20,181	-8,679		58,435	58,335		1,809	55,227		6,697	13,914	
Total	**3,70,550**	**-1,00,308**	**17,347**	**21,165**	**-51,835**	**-1,38,205**	**5,925**	**94,548**	**47,244**	**-1,05,418**	**80,315**	**67,014**

: Adjusted for revaluation.
+ : Indicates injection of liquidity into the banking system.
- : Indicates absorption of liquidity from the banking system.
Note : 1. Data based on March 31 for March and last reporting Friday for all other months.
2. From April 2006 onwards, the Reserve Bank has stopped participating in the primary market for Government securities in line with the stipulations of the Fiscal Responsibility and Budget Management (FRBM) Act. 2003.

First Half of the Fiscal Year 2008-09

III.55 The initial impact of the sub-prime crisis on the Indian economy was rather muted. During most part of the first half of fiscal 2008-09, liquidity management operations were essentially geared towards mopping up of excess domestic liquidity, mainly through CRR hikes (in April, May, July and August cumulatively by 150 basis points to 9.0 per cent) with a view to containing inflationary pressures. Signalling the contractionary stance, the Bank also raised the repo rate cumulatively by 125 basis points (in June and July 2008) to 9.0 per cent effective July 30, 2008. Meanwhile, by end May, 2008, capital flows had been adversely affected as a consequence of the worsening global financial conditions leading to foreign exchange market operations by the Reserve Bank to contain excessive volatility in the exchange rate, which in turn contributed to some absorption of domestic liquidity. Concomitantly, with the reversal in the nature of foreign exchange market operations, auction of dated securities under the MSS was suspended. Reflecting the impact of these developments, the LAF turned from absorption mode to injection mode after the first week of June 2008.

Second Half of the Fiscal Year 2008-09

III.56 Though the direct impact of the sub-prime crisis on Indian banks/financial sector was almost negligible because of limited exposure to the troubled assets, prudential policies put in place by the Reserve Bank and relatively lower presence of foreign banks in the Indian banking sector, there was a sudden change in the external environment following the Lehman Brothers' failure in mid-September, 2008.

III.57 With a view to maintaining orderly conditions in the foreign exchange market which had turned volatile, the Reserve Bank scaled up its intervention operations, particularly in October, 2008. The other important measures taken by the Reserve Bank to contain foreign exchange volatility included a rupee-dollar swap facility for Indian banks to give them comfort in managing their short-term foreign funding requirements. The Reserve Bank also continued with the Special Market Operations (SMO) which were instituted in June 2008 for meeting the foreign exchange requirements of public sector oil marketing companies, taking into account the then prevailing extraordinary situation in the money and foreign exchange markets. Finally, measures to ease foreign exchange liquidity also included those aimed at encouraging capital inflows, such as an upward adjustment of the interest rate ceiling on the foreign currency deposits by non-resident Indians, substantially relaxing the external commercial borrowings (ECB) regime for corporates, and allowing non-banking financial companies and housing finance companies access to foreign borrowing.

III.58 The cumulative effect of Reserve Bank's operations in the foreign exchange market as well as transient local factors such as build up in government balances following quarterly advance tax payments, however, adversely impacted the domestic liquidity conditions. Consequently, with receding inflationary pressures and rising possibility of global crisis affecting India's growth prospects the Reserve Bank switched to an expansionary regime in mid-October, 2008 in contrast to its contractionary regime earlier.

III.59 As a fallout of the global financial crisis, foreign funding dwindled and the domestic capital market slumped, which, in turn, put pressures on some segments of the Indian financial system, such as mutual funds and NBFCs. Facing large redemption pressures, the mutual funds started conserving their liquidity which, in turn, affected other sections of the market, particularly NBFCs, that had been dependent on mutual funds for their funding needs. To address such liquidity shortages, the Reserve Bank introduced a term repo facility for an amount up to Rs.60,000 crore under which banks could avail central bank funds to address the liquidity stress faced by mutual funds, NBFCs and housing finance companies (HFCs) with associated SLR exemption of up to 1.5 per cent of NDTL. This facility has been extended up to March 31, 2010. A SPV was also set up to address the temporary liquidity constraints of systemically important non-deposit taking NBFCs. Thus, the Reserve Bank addressed the financial stress faced by non-banks indirectly through the banking channel and a SPV and without compromising either on the eligible counterparties or on the asset quality of its balance sheet, which was in contrast to the approach adopted by the Central Banks of some of the advanced countries (See Box III.2).

III.60 In addition, a special refinance facility was introduced by the Reserve Bank, under which all scheduled commercial banks (SCBs) (excluding Regional Rural Banks) were provided refinance, against the collateral of promissory notes, equivalent to up to 1.0 per cent of their NDTL as on October 24, 2008 at the LAF repo rate up to a maximum period of 90 days. Banks were also encouraged to use this facility for the purpose of extending finance to micro and small enterprises.

III.61 The other measures that aimed at keeping the domestic money and credit markets functioning normally, since solvency was not an issue in India at all, included (a) reduction in statutory liquidity ratio (SLR) by one percentage point, (b) extension of the period of entitlement of pre-shipment and post-shipment rupee export credit, (c) increase in the eligible limit of the ECR facility and (d) amounts to be allotted from SCBs for contribution to the SIDBI and the NHB.

III.62 Following the reversal in capital flows and significant increase in the liquidity needs of the economy, the Reserve Bank also started unwinding of the outstanding MSS balances. After September, 2008, the issue of Treasury Bills under the MSS was suspended, resulting in a steady release of liquidity. With effect from November 2008, the Reserve Bank also started buy back of dated securities issued earlier under the MSS to augment liquidity. The buyback was conducted through auctions and largely dovetailed with normal market borrowing programme of the Central Government (Chart III.2). Outstanding balances under the MSS had declined by around Rs.50,000 crore (comprising buyback of Rs.37,964 crore and redemptions of Rs.54,737 crore offsetting issuances of Rs 43,500 crore) to Rs.1,21,353 crore at end December 2008 (Table 3.4 and Chart III.3).

Chart III.2: MSS Buyback and Issuance of Central Government Securities

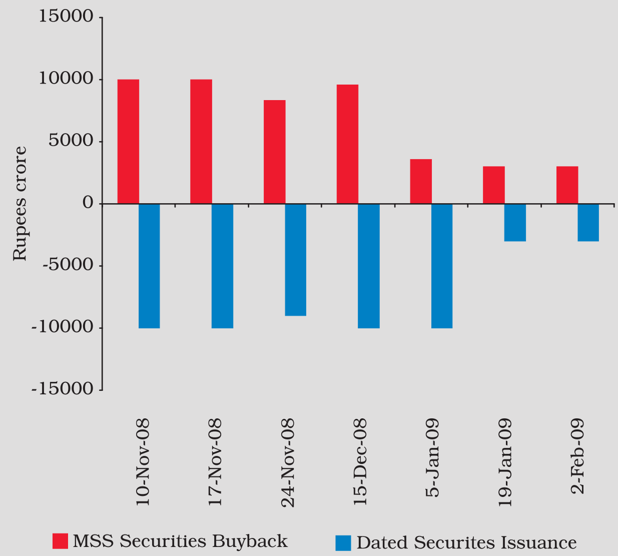


Table 3.4: Indicators of Liquidity

(Rupees crore)

Outstanding as on last Friday	LAF	MSS	Centre's Surplus with the RBI@	Total (2 to 4)
1	2	3	4	5
2008				
January	985	1,66,739	70,657	2,38,381
February	8,085	1,75,089	68,538	2,51,712
March*	-50,350	1,68,392	76,586	1,94,628
April	32,765	1,72,444	36,549	2,41,758
May	-9,600	1,75,362	17,102	1,82,864
June	-32,090	1,74,433	36,513	1,78,856
July	-43,260	1,71,327	15,043	1,43,110
August	-7,600	1,73,658	17,393	1,83,451
September	-56,480	1,73,804	40,358	1,57,682
October	-73,590	1,65,187	14,383	1,05,980
November	-9,880	1,32,531	7,981	1,30,632
December	14,630	1,20,050	3,804	1,38,484
2009				
January	54,605	1,08,764	-9,166	1,54,203
February	59,820	1,01,991	-9,603	1,52,208
March*	1,485	88,077	16,219	1,05,781
April	1,08,430	70,216	-40,412	1,38,234
May	1,10,685	39,890	-6,114	1,44,461
June	1,31,505	22,890	12,837	1,67,232
July	1,39,690	21,063	26,440	1,87,193

@ : Excludes minimum cash balances with the Reserve Bank in case of surplus.
* : Data pertain to March 31.

Note: 1. Negative sign in column 2 indicates injection of liquidity through LAF.
2. Negative sign in column 4 indicates injection of liquidity through WMA/overdraft.

Box III.2
Central Banks' Unconventional Policy Measures - International Experience on Liquidity Support to Non-banking Financial Entities

Some Central Banks provided liquidity support to non-bank financial institutions (NBFIs) as part of their 'unconventional' policy response to deal with the intense liquidity scare that was experienced during the global financial crisis. Despite adequate access to central bank liquidity at falling costs for the banking system, the non-banking financial entities had to contend with a severe liquidity crisis, as the monetary policy transmission turned increasingly ineffective in allocating the liquidity injected into the banking system among non-banks. Moreover, the uncertain environment and the associated concerns about counterparties, falling asset (collateral) values, and rising risk premium also contributed to the liquidity problems for the non-banks. The central banks, in response, had to introduce a range of non-conventional policy measures to provide the non-banks direct access to liquidity.

There are important strategic issues relating to use of unconventional monetary policy measures, as highlighted by Smaghi (2009), which include: (a) why and when should central banks resort to unconventional measures?, (b) what are the main characteristics of unconventional measures?, (c) how are unconventional measures implemented, if and when they are needed, and (d) how and when do central banks need to unwind the extra monetary stimulus? On the first issue, central banks use unconventional measures because either they exhaust the conventional option when the policy rates drop to zero, or, even when the policy rates are above zero, the monetary policy transmission may get significantly impaired during an intense financial crisis. As regards the second issue, while the conventional measures may primarily target to anchor the market rates around the policy rates, the unconventional measures could focus on "directly targeting liquidity shortages and credit spreads in certain market segments". One possible implication of unconventional measures, though, is the impact on the soundness of the balance sheets of central banks. On the third question of implementation of unconventional measures, there could be "direct quantitative easing", or "direct credit easing" or "indirect/endogenous easing".

In the case of direct quantitative easing, the central bank could expand the balance sheet by buying all sorts of assets from the commercial banks (as opposed to only gilts and highly rated papers). Banks then get enough liquidity to expand new loans. If the banks, however, decide to hoard liquidity rather than lend, then this option may not work. The next option then could be "direct credit easing", under which, instead of providing liquidity through banks, the central bank could extend liquidity support to all non-banks directly, particularly to certain wholesale markets "through the purchase of commercial papers, corporate bonds and asset-backed securities". When banks face crisis and tighten credit norms contrary to the expectations of the monetary policy stance, direct easing could become more effective, and a better policy alternative for the central banks.

Central Banks such as the Federal Reserve, the Bank of England and the Bank of Japan adopted a range of direct credit easing measures to address liquidity shortages and spreads in certain wholesale market segments *via* the purchase of commercial paper, corporate bonds and asset-backed securities. Notable examples of direct credit easing include: (i) the outright purchases of Commercial Paper and Asset-backed Commercial Paper as well as corporate bonds by the Bank of Japan to facilitate corporate financing; (ii) the Bank of England's Asset Purchase Facility; and (iii) the Fed's Commercial Paper Funding Facility (CPFF); Term Asset-Backed Securities Loan Facility (TALF); and purchases by the Fed, in cooperation with the US Treasury Department, of mortgage securities backed by government-sponsored enterprises (GSEs). Even though it is difficult to distill the impact of all these measures, it has been observed that the spreads of eligible commercial paper in the US have declined after the introduction of the CPFF; the spread between mortgage rates and Treasuries have also declined.

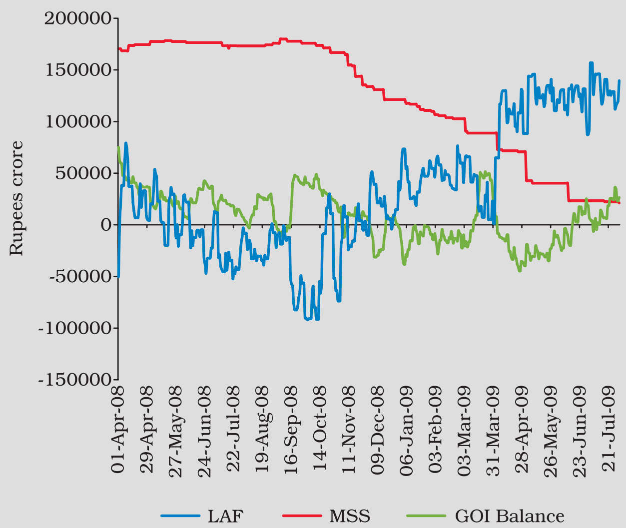
Unlike direct easing, indirect (endogenous) easing options have been resorted to by the ECB. In the case of direct easing, the central bank acquires assets, in exchange for central bank money, which leads to the central bank holding the assets until maturity or resale, and taking thereby the associated risks on its balance sheet. In the indirect (endogenous) approach, however, "the size of the balance sheet expands by lending to banks at longer maturities, against collateral which includes assets whose markets are temporarily impaired. The increase in the monetary base is determined endogenously by the banking system, based on banks' preference for liquidity and thus on the state of stress of the banking system" Smaghi (2009). This option could widen the pool of collaterals that may be accepted by the central bank for the refinancing operations. The primary reason as to why the ECB's approach was different from that of the Fed is the importance of the banking channel in providing credit in the euro-area as against a more market-based financial system in other advanced countries.

In India, on the conventional side, the Reserve Bank reduced the policy interest rates aggressively and rapidly, lowered the quantum of bank reserves impounded by the central bank and expanded/ liberalised the refinance facilities for export credit. The important among the many unconventional measures taken by the Reserve Bank of India were introduction of a rupee-dollar swap facility for Indian banks to give them comfort in managing their short-term foreign funding requirements, an exclusive refinance window as also a special purpose vehicle for supporting non-banking financial companies, and expanding the lendable resources available to apex finance institutions for refinancing credit extended to small industries, housing and exports. Unlike other central banks, however, the Reserve Bank deliberately avoided exposing its balance sheet to risks arising from counterparties and collaterals in the process of implementing the unconventional measures.

Reference

1. Berananke, B. S. and Reinhart V. R. (2004), "Conducting Monetary Policy at Very Low Short-Term Interest Rates", American Economic Review, 94(2), pp.85-90.
2. Smaghi, Lorenzo Bini (2009), "Conventional and Unconventional Monetary Policy", Keynote lecture at the International Centre for Monetary and Banking Studies, Geneva, April 28, 2009.

Chart III.3: Outstanding LAF, MSS and GOI Balance

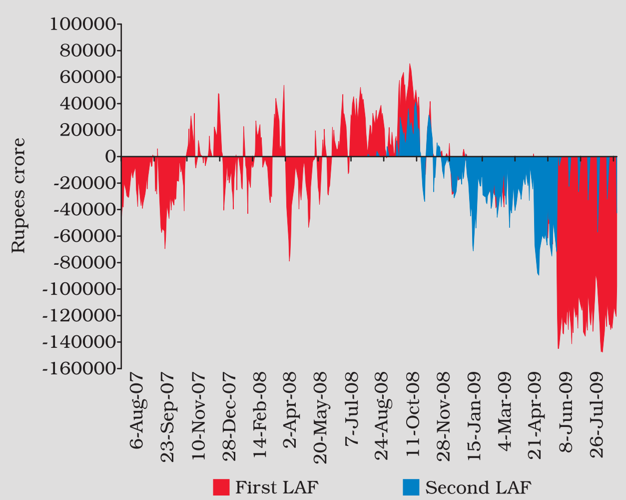


Note: (-)ve LAF indicates injection of liquidity in to the system.

III.63 Reflecting the impact of these measures, the average daily net outstanding liquidity injection under LAF which had increased to around Rs.43,000-46,000 crore during September and October 2008, declined sharply thereafter and has turned into net absorption since early December 2008 (Chart III.4).

III.64 Market borrowings of the Central Government increased sharply during the last

Chart III.4: Repo (+)/Reverse Repo(-) under LAF



Note: The special fixed rate term repo under LAF has been included in the second LAF from October 14, 2008 to May 5, 2009. Thereafter it has been included in the first LAF.

quarter of 2008-09 to finance the additional expenditure approved by the Parliament by way of two supplementary demands for grant to support various stimulus packages. For more effective liquidity management and to ensure that the market borrowing programme of the Central Government was conducted in a non-disruptive manner, the scope of the OMO was widened with effect from February 19, 2009 by including purchases of government securities through an auction-based mechanism in addition to purchases through the Negotiated Dealing System – Order Matching (NDS-OM) segment. The cut-off yields in the OMO purchase auctions were based on the attractiveness of offers for securities relative to their secondary market yields. The total amount of OMO auction-based purchases was Rs.46,640 crore during 2008-09.

III.65 With the change in the flows in the external accounts and the attendant draining of primary liquidity reflecting the impact of the Reserve Bank's operations in the foreign exchange market, the Memorandum of Understanding (MoU) on the MSS was amended on February 26, 2009 to permit the transfer of the sequestered liquidity from the MSS cash account to the normal cash account of the Government. An amount of Rs.12,000 crore was de-sequestered on March 4, 2009.

III.66 The cumulative impact of the various liquidity augmenting measures put in place since mid-September 2008 could be gauged from the fact that notwithstanding quarterly advance tax outflows, net injection of liquidity through LAF did not occur even on a single day of March 2009, including the last day of the month, in sharp contrast to the experience in the previous few years (Table 3.5).

III.67 During 2008-09, under the LAF, the Reserve Bank injected liquidity through repo operations on 158 days (86 days in 2007-08), while it absorbed liquidity through reverse repo operations on 169 days (225 days in 2007-08). On a net basis, there was net injection of liquidity on 106 days and net absorption on 130 days (75

Table 3.5: Reserve Bank's Holdings of Central Government Dated Securities

(Rupees crore)

Year	Devolvement on Reserve Bank	Private Placement taken by Reserve Bank	OMO Purchases by Reserve Bank	Conversion of Special Securities into Dated Securities	Total Addition to Stock of Reserve Bank's Investments (2+3+4+5)	Open Market Sales by Reserve Bank	Net Addition to Stock (6-7)	Outstanding Holding by Reserve Bank (end period)*	Memo: Net Repo (+)/Reverse Repos (-) Out-standing #
1	2	3	4	5	6	7	8	9	10
1996-97	3,698	–	623	–	4,321	11,206	-6,885	6,666	-2,300
1997-98	7,028	6,000	467	20,000	33,495	8,081	25,414	31,977	-4,202
1998-99	8,205	30,000	–	–	38,205	26,348	11,857	42,212	-400
1999-00	–	27,000	1,244	–	28,244	36,614	-8,370	35,190	-
2000-01	13,151	18,000	4,471	–	35,622	23,795	11,827	41,732	-1,355
2001-02	679	28,213	5,084	–	33,976	35,419	-1,443	40,927	-4,355
2002-03	5,175	31,000	–	40,000	76,175	53,780	22,395	55,438	-2,415
2003-04	–	21,500	–	61,818	83,318	41,849	41,469	77,397	-34,645
2004-05	847	350	-	-	1,197	2,899	-1,702	80,770	-19,330
2005-06	-	10,000	740	-	10,740	4,653	6,087	83,205	-7,250
2006-07	-	-	720	-	720	5,845	-5,125	75,537	29,185
2007-08	-	-	13,510	-	13,510	7,587	5,293	68,965	50,350
2008-09	10,773	-	1,04,480	-	1,15,253	9,932	1,05,321	1,65,836	-1,485

*: Inclusive of securities sold under the LAF. # : Data pertain to end-March.

days and 171 days), respectively, during 2008-09 (Table 3.6).

Fiscal Year 2009-10, so far

III.68 Carrying forward its stance of maintaining ample liquidity in the system and ensuring a smooth passage to the Central Government's market borrowings, an indicative OMO programme for the first half of 2009-10 was announced on March 26, 2009, in terms of which, the RBI expressed its intention to purchase Government securities amounting to Rs.80,000 crore, excluding the expected unwinding of MSS securities of Rs.42,000 crore through redemptions. It was also indicated that OMO purchase auctions would normally be conducted every alternate week on Thursdays, with the Reserve Bank reserving the right to alter the amount, frequency and day of the auction, while maintaining ample liquidity in the system.

III.69 Liquidity conditions eased significantly during April 2009, mainly reflecting the steep decline (by around Rs.56,000 crore) in cash balances of the Central Government with the Reserve Bank, notwithstanding relatively higher market borrowings. Auction-based OMO purchases during April 2009 aggregated around Rs.12,000 crore. Consistent with the assessment of macroeconomic and monetary conditions, the Reserve Bank in its Annual Policy Statement 2009-10 (April 2009) reduced the repo and reverse repo rates further by 25 bps each to 4.75 per cent and 3.25 per cent, respectively. On a review of the cash position of the Government of India, it was also decided to de-sequester MSS balances to the extent of Rs.28,000 crore as on May 2, 2009.It was also announced that, except on reporting Fridays, only one LAF would be conducted from May 6, 2009. Liquidity conditions remained easy during June and July 2009. The daily net outstanding liquidity absorption under LAF mostly remained above Rs.1,00,000 crore throughout this period. In fact, the amount accepted under the reverse repo window of LAF peaked at Rs.1,56, 655 crore on July 3, 2009. Outstanding MSS balances were at Rs.21,063 crore on July 31, 2009. The aggregate notified amount of OMO purchases in current fiscal year so far (up to August 14, 2009) was Rs.55,500 crore and the total purchases amounted to Rs.36,397 crore.

Table 3.6 : Reverse Repo/Repo Bids under LAF

Year/Month	Reverse Repo					Repo				
	No. of days bids received	No. of days all bids rejected	No. of days of full acceptance of bids	No. of days with less than full acceptance of bids	No. of days of partial acceptance of bids	No. of days bids received	No. of days all bids rejected	No. of days of full acceptance of bids	No. of days with less than full acceptance of bids	No. of days of partial acceptance of bids
1	2	3	4	5	6	7	8	9	10	11
2005-06	**244**	**0**	**244**	**0**	**0**	**78**	**0**	**76 @**	**2**	**0**
2006-07	**244**	**0**	**234**	**0**	**10**	**64**	**0**	**63 @**	**1**	**0**
2007-08	**225**	**0**	**165**	**0**	**60**	**86**	**0**	**86**	**0**	**0**
2008-09	**169**	**0**	**169**	**0**	**0**	**158**	**0**	**158**	**0**	**0**
April	18	0	18	0	0	1	0	1	0	0
May	19	0	19	0	0	7	0	7	0	0
June	6	0	6	0	0	16	0	16	0	0
July	5	0	5	0	0	21	0	21	0	0
August	4	0	4	0	0	18	0	18	0	0
September	6	0	6	0	0	20	0	20	0	0
October	13	0	13	0	0	18	0	18	0	0
November	19	0	19	0	0	19	0	19	0	0
December	21	0	21	0	0	16	0	16	0	0
January	20	0	20	0	0	8	0	8	0	0
February	19	0	19	0	0	5	0	5	0	0
March	19	0	19	0	0	9	0	9	0	0
2009-10	80	0	76	0	4	5	0	4	0	0
April	16	0	16	0	0	1	0	1	0	0
May	20	0	16	0	4	0	0	0	0	0
June	22	0	22	0	0	2	0	2	0	0
July	22	0	22	0	0	2	0	2	0	0

@ : Number of days of full acceptance of bids was less than the number of days bids were received on account of non-acceptance of one bid each on technical grounds on January 24, 2006, March 23, 2006 and April 4, 2006.

Note: 1. With effect from October 29, 2004, the nomenclature of repo and reverse repo was changed in keeping with international usage. Now, reverse repo indicates absorption of liquidity and repo signifies injection of liquidity. Prior to October 29, 2004, repo indicated absorption of liquidity while reverse repo meant injection.

2. Between March 5 and August 5, 2007, daily reverse repo absorptions were restricted to a maximum of Rs.3000 crore comprising Rs.2000 crore in the First LAF and Rs.1000 crore in the Second LAF.

3. Bids for fixed rate term repo facility have also been included.

III.70 In sum, the monetary and liquidity management operations of the Reserve Bank during 2008-09 had to respond swiftly and judiciously to the fast changing global and domestic developments that necessitated timely rebalancing of the policy emphasis on containment of inflation and inflation expectations, preserving orderly conditions in the financial markets, and supporting the growth momentum. The anti-inflationary focus of the monetary policy stance in the first half of the year 2008-09 was evident in the 125 basis point increase in repo rate and 150 basis points increase in the CRR to 9.0 per cent. In the first phase of the second half, restoring orderly conditions in the markets through adequate injection of both domestic and foreign exchange liquidity assumed prominence. The overall emphasis in the second half, however, was to support aggregate demand to contain growth slowdown, and in the face of almost no risk on the inflation front, the expansionary policy stance of the Reserve Bank was manifested in the form of cumulative reduction in CRR and the repo rate by 400 basis points and 425 basis points, respectively. The intricacies of the actual conduct of policies were particularly reflected in the liquidity management operations and the management of the Reserve Bank's balance sheet. The contraction to the Reserve Bank's balance sheet resulting from the decline in its foreign assets necessitated strategic response aimed at expanding domestic assets on the Reserve Bank's balance sheet, which was ensured through open market operations, unwinding of MSS, introduction of refinance facilities, regular operations under the LAF and purchase of oil bonds under special market operations. These measures, taken together, have released actual/potential liquidity amounting to over Rs.5,61,700 crore since mid-September 2008. The MSS, which had emerged as a key intervention instrument during the period of surges in capital flows, had also ensured hoarding of adequate liquidity by the Government, and when the liquidity conditions changed significantly in the second half of 2008-09, the unwinding of MSS balances clearly became a key channel for expanding liquidity in the system. It needs to be noted that the liquidity injection efforts of the Reserve Bank, despite being large, could be achieved without compromising either on the eligible counterparties or on the asset quality in the Reserve Bank's balance sheet. The liquidity needs of even non-bank financial entities were met indirectly by extending liquidity support to the designated counterparties like scheduled commercial banks and primary dealers. Liquidity expansion achieved through unwinding of MSS and reduction in reserve requirement ensured that the Reserve Bank's balance sheet did not expand, unlike in several other central banks. The movement in the BPLRs does not fully and accurately reflect the changes in effective lending rates as nearly two-thirds of banks' lending takes place at sub-BPLR rates. The ample liquidity in the system and the subdued demand for bank credit have increased competitive pressure on banks to lend at Sub-BPLR rates. The effective average lending rate of SCBs declined during 2008-09 and the effective lending rate was expected to have declined further in Q1 of 2009-10. In effect, the BPLRs of banks have turned out to be the maximum lending rates in most cases, distorting their information content. Currently a Working Group (Chairman: Deepak Mohanty) is examining the BPLR system.

IV CREDIT DELIVERY

Ensuring adequate flow of credit to all productive sectors of the economy without diluting the emphasis on asset quality is one of the objectives of the Reserve Bank. This became all the more important in the wake of the dampening effects of the synchronised global recession on the domestic growth momentum in the second half of 2008-09 and the associated deceleration in credit demand. While announcing a number of measures for sectors which were affected by the global crisis, the Reserve Bank continued with its focus on financial inclusion and financial literacy/credit counselling. Strengthening credit delivery mechanisms to the targetted sections of the population under different schemes has been an important aspect of the Reserve Bank's policy focus in recent years.

IV.1 In the face of a severe global credit squeeze, credit markets in India continued to function normally. While in the global credit markets, it was a problem on the supply side because of the pressure of forced deleveraging by banks and financial institutions, it is the economic slowdown and the associated contraction in aggregate demand, which largely affected the credit markets in India in the second half of 2008-09. Thus, while in the advanced countries, significant unconventional measures were introduced to unfreeze the credit markets, in the case of India, reviving aggregate demand through policy stimulus assumed greater significance. Expansion in credit at reasonable cost without diluting the credit standards was seen by the Reserve Bank as essential to promote consumption and investment demand in a slowing economy.

IV.2 The Indian financial markets came under pressure for a short time following the adverse international developments in September 2008, which affected the credit markets to some extent. In view of the changed environment characterised by capital outflows and increase in risk aversion, there was a substantial shrinkage of non-bank sources of funding in India, such as from domestic capital markets, funding from NBFCs and mutual funds and external funding in the form of commercial borrowings and ADRs/GDRs. Accordingly, there was a sudden rush for bank credit from various sectors of the economy which created the perception of an emerging credit crunch in India as well. This was compounded by the large demand for credit from petroleum and fertiliser companies, as there had been an incomplete pass-through of the high international crude prices in the first half of 2008-09 to domestic petroleum prices. Reflecting these developments, non-food bank credit (y-o-y) accelerated to around 30.0 per cent by October 2008. In response, a number of steps were taken by the Reserve Bank to make available adequate rupee and foreign exchange liquidity while emphasising the need to ensure adequate flow of credit to the productive sectors of the economy. The subsequent period also exhibited a turn in the credit cycle, reflecting rising risk aversion in the Indian financial system, besides moderation in demand for credit on account of the economic downturn.

IV.3 Even though bank credit had registered an annual average growth of around 29.6 per cent per annum during 2004-08, there was no dilution in lending standards to sustain the high credit growth. Bank's loans to individuals for housing were backed by prudent loan-to-value ratios. In view of the rapid credit growth to certain sectors, however, the Reserve Bank had pre-emptively tightened prudential norms (in the form of provisioning requirements and risk weights) for those sectors in order to safeguard financial stability. Even for standard assets, provisioning norms were raised across the board, except for the agriculture and the SME sectors. These tightened provisioning norms and risk weights have now been rolled back in the wake of the slowdown in order to ensure easier flow of credit to the productive sectors of the economy. This approach of the Reserve Bank facilitated creation of adequate buffers within the banking system to deal with asset quality concerns associated with credit cycles and the same approach is now being seen internationally as a relevant practice in the context of the global financial crisis.

IV.4 The growth in overall credit in 2008-09, thus, was lower than that of the previous year, mainly on account of the slowdown in the growth momentum of the economy during the second half of the year. The Reserve Bank has maintained a policy framework that aims at keeping credit delivery on track so as to arrest the moderation in the growth of the economy. Taking the signals from the Reserve Bank's significant policy rate cuts, most big banks have reduced their benchmark prime lending rates, though with a lag, both in terms of timing and magnitude. The gradual softening of lending rates of banks has affected the pace and effectiveness of monetary policy transmission. The other policy measures taken during the year relating to the credit markets include expansion and liberalisation of refinance facilities for exports and certain unconventional measures such as an exclusive refinance window and a special purpose vehicle (SPV) for supporting NBFCs. Refinance facilities were announced for apex financial institutions in order to augment their ability to refinance credit to small industries, housing and exports.

IV.5 It has been the endeavour of the Reserve Bank to improve credit delivery mechanisms for the small borrowers, particularly for the agriculture and the small enterprises sectors by creating a conducive environment for banks to provide adequate and timely finance at reasonable rates without procedural hassles. In the wake of the crisis in 2008-09, the Reserve Bank took various measures for enhancing the flow of credit to those sectors of the economy, which were more severely hit due to the world-wide recession, and also to the employment-intensive sectors. The Reserve Bank has also been emphasising the role of the financial system for ensuring greater financial inclusion, supporting employment generation in rural and unorganised sectors, promoting financial literacy and credit counselling. Wide-ranging initiatives have been taken in this regard. These include strengthening of the financial institutions, including rural co-operatives and regional rural banks (RRBs), which cater predominantly to the rural areas and the common persons; liberalisation of branch licensing policies for RRBs for enhancing their banking outreach; encouraging multiple channels of lending such as self-help groups (SHGs), micro finance institutions (MFIs) and adoption of business facilitator (BF)/business correspondent (BC) model; improving credit delivery through simplification of the procedures and processes for lending to agriculture and micro, small and medium enterprises (MSME) sectors, while encouraging adoption of information and communication technology (ICT) solutions for achieving greater banking outreach and reducing transaction costs.

PRIORITY SECTOR LENDING

IV.6 India's mandated priority sector lending has helped in imparting resilience to the agricultural sector. Even in the wake of the global financial crisis, this lending norm has kept the flow of institutional credit to agriculture intact. The farm loan waiver package implemented by the Government also helped the agriculture sector.

IV.7 The domestic SCBs, both in the public and the private sectors, which fail to achieve the priority sector and/or agriculture lending targets, are required to deposit into the Rural Infrastructure Development Fund (RIDF) such amounts as may be assigned by the Reserve Bank. The Fund has so far completed fourteen years of operation. The Union Budget for 2008-09 had announced the setting up of RIDF XIV with NABARD and the creation of certain other funds (Box IV.1).

Box IV.1
Augmentation of the Resource Base of SIDBI, NHB and NABARD

The Union Budget for 2008-09 had indicated that the RIDF XIV would have a corpus of Rs.14,000 crore during 2008-09 and a separate window under the RIDF XIV for rural roads under *Bharat Nirman* with a corpus of Rs.4,000 crore and would be operated by NABARD. In the Budget speech, it was also announced that in order to increase the resource base of NABARD, SIDBI and NHB and to take forward the financial inclusion process, the following funds would be created with contributions from SCBs to the extent that they fell short of their obligations to lend to the priority sector:

(i) A fund of Rs.5,000 crore with NABARD to enhance its refinance operations to short-term cooperative credit institutions.

(ii) Two funds of Rs.2,000 crore each with SIDBI – one for risk capital financing and the other for enhancing refinance capability of the MSME sector.

(iii) A fund of Rs.1,200 crore with NHB to enhance its refinance operations in the rural housing sector.

Each of these funds were to be governed by the general guidelines that are applicable to the RIDF, with some modifications.

Pursuant to the above announcements, RIDF XIV with a corpus of Rs.10,000 crore, a separate window under RIDF XIV for rural roads component of *Bharat Nirman* with a corpus of Rs.4,000 crore and Short-Term Co-operative Rural Credit (STCRC) (Refinance) Fund with a corpus of Rs.5,000 crore were set up with NABARD; Micro Small and Medium Enterprises (Refinance) Fund with a corpus of Rs.1,600 crore and MSME (Risk Capital) Fund with a corpus of Rs.1,000 crore were set up with SIDBI. The Rural Housing Fund with a corpus of Rs.1,000 crore was set up with NHB. The funding for these came from contributions by SCBs which failed to achieve their obligations to lend to the priority sector as on the last reporting Friday of March 2008. The balance portion of Rs.4,000 crore of the corpus of RIDF XIV and Rs.1,000 crore of the corpus of MSME (Risk Capital) Fund would be assigned to SCBs on the basis of the shortfall in achievement of priority sector lending targets/sub-targets as on the last reporting Friday of March 2009.

With a view to dealing with the growing ramifications of the global crisis for the Indian economy, the Reserve Bank took a number of policy measures. One of the primary aims of these measures was to augment domestic and foreign exchange liquidity and to enable banks to continue to lend for productive purpose while maintaining credit quality so as to sustain the growth momentum. As part of the broad objective, one measure taken by the Reserve Bank in November 2008 was assigning amounts, in advance, to SCBs for contribution to SIDBI and NHB to the extent of Rs.2,000 crore and Rs.1,000 crore, respectively, against banks' estimated shortfall in achievement of weaker section lending target of 10.0 per cent as on the last reporting Friday of March 2009.

Accordingly, the corpus of MSME (Refinance) Fund (maintained with SIDBI) and the Rural Housing Fund (maintained with NHB) were enhanced by Rs.2,000 crore and Rs.1,000 crore, respectively. It was also decided that the enhanced portion of the corpus of the above two Funds would be contributed by the domestic SCBs, both in the public and the private sectors, which had a shortfall in achievement of the sub-target of 10 per cent for lending to the weaker sections, on a pro-rata basis. The assignments were made in advance against banks' estimated shortfall in achievement of the sub-target for lending to weaker sections as on the last reporting Friday of March 2009 and would be adjusted against future contributions, if any, which may be needed to be made by banks during 2009-10 on the basis of the actual shortfall in achievement of priority sector lending target/sub-targets as on the last reporting Friday of March 2009. The domestic SCBs were advised on November 20, 2008 their respective shares for depositing in the above Funds.

IV.8 Various banks had represented for either phasing out the contribution to these Funds over a longer period or exempting them from placements of deposits in these Funds. The main contention of banks was that their allotment amount for the year 2008-09 was very high compared to previous years and placing a large amount of deposit in these Funds at a very low rate of interest could affect their profitability. Taking into account the large increase in allocations for some banks and the resultant strain on the banks' resources/profitability, the rate of interest in respect of deposits placed by banks in the above Funds was kept at the Bank Rate (6.0 per cent at present) uniformly for all banks, irrespective of the percentage of shortfall in achievement of priority sector lending targets/ sub-targets.

IV.9 The Union Finance Minister had announced in the Interim Budget for 2009-10 (February 2009) that RIDF XV, with a corpus of Rs.14,000 crore, and a separate window under RIDF XV for rural roads under the *Bharat Nirman* programme, with a corpus of Rs.4,000 crore, would be set up with

NABARD. Further, in the Union Budget for 2009-10 (July 2009) it was announced that a separate fund with corpus of Rs.4,000 crore, out of RIDF would be set up with SIDBI to incentivise banks and State Finance Corporations to lend to micro and small enterprises (MSEs) by refinancing 50 per cent of incremental lending to MSEs during the current financial year. Further, the Union Budget for 2009-10 also announced a contribution of Rs.2,000 crore to the Rural Housing Fund.

IV.10 The total allocation under the RIDF (I to XV), since its inception, including separate windows for rural roads component under the *Bharat Nirman* programme, is Rs.1,16,000 crore. Of this, sanctions aggregating Rs.90,268 crore have been accorded to State Governments/Union Territories and Rs.58,041 crore was disbursed as at end-June 2009. A total amount of Rs.12,385 crore has been disbursed to National Rural Roads Development Agency (NRRDA) against the total sanction of Rs.16,000 crore as on June 30, 2009. During the first quarter of 2009-10, 11 State Governments were sanctioned loans aggregating Rs.2,197 crore (15.7 per cent of the corpus of RIDF XV) and total disbursements amounted to Rs.1,970 crore (an increase of 13.5 per cent over the comparable period of the previous year).

IV.11 Consequent to the announcement of certain measures by the Reserve Bank on December 6, 2008 to revive the growth momentum as also the urgent need for providing support to the housing sector, banks were advised that loans granted to housing finance companies (HFCs) for on-lending to individuals for purchase/construction of a dwelling unit per family, could be classified as housing loans under priority sector, provided the loans granted by the HFCs did not exceed Rs.20 lakh per dwelling unit. The maximum amount of loans granted by banks to HFCs that would be eligible for classification as housing loans under priority sector in the books of banks, however, could not exceed 5.0 per cent of the individual bank's total priority sector lending on an ongoing basis. The above special dispensation is applicable for loans granted by banks to HFCs up to March 31, 2010.

IV.12 The particulars of lending to priority sector by public sector banks, private sector banks and foreign banks are given in Table 4.1. Although as groups, different categories of banks had achieved the overall target for priority sector lending as on the last reporting Friday of March 2009, three out of 27 public sector banks and five out of 22 private sector banks; and four out of 27 foreign banks had not achieved the overall priority sector lending targets of 40.0 per cent and 32.0 per cent, respectively.

Flow of Credit to the Agriculture Sector

IV.13 Agriculture and allied sectors directly condition the output, wages, employment and consumption patterns of a vast section of our population, thereby unleashing growth impulses in the economy, while also promoting economic development. Though there has been a deceleration in the share of agriculture in the GDP

Table 4.1: Priority Sector Advances

(Amount in Rupees crore)

As on the Last Reporting Friday of March	Public Sector Banks	Private Sector Banks	Foreign Banks
1	2	3	4
2004	2,44,456 (43.6)	48,920 (47.3)	17,960 (34.1)
2005	3,07,046 (42.8)	69,886 (43.6)	23,843 (35.3)
2006	4,09,748 (40.3)	1,06,586 (42.8)	30,439 (34.4)
2007	5,21,376 (39.7)	1,44,549 (42.9)	37,831 (33.4)
2008	6,10,450 (44.7)	1,64,068 (47.8)	50,254 (39.5)
2009*	7,20,083 (42.5)	1,90,207 (46.8)	55,483 (34.3)

* : Data are provisional.

Notes : 1. Figures in brackets are percentages to the net bank credit up to 2007, thereafter they are percentages to adjusted net bank credit (ANBC) or credit equivalent of off-balance sheet exposure (OBE), whichever is higher, in the respective groups.

2. The target for aggregate advances to the priority sector was 40.0 per cent of the net bank credit for domestic banks and 32.0 per cent of net bank credit for the foreign banks. The targets have been linked to ANBC or credit equivalent of OBE, whichever is higher, with effect from April 30, 2007.

from 36.4 per cent in the 1980s to around 17.0 per cent now, the number of people dependent on agriculture for their food and livelihood remains largely unchanged. A number of steps have, therefore, been taken by the Reserve Bank and the Government of India for facilitating increased flow of credit to the agriculture sector.

IV.14 The public sector banks have been formulating special agricultural credit plans (SACPs) since 1994-95 with a view to achieving a distinct and marked improvement in the flow of credit to agriculture. Under SACP, the banks are required to fix targets for achievement during the financial year. The targets fixed by the banks for a particular year are generally 20 to 25 per cent higher than the disbursements made in the previous year. The SACP mechanism was made applicable to private sector banks from the year 2005-06. Disbursements under the SACP by banks during the last three years are depicted in Table 4.2.

Table 4.2: Disbursements under Special Agricultural Credit Plans

(Amount in Rupees crore)

Year	Target	Disburse-ments	Achieve-ment of Target (per cent)	Year-on-year Growth in Disburse-ments (per cent)
1	2	3	4	5
Public Sector Banks				
2006-07	1,18,160	1,22,443	103.6	29.9
2007-08	1,52,133	1,33,226	87.6	8.8
2008-09*	1,59,470	1,44,302	90.5	8.3
Private Sector Banks				
2006-07	40,656	44,093	108.5	41.3
2007-08	41,427	47,862	115.5	8.5
2008-09*	57,353	59,805	104.3	25.0

* : Provisional.

IV.15 The target set for flow of credit to the agriculture sector by the Union Budget of the respective years, has been consistently exceeded since 2004-05. As regards the target of Rs.2,80,000 crore set for 2008-09, the disbursement by all banks (including co-operative banks and RRBs) during the year was Rs.2,87,149 crore or 102.6 per cent of the target (Table 4.3).

IV.16 The *Kisan* Credit Cards (KCCs) scheme was introduced in the year 1998-99 to enable the farmers to purchase agricultural inputs and draw cash for their production needs. Since the inception of the scheme, the number of KCCs issued by public sector banks stood at 37.1 million with sanctioned limits aggregating to Rs.1,93,250 crore as on March 31, 2009. During 2008-09, public sector banks issued 5.9 million KCCs with sanctioned limits aggregating to Rs.39,009 crore.

IV.17 Though neither the public sector banks nor the private sector banks, as individual groups, have achieved the agriculture lending target of 18.0 per cent, the outstanding advances to agriculture of both these bank groups have been gradually increasing every year towards the stipulated target (Table 4.4).

Table 4.3: Targets and Actual Disbursement to Agriculture by Banks

(Amount in Rupees crore)

	2004-05		2005-06		2006-07		2007-08		2008-09	
Agency	Target	Disburse-ment	Target	Disburse-ment	Target	Disburse-ment	Target	Disburse-ment	Target	Disburse-ment
1	2	3	4	5	6	7	8	9	10	11
Commercial Banks	57,000	81,481	87,200	1,25,477	1,19,000	1,66,486	1,50,000	1,81,088	1,95,000	2,23,663
Co-operative Banks	39,000	31,231	38,600	39,786	41,000	42,480	52,000	48,258	55,000	36,762
RRBs	8,500	12,404	15,200	15,223	15,000	20,435	23,000	25,312	30,000	26,724
Other Agencies*	-	193	-	-	-	-	-	-	-	-
Total	**1,04,500**	**1,25,309**	**1,41,000**	**1,80,486**	**1,75,000**	**2,29,401**	**2,25,000**	**2,54,658**	**2,80,000**	**2,87,149**

* : Co-operative societies, State Financial Corporations, Agricultural Development Finance Corporation.
Source : NABARD.

Table 4.4: Outstanding Agricultural Advances

(Amount in Rupees crore)

As on the Last Reporting Friday of March	Public Sector Banks		Private Sector Banks	
	Amount Out-standing	Per cent of Net Bank Credit	Amount Out-standing	Per cent of Net Bank Credit
1	2	3	4	5
2003	70,501	14.5	9,924	10.9
2004	84,435	15.1	14,730	12.7
2005	1,09,917	15.3	21,636	12.3
2006	1,55,220	15.3	36,712	13.6
2007	2,02,614	15.4	52,034	12.7
2008	2,49,397	17.5	58,567	15.4
2009*	2,98,211	17.2	76,062	15.9

* : Data are provisional.

Note : The target for advances to agriculture was 18.0 per cent of net bank credit for the domestic banks. The target has been linked to ANBC or credit equivalent of OBE, whichever is higher, with effect from April 30, 2007.

The recovery of direct agricultural advances of public sector banks has shown an undulating trend in recent years (Table 4.5).

IV.18 The SCBs (including RRBs) were advised in August 2008 to accept affidavits submitted by landless labourers, share croppers and oral lessees giving occupational status (*i.e.*, details of land tilled/ crops grown) for loans up to Rs.50,000, where there were difficulties in getting certification from local administration/*panchayati raj* institutions regarding the cultivation of crops, *etc*. They were also advised to encourage the Joint Liability Group (JLG)/SHG mode of lending for such persons. Banks, however, should go through their procedures of identification as per Know Your Customer (KYC) norms, appraisal and usual pre-sanction checks before extending finance.

Table 4.5: Public Sector Banks – Recovery of Direct Agricultural Advances

(Amount in Rupees crore)

End-June	Demand	Recovery	Overdues	Percentage of Recovery to Demand
1	2	3	4	5
2004	33,544	25,002	8,542	74.5
2005	45,454	35,733	9,721	78.6
2006	46,567	37,298	9,269	80.1
2007	73,802	58,840	14,958	79.7
2008	95,100	71,739	23,361	75.4

IV.19 Following the announcement in the Annual Policy Statement for 2008-09, the domestic SCBs, including RRBs, were advised to select, on a pilot basis, one rain-fed district for introduction of a new product for financing crop production whereby: (i) 80.0 per cent of the crop loan requirement of individual borrowers could be met through a short-term production loan in conformity with the present norms/practices; and (ii) the remaining 20.0 per cent representing the 'core component' (expenses for land preparation, pre-sowing operations, *etc*., besides self-labour/consumption) could be sanctioned as a 'clean credit limit' to ensure round the year liquidity. The banks were also advised to allow drawings from this 'clean credit limit' on the pattern of operations in cash credit/overdraft accounts as long as the farmers continued to service the interest. Asset classification norms, as applicable to non-agricultural cash credit/overdraft accounts, would apply to this clean credit limit. Further, any reschedulement of the loans in terms of extant guidelines on relief measures to be provided in the event of natural calamities would warrant clubbing of balances outstanding in the clean credit account with the outstanding in the loan account for reschedulement and a fresh 'clean credit limit' would be made available to the farmer. Under normal circumstances, the extant guidelines of borrower-wise asset classification would prevail in the case of this new product also, unless specifically dispensed with, as in the case of natural calamities. Rate of interest and periodicity of interest application in respect of the 'clean credit limit' would be applicable as to other agricultural advances. Banks were asked to try the new system in select branches.

Guidelines for Interest Subvention Relief to Farmers

IV.20 With effect from *kharif* 2006-07, the Government has been providing an interest rate subvention of 2.0 per cent in respect of short-term production credit up to Rs.3 lakh provided to farmers by the public sector banks and RRBs. The Government increased the subvention for the financial year 2008-09 to 3.0 per cent in December 2008.

The Government has so far provided Rs.1,742 crore for reimbursing claims of public sector banks, co-operative banks and RRBs. It was announced in the Union Budget for 2009-10 that the interest subvention scheme for short-term crop loans to farmers for loans up to Rs.3 lakh would be continued. It was also announced that for the year 2009-10, the Government would pay an additional subvention of 1.0 per cent as an incentive to those farmers who repaid their short-term crop loans on schedule. Thus, the interest rate for these farmers would be 6.0 per cent per annum.

Agricultural Debt Waiver and Debt Relief Scheme, 2008

IV.21 A scheme of agricultural debt waiver and debt relief for farmers with the total estimated value of overdue loans being waived at Rs.50,000 crore and a one-time settlement (OTS) relief on the overdue loans at Rs.10,000 crore was announced in the Union Budget for 2008-09, for implementation by all SCBs, local area banks, RRBs and co-operative credit institutions. The Government of India had advised the schedule of reimbursement under the Agricultural Debt Waiver and Debt Relief Scheme, 2008 for compensation to the lending institutions in a phased manner (Table 4.6).

IV.22 Pending release of the first reimbursement installment of Rs.25,000 crore by the Government of India, the Reserve Bank provided temporary liquidity support (at the prevailing fixed repo rate under LAF and valid till December 16, 2008) aggregating Rs.17,500 crore to RRBs and co-operatives through NABARD and Rs.7,500 crore to commercial banks with a view to ensuring adequate financing of agricultural operations. The limits in this regard were related to the quantum of debt waived by banks under the Scheme and the liquidity support was provided by the Reserve Bank under Sections 17(3-B) and 17(4E) of the RBI Act, 1934 to scheduled banks and NABARD, respectively.

Table 4.6: Proposed Reimbursement

(Amount in Rupees crore)

Lending Institutions	First Installment September 2008	Second Installment July 2009	Third Installment July 2010	Fourth Installment July 2011
RRBs and Co-operatives	17,500	10,500	2,800	Balance amount, if any.
SCBs, UCBs and Local Area Banks	7,500	4,500	9,200	Balance amount, if any.
Total	**25,000**	**15,000**	**12,000**	**Balance amount, if any.**

IV.23 Subsequently, the Government released Rs.25,000 crore in December 2008 as the first installment under the scheme for reimbursing the claims of lending institutions. Out of this fund, Rs.17,500 crore was passed on to NABARD for reimbursing RRBs and co-operatives, and Rs.7,500 crore was kept with the Reserve Bank for reimbursing fully the claims of local area banks and proportionately of domestic SCBs and urban co-operative banks (UCBs). Out of the Rs.7,500 crore, the claims of domestic SCBs and UCBs were reimbursed to the extent of Rs.7,494 crore. The Government subsequently released Rs.5,000 crore as the first tranche of the second installment, of which, Rs.3,500 crore was passed on to NABARD for reimbursing the RRBs and co-operatives. An amount of about Rs.101 crore was also paid proportionately to those UCBs which were awaiting their first installment for want of funds earlier. Thereafter, an amount of Rs.1,389 crore was disbursed to SCBs and UCBs in a proportionate manner (7.5 per cent) as the first tranche of the second installment.

Guidelines for Relief Measures by Banks to Poultry Industry

IV.24 In addition to the relief measures for the poultry industry announced by the Reserve Bank in February 2008, the Government of India decided to grant interest subvention of 4.0 per cent per annum on the outstanding non-overdue loan amount as on January 1, 2008 to the poultry units of West Bengal for the period from January 1, 2008 to March 31, 2009. Accordingly, the following guidelines on the scope of the subvention and its calculation as well as disbursement to the banks were issued in February 2009: (i) The interest subvention would be calculated at four percentage points on the term loans and working capital loans outstanding as on January 1, 2008. This would not include any part of the principal amount that had become overdue before the notification of the first occurrence of bird flu in the State; (ii) All categories of borrowers such as individuals, partnerships, private limited companies, public limited companies, SHGs and co-operatives would be eligible for relief by way of interest subvention; and (iii) The interest subvention would cover term loans and working capital loans sanctioned for all activities relating to chicken, turkey, Japanese quail, guinea fowls, ducks, ostrich and emu.

Flow of Credit to the Micro and Small Enterprises Sector

IV.25 Promotion and growth of the small enterprises sector has been an integral feature of the industrial policy in India. Small enterprises constitute a crucial section of the industrial sector as they play a vital role in value addition, employment generation, equitable distribution of national income, regional dispersal of industries, mobilisation of capital and entrepreneurial skills and contribution to export earnings. Bank credit to small scale industrial (now micro and small enterprises) sector constitutes a major segment of total credit to the non-farm sector. Data relating to advances of scheduled commercial banks to the small enterprises during the recent years are presented in Table 4.7.

Table 4.7: Outstanding Credit to Micro and Small Enterprises

(Amount in Rupees crore)

As on the Last Reporting Friday of March	Public Sector Banks	Private Sector Banks	Foreign Banks	All SCBs	Percentage of MSE Credit to Net Bank Credit for SCBs*
1	2	3	4	5	6
2007	1,02,550	13,136	11,637	1,27,323	7.2
2008	1,51,137	46,912	15,489	2,13,538	11.6
2009(P)	1,90,968	47,916	18,188	2,57,072	11.4

* : As percentage of ANBC or credit equivalent of OBE, whichever is higher, from 2008 onwards.

P : Provisional

Note: With effect from April 30, 2007, small scale industries have been redefined as MSEs.

IV.26 The total credit provided by public sector banks to small enterprises sector as on the last reporting Friday of March 2009 amounted to 26.5 per cent of the total priority sector advances of these banks. The total credit provided by private sector banks to small enterprises sector as on the last reporting Friday of March 2009 formed about 11.8 per cent of ANBC and 25.2 per cent of the total priority sector advances of these banks.

IV.27 Public sector banks have been advised to operationalise at least one specialised SME branch in every district and centre having a cluster of SME units. At end-March 2009, 869 specialised SME bank branches were operationalised by banks. The data on sick SME units and the amount outstanding against them in the books of SCBs for three years up to end-March 2008 is given in Table 4.8.

Table 4.8: Credit to Sick Micro and Small Enterprises

(Amount in Rupees crore)

End-March	Total Sick Units		Potentially Viable		Non-viable		Viability yet to be Decided		Units put under Nursing	
	No. of Units	Amount Out-standing	No. of Units	Amount Out-standing	No. of Units	Amount Out-standing	No. of Units	Amount Out-standing	No. of Units	Amount Out-standing
1	2	3	4	5	6	7	8	9	10	11
2006	1,26,824	4,981	4,594	498	1,17,148	4,141	5,082	342	915	234
2007	1,14,132	5,267	4,287	428	1,09.011	4,757	834	82	588	269
2008	85,186	13,849	4,210	247	75,829	13,462	5,147	140	1,262	127

IV.28 The Government of India (Ministry of Labour and Employment) has identified four clusters in the minority concentrated districts of the country under the Prime Minister's New 15-Point Programme for the Welfare of Minorities. The Ministry of MSME, Government of India has approved a list of clusters under the "Scheme of Fund for Regeneration of Traditional Industries" (SFURTI) and "Micro and Small Enterprises Cluster Development Programme" (MSE-CDP) located in 121 minority concentrated districts. Public sector banks have been advised to take appropriate measures to improve the flow of credit to the identified clusters benefitting the micro, small and medium entrepreneurs from the minority communities residing in those districts.

IV.29 In the context of the global developments and the knock-on effects in the domestic credit markets, the Reserve Bank took several measures to enhance credit delivery to the employment-intensive MSE sector. SCBs were advised to organise special meetings of State Level Bankers' Committee (SLBC) to address the problems of the MSE sector, and steps were taken for timely restructuring and additional facilities, *etc*. Banks were also advised to extend collateral-free loans up to Rs.5 lakh for all new loans to the MSE sector (both manufacturing and service enterprises).

IV.30 Since the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGFTMSE) was not picking up, it was announced in the Annual Policy Statement for 2009-10 that the Standing Advisory Committee on MSEs would be asked to review the credit guarantee scheme so as to make it more effective. Accordingly, a Working Group (Chairman: Shri V.K. Sharma) was constituted, to review the working of the scheme in order to enhance the usage and facilitate increased flow of collateral-free loans to MSEs. The other terms of reference of the Group include to make suggestions for simplifying the existing procedures and requirements for obtaining cover and invoking claims under the CGFTMSE and to examine the feasibility of a whole turnover guarantee for the MSE portfolio.

Working Group on Rehabilitation/Nursing of Potentially Viable Sick SME Units

IV.31 The rehabilitation/nursing of potentially viable sick units often gets delayed due to the inability of the promoters to bring in additional contribution of capital. A Working Group (Chairman: Dr. K.C. Chakrabarty) was constituted to look into the issue and suggest remedial measures so that potentially viable sick units could be rehabilitated at the earliest. Based on the recommendations made by the Group and public feedback, detailed guidelines were issued to banks in May 2009 and banks were advised to undertake a review and put in place the following policies for the MSE sector, duly approved by the Board of Directors: (i) loan policy governing extension of credit facilities; (ii) restructuring/rehabilitation policy for revival of potentially viable sick units/enterprises; and (iii) non-discretionary one-time settlement scheme for recovery of non-performing loans.

IV.32 The recommendations of the Working Group on setting up of various Funds, *viz.*, Rehabilitation Fund, Fund for Technology Upgradation, Marketing Development Fund, were forwarded to the Government in April 2009 for consideration and necessary action. The regional offices of the Reserve Bank were also advised in April 2009 to monitor the actions initiated by the State Governments/SLBC convenor banks in the SLBC meetings and keep the Reserve Bank apprised.

Lead Bank Scheme

IV.33 Subsequent to the announcement in the Mid-term Review of the Annual Policy Statement for 2007-08, a High Level Committee (Chairperson: Smt. Usha Thorat) with members drawn from various financial institutions, banks, chief secretaries of select States, was constituted to review the Lead Bank Scheme and improve its effectiveness, with a focus on financial inclusion and recent developments in the banking sector. The Committee conducted ten meetings and a questionnaire covering various aspects of the Lead Bank Scheme was forwarded to all State Governments and major banks. The Committee submitted its draft report in May 2009, which was placed on the Reserve Bank's website for comments from stakeholders and public (Box IV.2).

Special Task Force for the North-East Region

IV.34 A Special Task Force (Chairperson: Smt. Usha Thorat) was constituted to give a fresh impetus for creation of banking facilities in North-Eastern India. A scheme of providing financial support to banks by the Reserve Bank for setting-up banking facilities (currency chests, extension of foreign exchange and Government business facilities) at centres in the North-Eastern region, which are not found to be commercially viable by banks, was formulated, requiring the State Governments to make available necessary premises and other infrastructural support. The Reserve Bank as its contribution would bear the

Box IV.2
Draft Report of the High Level Committee to Review the Lead Bank Scheme

The High Level Committee on the Lead Bank Scheme submitted its draft Report in May 2009, which highlights the following:

Financial Inclusion

The Committee recommended that a roadmap be drawn to provide banking services at least once a week at every *Gram Panchayat* through a banking outlet. In the first instance, efforts could be made to cover every village with population exceeding 2,000.

Role of State Government

The Committee suggested that State Governments should ensure road and digital connectivity to all centres where penetration by the formal banking system was required. The State Governments should be able to leverage on the benefits of undertaking Government business by banks to incentivise in Government sponsored schemes. Hence, private sector banks may actively involve themselves with the District Consultative Committees (DCCs) and action plans.

Banks - Strengthening State Level Banker Committee (SLBC) and DCC Machinery

The Committee suggested that a one-time comprehensive State Level/District Level Development Plan should be formulated for all the districts that should indicate the roles and responsibilities of banks, State Governments and other stakeholders to ensure banking development for inclusive growth. The primary objective of these plans, according to the Committee, would be to identify the 'enablers' and 'impeders' for banking development and evolve a strategy for banking development for inclusive growth. Lead banks should organise awareness and feedback public meetings in their districts every quarter. Wide publicity should be given to these meetings so that the people's/media representatives, local leaders as also NGOs working in the districts could attend those meetings.

Financial Literacy and Credit Counseling

The Committee observed that there was a need to create and improve awareness of the common persons about banking facilities and schemes available for their benefit. Each lead bank should open a financial literacy and credit counseling centre in each district by following the recent guidelines issued by the Reserve Bank.

Credit Plus Activities

Credit plus initiatives include capacity/skill building of prospective small entrepreneurs/borrowers to manage businesses, enhancing farmers' capability for absorbing new technology and practices, *etc*. It is proposed to establish rural development and self-employment training institutes in each district by 2012 and the lead banks should take expeditious steps in this regard.

Revised Service Area Monitoring and Information System (SAMIS)

The Committee recommended that the revised SAMIS reporting system, known as priority sector monitoring and information systems, could be implemented on a pilot basis in one/two States and thereafter in other States. The IBA could devise software for consolidation and generation of bank-wise, block-wise, district-wise, sector-wise, activity-wise reports by the SLBC convenor banks on an urgent basis.

Initiatives for Urban Areas

The Committee suggested that in urban areas, KYC norms for opening bank account for small value accounts could be simplified. To start with, banks with the largest presence in cities with more than one million population could take the leadership in convening a meeting of bankers and allocating responsibility for various wards to different banks.

one-time capital cost and recurring expenses for a limited period of five years as per the lowest bid offered by a bank. The Government of Meghalaya agreed to the proposal of providing premises and security. Bids were received from public sector banks for setting-up branches at centres identified by the State Government and the banks, which have submitted the lowest bids, have been awarded centres. Action has been initiated in respect of other States in the region.

Government Sponsored Schemes

IV.35 During the year 2008-09, 4,09,069 self-employed persons received bank credit amounting to Rs.333 crore under the *Swarnajayanti Gram Swarozgar Yojana*, with Government subsidy totalling to Rs.119 crore as at end-September 2008, of which 47.2 per cent of the beneficiaries were women, 22.8 per cent were scheduled castes and scheduled tribes (SC/STs) and 0.7 per cent were physically handicapped.

IV.36 Under the *Swarna Jayanti Shahari Rojgar Yojana*, disbursements amounting to Rs.75 crore were made in 20,002 cases (out of the 46,073 applications received) during 2008-09 as at end-September 2008. Of this amount, Rs.20 crore was disbursed to 6,040 SC/STs, Rs.17 crore was disbursed to 4,863 women and Rs.1 crore was disbursed to 184 disabled persons.

IV.37 The Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS) contains provisions for capital subsidy, concessional loans and capacity building for rehabilitation of manual scavengers in alternative occupations. The scheme provides loans for projects costing up to Rs.5 lakh. The loan amount could be the remaining portion of the project cost, after deducting the admissible capital subsidy. No margin money/promoter's contribution is required to be provided under the scheme. Both, term loan (up to a maximum cost of Rs.5 lakh) and micro finance (up to a maximum of Rs.25,000) could be admissible under the scheme. Micro financing would be done through SHGs and reputed non government organisations (NGOs). The rate of interest chargeable from the beneficiaries is: (i) 5.0 per cent per annum for projects up to Rs.25,000 (4.0 per cent for women beneficiaries); and (ii) 6.0 per cent per annum for projects above Rs.25,000. The period of repayment of loan is three years for projects up to Rs.25,000 and five years for others. The moratorium period for start of repayment of loan is six months. Credit-linked capital subsidy is provided upfront to the beneficiaries in a scaled manner. Under the new SRMS, disbursements aggregating to Rs.4.5 crore were made to 1,409 beneficiaries for the half-year ended September 2008.

IV.38 The outstanding advances of public sector banks under the differential rate of interest (DRI) scheme, as on the last reporting Friday of March 2009, amounted to Rs.753 crore under 3.11 lakh borrowal accounts, forming 0.04 per cent of the outstanding advances of previous year as against the target of 1.0 per cent.

IV.39 Government of India has introduced a new credit-linked subsidy programme called Prime Minister's Employment Generation Programme (PMEGP) by merging the two schemes that were in operation till March 31, 2008, namely the Prime Minister's *Rozgar Yojana* and the Rural Employment Generation Programme for generation of employment opportunities through establishment of micro enterprises in the rural as well as the urban areas. PMEGP is administered by the Ministry of MSMEs. The scheme is to be implemented by the *Khadi* and Village Industries Commission (KVIC), a statutory organisation under the administrative control of the Ministry of MSMEs, as the single nodal agency at the national level. At the State level, the scheme would be implemented through State KVIC Directorates, State *Khadi* and Village Industries Boards (KVIBs) and District Industries Centres (DICs) and banks. The Government subsidy under the scheme would be routed by KVIC through the identified banks for eventual distribution to the beneficiaries/entrepreneurs in their bank accounts. The implementing agencies, namely KVIC, KVIBs and DICs would associate reputed NGOs/autonomous institutions/SHGs/National Small Industries Corporation/*Udyami Mitras* (empanelled under Rajiv Gandhi *Udyami Mitra Yojana*), *panchayati raj* institutions and other relevant bodies in the implementation of the scheme, especially in the area of identification of beneficiaries as well as area-specific viable projects and providing training in entrepreneurship development.

IV.40 The Reserve Bank has advised SCBs to ensure that the benefits flowing from various Government sponsored special programmes are secured by the minority communities in fair and adequate measure. Banks have been asked to create a separate cell to ensure smooth flow of credit to minority communities and also cover the role of the lead bank in the 121 minority concentration districts identified for the purpose of earmarking of targets and location of development projects under the Prime Minister's New 15 Point programme for the welfare of minorities. The data on credit facilities to the minority communities under priority sector advances by all SCBs for the three years up to March 2008 is furnished in Table 4.9.

Table 4.9: Bank Credit to Minority Communities by SCBs under Priority Sector Advances

(Amount in Rupees crore)

End-March	Priority Sector Advances (PS)	Share of Minority Communities in Priority Sector Advances (in all districts)		Amount of Credit to Minority Communities in Identified Districts*
		Amount	Per cent Share to PS	
1	2	3	4	5
2006	5,16,945	45,491	8.80	6,261
2007	6,64,948	53,541	8.05	7,751
2008	7,72,185	72,481	9.39	24,006

* : The number of minority identified districts was enhanced by the Government of India from 44 to 101 with effect from April 27, 2007 and further to 121 with effect from July 16, 2007.

Source : All domestic SCBs (public sector banks and private sector banks).

MICRO FINANCE

IV.41 Recognising the potential of micro finance to positively influence the economic conditions of the poorer sections of the society, the Reserve Bank has been providing a facilitating environment for development of the micro finance sector in the country. The SHG-bank linkage programme, being implemented by commercial banks, RRBs and co-operative banks, is the major channel for providing micro finance in the country, with more than 7.01 crore poor households covered. At end-March 2008, a total of 3.6 million SHGs with a total outstanding bank loan of Rs.17,000 crore were credit linked with the banks (Table 4.10). As on March 31, 2008, a total of 5.0 million SHGs were having savings bank accounts with the banking system of which the commercial banks had the maximum share (56.0 per cent) followed by the RRBs (28.0 per cent) and co-operative banks (16.0 per cent).

IV.42 Recognising the need for boosting the micro finance intervention in the country, the Union Budget for 2000-01 had announced the creation of a Micro Finance Development Fund (MFDF). The fund with a corpus of Rs.100 crore was established with NABARD to which the Reserve Bank and NABARD contributed Rs.40 crore each and the

Table 4.10: Bank Loans Outstanding against SHGs as on March 31, 2008

Agency	No. of SHGs	Share in per cent	Amount (Rs. crore)	Share in per cent	Per SHG Out-standing Loan (Rupees)
1	2	3	4	5	6
Commercial Banks (Public Sector)	22,98,200	63.4	10,930	64.3	47,560
Commercial Banks (Private sector)	80,647	2.2	545	3.2	67,596
Sub Total (Commercial Banks)	**23,78,847**	**65.6**	**11,475**	**67.5**	**48,240**
Regional Rural Banks	8,75,716	24.2	4,421	26.0	50,485
Co-operative Banks	3,71,378	10.2	1,103	6.5	29,711
Total	**36,25,941**	**100.0**	**17,000**	**100.0**	**46,884**

Source : Status of Microfinance in India 2007-08, NABARD.

balance Rs.20 crore was allocated to 11 public sector banks with CRAR of 11.5 per cent and above as on March 31, 2000. Subsequently, in line with the announcement in the Union Budget of 2005-06, the MFDF was redesignated as Micro Finance Development and Equity Fund (MFDEF) with an enhanced corpus of Rs.200 crore. The objective of the redesignated Fund was to facilitate and support the growth of the micro finance sector through diverse modalities for enlarging the flow of financial services to the poor, particularly for women and vulnerable sections of the society, consistent with sustainability. The Fund is being managed by a Board comprising representatives of the Reserve Bank, NABARD, commercial banks and professionals possessing domain knowledge. The Government also decided that the additional amount of Rs.100 crore would be contributed by the Reserve Bank, NABARD and other banks on the same pattern as the earlier MFDF. NABARD contributed Rs.40 crore to the MFDEF. The Reserve Bank has made its contribution of Rs.20 crore to the Fund and has advised NABARD that the balance would be released as the fund gets further utilised. Those public sector banks which had not contributed to the Fund earlier were advised to contribute a total of Rs.20 crore to the MFDEF based on their net working funds.

FINANCIAL INCLUSION

IV.43 Banks and financial institutions play a vital role as financial intermediaries by accepting deposits from the public and providing credit facilities to the needy sectors of the economy for their development. As participants in the payments and settlement system, they also help in the management of assets and income streams. The Reserve Bank, therefore, has all along emphasised access to banking services for all sections of the society and all regions, which is reflected in the branch authorisation policy and the guidelines on priority sector lending. Despite the substantial increase in the number of bank branches, a significant portion of the households still remain outside the coverage of the formal banking sector. The Reserve Bank has taken a number of measures since 2005 to promote financial inclusion (Box IV.3).

IV.44 RRBs and UCBs play an important role in the process of financial inclusion as also in extending credit to MSEs. Therefore, with a view to ensuring that a larger section of the population is covered by the commitment of banks to provide easy, speedy and transparent access to banking services, the Banking Codes and Standards Board of India (BCSBI) decided to enrol scheduled UCBs and RRBs as its members. Presently, 79 SCBs/UCBs/RRBs are members of the BCSBI, while membership of seven RRBs is under process.

IV.45 In pursuance of the commitments made in the Code of Bank's Commitment to Micro and Small Enterprises a simple, standardised and easy to understand loan application form for MSEs was circulated by the IBA for expeditious adoption by banks. During 2008-09, 268 branches of member banks located in different cities were visited to review the extent of their adherence to the two Codes. The sample was such that it included 70 per cent of the branches which had a poor track record of adherence to the Code. The findings of the branch visits revealed some perceptible improvement in overall adherence to the provisions of the Code over that observed during the previous survey conducted in 2007. Furthermore, to ascertain the factual position regarding opening of 'no frills' accounts at branches, the BCSBI randomly selected 44 branches of 26 public, private and foreign banks located in Mumbai and carried out *incognito* visits. The findings revealed that the general awareness about the 'no frills' accounts and relaxed KYC requirements in respect of the same was insufficient among the staff of the banks visited and the staff were not proactive in opening such accounts.

IV.46 As part of the initiative to identify at least one suitable district in each State/Union Territory for achieving 100 per cent financial inclusion, which started in April 2006, 431 districts had been identified as on March 31, 2009. The target has

Box IV.3
Financial Inclusion: Policy Prescriptions

Financial inclusion broadly refers to delivery of financial services, at an affordable cost, to the vast sections of disadvantaged/low-income groups who often tend to be excluded from the formal financial system. Notwithstanding the widespread expansion of the banking sector during the last four decades, a sizeable proportion of households, especially in the rural areas, remains outside the coverage of the formal banking system. The Reserve Bank has taken a number of initiatives for bringing the financially excluded population within the ambit of the formal financial system. The major initiatives include:

(i) In November 2005, banks were advised to make available a basic banking 'no frills' account with low or nil minimum balances as well as charges so as to expand the outreach of banking services to vast sections of the population. As on March 31, 2009, public sector banks had opened 2,98,59,178 'no frills' accounts, while private sector banks and foreign banks had opened 31,24,101 accounts and 41,482 accounts, respectively.

(ii) In order to ensure that persons belonging to low income group, both in urban and rural areas, do not encounter difficulties in opening bank accounts, the KYC norms for opening accounts were simplified for those accounts with balances not exceeding Rs.50,000 and credits thereto not exceeding Rs.1,00,000 in a year. The simplified procedure allowed introduction by a customer on whom the full KYC drill had been already applied.

(iii) Banks have been asked to consider introduction of a general-purpose credit card (GCC) facility up to Rs.25,000 at their rural and semi-urban branches. The credit facility is in the nature of a revolving credit entitling the holder to withdraw up to the limit sanctioned. The Reserve Bank further advised banks in May 2008 to classify 100 per cent of the credit outstanding under GCCs as indirect finance to the agriculture sector under the priority sector with immediate effect.

(iv) At the state level, the SLBC is required to identify one or more districts for 100 per cent financial inclusion. Responsibility is given to the banks in the area for ensuring that all those who desire to have a bank account are provided with one by allocating the villages among the different banks.

(v) In certain less developed states, such as those in the North Eastern region, Bihar, Chhattisgarh, Jharkand, Himachal Pradesh, Lakshadweep and Uttarakhand, Working Groups appointed by the Reserve Bank have made specific recommendations for financial inclusion, strengthening financial institutions and improving currency and payments systems. The recommendations of these Working Groups are under implementation.

(vi) In January 2006, the Reserve Bank permitted banks to utilise the services of NGOs, MFIs (other than NBFCs) and other civil society organisations as intermediaries in providing financial and banking services through the use of business facilitator (BF) and business correspondent (BC) models. The BC model allows banks to do 'cash in - cash out' transactions at a location much closer to the rural population.

(vii) The Reserve Bank has been encouraging the use of ICT solutions by banks for enhancing their outreach with the help of their BCs. Banks have been urged to scale up IT initiatives for financial inclusion speedily while ensuring that solutions are highly secure, amenable to audit and follow widely-accepted open standards to ensure eventual inter-operability among the different systems.

reportedly been achieved in 204 districts in 18 States and six Union Territories. All districts of Haryana, Himachal Pradesh, Karnataka, Kerala, Uttarakhand, Goa, Chandigarh, Puducherry, Daman and Diu, Dadra and Nagar Haveli and Lakshadweep have reported achieving 100 per cent financial inclusion.

IV.47 The Reserve Bank undertook an evaluation study through external agencies on the progress made in achieving 100 per cent financial inclusion in 26 districts that had reported achievement of the target with a view to draw lessons for further action in this regard. The studies were carried out in the States of Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Orissa, Punjab, Rajasthan and West Bengal. The findings revealed that although the SLBCs had declared several districts as fully financially included, the actual financial inclusion was not to the full extent in all the districts. Further, most of the accounts that had been opened as a part of the financial inclusion drive remained inoperative due to various reasons. The awareness with regard to 'no frills' accounts continued to be dismal and virtually non-existent in many districts. In order to sustain the momentum for financial inclusion, banks were advised in January 2009, among others, to ensure that steps were taken to provide banking services nearer to the location of the 'no frills' account holders through a variety of channels, to consider providing GCCs/small overdrafts along with 'no frills' accounts to encourage the account holders to actively operate the accounts, to conduct awareness drives so that the 'no frills' account holders were made aware of the facilities offered, to review the extent of coverage in districts declared as 100 per cent financially included and to efficiently leverage the technology-enabled financial inclusion initiatives being implemented in various States.

IV.48 In April 2008, banks were permitted to engage retired bank employees, ex-servicemen and retired government employees as BCs, in addition to the entities already permitted, subject to appropriate due diligence. The distance between the place of business of a BC and the base branch was not to, ordinarily, exceed 15 kms in rural, semi-urban and urban areas and 5 kms in metropolitan centres. In case a need was felt to relax the distance criterion, however, the matter could be referred to the District Consultative Committee (DCC) of the district concerned for approval. Where such relaxations covered adjoining districts, the matter could be cleared by the SLBC, which would also be the concerned forum for metropolitan areas. The distance criterion for rural, semi-urban and urban areas was relaxed to 30 kms with effect from April 24, 2009.

IV.49 SCBs, including RRBs and local area banks, were advised in August 2008 that they could engage companies registered under Section 25 of the Companies Act, 1956 as BCs, provided that these companies were stand-alone entities or not more than 10 per cent of their equity was held by NBFCs, banks, telecom companies and other corporate entities or their holding companies. Further, while engaging Section 25 companies as BCs, banks would have to strictly adhere to the distance criterion, between the place of business of the BC and the branch.

IV.50 In case, the duly appointed BCs of banks desired to appoint sub-agents at the grassroot level to render the services of a BC, banks were advised to ensure that: (i) the sub-agents of BCs fulfilled all relevant criteria stipulated for BCs in terms of extant guidelines; (ii) the BC appointed by them carried out proper due diligence in respect of the sub-agent in order to address reputational and other risks involved; and (iii) the distance criterion, as applicable, from the base branch should invariably be fulfilled in the case of all sub-agents. Banks were also advised that where individuals under the permitted categories were appointed as BCs, they could not in turn appoint sub-agents. Consequent to the announcement in the Annual Policy Statement for 2009-10, a Working Group was constituted to examine the experience to date of the BC model and suggest measures, to enlarge the category of persons that could act as BCs, keeping in view the regulatory and supervisory framework and consumer protection issues. The Working Group has since submitted its Report.

IV.51 The Reserve Bank had constituted a High Level Committee to go into the issues connected with the modalities of electronic benefit transfer (EBT) and suggest a common strategy for adoption by the State Governments. Subsequently, the Reserve Bank formulated a scheme to quicken the pace of adoption of the smart card/biometric based EBT mechanism by the banks and roll out the EBT system in the States that are ready to adopt the scheme. As per the scheme, the Reserve Bank would partially reimburse the banks the cost of opening accounts with biometric access at the rate of Rs.50 per account through which payment of social security benefits, National Rural Employment Guarantee Act payments and payments under other Government benefit programmes would be routed.

IV.52 The Working Groups set up to suggest measures for improving the outreach of banks and their services and promoting financial inclusion in certain less developed States/Union Territories, have made specific recommendations for achieving the above objectives and strengthening of financial institutions, improving currency and payments systems and revitalisation of the RRBs and UCBs in the respective regions. The status in respect of compliance with the recommendations of these Groups is outlined in Box IV.4.

IV.53 Despite the host of measures taken by the Reserve Bank since 2005, moneylenders remain a dominant source of credit, especially in the rural areas and hinterland. With a view to addressing the needs of the people who rely on informal sources of credit, the Reserve Bank had constituted a Group to review the legislation on money lending (Box IV.5).

Box IV.4
Implementation of Recommendations of the Working Groups on Improvement of Banking Services in Different States/Union Territories

The Reserve Bank in the recent period constituted Working Groups in certain States with a view to improving the outreach of banks and their services, promoting financial inclusion and supporting the development plans of the State Governments. The reports submitted by these Groups have been found very useful from several points of view. First, they have examined the adequacy of banking services in the context of the respective State's development plan and tried to plug the gaps. Second, they have thrown up a host of constructive suggestions towards enhancing the outreach of banks and promoting financial inclusion, keeping in view the regional requirements, resources and opportunities. Third, the studies undertaken have also made useful suggestions for revitalisation of RRBs and UCBs in the respective regions. Lastly and most importantly, the studies undertaken jointly by the Reserve Bank, the concerned State Governments, NABARD, banks and financial institutions have imparted a renewed impetus for concerted action to bring about improvements in the economies of the respective States. In this regard, Working Groups were constituted for Bihar, Uttaranchal, Chhattisgarh, Lakshadweep, Himachal Pradesh and Jharkhand between July 2006 and October 2007.

These Working Groups made wide-ranging recommendations, which included not only measures for enhancing greater outreach/penetration of the banking system through consistent use of IT and available business processing technologies but also developmental measures to be taken by respective State Governments to improve infrastructure and attract investment.

The compliance marked to State Governments/banks/other agencies are monitored through the respective regional offices of the Reserve Bank. For this purpose it was decided to constitute a special sub-committee of the SLBC, which was entrusted with the implementation of the recommendations made by the Working Group within a prescribed timeframe. The sub-committee would be chaired by the SLBC convenor bank and have representatives from respective State Governments, Reserve Bank, other banks and NABARD. The State Governments were requested to nominate a senior official from the Finance and Planning Department on this sub-committee to oversee the implementation of the recommendations of the Working Groups. Further, State Governments were also requested to form Empowered Committees under the chairmanship of the Chief Secretary to expedite action on the unfulfilled recommendations. Thus, there exists a proper mechanism to strategise and implement the recommendations of the Working Groups. A lot of qualitative and sustainable action has been initiated by the regional offices that are monitored by the central office of the Reserve Bank. Action has been initiated by all the regional offices on major recommendations/suggestions to improve the financial network as also the banking facilities and services in unbanked areas. The regional offices have reported compliance related to following recommendations:

1. Opening of new branches.
2. All branches to be made RTGS and NEFT enabled to reap the benefits of electronic payment and settlement system.
3. Agencies to take initiatives to promote more SHGs by making use of the services of NGOs
4. Setting up of rural development and self-employment training institutes for promoting self employment opportunities.
5. Banks to aggressively use the BF model for increasing banking outreach.
6. Use of post offices for augmenting credit flow in rural areas.
7. Village *panchayats* can also act as BFs/BCs for banks.
8. Banks and other agencies to carry out awareness campaign for opening of 'no frills' accounts.
9. Inclusion of under developed districts for 100 per cent financial inclusion.
10. Opening of credit counselling centres in the districts of the States by major banks.

Most of the recommendations, particularly those marked to State Governments, are long-term in nature such as development of infrastructure, horticulture, fisheries, tourism, in the States. Thus, the implementation of such recommendations is an ongoing process.

Box IV.5
Technical Group for Review of Legislation on Money Lending

A Technical Group (Chairman: Shri S.C. Gupta) was set up to review both the efficacy of the existing legislative framework governing money lending and its enforcement machinery in different States and to make recommendations to the State Governments for improving the legal and enforcement framework in the interest of the rural households. The Group had submitted its Report in July 2007.

The Group prepared a model legislation for consideration and adoption by the State Governments that do not presently have a comprehensive legislation in place for governing money lending. The model legislation provides for a hassle-free procedure for compulsory registration and periodic renewal by money lenders, a simplified dispute resolution mechanism to ensure better enforcement, periodic fixing of the maximum interest rate in line with market rates and adoption of the rule of *damdupat,* restricting the maximum amount of interest chargeable by the money lender. The Group also explored establishment of a link between the formal and informal credit providers whereby a money lender, who is an 'accredited loan provider', could serve as an additional credit delivery channel for the formal sector, provided there were safeguard measures.

The Report was translated into different vernacular languages for all regions with copies handed over to the Chief Secretaries of the State Governments by the Regional Directors of the Reserve Bank. As per the responses received, although some of the State Governments have evinced interest in the model legislation, relevant action in regard to adoption of its recommendations into their respective extant legislations has not yet been taken. The Government of Uttar Pradesh has incorporated some suggestions of the model legislation in the UP Regulation of Money Lending (Amendment) Act, 2008. Reportedly, a few State Governments such as Bihar, Delhi, Kerala, Orissa and West Bengal are processing the matter. In Maharashtra, the State Government is reported to be enacting a new legislation in which the provision of *damdupat* has been incorporated. The Maharashtra Money Lending (Regulation) Act, 2008 has been submitted to the Central Government for clearance as some provisions of the proposed Act fall within the ambit of certain Central Government Acts. The regional offices of Reserve Bank are following up the matter.

FINANCIAL LITERACY AND CREDIT COUNSELLING

IV.54 The Reserve Bank has been taking a number of initiatives to promote financial literacy, as lack of awareness is a major factor for financial exclusion. 'Project Financial Literacy' has been undertaken to educate the common person on financial matters. The common person for this purpose is defined as one who is not financially literate. To ease access to information, the 'For the Common Person' link on the Reserve Bank's website has been made multi-lingual, with information accessible in Hindi, English and eleven regional languages.

IV.55 The financial education site launched by the Reserve Bank in November 2007 and aimed at teaching basics of banking, finance and central banking to children in different age groups, would eventually have information useful to other target groups.

IV.56 The other initiatives of the Reserve Bank to promote financial awareness include conducting essay/quiz/inter-school debate competitions for school children on topics related to banking and financial inclusion; distributing material such as comic books, pamphlets and posters on financial literacy free-of-cost; participating in fairs/exhibitions to disseminate information on the Reserve Bank's role as a central bank; educating the general public about the Reserve Bank's clean note policy, security features of currency notes, detection of forged notes, foreign exchange facilities to residents, guidance to the public on investment in NBFCs and on the Banking Ombudsman Scheme, among others. The Reserve Bank holds meetings with banks, MFIs, rural insurance agencies, officials of Department of Posts and other field-level functionaries to familiarise them with the Reserve Bank's instructions on financial inclusion and provide operational guidance. Workshops/seminars are conducted for the controlling heads of major banks to encourage them about working towards greater financial inclusion, such as, opening of 'no frills' accounts, IT-enabled financial inclusion, formation of SHGs. The Reserve Bank urges the branch managers of banks operating in districts, block development officers, lead district managers, lead district officers and members of local media to have a door-to-door campaign to bring all the households in their areas into the banking fold. There is interaction with the representatives of local print and electronic media to disseminate information on financial literacy initiatives of the Reserve Bank and matters pertaining to currency management taken up by the regional offices. Select villages are visited to discuss issues relating to, *inter alia*, financial planning, accessing banking services, availing loans under the DRI scheme and other Government sponsored schemes, availing the services of rural self-employment training institutes, simplification of lending procedures for crop loans, advantages of KCCs. An awareness campaign has been launched for the army personnel to apprise them of the various banking products and interactive sessions are held with officers and *jawans* to address their banking related queries. Roadshows are organised at prominent public places such as railway stations, bus stands and beaches, to promote financial inclusion.

IV.57 The Reserve Bank has undertaken a project of setting up a permanent exhibition centre on financial education in Mumbai. A pilot project on developing and including chapters on financial education as part of the curriculum in schools has been undertaken in collaboration with the Karnataka Government.

IV.58 The Annual Policy Statement for 2007-08 had advised SLBC convenor banks to set up a financial literacy *cum* counselling centre in any one district on a pilot basis and extend it to all other districts in due course, based on the experience gained. Several banks have since taken initiatives in opening credit counselling centres in the country. So far, banks have reported setting up 148 credit counselling centres in various States of the country. The feedback received in this regard indicated that most of these centres were in effect set up as extensions of the bank branches and engaged in promotion of bank-specific products. Accordingly, a Model Scheme on Financial Literacy and Credit Counselling Centres (FLCCs) was formulated and communicated to all SCBs and RRBs with the advice to set up the centres as distinct entities maintaining an 'arm's length' from the bank so that the FLCC's services were available to even other banks' customers in the district (Box IV.6).

EXPORT CREDIT

IV.59 The export sector not only confronted with the challenge of decelerating global demand but also tighter access conditions in the market for trade credit. In response, a number of measures were taken to address the concerns relating to trade credit and give a boost to the export sector.

IV.60 The challenges relating to trade credit have to be seen in the context of the fact that the inventories were building up due to the slowdown in export demand. Further, the realisation of export proceeds was not taking place on the due date. Therefore, a need was felt to extend the period of entitlement of pre-shipment and post-shipment export credit. Accordingly, the period for prescribed interest rate ceiling of 250 basis points below BPLR for pre-shipment and post-shipment rupee export credit was extended by 90 days each to 270 days (with effect from November 15, 2008) and 180 days (with effect from November 28, 2008), respectively. The prescribed rate was also made applicable to overdue bills up to 180 days with effect from December 8, 2008. Further, the validity of the interest rate ceiling of 250 basis points below BPLR for pre-shipment rupee export credit up to 270 days and post-shipment rupee export credit up to 180 days was extended up to October 31, 2009 (Appendix Table 57).

IV.61 Banks are permitted to deploy amounts raised through FCNR (B) deposits and foreign currency lines of credit for extending foreign currency loans to exporters. Though banks are permitted to access overseas lines of credit for on-lending to exporters, the ability of banks to borrow is constrained by the interest rate ceiling specified by the Reserve Bank on such borrowings. As the availability of US dollar funds in the inter-bank money market dried up with considerable widening

Box IV.6
Financial Literacy and Credit Counselling Centres – Model Scheme

Consequent to the announcement in the Mid-term Review of the Annual Policy for 2007-08, a concept paper on Financial Literacy and Credit Counselling Centres (FLCCs) was placed on the Reserve Bank's website. Based on the feedback received from the public as also from banks that had started operating the counselling centres, a model scheme for setting up FLCCs was formulated in February 2009.

Model Scheme for FLCCs

The broad objective of the FLCCs would be to provide free financial literacy/education and credit counselling. The specific objectives of the FLCCs would be: (i) to provide financial counselling services through face-to-face interaction and other available media as per the convenience of the interested persons, including education on responsible borrowing, proactive and early savings and debt counselling to individuals who are indebted to formal/informal financial sectors; (ii) to educate the people in the rural and the urban areas with regard to various financial products and services available from the formal financial sector; (iii) to make the people aware of the advantages of being connected with the formal financial sector; (iv) to formulate debt restructuring plans for borrowers in distress and recommend the same to formal financial institutions, including co-operatives, for consideration; (v) to take up any activity that promotes financial literacy, awareness regarding banking services, financial planning and amelioration of debt-related distress of an individual.

To start with, banks could set up trusts/societies for running the FLCCs, singly or jointly with other banks. Respected local citizens could be inducted on the Board of such a trust/ society while serving bankers could be excluded. Initially, the FLCCs may be fully funded by the bank/s.

The counselling centres should maintain 'arm's length' relationship with the parent bank and, preferably, not be located in the bank's premises. The centres should not promote the products of their parent banks. The independence of the counselling centres has to be ensured so that non-partisan and objective guidance is provided to the customers.

In order to have maximum coverage, FLCCs should be set up in blocks, districts, towns and cities. SLBCs could coordinate with banks, both in the public and the private sectors, and arrive at a plan for setting up FLCCs at different levels in a phased manner.

Debt counselling/credit counselling can be both preventive and curative. In case of preventive counselling, the centres could provide awareness regarding the cost of credit, availability of backward and forward linkages where warranted, *etc.* The clients could be encouraged to avail of credit on the basis of their repaying capacity. Preventive counselling could be through the media, workshops and seminars.

FLCCs may consider introducing a generic financial education module in vernacular language, broadly including the need for savings, budgeting, advantages of banking with formal financial institutions, concept of risk and rewards and time value of money, various products offered by banks, insurance companies, *etc.* The module may also cover aspects relating to deposits and various other financial products, the method of calculation of interest on savings accounts, fixed deposits, *etc.*, and method of compounding.

In the case of curative counselling, the clients could approach the counselling centres to work out individual debt management plans for resolving their unmanageable debt portfolio. Preventive counselling may be made mandatory for individual borrowers based on their income level or size of loan. Such mandatory credit counselling could be made a part of fair lending practice of banks.

Banks may encourage their own customers in distress or customers of any bank to approach the FLCCs set up by them. Information about such FLCCs could be provided through the various fora available under the Lead Bank Scheme. Banks may evolve trigger points to refer cases, where there are early warning signals, to the counselling centres before taking measures for recovery. Timely intervention would help to arrest any further financial deterioration of the borrower. The counsellors should be mandated to refer cases to banks and work out debt management plans for distressed borrowers with a view to facilitating restructuring/rescheduling of their debts. The choice of finally accepting or rejecting a debt restructuring proposal suggested by the FLCCs may be left to the bank/ s concerned. However, in case of non-acceptance or rejection of restructuring proposals forwarded by FLCCs, the banks may give the reasons in writing to the concerned FLCC in the interest of transparency.

As FLCCs are expected to play a crucial role in assisting and guiding the distressed individual/borrower, it is necessary that only well-qualified and trained counsellors are selected to man the centre on a full time basis. Individuals such as retired bank officers and ex-servicemen, may be allowed to be appointed, among others, as credit counsellors. Credit counsellors should have sound knowledge of banking, law, finance, requisite communication and team building skills, among others. Training is also required to be provided to the counsellors on an ongoing basis to constantly upgrade their skills.

The functioning of the FLCCs in each State may be monitored by a committee headed by the Regional Director of the Reserve Bank and the feedback be provided to the banks on a regular basis. The committee may comprise SLBC convenor bank, other banks, NABARD, IBA, consumer organisations and NGOs working in the area.

of spreads in the international market, in the aftermath of global financial crisis, Indian banks were finding it difficult to access foreign exchange lines of credit within the interest rate ceiling and extend export credit within the prescribed ceiling rate. In order to facilitate banks financing of export credit in foreign currency to exporters, in consultation with the Government of India, the ceiling rate on export credit in foreign currency was raised to LIBOR *plus* 350 basis points from LIBOR plus 100 basis points on February 5, 2009 and the ceiling interest rate on the lines of credit with overseas banks for the banks providing export credit was raised from 6- month LIBOR *plus* 75 basis points to 6-month LIBOR *plus* 150 basis points.

IV.62 The rupee export credit interest rate scheme is formulated by the Government of India for which operational details are issued by the Reserve Bank. The scheme of rupee export credit interest subvention of 2.0/4.0 per cent for certain specified sectors effective from April 1, 2007 was brought to a close on September 30, 2008. This scheme was formulated to alleviate the exporters' concerns in the context of appreciation of the rupee. In the wake of the global financial crisis, a fresh scheme of rupee export credit interest subvention of 2.0 per cent was, however, introduced for seven employment-oriented export sectors for the period from December 1, 2008 to September 30, 2009 on pre- and post-shipment rupee export credit. This scheme has since been extended up to March 31, 2010.

IV.63 The Reserve Bank provides export credit refinance (ECR) facility to scheduled banks under Section 17(3A) of the Reserve Bank of India Act, 1934. All scheduled banks (excluding RRBs), which are authorised dealers in foreign exchange and have extended rupee export credit (for both pre-shipment and post-shipment), are eligible for refinance. The quantum of the refinance facility and the rate of interest applicable are prescribed by the Reserve Bank from time to time based on the monetary policy stance. In 2001, the quantum of ECR limit was fixed at 15.0 per cent of the outstanding rupee export credit eligible for refinance as at the end of the second preceding fortnight. With a view to strengthening the credit delivery mechanism and improving credit delivery for sustaining the growth momentum, this limit was enhanced to 50.0 per cent with effect from November 15, 2008. The rate of interest charged on ECR facility is fixed at the repo rate under the LAF of the Reserve Bank. The reliance on ECR facility by banks was generally low, barring a few occasions. However, the recourse to ECR facility in terms of daily average utilisation by banks during July-September 2008 was higher in the range of 26.0-56.0 per cent of the limit, coincident with the tightening of overall liquidity conditions. Nevertheless, aggregate utilisation of the ECR facility remained much below the ECR limits in the recent period and it was as low as 5.4 per cent in June 2009 (Appendix Table 22).

EXTENSION OF COLLATERAL FACILITY – SAVINGS BONDS

IV.64 In terms of relevant Government of India Notifications, 7.0% Savings Bonds 2002, 6.5% Savings Bonds 2003 (Non-taxable) and 8.0% Savings (Taxable) Bonds 2003, were not eligible as collateral for loans from banks, financial institutions and NBFCs, *etc*. On a review, it was decided by the Government of India to allow for pledge or hypothecation or lien of the bonds issued under the above schemes as collateral for obtaining loans from scheduled banks. Accordingly, the holders of the said bonds would be entitled to create pledge or hypothecation or lien in favour of scheduled banks in accordance with Section 28 of the Government Securities Act, 2006 and Regulations 21 and 22 of the Government Securities Regulations, 2007. However, the collateral facility is available only for the loans extended to the holders of the bonds and, as such, the facility is not available in respect of the loans extended to third parties.

NON-BANKING FINANCIAL COMPANIES

IV.65 The Government had announced the setting up of an SPV for addressing the temporary liquidity constraints of NBFCs-ND-SI. The SPV issues Government guaranteed securities to the Reserve Bank and uses the funds to acquire only investment grade CPs and non-convertible debentures of the NBFCs to tide over temporary liquidity mismatch. The total liquidity support from the Reserve Bank to NBFCs would be limited to Rs.20,000 crore with an option to raise it by a further Rs.5,000 crore. This facility is available for any paper issued by NBFCs up to September 30, 2009. The SPV would cease to make fresh purchases after December 31, 2009 and would recover all dues by March 31, 2010. NBFCs utilised the special liquidity facility from the Reserve Bank through the SPV (*viz.*, IDBI SASF) in the range of 0.8-3.0 per cent up to July 6, 2009 and the total outstanding amount of Rs.290 crore was repaid on July 7, 2009.

SCHEDULED COMMERCIAL BANKS

IV.66 The Reserve Bank has allowed banks to avail liquidity support under the LAF for the purpose of meeting the funding requirements of mutual funds (MFs), NBFCs and housing finance companies (HFCs) through relaxation in the maintenance of SLR up to 1.5 per cent of their NDTL. This facility, with a limit of Rs.60,000 crore, is available up to March 31, 2010. Banks have utilised only a small portion of their limit so far. During November 2008-July 2009, utilisation was in the range of 0.2-8.4 per cent.

IV.67 In order to provide flexibility to Indian banks in managing their short-term funding requirements at their overseas offices, the Reserve Bank with effect from November 7, 2008 provided foreign exchange liquidity to Indian public and private sector banks having foreign branches or subsidiaries, through foreign exchange swaps of tenures up to three months. Banks are allowed to borrow under the LAF for the corresponding tenure at the prevailing repo rate for funding the swaps, and the Reserve Bank is also prepared to consider any specific relaxation of SLR requirements, if need be, for this purpose. This facility is available up to March 31, 2010. Under the foreign exchange swap facility, banks have availed funds in the range of Rs.470-1,030 crore till August 14, 2009.

IV.68 In the context of the intense credit freeze that affected the global economy, the significance of the Reserve Bank's continuous emphasis on ensuring adequate flow of credit to all productive sectors of the economy and the specific measures for promoting credit delivery alongside financial inclusion of the masses became evident. Despite some moderation in credit growth, credit continued to flow to all the productive sectors of the economy. In this regard, the Reserve Bank policies have been supplemented by the Government of India initiatives, such as the Agriculture Debt Waiver and Debt Relief Scheme, 2008. Recent years have seen a steady improvement in credit flow to the agriculture and the MSE sectors. Though 'no frills' accounts have been opened at a rapid pace since their introduction in November 2005 as part of the policy on financial inclusion, the Reserve Bank has issued fresh instructions to ensure that these accounts remain operative and serve the purpose of financial inclusion. The new model scheme on FLCCs should increase awareness about the array of products that are available to an individual to connect with the formal banking system. The model legislation on money lending suggested by the concerned Technical Group is expected to be incorporated into various States' laws on money lending and help address the needs of people who remain outside the formal credit channel. Even though the Reserve Bank would continue to take initiatives to further strengthen the credit delivery mechanisms, the emphasis on credit quality would, however, not be diluted.

V DEVELOPMENT AND REGULATION OF FINANCIAL MARKETS

In the backdrop of the global financial turmoil, securing and maintaining domestic financial stability was accorded priority from a policy perspective, with readiness for swift responses to any risk to financial stability from adverse international developments. The institutional framework for financial markets was further strengthened in terms of new instruments, better market infrastructure and enhanced prudential norms. The key measures aimed at the money market were designed to enable the market function smoothly in an environment of global liquidity squeeze and to contain the excessive stress on some of the segments. The Reserve Bank also took initiatives relating to improving the efficiency of the auction process, operational readiness for introduction of STRIPS, clearing and settlement of OTC rupee interest rate derivatives and revision of repo accounting norms. Measures were also undertaken to simplify the procedures in the conduct of foreign exchange transactions with a view to facilitating prompt and efficient customer service and the process of liberalisation of the capital account continued by further relaxing the regulations governing the movements of cross-border capital flows.

V.1 Deep and efficient financial markets are essential for realising the growth potential of an economy; however, disorderly financial markets could be a source of risk to both financial institutions and the economy. The serious ramifications of disorderly, volatile and disruptive conditions in the global financial markets became clearly evident during 2008-09. The strong inter-linkages among markets, financial institutions and the real economy also highlighted the significance of focused attention given to the development and regulation of markets in India. The severe stress condition in the financial markets of the advanced countries revealed that failure of a few systemically important financial institutions could create concerns about the counterparties that could even freeze the collateralised segment of the money market. Scare for hoarding liquidity could further dry up liquidity in such conditions in the collateralised segment of the market, because of re-pricing of risk, higher risk premium and use of stiffer margin requirements. It was also recognised during the crisis that provision of adequate central bank liquidity may not necessarily address the problem of market liquidity, as banks may not transmit the liquidity received from central banks among the needy non-banks, that lack acceptable sufficient collaterals to access funding liquidity.

V.2 The contagion from the global markets did affect the Indian markets, particularly in the post-Lehman period up to November 2008, but swift and commensurate policy response from the Reserve Bank (as outlined in chapter I.V), ensured that the markets functioned normally and also remained orderly and resilient. The Annual Policy Statement of April 2008 highlighted the market developmental and regulatory policies for the year 2008-09 with a focus on developing a sound, efficient and vibrant financial system that ensures the provision of efficient financial services to the widest sections of the real economy. The Mid-Term Review of the Annual Policy Statement for 2008-09 focused on carrying forward development of various segments of financial markets and strengthening the financial market infrastructure. The broad policy objectives in the money market continued to be ensuring stability and minimising risk, while trying to develop new instruments and products. The Reserve Bank initiated various steps to further broaden and deepen the government securities market in consultation with market participants. The Reserve Bank took initiatives to rationalise and simplify the procedures in the conduct of foreign exchange transactions with a view to facilitating prompt and efficient customer service. A number of measures were taken towards further liberalisation of foreign exchange transactions. This chapter sets out various regulatory and development measures initiated by the Reserve Bank during 2008-09 towards further widening and deepening of various segments of the financial market under its jurisdiction, *viz.,* the money market, the government securities market and the foreign exchange market.

MONEY MARKET

V.3 For effective transmission of monetary policy and integration among various segments of the financial market, a developed money market is an essential precondition. In the context of the significant changes in the policy rates and liquidity operations of the Reserve Bank, the behaviour of the money market during 2008-09 assumed critical significance. Even prior to the crisis, with a view to improving the functioning of various segments of the money market and enhancing the smooth flow of funds across instruments and participants, a host of measures were undertaken by the Reserve Bank. These measures contributed towards improving transparency, facilitating price discovery process and providing avenues for better liquidity and risk management. During 2008-09, the key measures aimed at the money market were designed to enable the market function smoothly in an environment of global liquidity squeeze and to contain the excessive stress on some of the market segments.

V.4 The Reserve Bank introduced a special 14-day term repo facility for banks in October 2008 through relaxation in the maintenance of SLR up to 1.5 per cent of their NDTL to enable them to meet the liquidity requirements of MFs, NBFCs and housing finance companies. A special refinance facility was introduced on November 1, 2008 to provide funding to schedule commercial banks up to 1.0 per cent of their NDTL as on October 24, 2008 at the repo rate. With a view to providing flexibility in the liquidity management of banks, the limit of the standing liquidity facility to banks in terms of export credit refinance was raised from 15.0 per cent of the eligible outstanding rupee export credit as on the preceding fortnight to 50.0 per cent in November 2008. The liquidity stress faced by mutual funds, particularly the money market mutual funds (MMMFs) during September-October 2008, was caused primarily on account of mobilisation of significant resources from large corporates and banks with redemption facilities on par with current accounts of banks. In view of the systemic implications of the activities of such funds, it was proposed to identify and address the macro-prudential concerns arising from the current framework in consultation with SEBI.

V.5 The Technical Advisory Committee (TAC) for Money, Foreign Exchange and Government Securities Markets had released the Report of the Working Group on Interest Rate Futures (Chairman: V. K. Sharma) in August 2008. The Working Group had recommended, *inter alia*, the introduction of a physically settled futures contract based on a 10-year notional coupon bearing Government bond. The Reserve Bank has already permitted banks to take trading positions in interest rate futures (IRFs). The RBI-SEBI Standing Technical Committee has completed the preparatory work and an exchange traded IRFs contract on the 10-year notional coupon bearing government bond is expected to be launched shortly.

V.6 With a view to assessing the factors impeding the development of the term money market and exploring the possibility of rejuvenating the market, a Working Group on the Term Money Market was constituted by the Reserve Bank in July 2007. The draft Report of the Group, submitted in May 2009, was discussed in the meeting of the Technical Advisory Committee on Money, Government Securities and Foreign Exchange Markets.

GOVERNMENT SECURITIES MARKET

V.7 The government securities market acquired renewed attention not only in the context of the fiscal stimulus plan of the Government but also on account of the marked preference for safety under conditions of stress in the financial system. In terms of market development, the Reserve Bank initiated various steps to further broaden and deepen the government securities market in consultation with market participants, which included: (i) improving the efficiency of auction process, (ii) new issuance structure for floating rate bonds (FRBs), (iii) operational readiness for introduction of STRIPS, (iv) new settlement mechanism for non-current account holders, (v) clearing and settlement of OTC rupee interest rate derivatives and (vi) revision of repo accounting norms.

V.8 With a view to improving the efficiency of the auction process for government securities and bringing it on par with the international best standards, an Internal Working Group on Auction Process of Government of India Securities (Chairman: H.R.Khan) was constituted. The recommendations such as reduction of the time gap between bid submission and declaration of auction results, withdrawal of the facility of bidding in physical form and submission of competitive bids only through the NDS, and submission of a single consolidated bid on behalf of all its constituents by the bank/PD in respect of non-competitive bids, have already been implemented.

Floating Rate Bonds (FRBs)

V.9 The auction of FRBs would be conducted as a price-based one as against the earlier spread-based and the base yield for the FRBs would be linked to the primary market cut-off yield of the 182-day treasury bills. The new format would simplify the methodology for pricing of FRBs in the secondary market. The auction of FRBs would be through the new auction platform being managed by the CCIL, which has the capability to facilitate issuance of various types of instruments, including FRBs.

Separate Trading of Registered Interest and Principal of Securities (STRIPS)

V.10 As announced in the Annual Policy for 2008-09, operational readiness for the introduction of STRIPS has been achieved. The guidelines that will govern the stripping and reconstitution of the government securities are being finalised in consultation with the market associations and the draft guidelines were placed on the website of the Reserve Bank on May 14, 2009 seeking comments (Box V.1). STRIPS will be launched during 2009-10 once the guidelines are finalised.

Netted Settlement Mechanism for Non-current Account Holders

V.11 A new settlement mechanism in government securities through settlement banks was formulated in order to facilitate direct access to NDS and NDS-OM for participants who do not maintain current accounts but maintain SGL accounts with the Reserve Bank. This new system would facilitate phasing out of current accounts of non-banks and non-PD entities with the Reserve Bank. Under this mechanism, while settlement of the securities leg will continue to take place in the SGL account maintained with the Reserve Bank, the funds leg will settle through 'Designated Settlement Banks' (DSBs) appointed by the CCIL. From June 30, 2008 onwards, secondary market transactions in government securities undertaken by mutual funds are being settled only through the DSBs. Arrangements for settlement of primary auction bidding under the new mechanism are being worked out.

Clearing and Settlement of OTC Rupee Interest Rate Derivatives

V.12 In order to strengthen the over-the-counter (OTC) derivatives market and mitigate the risks involved, a clearing and settlement arrangement on a non-guaranteed basis has been put in place through the CCIL for the OTC interest rate derivatives trades since November 27, 2008. By March 2009, 13 members participated in the non-guaranteed settlement of OTC rupee interest-rate derivatives.

Box V.1
Separate Trading of Registered Interest and Principal of Securities (STRIPS) – Operational Guidelines

Stripping is the process of separating a standard coupon-bearing bond into its constituent interest and principal components. These can then be separately held or traded zero coupon instruments. For example, stripping a ten-year security would yield 20 coupon securities (representing the coupons), maturing on the respective coupon dates and one principal security representing the principal amount, maturing on the redemption date of the 10-year security. All the 20 coupon securities and the principal security would thereafter become zero coupon bonds. Reconstitution is the reverse of stripping, where the coupon STRIPS and principal STRIPS are reassembled into the original government security. An important feature of STRIPS is that the coupon STRIPS of the same date from different stocks are fungible - they are just not identical but exchangeable, *i.e.*, such coupon STRIPS do not refer to the bonds from which they are derived, and are identified by their maturity dates.

STRIPS help in improving liquidity and widening the investor base of the government securities market. STRIPS in government securities ensure availability of sovereign zero coupon bonds, which lead to the development of a market determined zero coupon yield curve. STRIPS also provide institutional investors with an additional instrument for their asset-liability management. Further, as STRIPS have zero reinvestment risk (discounted instruments with no periodic interest payment thereby obviating the need for reinvestment of intermediate cash flows arising out of the investment); they can be attractive to retail/non-institutional investors.

The stripping of designated treasury securities was introduced in the US in 1985. All treasury notes and bonds are currently strippable in the US where there is a large and active market for principal STRIPS. The UK introduced stripping of conventional fixed coupon in 1997 and while anyone can trade or hold STRIPS, only a market maker, Debt Management Office or Bank of England can strip strippable gilt or reconstitute it. France introduced treasury strips in 1991 and has the largest and most active STRIPS market in Europe.

In the Indian context, the Government Securities Act, 2006 permits stripping and reconstitution of government securities. The operational guidelines are being finalised in consultation with the market participants, the salient features of which are as under:

(i) Any entity, including individuals, holding government securities that are eligible for stripping/reconstitution (as notified by RBI from time to time) can strip/reconstitute these securities. Stripping/reconstitution, however, is permitted only in the eligible government securities held in Subsidiary General Leger (SGL)/Constituent Subsidiary General Ledger (CSGL) accounts maintained at Public Debt Office, RBI, Mumbai. Hence, any participant desirous of stripping/reconstituting government securities must open and maintain a demat account (SGL account or a Gilt account with a constituent) and hold government securities in electronic form.

(ii) The process of stripping/reconstitution of government securities shall be carried out at RBI, Public Debt Office, Mumbai in the PDO-NDS as a straight-through process without any manual intervention.

(iii) Holders of government securities shall place their requests for stripping/reconstitution with an authorised entity. Initially, all PDs would be eligible to authorise stripping/reconstitution requests.

(iv) Stripping/reconstitution may be done at the option of the holder at any time from the date of issuance of a government security till its maturity.

(v) All dated government securities having coupon payment dates on January 2 and July 2, irrespective of the year of maturity shall be eligible for stripping/reconstitution.

(vi) The minimum amount of securities that needs to be submitted for stripping/reconstitution will be Rs. 1 crore (face value) and multiples thereof.

(vii) STRIPS will be reckoned as eligible government securities for SLR purposes and retain all the characteristics of government security. They will be eligible securities for market repo as well as repo under LAF of RBI but with appropriate haircut.

(viii) STRIPS, being zero coupon securities, trade at a discount and are redeemed at face value. To begin with, STRIPS will be tradable only in the OTC market and such trades in STRIPS need to be reported on NDS for clearing and settlement through CCIL.

Revision of Repo Accounting Norms

V.13 The accounting norms on repo transactions, prescribed by the Reserve Bank in 2003, treated repo as a set of two independent outright transactions. Amendment to the Reserve Bank of India Act in June 2006, necessitated a review of the extant accounting guidelines to reflect the economic essence of repo as a collateralised borrowing/lending instrument and not as an outright sale/purchase transaction. Accordingly, a draft of the revised guidelines was placed on the Reserve Bank's website on November 14, 2008 seeking comments and the final guidelines would be issued for implementation from April 1, 2010.

Auction Module for Government Securities (NDS-Auction) at CCIL

V.14 Auctions of Government of India dated securities were earlier conducted on the PDO-NDS platform developed and maintained by the Reserve Bank. However, in order to free system resources for the PDO-NDS and to improve operational efficiency, a new auction platform, *i.e.*, NDS Auction has been developed and maintained by the CCIL on behalf of the Reserve Bank. The new platform has the capability to handle auction of various types of instruments of Centre and State Governments including inflation indexed bonds, floating rate bonds and zero coupon bonds. Further, the platform can also handle non-competitive bidding in the auction of State Development loans in addition to the Government of India securities. The dated securities module of the NDS Auction has been made operational since May 11, 2009.

Primary Dealers (PDs)

V.15 As on July 31, 2009, out of 18 PDs, 11 were banks undertaking PD operations departmentally and the remaining 7 were stand-alone PD entities. Following the filing of Chapter 11 bankruptcy petition by Lehman Brothers Holding Inc. in the US, Lehman Brothers Fixed Income Securities Pvt. Ltd., a primary dealer, was advised on September 16, 2008 not to undertake transactions in the primary market of government securities. During the year, the PD operations of ABN AMRO Securities India Private Limited, a standalone PD, were taken over by its parent bank, *viz.* ABN AMRO Bank and the bank has been undertaking PD business departmentally since December 16, 2008. Morgan Stanley India Primary Dealer Private Limited was authorised to undertake Primary Dealership business with effect from July 20, 2009.

Corporate Bond Market – Settlement of OTC Trades

V.16 For facilitating settlement of OTC corporate bond transactions in real time gross settlement (RTGS) system on a D*v*P-I basis (*i.e.*, on a trade-by-trade basis), it has been decided, in consultation with SEBI, to allow the clearing houses of the exchanges to have a transitory pooling account facility with the Reserve Bank. Under the proposed settlement mechanism, the buyer of securities will transfer the funds through his bank to this transitory account through RTGS. The clearing house will thereafter transfer the securities from the seller's account to the buyer's account and effect the release of funds from the transitory account to the seller's account.

FOREIGN EXCHANGE MARKET

V.17 The foreign exchange market in 2008-09 testified the relevance of Reserve Bank's policy approach to exchange rate, foreign exchange reserves and capital account in the face of adverse external shocks arising from the global economic crisis. In the midst of the shocks emanating from the global financial markets, not only the transactions in already liberalised areas continued without any concerns, the process of liberalisation in the pursuit of fuller capital account convertibility also continued by further relaxation of regulations governing the movement of cross-borders capital flows, especially in the areas of inward and outward foreign direct investments, while recognising the downside risks emanating from higher level of capital outflows from the country.

Liquidity Enhancing Initiatives

V.18 The key policy initiatives taken by the Reserve Bank in response to the developments after September 2008 were essentially to improve the availability of foreign exchange liquidity by way of Reserve Bank selling US dollar into the market, opening a new foreign exchange swap facility for the banks and raising interest rate ceilings on FCNR(B) and NR(E)RA deposits to attract larger inflows. Cumulative increase of 175 basis points in the interest rate ceilings each on FCNR(B) and NR(E)RA term deposits were effected between mid-September and November 2008.

V.19 The cap for loans by Authorised Dealer Category-I and authorised banks against the security of funds held in NR(E)RA and FCNR(B) deposits was enhanced from Rs.20 lakh to Rs. 1 crore on April 29, 2009. Banks were permitted to borrow funds from their overseas branches and correspondent banks to the extent of 50 per cent of their unimpaired Tier-I capital or US$ 10 million, whichever is higher. The systemically important non-deposit taking NBFCs (NBFC-ND-SI) and housing finance companies (HFCs) were permitted to raise short-term foreign currency borrowings. The ceiling rate on export credit in foreign currency was raised by 250 basis points to LIBOR+350 basis points on February 5, 2009. Correspondingly, the ceiling interest rate on the lines of credit from overseas banks was also increased by 75 basis points to 6-months LIBOR/EURO LIBOR/EURIBOR+150 basis points.

V.20 The policy on the premature buyback of FCCBs was liberalised in December 2008, recognising the benefits accruing to the Indian companies as well as to the economy on account of depressed global markets. Under this scheme, buyback of FCCBs by Indian companies was allowed both under the approval and the automatic routes, provided buyback was financed out of foreign currency resources held in India or abroad and/or out of fresh ECBs raised in conformity with the extant ECB norms and out of internal accruals. As per the liberalisation, the total amount of permissible buyback, out of internal accruals, was enhanced from US$ 50 million of the redemption value per company to US$ 100 million, by linking the higher amount of buyback to larger discounts at which FCCBs could be bought back. Accordingly, under the approval route, companies were permitted to buyback FCCBs out of internal accruals with a minimum discount of 25 per cent of book value for redemption amount of up to US$ 50 million; 35 per cent of book value for redemption amount more than US$ 50 million and up to US$ 75 million; and 50 per cent of book value for redemption amount more than US $ 75 million and up to US $ 100 million.

V.21 Considering the continuing tightness of credit spreads in the international markets, the all-in-cost ceilings for different maturities were increased in respect of ECBs (150 to 250 basis points) as well as trade credit (75 to 150 basis points). Furthermore, the all-in-cost ceiling for ECBs under the approval route was dispensed with initially up to June 30, 2009, and later extended until December 31, 2009.

V.22 Measures were also initiated to safeguard the interest of India's export sector which was affected by recession in the global economy. The period of realisation and repatriation to India of the amount representing the full export value of goods or software exported, was enhanced from six months to twelve months from the date of export, subject to review after one year. Similarly, as a measure of relief to importers, the limit for direct receipt of import bills/documents from overseas suppliers was enhanced from US$ 100,000 to US$ 300,000 in the case of import of rough diamonds, rough precious and semi-precious stones by non-status holder exporters, enabling them to reduce transaction costs.

Continuity in Capital Account Liberalisation

V.23 Despite unfavourable international investment climate, the process of capital account liberalisation in India maintained its logical momentum, consistent with the overall approach to the capital account management. The regulations governing capital flows have been liberalised substantially in the past three years taking into account the macroeconomic conditions, state of financial sector development, risk management capabilities of financial institutions and depth of financial markets. At the same time, the Government has followed a hierarchy in the liberalisation of inflows by way of preference to equity inflows rather than debt from the point of view of the potential vulnerability of reversal of capital flows, while having a diversified capital account to minimise the impact of a major shock arising from any single source.

Foreign Direct Investment (FDI)

V.24 During 2008-09, further measures were taken to support and strengthen the equity route by widening access of foreign firms to local equity markets, which had some sobering effect in reducing the market volatility experienced under the impact of the global financial crisis. Credit information companies complying with the Credit Information Companies (Regulations) Act, 2005 are allowed to invest as FDI up to a composite limit of 49 per cent, with the prior approval of FIPB and regulatory clearance from the Reserve Bank. FDI in commodity exchanges has been permitted within a composite ceiling of 49 per cent, with FDI limit of 26 per cent and FII limit of 23 per cent, subject to certain terms and conditions. In order to accord flexibility to FIIs to allocate their investments across equity and debt instruments, the restriction of 70:30 ratio of investment in equity and debt, respectively, has been dispensed with. The Government *vide* its Press Notes 2, 3 and 4 released in 2009 has further liberalised the FDI policy.

Overseas Direct Investment

V.25 Specific measures during 2008-09 intended to liberalise outbound investment included raising the investment limits for Indian corporate and mutual funds registered with SEBI, higher ceiling for mutual funds, permitted registered trusts and societies engaged in manufacturing/educational/hospital sector to make investment in the same sector(s) in a joint venture or wholly owned subsidiary outside India. The aggregate ceiling on overseas investments by mutual funds was enhanced from US$ 4 billion to US$ 5 billion in September 2007 and further to US$ 7 billion in April 2008. In addition, limited numbers of qualified Indian mutual funds were allowed to invest cumulatively up to US$ 1 billion in overseas exchange-traded funds as permitted by SEBI. Indian companies have been allowed to invest in excess of 400 per cent of their net worth, as on the date of the last audited balance sheet, in the energy and natural resources sectors, such as oil, gas, coal and mineral ores with the prior approval of the Reserve Bank.

V.26 In order to facilitate eligible companies resident outside India to mobilise funds from the Indian Capital Market, the issue of Indian Depository Receipt (IDR) through a Domestic Depository has been operationalised with effect from July 22, 2009.

External Commercial Borrowings

V.27 The ECB policy is reviewed periodically considering the evolving macroeconomic conditions, inflation expectations, liquidity, build up of external liabilities and currency risk and the fiscal deficit. During 2008-09, the ECB route has been expanded for the services sector, *viz*., hotels, hospitals and software, as companies engaged in these sectors have now been allowed to avail ECB up to US$ 100 million per financial year under the automatic route for foreign currency and/or rupee capital expenditure for permissible end-uses. ECBs up to US$ 500 million per borrower per financial year is permitted for rupee expenditure and/or foreign currency expenditure for permissible end uses under the automatic route. Definition of infrastructure sectors has been modified by including mining, exploration and refining. NBFCs, which are exclusively involved in financing infrastructure sector, are now allowed to avail of ECB from multilateral/regional financial institutions and government owned development financial institutions for on-lending to borrowers in the infrastructure sector under the approval route. Corporate engaged in the development of integrated township have been permitted to avail ECB under the Approval Route. SEZ developers have been permitted to avail ECB under the approval route for providing infrastructural facilities as defined in the ECB policy within the SEZ. The cumulative limits for investments by FIIs in government securities and corporate debts have been increased to US$ 5 billion and US$ 15 billion, respectively.

Currency Futures

V.28 Since the launch of the first currency futures exchange in September 2008, currency futures contracts are being traded in three recognised exchanges. The functioning of the exchanges continues to be reviewed by the RBI-SEBI Standing Technical Committee. On the recommendation of the Committee, the position limits on the clients and trading members have been doubled from US$ 5 million and US$ 25 million, respectively, to US$ 10 million and US$ 50 million. The upper limits of 6 per cent and 15 per cent of the total open interest on clients and trading members, however, remain unchanged. The position limit for banks continues at 15 per cent of total open interest or US $ 100 million, whichever is higher.

Asian Clearing Union (ACU)

V.29 Participants in the Asian Clearing Union (ACU) have the option to settle their transactions either in ACU Dollar or in ACU Euro. Accordingly, the Asian Monetary Unit (AMU) has to be denominated as ACU Dollar and ACU Euro. Banks operating in India have been permitted to pay interest, at their discretion, on ACU Euro Vostro accounts in addition to ACU Dollar Vostro accounts maintained by them. The decision to pay interest, interest rate and all other conditions would be at the discretion of the bank.

Inter-Regulatory Coordination

V.30 Following financial liberalisation, the boundaries between the specialised entities are getting blurred and entities are involved in activities that span across the domains of multiple regulators. Efficient inter-regulatory coordination removes the regulatory gaps, enhances the information flows between regulators and ensures that no systemically important entity escapes regulation. The G-20 Working Group on Enhancing Sound Regulation and Strengthening Transparency recommended that there should be an effective mechanism for appropriate domestic financial sector authorities within each country to jointly assess the systemic risks across the financial system and to co-ordinate the domestic policy response to limit the build-up of systemic risk. The structure of this coordinating mechanism should be transparent, with clear assignments of roles, responsibilities and accountability for each authority. In this regard, in India, the inter-regulatory coordination is ensured under the aegis of the High-Level Coordination Committee on Financial Markets (HLCCFM) with the Governor of the Reserve Bank as Chairman, and the chiefs of the SEBI, the IRDA and the Pension Fund Regulatory and Development Authority (PFRDA), and the Finance Secretary, Ministry of Finance, Government of India as members. It is supported by separate technical committees for the Reserve Bank regulated entities, SEBI regulated entities and IRDA regulated entities. These committees review financial market/institution-related developments and attempt to identify any unusual developments that may require co-ordinated action. Besides, there are other committees to achieve inter-regulatory co-operation in the area of exchange-traded currency futures and interest rate futures, financial conglomerate monitoring, crisis management and corporate bond and securitisation (Box V.2). During 2008-09, five meetings of the HLCCFM were held as compared with two meetings in 2007-08. In the meeting held on October 1, 2008, the HLCCFM discussed exclusively the implications of the global financial turmoil for the Indian financial markets, reviewed the soundness of the systemic framework, and the preparedness of all regulators to act in a coordinated and timely manner to deal with the emerging situation in order to ensure continued smooth functioning of the financial system. The Committee decided to meet on a frequent basis to discuss the way forward in dealing with the effects of the global financial crises and subsequently held three more meetings.

V.31 In the domestic financial markets, the key measures aimed at the money market were designed to enable the market to function smoothly

Box V.2
Inter-Regulatory Coordination

One of the key lessons from the global financial crisis is the need for an appropriate and more effective coordination among all regulators to ensure joint responsibility for systemic crises, notwithstanding the mandated jurisdiction of any single regulatory authority. In India, the framework for co-ordination is well entrenched, as under, with the HLCCFM as the apex body for co-ordination.

Technical Committee on RBI regulated entities: The Technical Committee on RBI regulated entities with members from SEBI, IRDA and RBI meets generally six times a year and at short notice if any unusual development is noted by any of the supervisory agencies. RBI is the convener of the Committee.

Technical Committee on SEBI regulated entities: The Technical Committee on SEBI regulated entities with members from SEBI, IRDA and RBI provides an inter-agency forum to review capital market related developments with a view to identifying any unusual developments, and to coordinate action with other regulators based on early warning system developed by the committee. SEBI is the convener of the Committee. The committee meets generally six times a year and at short notice if any unusual development is noted by any of the supervisory agencies.

Technical Committee on IRDA regulated entities: The Technical Committee on IRDA regulated entities with members from SEBI, IRDA and RBI meets generally six times a year and at short notice if any unusual development is noted by any of the supervisory agencies. IRDA is the convener of the Committee.

There is a Standing Technical Committee comprising of members from RBI and SEBI that meets periodically as and when warranted, but at least once every six months to take stock of market developments and to sort out inter-regulatory issues.

Additionally, there are a few inter-regulatory committees (with RBI and SEBI members) that examine specific issues like introduction of currency futures and interest rate futures, and development of corporate bond markets (Corporate Bonds and Securitisation Advisory Committee-CoBoSAC).

Inter-regulatory cooperation is also ensured in the areas of supervision of Systemically Important Financial Intermediaries (SIFI) in the form of Financial Conglomerate (FC) monitoring framework established by the RBI, SEBI and IRDA.

To deal with unforeseen events, which could impact the functioning of the financial system, a Crisis Management Group is in place comprising senior officials from the Government of India, RBI, Government of Maharashtra, SEBI, IRDA, PFRDA, Bombay Stock Exchange, CCIL, Indian Banks' Association, Institute for Development and Research in Banking Technology, Multi Commodity Exchange of India Limited, National Securities Clearing Corporation Limited, National Commodity and Derivatives Exchange Limited, Fixed Income Money Market and Derivatives Association and Foreign Exchange Dealers' Association of India. The directory of the contingency contact list is periodically updated and circulated.

in an environment of global liquidity squeeze and to contain the excessive stress on some of the market segments, while at the same time trying to develop new instruments and products. The Reserve Bank took initiatives to improve the efficiency of the auction process, operational readiness for introduction of STRIPS, clearing and settlement of OTC rupee interest rate derivatives, new issuance structure for floating rate bonds and revision of repo accounting norms. Measures were also undertaken to simplify the procedures in the conduct of foreign exchange transactions with a view to facilitating prompt and efficient customer service. The process of liberalisation towards fuller capital account convertibility was continued by further relaxing the regulations governing the movement of cross-border capital flows.

V.32 The resilience of the Indian financial sector in the face of the worst global financial crisis could be attributed to India's sound and well-calibrated approach to financial globalisation. With a view to mitigating liquidity risks, at the system as well as institution level, the Reserve Bank over the past few years has taken a number of initiatives, which include: (i) participation in the overnight unsecured money market has been restricted to banks and PDs and ceilings have been stipulated on their borrowing and lending operations in this market; (ii) prudential limits have been imposed on banks on their inter-bank liabilities as a percentage to their net worth; (iii) asset-liability management guidelines have been framed that take cognizance of both on and off balance sheet items; and (iv) a detailed policy on the provision of liquidity support to Special Purpose Vehicles (SPVs) has been outlined in the guidelines on securitisation of standard assets. Apart from normal prudential requirements on banks, as part of dynamic provisioning and counter-cyclical capital requirement through revisions in risk-weights for specific assets, additional prudential measures in respect of exposures to specific sectors such as real estate, housing loans to individuals and consumer credit, have been successively imposed. In the context of the global economic crisis, the scope for further strengthening of capital requirements, the credit conversion factors, risk weights and provisioning requirements for specific off-balance sheet items, including derivatives, is being reviewed. In India, complex structures like synthetic securitisation have not been permitted so far. However, going forward, introduction of such products, if and when considered appropriate, would be guided by risk management capabilities of the system, consistent with the policy goals of sound regulation, improving credit delivery, developing financial markets and promoting financial inclusion.

VI FINANCIAL REGULATION AND SUPERVISION

The banking system in India remained largely unaffected by the financial crisis, while several banks and financial institutions in the advanced countries failed or had to be bailed out with large sovereign support. The financial soundness indicators for the banking system in India during 2008-09 showed stability and strength; every bank in the system remained above the minimum regulatory capital requirement. Stress test findings suggested the resilience of the financial system, in the face of the severe external contagion from the global financial crisis. As at end-March 2009, all Indian scheduled commercial banks had migrated to the simpler approaches available under the Basel II framework. Post-crisis changes that may be necessary to strengthen the regulatory and supervisory architecture would be based on the evolving international consensus as well as careful examination of their relevance to the India-specific context. The time schedule for implementation of advanced approaches under Basel II has been notified and an inter-disciplinary Financial Stability Unit has been set up to monitor and address systemic vulnerabilities.

VI.1 Indian banks and financial institutions exhibited resilience in the midst of a severe global financial crisis. Notwithstanding the growing financial integration and globalisation, the banking system in India had no direct exposure to the sub-prime assets that triggered the crisis in the advanced economies. The indirect exposure of banks in this regard was also insignificant. Much before the crisis started in the advanced economies, the Reserve Bank had taken a number of measures which contributed to strengthening the resilience in the Indian banking system. These included prudential regulations for limiting the exposure of the banking system to sensitive sectors and appropriately rebalancing the risk weights of different assets. Necessary provisioning norms were prescribed and there has been a sustained emphasis on CAMELS parameters for supervision of Indian banks and financial institutions. The Committee on Financial Sector Assessment undertook single-factor stress tests for end-September 2008, which revealed that the Indian banking system could withstand significant shocks arising from large potential changes in credit quality, interest rate and liquidity conditions. It was assessed that even under the worst case scenario, the capital to risk-weighted assets ratio (CRAR) of Indian banks would remain above the regulatory minimum. Notwithstanding the resilience of Indian banks and financial institutions to the international financial crisis, when the global economic crisis started to dampen the domestic growth prospects, the Reserve Bank had to take a number of policy measures aimed at preserving and promoting financial stability, while supporting faster economic recovery.

VI.2 The regulatory and supervisory initiatives taken by the Reserve Bank during 2008-09 with regard to banks and other financial institutions are presented in this Chapter. A distinguishing feature of the various policy initiatives to strengthen the banking system and thereby promote financial stability is that some of these initiatives were a part of the ongoing policy efforts and not a response to the sequence of events that led to the global financial crisis. In addition to prudential regulations, steps were taken to improve customer service, enhance supervision and strengthen the anti-money laundering measures in the banking sector.

VI.3 For UCBs, further regulatory measures were taken in order to reap the gains accruing from the path laid down by the vision document for the sector through the MoUs and the Task Force for

UCBs arrangement. During 2008-09, the Reserve Bank continued its regulatory focus on systemically important non-deposit taking NBFCs. A spate of measures was taken to address the liquidity concerns arising for the sector in the wake of the international financial crisis.

Measures Taken Before the Global Crisis

VI.4 Regulation of non-banking entities is being progressively strengthened and the process had started before the onset of the global financial crisis. NBFCs owned by foreign banks and regulated by the Reserve Bank, were brought under the Group concept, to contain the regulatory arbitrage. An elaborate prudential framework was put in place for NBFCs-ND-SI. Consolidated supervision of banking groups was introduced in 2003 and has been constantly strengthened thereafter.

VI.5 To limit the growth of bank-led financial conglomerates (FCs), banks' equity investment in individual financial subsidiaries has been limited to 10 per cent of paid-up capital and reserves of the bank and aggregate investment has been limited to 20 per cent of paid-up capital and reserves. Banks' non-banking activities are also limited by law and any significant strategic equity investments by banks require the Reserve Bank's prior approval.

VI.6 Prudential regulations have been consistently strengthened. Major steps taken include limits on capital market exposures of banks, prescription of 50 per cent margin for advances against shares, limits on lending and borrowing in call money market, limit on inter-bank liabilities and restrictions on investment in unlisted and unrated non-SLR securities. The provisioning requirements for sub-standard and doubtful assets have been progressively aligned with best international practices, diminution in fair value of restructured accounts is required to be provided for and net appreciation in trading and available for sale book is not permitted to be recognised. The dividend payout ratio in case of banks is not allowed to exceed 40 per cent and dividend can be paid only out of current year's profit. Securitisation profits cannot be booked upfront to contain perverse incentives.

VI.7 In order to ensure higher quality of regulatory capital, existing capital adequacy guidelines require that Tier I capital of banks should be at least 6 per cent of risk-weighted assets by March 31, 2010. Tier III capital for market risk has not been introduced, as it is short-term.

VI.8 Further, when there was very rapid credit growth from 2004-05 onwards, risk weights and provisioning for banks' exposure to rapidly growing or sensitive sectors (such as commercial real estate, consumer loans and capital market), even when classified as standard assets, were progressively increased since 2005-06 as a counter-cyclical measure. Banks were also encouraged to maintain floating provisions which could be drawn down in extraordinary circumstances.

VI.9 To ensure adequate liquidity buffers with individual banks, banks were required to invest 25 per cent of their NDTL in government securities to maintain SLR (reduced to 24 per cent of NDTL in November 2008). The framework for monitoring and reporting of liquidity position of individual banks was improved by way of introduction of more granular liquidity buckets within the 1-14 segment (*i.e.,* next day, 2-7 days, 8-14 days). Table 6.1 shows that Indian banking system continues to remain healthy.

Table 6.1: Health of Scheduled Commercial Banks in India

Item	End- March		
	1998	2008	2009
1	2	3	4
CRAR (per cent)	11.51	13.01	13.19
Gross NPA (Rs. crore)	48,306	55,842	67,497
Gross NPA (per cent)	14.78	2.39	2.42
Net NPA (Rs. crore)	23,013	24,891	30,924
Net NPA (per cent)	7.63	1.08	1.12
Return on Equity (per cent)	14.63	12.52	13.25
Interest Spread (per cent)	3.05	2.37	2.44

Measures Taken During the Global Crisis

VI.10 The measures taken by the Reserve Bank during 2008-09 broadly include counter-cyclical moderation of capital and provisioning norms which had been enhanced earlier and provision of adequate rupee/foreign exchange liquidity to enable the banks to continue to lend for viable economic activities. The prudential measures are discussed in detail in subsequent paragraphs of this Chapter. The measures relating to liquidity and credit delivery are discussed in relevant Chapters.

REGULATORY FRAMEWORK FOR THE INDIAN FINANCIAL SYSTEM

VI.11 In the overall architecture for the regulation and supervision of the financial system in India, the Reserve Bank's regulatory and supervisory purview extends to a large segment of financial institutions, including commercial banks, co-operative banks, non-banking financial institutions and various financial markets. At end-March 2009, there were 80[1] commercial banks (excluding RRBs); 4 local area banks; 86 RRBs; 1,721 UCBs; 4 development finance institutions; 12,739 NBFCs (of which 336 NBFCs were permitted to accept/hold public deposits) and 18[2] primary dealers (PDs) [of which 11 were banks undertaking PD business as a departmental activity, known as bank-PDs, and 7 were non-bank entities, also referred to as stand-alone PDs]. The Board for Financial Supervision (BFS) has been mandated to ensure integrated oversight over the financial institutions that are under the purview of the Reserve Bank.

Board for Financial Supervision (BFS)

VI.12 The BFS, constituted in November 1994, remains the principal guiding force behind the Reserve Bank's supervisory and regulatory initiatives. It reviews the inspection findings in respect of commercial banks/UCBs and periodic reports on critical areas of functioning of banks such as reconciliation of accounts, fraud monitoring, overseas operations and banks under monthly monitoring. In addition, the BFS also reviews the micro and macro prudential indicators, banking outlook and interest rate sensitivity analysis. It also issues a number of directions with a view to strengthening the overall functioning of individual banks and the banking system. The BFS held eight meetings during the period July 2008 to June 2009. In these meetings, it considered, *inter alia*, the performance and the financial position of banks and financial institutions during 2008-09. It reviewed 70 inspection reports (27 of public sector banks, 16 of private sector banks, 20 of foreign banks, 4 of local area banks and 3 of financial institutions). Some of the important issues deliberated upon by the BFS during 2008-09 are highlighted in this section.

VI.13 In the wake of the global financial crisis, the BFS was apprised of the exposure of Indian banks to tainted assets and also the safeguards available within the Indian banking system on account of the regulatory measures initiated to strengthen the risk management and liquidity management systems of banks. The BFS was informed that an in-depth examination of investment portfolio of banks was being done as part of the Annual Financial Inspection (AFI). The BFS also enhanced its focus on monitoring the mark-to-market (MTM) losses in credit derivatives and other investment portfolios of overseas operations of banks in India on a monthly basis (Box VI.1).

VI.14 In response to concerns in some quarters regarding risks associated with foreign exchange derivatives, detailed information was called for in structured formats by the Reserve Bank from certain select banks which were operating at the top-end of the system-level exposures. Based on a dialogue process with these banks regarding, *inter alia*, the 'suitability and appropriateness' principles

[1] Including Bank International Indonesia, which ceased operations in India and is being wound up.

[2] This excludes Lehman Brothers Fixed Income Securities Ltd., which was prohibited from undertaking primary market operations with effect from September 16, 2008.

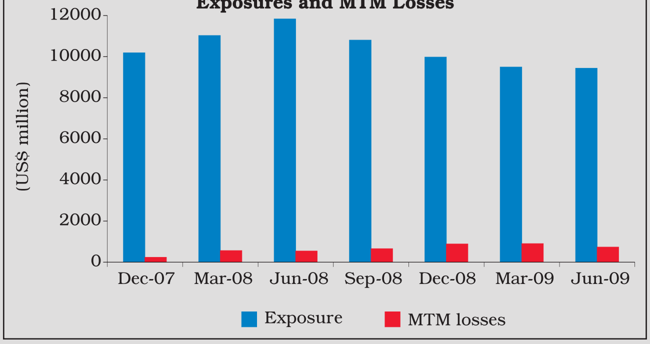
Box VI.1
Global Financial Crisis and the Indian Banking System: An Assessment of MTM Losses

Falling asset prices in the international markets exerted severe stress on the balance sheets of many international banks, on account of their significant exposure to such assets. Large off-balance sheet exposures magnified their stress levels further. In this context, it was felt necessary by the Reserve Bank to keep track of the quality of exposures of overseas operations of Indian banks for timely action and supervisory intervention, if required. Consequently, the Reserve Bank held discussions with select major banks with overseas operations to assess the quality of their overseas exposures. The assessment revealed that the banks did not have any direct exposure to the US sub-prime market. Some banks, however, had indirect exposure through their overseas branches and subsidiaries to the US sub-prime markets in the form of structured products, such as collateralised debt obligations (CDOs) and other investments. Some of the banks, with exposures to credit derivatives, had to book MTM losses on account of widening of credit default swap (CDS) spreads. The assessment, however, showed that such exposures were not very significant, and banks had made adequate provisions to meet the MTM losses on such exposures. Besides, the banks also maintained high levels of capital adequacy ratio. The Reserve Bank's assessment suggested that, the risks to the banking sector associated with MTM losses, appeared to be limited and manageable.

As the financial crisis persisted and started spreading beyond the US, a need was felt to continuously monitor the exposures of the overseas operations of the Indian banks to detect adverse signals impacting the quality of the banks' overseas exposures. Accordingly, a monthly reporting system was introduced in September 2007 capturing Indian banks' overseas exposure to credit derivatives and investments such as Asset Backed Commercial Papers (ABCP) and Mortgage Backed Securities (MBS). An analysis of the information so collected reveals that the exposures of Indian banks through their overseas branches in credit derivatives and other investments are gradually coming down from the June 2008 level (Chart). Their MTM losses, however, gradually increased up to March 2009, reflecting the impact of the sustained fall in the value of the assets in their portfolios.

After the direct impact of the global financial crisis through MTM losses was assessed to be insignificant for Indian banks, the focus shifted to the possible asset quality concerns arising from weakening growth prospects as certain sectors in the economy clearly came under the influence of falling external demand due to the global recession and subsequent deceleration in domestic private demand. The asset quality of banks' exposures to the sectors perceived to be under stress became a matter of supervisory concern. A credit risk stress test of banks' exposure to seven such sectors (chemicals/dyes/paints *etc.*, leather and leather products, gems and jewellery, construction, automobiles, iron and steel and textiles), accounting for 15.4 per cent of gross advances and 12.2 per cent of gross NPAs, was carried out to assess the impact on banks' capital adequacy due to an assumed rise in NPAs. The stress tests were run under two scenarios, *viz.*, 300 per cent and 400 per cent increases in NPAs in the seven sectors simultaneously. The additional provisioning requirements, assuming the rise in NPAs were adjusted from existing regulatory capital and risk-weighted assets, were estimated to arrive at the adjusted capital adequacy. The results of the stress tests revealed the inherent strength of the banks to withstand sizeable deterioration in asset quality in the identified sectors. The capital adequacy ratio of only two banks accounting for around 3 per cent of total assets of the banking system was assessed to drop below the prescribed minimum level under both the stress scenarios.

Chart: Overseas Operations of Indian Banks – Exposures and MTM Losses



The assessment of MTM losses and stress test results, thus, further validated the resilience of the Indian banking system to the shocks and concerns emanating from the global economic crisis.

and risk management policies, a comprehensive report was placed before the BFS. In this context, stress tests of the credit portfolio of commercial banks in India were also carried out to assess the resilience of banks under various stress scenarios such as increasing the NPA level and provisioning requirements for standard, sub-standard and doubtful assets as at end-March 2008. The analysis was carried out at the aggregate and individual bank level and the results indicated that the CRAR would not decline below the stipulated minimum level under any of the adopted scenarios.

VI.15 During the period under reference, the BFS issued several directions for enhancing the quality of regulation and supervision of financial institutions and some of the important directions were as follows: (i) need for evaluation by the Reserve Bank, for robustness and efficacy, of the statistical scoring and loss forecasting models deployed by banks for managing retail credit portfolios; (ii) fine-tuning and making more dynamic the process for selection of branches for the AFIs, by including additional parameters for branch-selection; (iii) prohibiting subsidiaries of banks from undertaking activities which the bank itself was not permitted to undertake as per the provisions of the Banking Regulation Act, 1949; (iv) submission of confirmation report and compliance certificate with regard to adherence to the Reserve Bank's guidelines on outsourcing arrangements entered into by banks; (v) sensitising the banks that the principles for sale/purchase of NPAs, issued in October 2007, were laid down as a broad criteria only to be adopted while entering into compromise settlements and not meant to be rigid or restrictive (hence, banks could enter into these settlements based on the circumstances/facts of each case and their commercial judgement and should be able to justify the decision taken); and (vi) recording of intent of holding the investments, for a temporary period or otherwise, at the time of investment in a subsidiary, associate and joint venture, for the purpose of consolidation.

VI.16 The BFS also accorded its approval to certain important proposals aimed at enhancing the regulatory provisions/intent and supervisory focus. Some of them were as follows: (i) prescribing the extent of admissible liability towards Tier I and Tier II instruments in the scheme of merger/amalgamation of banks as and when such cases arose; (ii) a one-time measure designed to help banks to clear their large number of small value outstanding nostro entries originated up to March 31, 2002 while concurrently directing the banks to concentrate on follow-up effort on the high value entries that were still outstanding and to leverage technology to avoid building up of unreconciled balances.

COMMITTEE ON FINANCIAL SECTOR ASSESSMENT

VI.17 The work on a comprehensive self-assessment of India's financial sector, particularly focussing on stability assessment, stress testing and compliance with all financial standards and codes started in September 2006 by the Committee on Financial Sector Assessment (CFSA), chaired by Dr. Rakesh Mohan. Shri Ashok Chawla, Shri Ashok Jha and Dr. D. Subbarao as Secretary, Economic Affairs, Government of India, were the Co-Chairmen of the CFSA at different points of time. In March 2009, the Government and the Reserve Bank jointly released the Report of the CFSA (Box VI.2). The CFSA followed a forward-looking and holistic approach to self-assessment, based on three mutually reinforcing pillars – financial stability assessment and stress testing; legal, infrastructural and market development issues; and an assessment of the status of implementation of international financial standards and codes.

VI.18 Overall, the CFSA found that the Indian financial system was essentially sound and resilient, and that systemic stability was, by and large, robust. India was broadly compliant with most of the standards and codes, though gaps were noted in the timely implementation of bankruptcy proceedings. The CFSA also carried out single-factor stress tests for credit and market risks, liquidity ratio and scenario analyses. These tests showed that there were no significant vulnerabilities in the banking system. Though NPAs could rise during the current economic slowdown, given the strength of the banks' balance sheets, the rise was not likely to pose any systemic risk.

VI.19 Since risk assessment is a continuous process and stress tests need to be conducted taking into account the macroeconomic linkages as also the second round effects and contagion risks, consequent to the announcement in the Annual Policy Statement for 2009-10, an inter-disciplinary Financial Stability Unit was set up to monitor and address systemic vulnerabilities.

Box VI.2
Major Recommendations of the Committee on Financial Sector Assessment (CFSA)

The CFSA presented its assessment of India's financial sector along with a set of recommendations meant for the medium-term of about five years. The key assessments and recommendations under major heads are summarised below.

Sustainability of Macroeconomic Growth

India's growth in the recent period was primarily contributed by high domestic demand, productivity, credit growth and high levels of savings and investment. In the wake of the crisis, India could face deceleration in its macroeconomic growth in the short-term; however, growth of 8.0 per cent was sustainable in the medium-term. India would need to focus on revival of growth in agriculture, address quick restoration of the fiscal reform path, continue financial sector consolidation/development and address the infrastructure deficit. While fuller capital account convertibility was desirable, it should be concomitant with macroeconomic and market developments.

Financial Institutions

Commercial Banks

The stress testing of the financial institutions revealed that banks were generally in a position to absorb significant shocks due to credit, liquidity and market risks, though there were some concerns relating to liquidity risk due to increasing illiquidity in banks' balance sheets. There was, therefore, a need to strengthen liquidity management.

The CFSA highlighted risk management as a priority area and noted that the counter-cyclical prudential norms imposed by the Reserve Bank had paid dividends in recent times. It highlighted the growing requirement of appropriate accounting and disclosure norms, particularly with regard to derivatives transactions.

Co-operative Sector

While the financial position of UCBs had improved, stress tests conducted for this sector revealed that these entities would remain vulnerable to credit risk. The financial indicators of the rural co-operatives threw up some cause for concern. Noting the dual control over co-operatives and rural banks, the CFSA stressed the need for better governance in these institutions.

NBFCs

The CFSA noted that NBFCs were important players in financial markets with broadly satisfactory financials. Development of the corporate bond market could ease the funding constraints of this sector. Further strengthening of prudential regulations of NBFCs was also suggested.

Housing Finance Companies (HFCs)

The CFSA recommended that a National Housing Price Index and a Housing Starts Index were priorities for the growing and important segment of HFCs.

Insurance Sector

For further development of the insurance sector, the CFSA suggested, *inter alia*, that the supervisory powers of IRDA be improved and an effective policy for group-wide supervision be put in place.

Financial Markets

The CFSA recommended, *inter alia*, further improvements in infrastructure, risk management and transparency/disclosure in equity, foreign exchange and government securities markets. On the issue of development of markets for credit derivatives and asset securitisation products, the Committee noted that it should be pursued in a gradual manner, by sequencing reforms and putting in place appropriate safeguards before introduction of such products.

Financial Infrastructure

Regulatory Structure

The CFSA felt that the existence of multiple regulators was consistent with the current stage of financial development in India, but stressed the need for further improvement in regulatory coordination. The Reserve Bank could, in the interest of financial stability, be armed with sufficient supervisory powers and monitoring functions in respect of financial conglomerates.

Liquidity Infrastructure

Systems and procedures should be developed for smoothing out volatility in liquidity and call money rates arising out of quarterly tax payments. The introduction of auction of Central Government surplus balances with the Reserve Bank in a non-collateralised manner could be considered, though with appropriate caution.

Payments and Settlement Infrastructure

The current low utilisation of the electronic payments infrastructure could be increased with the use of technology to make the facilities more accessible to customers, thereby optimising the use of this infrastructure and achieving greater financial inclusion.

Others

The Committee also discussed insolvency regime, corporate governance and safety nets, among others.

Development Issues in the Socio-economic Context

A stability assessment of the financial sector should also address broader development aspects in the socio-economic context, which affect social stability and have an indirect bearing on financial stability. Financial inclusion is one of the major determinants of economic growth. Higher economic growth and infrastructure, in turn, play a crucial role in promoting financial inclusion. In order to achieve the objective of growth with equity, it was imperative that infrastructure was developed in tandem with financial inclusion, to facilitate and enhance credit absorptive capacity.

COMMERCIAL BANKS

Operational Developments

VI.20 Indian banks continued to expand their presence overseas during 2008-09. Between July 2008 and June 2009, Indian banks opened 20 branches/subsidiaries/representative offices overseas (Table 6.2). At end-June 2009, 20 Indian banks (14 public sector banks and 6 private sector banks) had presence abroad with a network of 221 offices (141 branches, 52 representative offices, 7 joint ventures and 21 subsidiaries) in 52 countries. Several foreign banks opened branches and representative offices in India during 2008-09 (Table 6.3). At end-June 2009, 32 foreign banks were operating in India with 293 branches. Besides, 43 foreign banks were also operating in India through representative offices. There were 73 banks under liquidation all over India as on June 30, 2009. The matter regarding early completion of liquidation proceedings is being followed up with official/Court liquidators.

Regulatory Initiatives

VI.21 Policy measures taken by the Reserve Bank during 2008-09 were driven by the twin objectives of continued strengthening of the prudential standards for the banking system in order to make it more resilient and align these with the international best practices while ensuring customer protection, and deliver a counter-cyclical prudential prescription to complement the fiscal policy measures initiated by the Government to fight the downturn in the economy.

Basel II Implementation

VI.22 Foreign banks operating in India and Indian banks having operational presence outside India migrated to the simpler approaches available under the Basel II framework with effect from March 31, 2008. Other commercial banks (excluding local area banks and RRBs) also migrated to these approaches from March 31, 2009. Thus, the standardised approach for credit risk, basic indicator approach for operational risk and standardised duration approach for market risk (as slightly amended under the Basel II framework) have been implemented for banks in India. Taking into consideration the need for upgradation of risk management framework as also the capital efficiency likely to accrue to the banks by adoption of the advanced approaches envisaged under the

Table 6.2: Offices of Indian Banks Opened Abroad – Between July 2008 and June 2009

Name of the Bank	Type of Presence	Country	Place
1	2	3	4
1. Andhra Bank	Representative Office	USA	New Jersey
2. Bank of Baroda	Branch	China	Guangzhou
3. Bank of India	Branch	Cambodia	Phnom Penh
4. Bank of India	Representative Office	UAE	Dubai
5. Canara Bank	Branch	UAE	Dubai
6. Corporation Bank	Representative Office	UAE	Dubai
7. Corporation Bank	Representative Office	Hong Kong	Hong Kong
8. Oriental Bank of Commerce	Representative Office	UAE	Dubai
9. State Bank of India	Branch	Maldives	Hithadoo
10. State Bank of India	Branch	Singapore	Little India
11. State Bank of India	Branch	Singapore	Jurong East
12. State Bank of India	Branch	Singapore	Ang Mo Kio
13. State Bank of India	Branch	Singapore	Marine Parade
14. Punjab National Bank	Branch	Hong Kong	Kowloon
15. Punjab National Bank	Representative Office	Norway	Oslo
16. Union Bank of India	Representative Office	Australia	Sydney
17. HDFC Bank Ltd	Branch	Bahrain	Manama
18. HDFC Bank Ltd	Representative Office	Kenya	Nairobi
19. ICICI Bank Ltd	Representative Office	UAE	Abu Dhabi
20. Kotak Mahindra Bank Ltd	Representative Office	UAE	Dubai

Table 6.3: Offices of Foreign Banks Opened in India – Between July 2008 and June 2009

Name of the Bank	Type of Presence	Place
1	2	3
1. DBS Bank Ltd	Branch	Pune
2. DBS Bank Ltd	Branch	Bangalore
3. DBS Bank Ltd	Branch	Chennai
4. DBS Bank Ltd	Branch	Kolkata
5. DBS Bank Ltd	Branch	Nashik
6. DBS Bank Ltd	Branch	Moradabad
7. DBS Bank Ltd	Branch	Salem
8. DBS Bank Ltd	Branch	Surat
9. Deutsche Bank	Branch	Salem
10. Deutsche Bank	Branch	Vellore
11. Deutsche Bank	Branch	Pune
12. FirstRand Bank Ltd	Branch	Mumbai
13. DnB NOR Bank	Representative Office	Mumbai
14. KfW IPEX Bank GmbH	Representative Office	Mumbai

Basel II framework and the emerging international trend in this regard, it was considered desirable to lay down a timeframe for implementation of the advanced approaches in India (Table 6.4). This would enable the banks to plan and prepare for their migration to the advanced approaches for credit risk and operational risk, as also for the internal models approach (IMA) for market risk.

VI.23 Banks were advised to undertake an internal assessment of their preparedness for migration to advanced approaches, in the light of the criteria envisaged in the Basel II document and take a decision, with the approval of their Boards, whether they would like to migrate to any of the advanced approaches. The banks deciding to migrate to the advanced approaches were advised to approach the Reserve Bank for necessary approvals, in due course, as per the stipulated time schedule. If the result of a bank's internal assessment indicated that it was not in a position to apply for implementation of advanced approaches by the above-mentioned dates, it could choose a later date suitable to it based upon its preparation. Banks, at their discretion, would have the option of adopting the advanced approaches for one or more of the risk categories, as per their preparedness, while continuing with the simpler approaches for other risk categories, and it would not be necessary to adopt the advanced approaches for all the risk categories simultaneously. Banks would, however, need to acquire prior approval of the Reserve Bank for adopting any of the advanced approaches.

Risk Management

VI.24 In the wake of the current crisis, the risk management models based on normal distribution were found inadequate to cope with the rapidly changing events. It is widely believed that more robust risk management systems, grounded in

Table 6.4: Timeframe for Implementation of Advanced Approaches in India

Approach	Earliest Date of Submitting Applications to the Reserve Bank	Likely Date of Approval by the Reserve Bank
a. Internal Models Approach (IMA) for Market Risk	April 1, 2010	March 31, 2011
b. The Standardised Approach (TSA) for Operational Risk	April 1, 2010	September 30, 2010
c. Advanced Measurement Approach (AMA) for Operational Risk	April 1, 2012	March 31, 2014
d. Internal Ratings-Based (IRB) Approaches for Credit Risk (foundation as well as advanced IRB)	April 1, 2012	March 31, 2014

appropriately designed stress tests, could have helped prevent the build-up of leverage that became unsustainable. Thus, there is an imperative need to strengthen the risk management systems/models by incorporating imaginative stress testing practices to avoid recurrence of such events and preserve national and global financial stability (Box VI.3).

NPA Management

VI.25 The three legal options available to banks for resolution of NPAs, *viz.*, the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act, 2002), Debt Recovery Tribunals

Box VI.3
Risk Management: Role of Stress Testing

Stress testing is a multi-dimensional risk management tool with numerous and varied potential applications. It involves the use of a range of techniques, both quantitative and qualitative, to evaluate a bank's financial position under exceptional but plausible scenarios of varying severity. Stress test findings could assist in forward looking decision making.

Globally, banks are increasingly relying on statistical models such as Value at Risk (VaR) for their risk management frameworks. These models are, however, based mainly on limited historical data and simplistic assumptions and therefore, cannot capture sudden, dramatic, high magnitude and long duration events. To overcome the limitations of risk management models, stress testing is being used as a supplementary tool to quantify "tail risks", *i.e.*, the risk of losses under abnormal market conditions and re-assess modeling assumptions, particularly those in relation to volatility and correlation. It is especially important after long periods of favourable economic and financial conditions, when fading memory of negative conditions could lead to complacency and neglect as well as under-pricing of risk. It is also a key risk management tool during periods of expansion, when innovations may lead to new products that could grow rapidly and for which limited or no loss data may be available.

Stress testing is useful in a bank's risk management framework and decision making process on account of the following:

- It provides a means for estimating a bank's risk exposures under stressed conditions and enables it to develop or choose appropriate strategies for mitigating such risks.
- It helps a bank in identifying hidden risks and risk concentrations across multiple business lines or units.
- It enables a bank to better shape its risk profile through a forward-looking assessment of the risks it may be exposed to and facilitates monitoring of changes in the profile over time.
- It allows the Board of Directors and senior management to determine whether a bank's risk exposure or profile corresponds to its risk appetite and risk tolerance.
- It enables the bank management to integrate business strategy, risk management and liquidity and capital planning decisions in an improved way.

Considering the importance of stress testing in any risk management framework, the Basel Committee on Banking Supervision issued in May 2009 the paper titled "Principles for Sound Stress Testing Practices and Supervision". The paper presents sound principles for the governance, design and implementation of stress testing programmes in banks. It says that stress testing should form an integral part of the overall risk governance and risk management culture of a bank. Stress testing should be actionable, with the results from stress testing analyses impacting decision making at the appropriate management level, including strategic business decisions of the Board and senior management. Board and senior management involvement in the stress testing programme is essential for its effective operation. A bank should operate a stress testing programme that promotes risk identification and control, provides a complementary risk perspective to other risk management tools, improves capital and liquidity management and enhances internal and external communication.

Though stress testing and scenario analysis play an important role in any risk management framework, they have certain limitations such as subjective selection of scenarios, skill of the modeler, uncertain probabilities of the events concerned and use of a small number of parameters. Stress testing, therefore, by itself cannot address all risk management weaknesses, but as part of a comprehensive approach, it has a useful role in aiding timely policy intervention to strengthen the resilience of individual banks and the financial system.

References

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2. Haldane A.G. (2009). "Why Banks Failed the Stress Test", *Bank of England* (speech), February 13.
3. Duguay P. (2009). "Financial Stability through Sound Risk Management", *Bank of Canada* (remarks), January 8.

(DRTs) and *Lok Adalats*, have led to a steady increase in the adjudication and recovery of disputed amounts (Table 6.5).

Restructuring of Advances

VI.26 The guidelines on restructuring of advances were revised in August 2008 in accordance with the recommendations of the Working Group to review and align the existing guidelines on restructuring of advances [other than under corporate debt restructuring (CDR) mechanism] on the lines of provisions under the revised CDR mechanism. The main features of the guidelines, which are uniformly applicable across all sectors, are: (i) Retention of asset classification status on restructuring is an exception rather than a rule. It is, however, available to all borrowers who meet specified conditions, except to the borrowers of three categories, *viz.*, consumer and personal advances, advances classified as capital market exposure and advances classified as commercial real estate exposures (subject to modifications carried out subsequently); (ii) The CDR mechanism would be available to the borrowers engaged in activities other than industrial advances as well, *albeit* subject to the same terms and conditions as applicable to industrial advances. There is no change in the institutional framework for restructuring under the CDR mechanism; (iii) The linkage of asset classification benefit with moratorium has been dispensed with considering certain natural checks built in the guidelines against extension of longer moratorium; (iv) Banks should make provision for diminution in the fair value of the loan (both principal and interest cash flows) rather than for economic loss arising from reduction in rate of interest alone, as done hitherto; a simpler mechanism to compute the diminution in fair value at a flat rate of 5 per cent would be available to borrowers with outstanding amounts below Rs.1 crore; (v) The unrealised income represented by the Funded Interest Term Loan (FITL)/debt or equity instrument should not be taken to the profit and loss account but credited into an account styled as 'Sundry Liabilities Account (Interest Capitalisation)' [SLA(IC)]. Only on repayment in case of FITL or sale/redemption proceeds of the debt/equity instruments, the amount received would be recognised in the profit and loss account, while simultaneously reducing the balance in the 'SLA(IC)'; (vi) The terms – 'satisfactory performance during the specified period of one year after restructuring', 'repeated restructuring' and 'secured advances' were clarified; (vii) In the case of infrastructure projects, in order to become entitled for the asset classification benefit, the period within which the viability had to be established was increased from 7 years to 10 years, and the period within which the loan had to be repaid was increased from 10 years to 15 years. In the case of housing loans, individual banks, with the approval of their Boards, were permitted to decide on the repayment period required for restructured loans;

Table 6.5: Resolution of NPAs
(Cumulative as at end-March 2009)

(Amount in Rupees crore)

Resolution Mechanism	Number	Amount	Number	Amount	Number	Amount
1	2	3	4	5	6	7
SARFAESI	Notices Issued		Recovery		Compromise Proposals	
	3,41,756	68,127	2,10,641	19,396	79,277	11,249
DRTs	Cases Filed		Adjudicated Cases		Recovery	
	81,173	1,30,508	49,033	65,585	N.A.	24,889
Lok Adalats	Cases Filed		Cases Decided		Recovery	
	17,12,958	11,763	4,55,423	2,220	3,75,858	982

N.A.: Not Available.

(viii) One of the conditions for availing special asset classification benefit in terms of guidelines on restructuring of advances is that the account should be fully secured. This condition would not be applicable in the case of infrastructure projects, provided the cash flows generated from these projects were adequate for repayment of the advance, the financing bank(s) had in place an appropriate mechanism to escrow the cash flows and also had a clear and legal first claim on these cash flows.

Credit Information Companies

VI.27 The Reserve Bank had invited applications from companies interested in continuing/ commencing business of credit information in April 2007. A High Level Advisory Committee (HLAC) under the Chairmanship of Dr. R.H. Patil was set up for screening the applications and recommending the names of the companies to which certificates of registration (CoRs) could be granted. The Government announced the FDI policy for credit information companies (CICs) in March 2008. The Reserve Bank announced in November 2008 that FDI up to 49 per cent in CICs would be considered in cases: (a) where the investor was a company with an established track record of running a credit information bureau in a well regulated environment; (b) no shareholder in the investor company held more than 10 per cent voting rights in that company; and (c) preferably, the company was a listed company on a recognised stock exchange. Keeping in view the provisions of the CICs (Regulation) Act, 2005 as well as the directives issued by the Reserve Bank, the HLAC had recommended the names of four applicants which the Reserve Bank could consider for granting CoRs. Accordingly, the Reserve Bank, in April 2009, issued 'in-principle approval' to four companies to set up CICs.

Approval for Offering Complex Financial Products

VI.28 Indian banks were advised in December 2008 that if their foreign branches/subsidiaries were transacting in any financial products, which were not available in the Indian market, but on which no specific prohibition was placed by the Reserve Bank, prior approval would not be required only if these were plain-vanilla financial products. The foreign branches/subsidiaries dealing with such products, however, must have adequate knowledge, understanding and risk management capability for handling such products. Such products were to be appropriately captured and reported in the extant off-site returns. Banks would have to obtain prior approval in case their foreign branches/subsidiaries proposed to handle such products.

Unhedged Foreign Exchange Exposure of Clients

VI.29 Banks had been advised in December 2003 to have a policy, which explicitly recognised and took into account risks arising on account of unhedged foreign exchange exposures of their clients. It was also advised that foreign currency loans above a specified limit could be extended only on the basis of a well laid out policy of banks' Boards with regard to the hedging of such loans. It was further advised in December 2008 that the Board's policy should cover unhedged foreign exchange exposure of all clients, including SMEs, which should take into account exposure from all sources, including ECBs. Banks were advised to monitor and review on a monthly basis the unhedged portion of the foreign currency exposures of clients with large foreign currency exposures and the unhedged exposure of SMEs. In all other cases, banks were advised to put in place a system to monitor and review such positions on a quarterly basis.

Counter-cyclical Prudential Norms

VI.30 Banks' loans and advances portfolio often move pro-cyclically, growing faster during an expansionary phase and *vice versa*. During times of expansion and accelerated credit growth, there is a tendency to underestimate the level of inherent risk and the converse holds during times of recession. This tendency is not effectively addressed by capital adequacy and specific provisioning requirements since they capture risk *ex-post,* not *ex-ante*. It is, therefore, necessary to build up capital and provisioning buffers during a cyclical boom, which could be used to cushion banks' balance sheets in the event of a downturn in the economy or deterioration in credit quality on account of other reasons. In order to ensure that asset quality was maintained in the light of high credit growth, risk weights and provisioning requirements on standard advances for banks' exposures to the sectors showing above average growth had been progressively raised during the last 3-4 years, as a counter-cyclical measure. However, with the global financial crisis starting to affect Indian economy from September 2008 onwards, the Reserve Bank reduced the enhanced risk weights and provisioning requirements to the normal level.

VI.31 Risk weight for all unrated claims, long-term as well as short-term, regardless of the amount of claim, on the corporates was reduced from 150 per cent to 100 per cent in November 2008. Risk weight on the claims secured by commercial real estate and exposure to NBFCs-ND-SI was reduced to 100 per cent from 125 per cent.

VI.32 Prior to the unfolding of the global crisis, to ensure that asset quality was maintained in the light of high credit growth, the general provisioning requirement for standard advances in specific sectors, *i.e.*, personal loans, capital market exposures and commercial real estate loans had been increased from 0.4 per cent to 2.0 per cent, and to 1.0 per cent for residential housing loans beyond Rs.20 lakh in January 2007. To mitigate the impact of the current economic slowdown, as a counter-cyclical measure, the provisioning requirement for standard assets was reduced with effect from November 15, 2008, to a uniform level of 0.4 per cent, except in the case of direct advances to the agricultural and the SME sectors, which continue to attract provisioning of 0.25 per cent. The revised norms were made effective prospectively and thus, the provisions already held were not to be reversed. Similar instructions were issued to UCBs.

VI.33 In December 2008, in view of the growing concern of possible increase in stress in the Indian banking system, certain modifications were made to the guidelines on restructuring of advances (issued in August 2008) as a one-time measure and for a limited period of time, *i.e.*, up to June 30, 2009. The special regulatory treatment for asset classification (*i.e.*, retention of the asset classification status of the account as obtaining at the time of restructuring), was extended to commercial real estate exposures restructured for the first time and in the case of exposures (other than commercial real estate, capital markets and personal/consumer loans), which were viable but were facing temporary cash flow problems and needed a second restructuring. Accounts which were standard as on September 1, 2008 but slipped into the NPA category subsequently, were treated as standard on restructuring provided banks took them up for restructuring on or before March 31, 2009 and the restructuring package was put in place within the prescribed quick implementation time schedule. The condition of full security cover for availing the special regulatory treatment was waived in case of cash credit accounts which had been rendered unsecured due to fall in inventory prices, subject to banks making provisions as prescribed. It was emphasised that the relaxations effected to the guidelines on restructuring of advances by the Reserve Bank were aimed at providing an opportunity to banks and borrowers to preserve the economic value of units and should not be considered as means to evergreen the advances.

Floating Provisions

VI.34 Floating provisions made by the banks could not be reversed by credit to the profit and loss account but could only be utilised for making specific provisions under extraordinary circumstances with the prior approval of the Reserve Bank. Until such utilisation, these provisions could be netted off from gross NPAs to arrive at net NPAs, or alternatively, they could be treated as part of the Tier II capital within the overall ceiling of 1.25 per cent of total risk weighted assets. The former option was, however, removed with effect from April 1, 2009. Further, it was decided to allow banks to utilise, at their discretion, the floating provisions held for 'advances' portfolio, to the extent of meeting such interest/charges waived under the Agricultural Debt Waiver and Debt Relief Scheme, 2008.

Unsecured Loans

VI.35 In order to enhance transparency and ensure correct reflection of the unsecured advances in banks' balance sheets, it was advised that for determining the amount of unsecured advances that could be presented in schedule 9 of the published balance sheet, the rights, licenses, authorisations charged to the banks as collateral in respect of projects (including infrastructure projects) financed by them, should not be reckoned as tangible security. Hence, such advances would be reckoned as unsecured.

Off-balance Sheet Exposures

VI.36 For the purpose of computing credit exposure and also for computing capital adequacy, banks were advised in August 2008 to compute their credit exposures/credit equivalent, arising on account of the interest rate and foreign exchange derivative transactions and gold, using the 'current exposure method'. The credit exposures computed would attract provisioning requirement as applicable to the loan assets in the 'standard' category of the concerned counterparties. In October 2008, banks were advised that the overdue receivables representing positive MTM value of a derivative contract would be treated as NPAs, if these remained unpaid for 90 days or more, and all other funded facilities of the client would be treated as NPA following the principle of borrower-wise classification. The principle of borrower-wise asset classification would apply to all overdues arising from forward contracts, plain vanilla swaps and options and other complex derivatives with the exception of complex derivative contracts entered into during the period between April 2007 and June 2008.

Anti Money Laundering Measures

VI.37 The Prevention of Money Laundering (Amendment) Act, 2009 [PMLA] received the assent of the President on March 6, 2009. The amendment sought, *inter alia*, to include payment system operators and 'authorised persons' as defined in Foreign Exchange Management Act, 1999 within the prevention of money laundering framework. The reporting guidelines for banks were updated during the year by the Reserve Bank, the salient features of which include:

(i) All cash transactions, where forged or counterfeit Indian currency notes were used as genuine, should be reported by the Principal Officer to the Financial Intelligence Unit – India (FIU-IND) immediately in the prescribed format – counterfeit currency report (CCR).

(ii) The background including all documents/office records/memorandums pertaining to all complex, unusually large transactions and all unusual patterns of transactions, which had no apparent economic or visible lawful purpose should, as far as possible, be examined and the findings at the branch as well as the Principal Officer level should be properly recorded. These records should be preserved for ten years as required under the PMLA, 2002.

(iii) It is likely that in some cases transactions are abandoned/aborted by customers on being asked to give some details or to provide documents. It was clarified that banks should report all such attempted transactions in suspicious transactions reports (STRs), even if not completed by customers, irrespective of the amount of the transaction.

(iv) While making STRs, banks should be guided by the definition of 'suspicious transaction' as contained in rule 2(g) of rules notified under PMLA, 2002. STRs should be made if there was reasonable ground to believe that the transaction involved proceeds of crime, irrespective of the amount of the transaction and/or the threshold limit envisaged for predicate offences in part B of schedule of PMLA, 2002.

(v) In the context of creating KYC/anti-money laundering awareness among the staff and for generating alerts for suspicious transactions, banks were advised to consider the indicative list of suspicious activities contained in the IBA's Guidance Note for Banks, 2005.

Customer Service

VI.38 During the year, many important initiatives were taken for improving customer service in banks. In order to make available all current instructions on the subject at one place, several important instructions relating to customer service were compiled in the form of a Master Circular, which was issued on November 3, 2008.

VI.39 Based on the experience gained in running the Banking Ombudsman Scheme, 2006, a revision to the Scheme was effected in February 2009. The salient features of the amendments include widening of the scope of the Scheme to consider deficiencies arising out of internet banking services, enabling customers to lodge complaints against banks for their non-adherence to the provisions of the Fair Practices Code for Lenders or the Code of Bank's Commitment to Customers and non-observance of the Reserve Bank's guidelines on engagement of recovery agents. The Reserve Bank also asked all banks to place a copy of the Banking Ombudsman Scheme, 2006, on their websites, for wider dissemination.

VI.40 Banks were reported to be levying high service charges for collection of outstation cheques and for use of certain electronic remittance/transfer of funds services. To reduce the complaints in this regard, instructions were issued in October 2008 for uniform service charges for electronic payment products and also charges for collection of outstation cheques.

VI.41 The Committee on Customer Services (Chairman: Shri H. Prabhakar Rao) submitted its report in April 2008 and covered matters relating to currency management, Government business, inclusive of payment of pension and taxes and foreign exchange services (Box VI.4).

VI.42 Banks were advised in August 2008 to conduct an annual review of accounts in which there were no operations for more than one year and procedures for tracing the customers, ascertaining the reasons for inactivity in the account and labelling the account as inoperative/dormant where there were no transactions for over a period of two years, and payment of interest on savings bank account were prescribed. Since one of the objectives of the segregation of the inoperative accounts was to reduce the risk of frauds, the transaction should be monitored by banks at a higher level both from the point of view of preventing fraud and making an STR.

VI.43 As display of customer-friendly information by banks in their branches is one of the modes of imparting financial education, commercial banks were advised to put the important aspects or mandatory instructions relating to 'customer service information', 'interest rates', 'service charges', 'grievance redressal' and 'others' on a comprehensive notice board and make the detailed information available in booklets/ brochures.

VI.44 During the year, instructions were issued to banks to ensure that their branches invariably accepted cash over the counter from all customers who desired to do so; to ensure that all information relating to charges/fees for processing were invariably disclosed in the loan application forms and to inform the 'all-in-cost' to the customers to enable them to compare the rates charged with other alternative sources of finance; to indicate the name of the nominee in the passbook/statement of account with the consent of the customer; and to provide ramps in ATMs /bank branches and also to make at least one-third of new ATMs installed as talking ATMs with Braille keypads.

VI.45 At present, interest on savings bank accounts is calculated on the minimum balances held in the accounts during the period from the tenth

Box VI.4
Committee on Customer Services

The Reserve Bank had set up the Committee on Customer Services (Chairman: Shri H. Prabhakar Rao) to look into customer services provided by the Reserve Bank directly or through banks/institutions with a view to maximising general public satisfaction. The major recommendations made by the Committee include:

Payment of Government Pension through Public Sector Banks:

- Branch manager should interact with a cross-section of pensioners serviced at the branch on a quarterly basis.
- Banks should follow-up actively and ensure that, wherever possible, pensioners who had retired earlier convert their pension accounts to joint accounts. Nominations should invariably be taken.
- Banks should organise regular training sessions for bank personnel dealing with pension matters in consultation with the concerned Government Department.
- Banks should establish a Centralised Pension Payment Cell (CPPC) to take over back-office work relating to disbursement of Government pension.

Collection of Taxes by Agency Banks (Online Tax Accounting System - OLTAS):

- All banks were advised to ensure that all concerned staff were appropriately trained to the requirements of the OLTAS and were also sensitised to the needs of the individual assessees.
- All bank branches authorised to accept payment of income tax should clearly and prominently display the fact by way of a notice/board.
- Banks were advised to put up notices in their branches asking assessees to quote correct PAN number, assessment year and other details in the challan. Further, an easy to read/comprehend list of “Do’s and Don’ts” is required to be put up as a notice for the guidance of customers.
- Banks should strictly follow the process of verification of the PAN number of existing assessees to eliminate any incorrect entry by the assessees.
- Banks should provide blank printed challans for the convenience of the assessees who could not obtain pre-verified, pre-printed challans over the internet.
- Tax collecting bank branches should invariably give paper token in acknowledgement of the receipt of the cheque.
- All banks should set up e-payment facilities in a time-bound manner.

Issue and Operations of ‘Savings Bonds’:

- Instructions were issued to banks to ensure that every branch conducting Government business of volume above a specified amount (say Rs.25 lakh) was covered by concurrent audit. The scope of the concurrent audit should be prescribed to include various aspects of servicing of savings bonds with specific reference to the customer service related aspects.
- Each bank was asked to automate the processing related to the servicing of savings bonds to ensure the timely servicing of the bonds.
- Banks were advised to actively make efforts to obtain the bank accounts details of the investors in order to migrate to electronic servicing of interest and maturity proceeds of the savings bonds through the electronic clearing service and the national electronic funds transfer.
- Banks were advised to obtain the opinion and views of the investors on the quality of the services rendered by the authorised agencies by means of a survey or questionnaires.

Additionally, the Reserve Bank took the following initiatives:

- Frequently Asked Questions (FAQs) relating to pension disbursement by the public sector banks under the Central Government pension schemes were hosted on the Reserve Bank’s website in June 2008.
- A checklist relating to pension payments/Government business for use of internal inspection of bank branches was forwarded to banks advising them to issue instructions to their internal auditors/inspectors to bestow due attention to adherence to the items of work listed therein and comment on the quality of customer service in their report.
- Efforts were made to extend the electronic payment network to more locations in the country so that every investor could opt for receiving interest and repayment proceeds of Saving Bonds directly into his/her account.

day to the last day of each calendar month. In view of the present satisfactory level of computerisation and extensive networking in commercial banks, and in line with the announcement in the Annual Policy Statement for 2009-10, it is proposed that the payment of interest on savings bank accounts by SCBs would be on a daily product basis with effect from April 1, 2010.

VI.46 Detailed instructions were issued to banks in July 2008 on their credit card operations covering aspects such as issue of unsolicited cards, insurance cover to credit card holders, safeguards against misuse of lost/stolen cards, educating customers on the implications of paying only the 'minimum amount due' on credit cards, excessive interest/other charges, escalation of unresolved complaints, reporting to Credit Information Bureau of India Ltd./CICs, registration of telemarketers, wrongful billing and redressal of grievances.

VI.47 With a view to enhancing awareness about the Codes evolved by the Banking Codes and Standards Board of India, the BCSBI launched a quarterly newsletter titled "Customer Matters", which was distributed to each branch of each member bank. The BCSBI invited suggestions from members of the public, Banking Ombudsmen, various bodies representing interests of banks' customers, and has now completed the process of review of the Code of Bank's Commitment to Customers, in collaboration with the IBA. Public grievance is an effective tool through which the BCSBI carries out its ongoing monitoring of banks' compliance with the Code provisions. The BCSBI, by design and mandate, is not a redressal agency to arbitrate on a dispute between an individual and his/her bank but grievances ventilated by individuals sometimes throw up issues on systemic deficiencies. They enable the BCSBI to monitor Code compliances at system or bank-specific level.

Supervisory Initiatives

VI.48 An Internal Working Group constituted to lay down the road map for adoption of a suitable framework for cross-border supervision and supervisory co-operation with overseas regulators submitted its Report in January 2009. The recommendations of the Group are being examined for initiating further action. An Inter-departmental Group is also examining additional areas/issues which need to be brought under the supervisory focus, including modalities for on-site supervision of overseas branches and subsidiaries of Indian banks. The Group is expected to submit its Report shortly. Keeping in view the systemic importance of financial conglomerates (FCs), efforts are being initiated to strengthen the FC monitoring system further by introducing certain prudential measures such as group-wide capital adequacy requirements, safe conduct of Intra-Group Transactions and Exposures (ITEs) and management of risk concentrations, governance systems in FCs including 'fit and proper' principles and risk management systems, supervisory co-operation and information-sharing amongst the sectoral regulators.

VI.49 Banks were advised to be extremely cautious while continuing relationships with respondent banks located in countries with poor KYC standards and countries identified as 'uncooperative' in the fight against money laundering and terrorist financing. The anti-money laundering (AML)/combating financing of terrorism (CFT) guidelines issued by the Reserve Bank are in consonance with the Financial Action Task Force (FATF) recommendations. Increased disclosure requirements have been emphasised on the part of tax payers and financial institutions for transactions involving uncooperative jurisdictions. The Reserve Bank would continue to incorporate the latest international best practices in its regulations.

Off-Site Returns

VI.50 Off-site supervision, introduced in 1995, has steadily become an integral component of the Reserve Bank's financial stability architecture, providing early warning on weaknesses at the bank level as well as the system level. In order to maintain its effectiveness, changes have been continually incorporated into the off-site surveillance system in alignment with the evolving international practices as also the country-specific needs.

VI.51 As part of the policy decision to receive all regulatory returns through a secured online returns filing system (ORFS), the existing periodic prudential off-site returns submitted by banks are being migrated to the ORFS in a phased manner. After migrating the fortnightly return on liquidity (statement of structural liquidity) from February 2008, four more returns, *viz.*, report on sensitivity to interest rate - both rupee and foreign exchange, report on maturity and position and report on subsidiaries/joint ventures/associates, were successfully migrated to ORFS from January 2009. A new return on capital adequacy as per Basel II was developed using extensible Business Reporting Language (XBRL) and integrated with the existing ORFS. The benefits of ORFS include ease of compilation, speedy submission, monitoring of receipts, scope for incorporating changes in the returns and maintenance of the system.

Monitoring of Frauds

VI.52 The fraud monitoring function of the Reserve Bank has assumed greater significance in recent years as there has been an increase in the number of frauds involving larger amounts. Frauds have been noticed in traditional as also new areas, such as housing loans, credit cards, internet banking and outsourcing business (Table 6.6).

VI.53 The complexity of cases is increasingly exposing banks to greater operational risk. The Reserve Bank, as part of its supervisory process, has been sensitising banks from time to time about common fraud-prone areas, *modus operandi* of frauds and the measures to be taken to prevent/ reduce the incidence of frauds.

VI.54 During the year 2008-09, 102 caution advices were issued to banks by the Reserve Bank (through secured e-mail) in respect of unscrupulous borrowers who perpetrated frauds of amounts exceeding Rs.25 lakh, so that banks could exercise due care while considering sanction of credit facilities to them. With a view to putting in place some deterrent action against entities such as builders, warehouse owners, chartered accountants, lawyers and valuers of properties, who do not have any contractual relationship with banks, it was decided that banks could inform the IBA about the names of such entities so that the IBA could prepare a caution list for circulation amongst banks. A circular was issued to banks in March 2009 in this regard.

Table 6.6: Frauds in the Banking Sector

(Amount in Rupees crore)

Year	Frauds		Frauds involving Rs.1 crore and above	
	Number	Amount	Number	Amount
1	2	3	4	5
2004-05	10,450	779	96	461
2005-06	13,914	1,381	194	1,094
2006-07	23,618	1,194	150	840
2007-08	21,247	1,059	177	659
2008-09	23,914	1,883	212	1,404

VI.55 During the economic slowdown in 2008-09, the need for proactive credit expansion for stimulating the economy, especially in certain specified segments such as housing and infrastructure was recognised. There is, however, a potential scope for internal controls getting relaxed due to the exigency of credit expansion. Weaker standards of control and risk management tend to facilitate frauds, especially when rapid credit expansion has to be achieved in a slowing economy. Therefore, appropriate precaution needs to be integrated into the bank oversight structure. In this context, the Reserve Bank proposes to evolve a prudential approach to fraud oversight as against the existing legal approach. The approach would seek to align the supervisory oversight on frauds with the Supervisory Review and Evaluation Process (SREP) under Pillar 2 of Basel II by factoring in the sharp rise in frauds, while profiling the operational risks facing the banks.

URBAN CO-OPERATIVE BANKS

VI.56 The Primary (Urban) Co-operative Banks (UCBs) play an important role as financial intermediaries in urban and semi-urban areas catering to the needs of the non-agricultural sector, particularly small borrowers. In the context of their role in the national economy, several initiatives are being taken by the Reserve Bank to help the sector to grow on sound lines. The Reserve Bank has entered into MoUs with 26 State Governments and with the Central Government (for multi-State UCBs) and Task Forces on Urban Co-operative Banks (TAFCUBs) were constituted in these States and at the Centre for identification of non-viable UCBs and deciding their future set up. The MoU arrangement now covers over 99 per cent of the banks that account for over 99 per cent of deposits in the sector.

VI.57 With a view to providing an additional avenue for non-disruptive exit of weak/unviable entities in the co-operative banking sector, the Reserve Bank issued guidelines on merger/ amalgamation of UCBs with Deposit Insurance and Credit Guarantee Corporation (DICGC) support in January 2009. UCBs with negative net worth were permitted to restructure their liabilities and convert a part of deposits of the large depositors having deposits of Rs.1 lakh and above and those of co-operative institutions into equity capital and Innovative Perpetual Debt Instruments (IPDIs) so as to restore viability to the restructured banks. In order to protect the interests of the depositors, the Reserve Bank also permitted transfer of assets and liabilities of a mid-sized UCB to a public sector commercial bank. To overcome the difficulties in raising of capital funds and achieving the prescribed CRAR of 9 per cent, the Reserve Bank issued guidelines for raising of capital by way of preference shares and long-term deposits. With the comfort of coordinated supervision, UCBs in States which had signed the MoUs, were permitted to open currency chests, sell units of mutual funds and insurance products, provide foreign exchange services, open new ATMs and convert extension counters into branches. Further, banks were granted authorisation to open new branches.

VI.58 There has been a change in the profile of the sector due to measures taken in recent times. The number of banks in Grade I or II have increased significantly from 1,147 (61 per cent of the total of 1,872 banks) as on March 31, 2005 to 1,326 (77 per cent of total of 1,721 banks) as on March 31, 2009. The number of Grade III and Grade IV UCBs taken together, (implying weakness/sickness in UCBs) have similarly declined from 725 (39 per cent of the total) as on March 31, 2005 to 395 banks (23 per cent of total) as on March 31, 2009.

Branch Expansion

VI.59 Sound and well-functioning Tier II UCBs in States that had signed MoUs were provided avenues for organic growth as they could submit applications to the Reserve Bank for extension of their areas of operation to the entire State. The branch licensing norms for such Tier I and Tier II UCBs were further liberalised in 2008-09 and it was decided that approvals for branch expansion, including off-site ATMs would be considered subject to satisfaction of certain criteria. The eligibility norms for opening up of on-site ATMs were liberalised following the announcement to the effect in the Annual Policy Statement for 2008-09.

Financial Restructuring

VI.60 UCBs were advised that, subject to certain conditions, their proposals for financial restructuring would be considered as an additional option for resolution of problem banks.

Prudential Guidelines

VI.61 The proportion of SLR holdings in the form of Government and other approved securities as percentage of NDTL was revised and non-scheduled UCBs were asked to maintain SLR of 7.5 per cent by September 30, 2009, 15 per cent by March 31, 2010 and 25 per cent by March 31, 2011. Non-SLR investments of UCBs continue to be limited to 10 per cent of a bank's total deposits as on March 31 of the previous year.

VI.62 In view of the economic downturn in 2008-09, which created stress on liquidity and repayment capability of the otherwise viable units, revised guidelines were issued to UCBs on restructuring of advances, applicable to all accounts restructured after March 6, 2009 (*i.e.*, the date of issue of the circular). Under the revised guidelines, special regulatory treatment is available to the borrowers engaged in important business activities, subject to compliance with certain conditions. The special regulatory treatment has two components – incentive for quick implementation of the restructuring package and asset classification benefits.

VI.63 In respect of legacy cases pertaining to UCBs having negative net worth as on March 31, 2007, it was decided that Reserve Bank would consider a scheme of amalgamation that provides for payment to depositors, financial contribution by the transferee bank and sacrifice by large depositors. The detailed guidelines for merger of UCBs in such legacy cases were laid down together with guidelines for valuation of assets and liabilities of the transferor bank and the additional incentives that could be provided to the transferee bank.

Regulatory Initiatives

VI.64 More granular asset-liability management guidelines (splitting the first time bucket in the statement of structural liquidity into three buckets) became effective for scheduled UCBs from January 1, 2009. Consequent to the announcement in the Annual Policy Statement for 2008-09, Tier II UCBs were permitted to extend individual housing loans up to a maximum of Rs.50 lakh (Rs.25 lakh earlier) per beneficiary of a dwelling unit subject to extant prudential exposure limits.

Customer Service

VI.65 All UCBs were advised to conform to the time frame prescribed by the National Consumer Dispute Redressal Commission in the matter of clearance of cheques. For delays beyond the stipulated period, banks should pay interest at the fixed deposit rate or at the specified rate as per the respective bank's policy, to the payee of the cheques.

VI.66 Notifications oriented towards customer service issued to UCBs by the Reserve Bank during 2008-09 include instructions regarding display of information by banks on comprehensive notice boards, display of information relating to interest rates and service charges and need to make bank branches and ATMs accessible to persons with disabilities. Since visually challenged persons were legally competent to enter into business contracts, UCBs were advised to ensure that all banking facilities such as cheque book facility (including third-party cheques), ATM facility, net banking facility, locker facility, retail loans, and credit cards were invariably offered to the visually challenged without any discrimination. UCBs were advised to ensure that a suitable mechanism existed for receiving and addressing complaints from their customers with specific emphasis on resolving such complaints fairly and expeditiously regardless of the source of the complaints.

Business Facilitation

VI.67 UCBs, which are recognised as authorised dealer category I and II, could participate in designated currency futures exchanges recognised by the SEBI as clients, only for the purpose of hedging their underlying foreign exchange exposures.

Mergers and Amalgamations

VI.68 The process of consolidation of the sector through the merger of weak entities with stronger ones has been set in motion by providing transparent and objective guidelines for granting no-objection to merger proposals (Box VI.5). The Reserve Bank, while considering proposals for merger/amalgamation, confines its approval to the financial aspects of the merger, taking into consideration the interests of the depositors and financial stability. Invariably, it is a voluntary decision of the banks that approach the Reserve Bank for obtaining no objection for their merger proposal. As of end-June 2009, 71 UCBs had been merged, with 50 being Grade IV banks of which 44 had negative net worth.

RURAL CO-OPERATIVES

VI.69 The Government of India had constituted a Task Force on Revival of Short-Term Rural

Box VI.5
Merger and Amalgamation of UCBs

With a view to facilitating consolidation and emergence of strong entities as well as for providing an avenue for non-disruptive exit of weak/unviable entities in the co-operative banking sector, the Reserve Bank issued guidelines on merger/amalgamation of UCBs in February 2005.

An elaborate process is followed for merger and amalgamation. The merger proposal has to be submitted by the acquirer bank to the Registrar of Co-operative Societies (RCS)/Central Registrar of Co-operative Societies (CRCS) and a copy of the proposal is also simultaneously forwarded to the Reserve Bank along with certain specified information. The Reserve Bank examines the proposals and places the same before an Expert Group for screening of applications of merger and amalgamation. On evaluation, if the proposal is found to be suitable, the Reserve Bank issues no objection certificate (NOC) to the RCS/CRCS and the banks concerned. The RCS/CRCS then issue the order of amalgamation of the target UCB in compliance with the provisions of the Co-operative Societies Act under which the bank is registered.

In legacy cases pertaining to UCBs having negative net worth as on March 31, 2007, it has been decided that the Bank may also consider scheme of merger that provides payment to depositors under Section 16 (2) of the DICGC Act, 1961, financial contribution by the transferee bank and sacrifice by large depositors. Additional incentives were provided to the transferor bank on merger. The additional incentives include permission for closure of loss making branches of the transferor bank, shifting/relocation of branches of the transferor bank within the area of operations, retention of facilities such as Authorised Dealer licence where higher level of CRAR at 12 per cent was prescribed on an ongoing basis provided the bank maintained the benchmark CRAR of 9 per cent, minimum entry point norm of Rs.50 crore not being insisted for a bank to become multi-State on account of taking over another UCB registered outside the State.

Pursuant to the issue of the guidelines, the Reserve Bank received 119 proposals for merger in respect of 104 banks. The Reserve Bank has issued NOCs in 82 cases. Of these, 71 mergers became effective upon the issue of statutory orders by the concerned RCS/CRCS. 21 proposals for merger were rejected by the Reserve Bank, three proposals were withdrawn by the banks and the remaining 13 are under consideration. Out of the 71 banks for which orders of merger were received from the RCS/CRCS, 44 had negative net worth. The profit making banks were also permitted to merge with the aim of strengthening the sector and in some cases, because they were not considered to be viable on a stand-alone basis in the long run.

Co-operative Credit Institutions to propose an action plan for reviving the rural co-operative banking institutions and suggest an appropriate regulatory framework for these institutions. In order to give a further fillip to the co-operative banking sector, the Task Force also undertook a study on revival of long-term co-operative credit structure in the country (Box VI.6).

VI.70 The Reserve Bank regulates state co-operative banks (St.CBs) and district central co-operative banks (DCCBs) under the Banking Regulation Act, 1949, (AACS) while NABARD supervises them. Only 14 out of the 31 St.CBs and 75 out of the 371 DCCBs have been granted licences by the Reserve Bank so far. 16 St.CBs have also been granted scheduled status under Section 42 of the Reserve Bank of India Act, 1934.

VI.71 The CFSA had observed that there was a need to draw up a roadmap for ensuring that only licensed banks operated in the co-operative space by the year 2012. This would expedite the process of consolidation and weeding out of non-viable entities from the co-operative space. Accordingly, it was announced in the Annual Policy Statement for 2009-10 that a roadmap would be worked out for achieving this objective in a non-disruptive manner in consultation with NABARD. The discussions with NABARD have been initiated in the matter.

REGIONAL RURAL BANKS

VI.72 The process of consolidation through amalgamation of RRBs is now almost complete, resulting in a decline in the total number of RRBs to 86 as on March 2009 (which includes a new RRB set up in the Union Territory of Puducherry) and further to 84 as on July 31, 2009. The process of recapitalisation of RRBs with negative net worth is complete, with 27 RRBs fully recapitalised with an amount of Rs.1,796 crore at end-July 2009.

Box VI.6
Revival of Co-operative Credit Structure

Recognising the continued significance of the co-operative credit structure in the economy, despite the significant spread of banks and non-banks to all regions of the country and taking into account the deep-rooted integration of the co-operative structure in the Indian socio-economic systems, the Government of India had constituted a Task Force on Revival of Short-Term Rural Co-operative Credit Institutions (Chairman: Prof. A. Vaidyanathan). The Task Force submitted its report to the Central Government in February 2005. Based on the recommendations of the Task Force and in consultation with the State Governments, the Government of India had approved a package for revival of the Short Term Rural Co-operative Credit Structure, which consists of Primary Agricultural Credit Societies (PACS) at the village/base level, Central Co-operative Banks (CCBs) at the intermediate level and the State Co-operative Banks (StCBs) at the apex level. The revival package aims at reviving the short-term rural co-operative credit structure to make it a well-managed and vibrant medium to serve the credit needs of rural India, especially the small and marginal farmers. The package seeks to: (i) provide financial assistance to bring the system to an acceptable level of health; (ii) introduce legal and institutional reforms necessary for its democratic, self- reliant and efficient functioning; and (iii) take measures to improve the quality of management.

The total financial assistance under the revival package is estimated at Rs.13,596 crore. The liability for funding the financial package would be shared by the Central Government, the State Government and the co-operative credit structure based on the origin of losses and existing commitments. The financial assistance would be released only on the implementation of the recommendation for legal and institutional reforms. The States willing to participate were required to enter into a MoU with the Central Government and NABARD. So far, twenty-five States have executed MoUs with the Government of India and the NABARD, as envisaged under the package. This covers more than 96 per cent of the short-term co-operative credit structure units in the country.

Ten States, namely, Andhra Pradesh, Bihar, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Tamil Nadu and Uttar Pradesh had made necessary amendments in their Cooperative Societies Acts as at end-June 2009. The State Governments of Chhattisgarh and West Bengal have taken a Cabinet decision approving the amendments in respect of the reform measures as they have submitted their new State Cooperative Societies Acts to Hon'ble President for assent. Draft amendments to Co-operative Societies Acts of Arunachal Pradesh, Assam, Karnataka, Punjab, Rajasthan, Tripura, Uttarakhand, Sikkim, Jharkhand, Jammu and Kashmir, Mizoram, Manipur and Meghalaya are under consideration.

As required in the revival package, the Reserve Bank has prescribed 'fit and proper' criteria for the Directors and CEOs of the StCBs and CCBs for circulation amongst the concerned banks through NABARD. An aggregate amount of Rs.6,170.3 crore had been released by NABARD as the Government of India's share for recapitalisation of PACS in ten States namely, Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal, as on June 30, 2009, while the State Governments had released their share of Rs.614.8 crore. The National Implementing and Monitoring Committee, set up by the Government of India, is guiding and monitoring the implementation of the revival package on an all-India basis.

Furthermore, the study of the long-term cooperative credit structure was entrusted by the Government to the same Task Force. The Report was submitted in August 2006. It was announced in the Union Budget for 2008-09 that the Central Government and the State Governments had reached an agreement on the content of the package for revival of the long-term cooperative credit structure. The cost of the package was estimated at Rs.3,074 crore, of which the Central Government's share would be Rs.2,642 crore.

VI.73 With effect from the fortnight beginning February 28, 2009, penalty is imposed on those RRBs which default in maintenance of SLR. The exemption granted to RRBs from the purview of Section 31 of the Banking Regulation Act, 1949 in regard to publishing their balance sheet was also withdrawn, effective from the financial year ending March 31, 2009.

VI.74 Measures taken to further liberalise the branch licensing policy for RRBs during 2008-09 include relaxation of conditions for opening branches in hitherto uncovered districts and opening of service branches/central processing centres/back offices. During 2008-09, the Reserve Bank granted 780 licences to RRBs for opening branches, of which 690 were opened.

VI.75 The CFSA had suggested a phased introduction of CRAR in RRBs, along with the recapitalisation, after consolidation of these entities. It was, therefore, announced in the Annual Policy Statement for 2009-10 to introduce CRAR for RRBs in a phased manner, taking into account the status of recapitalisation and amalgamation. A time-table for this purpose would be announced in consultation with NABARD. Accordingly, NABARD has been advised to constitute a Working Group to suggest bank-wise actionable measures for RRBs which had CRAR less than 1 per cent as on March 31, 2008 so that they could achieve the target of 7 per cent by March 2010.

VI.76 In order to prepare the RRBs to adopt appropriate technology and migrate to core banking solutions (CBS) for better customer services, a Working Group (Chairman: Shri G. Srinivasan) was constituted to prepare a roadmap for migration to CBS by the RRBs. The Working Group reviewed the present status of computerisation in RRBs and viewed that RRBs could not remain isolated from the technological developments sweeping the banking sector and that the "one strategy fits all" approach was not workable. The Group also examined the use of solar power as an alternative source of energy for powering branches located in remote places and suggested that although heavy initial cost was involved in installation of solar power units, the long-term benefits would justify powering branches through solar power. The Report, among other things, set September 2011 as the target for all RRBs to move towards CBS, with all branches of RRBs opened after September 2009 to be CBS compliant from day one. The Report was forwarded to all sponsor banks to take necessary action.

VI.77 A Working Group (Chairman: Shri G. Padmanadbhan) was constituted to explore various affordable ICT-based solutions suitable for RRBs and to identify the cost elements and recommend the manner and criteria for funding such ICT solutions. The Group examined the existing constraints, both financial and infrastructural, in adoption of financial inclusion initiatives by the RRBs. It also explored the various available technology options and suggested modalities for the Reserve Bank's support to finance ICT solutions for the RRBs. It was announced in the Annual Policy Statement for 2009-10 that a scheme would be worked out, in consultation with NABARD, to decide the manner of providing assistance to RRBs adopting ICT solutions for financial inclusion in districts identified as having high level of exclusion.

ALL INDIA FINANCIAL INSTITUTIONS (AIFIs)

VI.78 As at end-March 2009, there were four institutions, *viz.*, EXIM Bank, NABARD, NHB and SIDBI, regulated by the Reserve Bank as all-India Financial Institutions (AIFIs). In the wake of the emerging global developments and their impact on financial institutions, the Reserve Bank received requests from select AIFIs for liquidity support for on-lending to HFCs/NBFCs/MFIs and exporters, and accordingly, took a number of measures.

VI.79 In December 2008, the Reserve Bank sanctioned refinance facilities of Rs.7,000 crore, Rs.5,000 crore and Rs.4,000 crore for SIDBI, EXIM Bank and NHB, respectively, under the relevant provisions of the Reserve Bank of India Act, 1934. The availment of refinance by the above AIFIs under this facility is restricted to a period of 90 days and the amount could be flexibly drawn and repaid during the period. The facility could be rolled over and would be available up to March 31, 2010. Advances under this facility are charged at the repo rate under the LAF of the Reserve Bank. The funds provided under the refinance facility should be utilised as per the policy approved by the Board of the respective financial institution, and in adherence with the extant exposure norms for these entities. To facilitate monitoring, the financial institutions are required to submit a weekly report on the utilisation of the refinance facility. The amount outstanding under the special refinance facility remained small up to February 2009 for each institution but picked up subsequently (Table 6.7).

VI.80 The ceiling on aggregate resources mobilised by SIDBI, NHB and EXIM Bank was raised subject to conditions, with effect from December 8, 2008, for a period of one year. The guidelines regarding restructuring of advances issued to banks have been *mutatis mutandis* applied to the select AIFIs. Provisions relating to certain activities generally not undertaken by FIs, such as extending working capital, overdrafts and personal loans would, however, not be applicable to them.

Table 6.7: Utilisation of Refinance Facilities

(Amount in Rupees crore)

AIFIs	Refinance sanctioned	Cumulative Amount drawn up to June 26, 2009	Cumulative Amount Disbursed up to June 26, 2009	Number of beneficiaries
1	2	3	4	5
SIDBI	7,000	5,684	4,971	33 *
		988	1,043	22 **
		7,747	1,841	5,179
EXIM Bank	5,000	3,000	3,478	35
NHB	4,000	3,979	3,979	14 #

* : State Finance Corporations and banks.
**: NBFCs.
\# : Housing Finance Companies.

NON-BANKING FINANCIAL COMPANIES

VI.81 Traditionally, deposit taking NBFCs (NBFCs-D) were subjected to prudential regulation on various aspects of their functioning while the non-deposit taking NBFCs (NBFCs-ND) were subject to minimal regulation. In the light of the growing integration of the financial sector, it was felt that all systemically relevant entities offering financial services ought to be brought under a suitable regulatory framework to contain systemic risk. Therefore, as a first step, in December 2006 all NBFCs-ND with an asset size of Rs.100 crore and above as per the last audited balance sheet were designated as systemically important NBFCs-ND (NBFCs-ND-SI) and a specific regulatory framework was put in place from April 1, 2007 for such entities.

VI.82 On a review of the experience with the regulatory framework, it was felt desirable to enhance the capital adequacy requirement and put in place guidelines for liquidity management and reporting, as also norms for disclosures. Thus, NBFCs-ND-SI were advised to attain minimum CRAR of 12 per cent by March 31, 2010 and 15 per cent by March 31, 2011.

VI.83 In April 2008, existing instructions on KYC norms and AML/CFT standards were reviewed with regard to identification of customers to ensure that NBFCs kept in mind the spirit of instructions issued by the Reserve Bank and avoided undue hardships to individuals who were otherwise classified as low risk customers. It was advised that NBFCs should update the consolidated list of high risk individuals and entities as circulated by the Reserve Bank. Further, the updated list of such individuals/entities could be accessed from the United Nations' website. While the names of their new customers should not appear in the list, NBFCs should also put in place an adequate screening mechanism as an integral part of their recruitment/hiring process. Obligations of NBFCs in terms of rules notified under PMLA 2002 and certain clarifications regarding CTRs and STRs were revised in August 2008. These were in line with the instructions issued to commercial banks.

VI.84 To ensure a measured movement towards strengthening the financials of all deposit taking NBFCs, in June 2008, NBFCs-D with a minimum net owned fund (NOF) of less than Rs.200 lakh were asked to freeze their deposits, and bring it down to the revised ceiling of deposits, which in turn was dependent on the extent by which their NOF was less than the prescribed minimum of Rs.200 lakh.

VI.85 Statutory auditors play an important role in assisting the Reserve Bank in supervision of the NBFCs which are large in number. Earlier directions to statutory auditors were issued way back in 1998. Given the changed operating environment since then, updated and consolidated instructions encompassing supervision of both NBFCs-D as well as NBFCs-ND were issued to the auditors of NBFCs in September 2008.

VI.86 To enhance the focus on the NBFCs-ND with asset size of Rs.50 crore and above but less than Rs.100 crore (which were earlier not supervised), it was decided to call for basic information from non-deposit taking NBFCs with asset size between Rs.50 crore and Rs.100 crore at quarterly intervals. To ensure better supervision, all NBFCs (both deposit taking and non-deposit taking) with asset size of Rs.100 crore and above were asked to furnish the information about downgrading/upgrading of the assigned rating of any financial product issued by them, within fifteen days of such a change in the rating.

VI.87 On account of intensification of the global financial crisis in September 2008, some immediate impact was felt in the domestic capital markets, resulting in redemption pressure on mutual funds, which created liquidity constraints for NBFCs. In response, the Reserve Bank introduced special fixed rate Repo under LAF to banks exclusively for the purpose of meeting the funding requirements of mutual funds and NBFCs. The precautionary measures taken by the Reserve Bank since October 2008 to enhance the availability of liquidity to NBFCs are:

(i) Taking into consideration, the need for enhanced funds for increasing business and meeting regulatory requirements, it was decided that NBFCs-ND-SI could augment their capital funds by issue of Perpetual Debt Instruments (PDI) in accordance with the stipulated guidelines. Such PDI would be eligible for inclusion as Tier I capital to the extent of 15 per cent of total Tier I capital as on March 31 of the previous accounting year and the excess amount would qualify as Tier II capital within the eligible limits. The minimum investment in each such issue/tranche by a single investor would not be less than Rs.5 lakh. The amount of funds raised by NBFCs-ND-SI would not be treated as 'public deposit' within the meaning of Reserve Bank directives in this regard.

(ii) NBFCs-ND-SI which were facing problems of liquidity and ALM mismatch in the existent economic scenario were permitted, as a temporary measure, to raise short-term foreign currency borrowings under the approval route, subject to certain conditions.

(iii) To ease the flow of bank credit to the NBFCs, certain changes initiated were: (a) standard asset provisioning required to be made by banks on advances to NBFCs was reduced from 2.0 per cent to 0.4 per cent; (b) the risk weight on banks' exposure to NBFCs-ND-SI reduced to 100 per cent from 125 per cent earlier, irrespective of credit rating while exposure to AFCs which attracted risk weight of 150 per cent was also reduced to 100 per cent; and (c) banks were permitted, on a temporary basis, to avail liquidity support under the LAF window through relaxation in the maintenance of SLR to the extent of up to 1.5 per cent of their NDTL, exclusively for meeting the funding requirements of NBFCs and mutual funds.

(iv) A scheme for providing liquidity support to eligible NBFCs-ND-SI through an SPV for meeting the temporary liquidity mismatches in their operations was introduced. IDBI Stressed Asset Stabilisation Fund (SASF) Trust was notified as the SPV for undertaking this operation. The SPV would purchase short-term papers from eligible NBFCs-ND-SI to meet the temporary liquidity mismatches. The instruments would be CPs and CDs, with a residual maturity of not more than three months and rated as investment grade. The facility would not be available for any paper issued after September 30, 2009 and the SPV would cease to make fresh purchases after December 31, 2009 and would recover all dues by March 31, 2010. The rate of interest charged by the IDBI SASF Trust would be 12.0 per cent.

VI.88 These steps indirectly also helped in dealing with the market pressure which had been building up on the liquid and fixed maturity plan portfolios of mutual funds. In this context, a review of the impact of these measures/relaxations on release of credit by banks to mutual funds/NBFCs was carried out in mid-November 2008. The review revealed that during the period from October 14 to November 20, 2008, many banks availed liquidity support under the 14-day special fixed rate repo of the Reserve Bank funding to mutual funds against the collateral of CDs. Some banks also availed liquidity support under 14-day special fixed rate repo of the Reserve Bank against their funding to NBFCs against the collateral of receivables of their regular NBFC clients. Overall, the policy announcement had a salutary effect on the mutual funds that faced liquidity problems (Box VI.7).

Box VI.7
Liquidity Crisis – Implications for NBFCs

In view of the funding inter-linkages between NBFCs, mutual funds and commercial banks, when the contagion from the global financial crisis created selling pressures in the stock markets in India, the liquidity needs of the system as a whole had to be addressed by the Reserve Bank. The ripple effect of the US and European markets led to heavy redemption pressure on mutual funds, starting in September 2008, as several investors, especially institutional investors, started redeeming their investments in liquid funds/money market funds. Mutual funds are major subscribers to CPs and debentures issued by the NBFCs, besides CDs issued by banks. With the mutual funds facing redemption pressures and difficulties in rolling over the maturing investments, one of the prime sources of funds available to NBFCs dried up and, hence, there was no market for rollover of maturing short-term instruments floated by NBFCs for having regular access to market funding. Apart from this, there were reports that the liquidity crunch also made banks reluctant to lend to NBFCs. This heightened the perception that NBFCs were facing severe liquidity constraints. To ascertain the ground reality, a study involving discussions with a large number of NBFCs-ND-SI was initiated.

The discussions centered on the immediate issue of liquidity constraints faced by the NBFCs and their experience with the measures taken by the Reserve Bank to ease the situation. The focus areas for discussions were: (i) the profile, composition and maturity pattern of assets and liabilities; (ii) liquidity issues/constraints faced by the companies; (iii) measures taken for mitigation of such constraints; (iv) feedback on the easing measures taken by the Reserve Bank; (v) business strategy/plans of the NBFCs in the immediate future, including substitution of short-term funds, possibility of downsizing the balance sheet and growth plans; and (vi) real estate/capital market exposures.

It emerged from the discussions that based on their liquidity sensitivity to the changing market conditions, NBFCs could be categorised into four groups. The first group of companies had financed assets with long-term liabilities and small amounts of CPs and had no asset-liability mismatches, as they mainly had short-term assets and also back-up lines of credit. They constituted the largest group and covered nearly three fourths of the total assets of companies under discussion. Another minority group had asset-liability mismatches but these companies had foreign parents from whom funds could be received. This group represented only 2.0 per cent of the total assets of the NBFCs. The third group of companies had financed assets with a mix of short-term CPs and bank funds and had a mismatch within tolerance limits. They had around 6.0 per cent of the total assets of the NBFCs. The last group of companies had long-term assets and short-term liabilities and was facing liquidity problems. These companies accounted for 17.0 per cent of the total assets of the NBFCs.

There was a general view among the companies that funds had become costlier and that raising funds outside bank borrowings had become extremely difficult in view of the then market conditions. Further, banks were also reluctant to extend additional credit or increase credit to NBFCs. Some of the NBFCs had put on hold incremental disbursements as they were utilising inflows to repay their short-term obligations and uncertainty of funds flow did not encourage them to expand their balance sheets.

Loan companies were expecting a slight increase in delinquency rates, as they had ventured into riskier segments, *viz.*, unsecured loans and retail finance. The investment companies anticipated difficulty in subscriptions to their CPs/debentures for which mostly mutual funds and banks were their mainstay. A number of companies, particularly investment companies, that had significant exposure in the capital market also had not indicated any liquidity problems except in the first few weeks of October 2008 largely on account of the fact that the companies lent only up to 50.0 per cent of the market value and in some cases only up to 33.3 per cent, coupled with regular margin calls.

Thus, even though at some point it was widely perceived that the NBFCs were facing significant problems, in reality, only a small segment of the NBFCs had real liquidity constraints and the Reserve Bank's timely and adequate liquidity interventions could address the problems over a short timeframe.

VI.89 In January 2009, the Boards of NBFCs were asked to adopt a well documented interest rate model taking into account the relevant factors to determine the interest rate to be charged on loans and advances. With reference to the queries raised regarding repossession of vehicles, the Reserve Bank clarified in April 2009 that NBFCs must have a built in re-possession clause in the contract/loan agreement with the borrower, which must be legally enforceable. In order to ensure transparency, the terms and conditions of the contract/loan agreement should also contain provisions regarding certain procedures and a copy of such terms and conditions must be made available to the borrowers.

Securitisation Companies/Reconstruction Companies

VI.90 The Reserve Bank revised the formats of quarterly statements to be submitted by

Securitisation Companies/Reconstruction Companies (SCs/RCs) in September 2008. The revised statements would capture, *inter alia*, data on position of owned fund of the SCs/RCs (including FDI component); position of acquisition/realisation of financial assets from banks/FIs by the SCs/RCs in terms of the SARFAESI Act, 2002; and information as regards security receipts (SRs) issued, redeemed and outstanding at the end of particular quarter.

VI.91 It was clarified that a SC/RC was neither a 'bank' nor a 'financial institution' under the provisions of the SARFAESI Act. Therefore, the acquisition of financial assets by a SC/RC from another SC/RC would not be in conformity with the provisions of the said Act. There was, however, no bar on SCs/RCs deploying their funds for undertaking restructuring of acquired loan accounts with the sole purpose of realising their dues.

DEPOSIT INSURANCE AND CREDIT GUARANTEE CORPORATION OF INDIA

VI.92 The deposit insurance scheme at present covers commercial banks including local area banks and RRBs in all States and Union Territories. The number of registered insured banks as on March 31, 2009 stood at 2,307 comprising of 80 commercial banks, 86 RRBs, 4 local area banks and 2,137 co-operative banks. The extent of protection accorded to depositors in terms of percentage of the number of fully protected accounts to the total number of accounts and the amount of insured deposits to assessable deposits as on March 31, 2009 stood at 89.3 per cent and 56.2 per cent, respectively (Chart VI.1). The current level of insurance cover, at Rs.1 lakh, is 2.2 times per capita GDP as on March 31, 2009, as against the global average of around three times per capita GDP[3]. During 2008-09, the Corporation settled aggregate claims worth Rs.228 crore in respect of one commercial bank and 75 co-operative banks.

Chart VI.1: Extension of Protection Accorded to the Depositors

Evolving Regulatory and Supervisory Regime in the Context of the Crisis

VI.93 The lessons from the financial crisis have provided the necessary motivation and rationale for revamping the financial stability architecture of countries, with a view to strengthening the systems and preventing systemic crisis. Policy makers all over the globe have been assessing whether – and to what extent – certain features of the financial system encouraged market excesses and the build-up of large financial imbalances. They have also been considering what changes need be made to the financial system and to the regulatory and supervisory frameworks so as to prevent similar financial crises in future (Box VI.8). Internationally, many countries are contemplating significant changes to the existing regulatory regimes, in terms of jurisdiction powers, operational systems and procedures. The financial regulation review in June 2009 by the US introduces a 'systemic-risk regulation' which includes a "Financial Services Oversight Council", which would coordinate policy and identify emerging risks, among other roles. A new Banking Act has been introduced in the UK,

[3] Based on data from 68 Countries - "Report of the Committee on Financial Sector Assessment (2009), constituted by Government of India, March, Vol. III, page 309".

Box VI.8:
Evolving Regulatory Changes in Response to the Crisis: The Indian Position

Several regulatory and supervisory issues have surfaced from the financial crisis in the advanced countries. Following intense deliberations on these issues, national regulators are broadly highlighting the following for reforming their financial stability architecture:

i. Strengthening the minimum capital adequacy requirements, with a focus on both the quality and quantity of the capital, supplemented with an overall leverage ratio.

ii. Reducing the pro-cyclicality attached to the regulatory framework (Basel II) through introduction of dynamic provisioning or counter-cyclical capital requirements.

iii. Macro-prudential analysis to study the interactions between the economy and the financial system and to provide early warning signals about the risks to the financial system and to the economy.

iv. Monitoring and supervision of large and complex banks, especially those which have cross-border presence and institution of 'college of supervisors' for effective cross-border supervision and supervisory co-operation.

v. Strengthening the individual bank's risk management framework, especially for off-balance sheet items and need for stress testing, regulation and supervision of liquidity at micro (individual banks) and macro (systemic) level.

vi. Strengthening the corporate governance, including adoption of 'fit and proper' norms by the Board and the senior management of a bank.

vii. Extending regulation and supervision to all markets and institutions which are systemically important, even if they are non-deposit taking institutions/not directly dealing with the public.

viii. Creation of central counterparties in OTC derivatives trading.

ix. Considering alternative approaches for recognising and measuring loan losses that incorporate a broader range of available credit information; examining changes to relevant standards to dampen adverse dynamics associated with fair value accounting, including improvements to valuations when data or modeling may be weak.

x. Reducing the complexity of accounting standards for financial instruments and improving presentation standards to allow the users of financial statements to better assess the uncertainty surrounding the valuation of financial instruments.

The Indian regulatory structure for the entire financial system would respond appropriately to the emerging international initiatives, modulating the changes to country-specific needs. The well thought out and calibrated approach adopted by India while globalising the financial system in a phased manner commensurate with the system's preparedness in terms of risk management and technology was instrumental in avoiding the direct harmful effects of the contagion on the domestic financial system weathering the crisis to a large extent. Several measures have been initiated in recent years, as detailed earlier in the Chapter, for strengthening the regulatory and supervisory functions of the Reserve Bank. Management of private pools of capital is not a major concern in India as venture capital funds and mutual funds are registered and regulated by the SEBI, while hedge funds do not operate in India at present. The High Level Co-ordination Committee on Financial Markets (HLCCFM) provides a coordination mechanism among financial sector regulators, *viz.*, Reserve Bank, SEBI, IRDA and PFRDA. It is supported by other technical committees/sub-committees, which examine issues relating to entities under various regulators that have cross-sector implications.

Since end-March 2009, all the SCBs in India have migrated to the Basel II framework and would be subjected to the supervisory review and evaluation process (SREP) under Pillar 2 of Basel II for assessing the capital requirement as also the capital adequacy of each bank *vis-à-vis* its risk profile and the standard of its internal controls system and risk management practices. The maintenance of financial stability has been explicitly recognised as a key objective by the Reserve Bank in various policy documents. The Reserve Bank has also set up a Financial Stability Unit as announced in the Annual Policy Statement for 2009-10, for carrying out periodic stress testing and for preparing financial stability reports.

References:

1. European Union (2009), Report of The High Level Group on Financial Supervision in the EU, (Chairman: Jacques de Larosiere), February 25.
2. G20 (2009), Report of the Group on Enhancing Sound Regulation and Strengthening Transparency, (Chairman: Dr. Rakesh Mohan), March.
3. Government of India and Reserve Bank of India (2009), Report of the Committee on Financial Sector Assessment, (Chairman: Dr. Rakesh Mohan), March.
4. Reserve Bank of India (2008), Report on Currency and Finance, 2006-08, September.

which assigns the Bank of England a statutory role relating to the financial stability objective and also introduces a new special resolution regime for dealing with failing banks. A new Systemic Risk Board in the EU identifies EU-wide systemic risk and makes appropriate policy recommendations to mitigate the same. A new central bank law in Malaysia seeks to provide clarity on the role of the central bank in ensuring financial stability. The Financial Stability Board has been set up at the Bank for International Settlements and significant new initiatives have also been taken by the G-20, the overall focus of these international responses is to prevent another systemic crisis.

MACRO-PRUDENTIAL INDICATORS REVIEW

VI.94 The compilation and review of macro prudential indicators (MPIs) was done on a semi-annual basis since March 2000. The review, placed before the BFS, covers analysis of macroeconomic aggregates and financials of commercial banks, NBFCs, UCBs, AIFIs, PDs, RRBs, and co-operative banks, on the CAMELS framework. Recently, as directed by the BFS, the frequency of MPI compilation was changed from semi-annual to quarterly and the coverage of the review was expanded to include assessment of banks' vulnerability, financials of systemically important NBFCs and other key parameters to make it more relevant to the changing needs of effective surveillance of the financial system. The quarterly review of MPI is supplemented by the preparation of a monthly banking system outlook incorporating balance sheet analysis of SCBs along with high-frequency market data and macroeconomic data. The broad structure of the revised quarterly MPI review covers assessment of macroeconomic indicators, outlook for banks and other financial intermediaries impacting their credit/market/liquidity risk, resilience of banks and other financial intermediaries to plausible stress scenarios, analysis of their financials, and assessment of financial stability in the light of the macroeconomic indicators and institutions' risk profile.

VI.95 An overview of MPIs for 2008-09 indicates deterioration in a few indicators but improvement in efficiency of the major constituents of the financial sector (Table 6.8). The crisis adversely impacted all the segments of the financial markets where banks actively operate, *viz.*, credit market, money market, foreign exchange market, equity market and bond market. The key performance analysis for the SCBs during 2008-09 under four broad parameters, *viz.*, business growth, capital adequacy, asset quality and profitability suggest that while growth in business moderated, the other critical financial soundness measures continued to remain stable and comfortable.

Capital Adequacy

VI.96 The CRARs of the SCBs continue to be well above the prescribed minimum level of 9.0 per cent (Table 6.9). In fact, the core (Tier I) CRAR of SCBs itself was 9.0 per cent at end-March 2009 (almost

Table 6.8: Select Financial Indicators

(Per cent)

Item	End-March	Scheduled Commercial Banks	Scheduled Urban Co-operative Banks	Development Finance Institutions	Primary Dealers	Non-Banking Financial Companies
1	2	3	4	5	6	7
CRAR	2008	13.0	11.8	26.3	37.5	22.4
	2009	13.2	12.6	25.5	34.8	18.3
Gross NPAs to Gross Advances	2008	2.4	13.9	0.6	N.A.	1.5
	2009	2.4	11.5	0.3	N.A.	1.7
Net NPAs to Net Advances	2008	1.1	2.9	0.12	N.A.	-8.7
	2009	1.1	2.3	0.07	N.A.	-0.4
Return on Total Assets	2008	0.99	0.8	1.4	2.5	2.9
	2009	1.02	1.2	1.2	6.6	N.A.
Return on Equity	2008	12.5	N.A.	10.7	10.7	16.9
	2009	13.3	N.A.	9.3	21.5	N.A.
Efficiency (Cost/Income Ratio)	2008	48.9	56.4	19.4	25.4	68.5
	2009	45.3	53.2	15.9	11.7	N.A.

N.A.: Not Available.

Note: 1. Unaudited and provisional data.
2. Data for 2009 in respect of NBFCs pertain to the period ended September 2008.
3. CRAR for scheduled UCBs excludes Madhavpura Mercantile Co-Op Bank Ltd.

Source: 1. SCBs: Off-site supervisory returns submitted by the banks pertaining to their domestic operations only; CRAR data is based on global balance sheet.
2. UCBs: Off-site surveillance returns.

Table 6.9: Scheduled Commercial Banks – Frequency Distribution of CRAR

(Per cent)

Bank Group	End-March	Negative	Below 0 and 9 per cent	Between 9 and 10 per cent	Between 10 and 15 per cent	15 per cent and above	Total
1	2	3	4	5	6	7	8
Public Sector Banks	2008	0	0	0	28	0	28
	2009	0	0	1	26	0	27
Nationalised Banks	2008	0	0	0	20	0	20
	2009	0	0	1	19	0	20
SBI Group	2008	0	0	0	8	0	8
	2009	0	0	0	7	0	7
Private Sector Banks	2008	0	0	1	17	5	23
	2009	0	0	0	16	6	22
Old Private Sector Banks*	2008	0	0	1	10	4	15
	2009	0	0	0	12	3	15
New Private Sector Banks	2008	0	0	0	7	1	8
	2009	0	0	0	4	3	7
Foreign Banks	2008	0	0	1	7	20	28
	2009	0	0	0	7	23	30
All Banks	2008	0	0	2	52	25	79
	2009	0	0	1	49	29	79

Note: Unaudited and provisional data.
Source: Off-site supervisory returns submitted by banks pertaining to their domestic operations only.

the same as at end-March 2008), which indicates a high proportion of better quality capital in the CRAR for the Indian banking system. There still remains significant headroom, though, for banks to raise additional upper and lower Tier II capital. The CRAR of scheduled UCBs at end-March 2009 was higher than that at end-March 2008 (refer Table 6.8). Out of 53 scheduled UCBs, the CRARs of 43 UCBs were 9 per cent and above, while of 8 UCBs were less than 3 per cent.

VI.97 The CRAR of FIs as a group decreased during 2008-09 (Table 6.10). This was mainly due to the decrease in the CRAR of refinancing institutions. Though the CRAR of NBFCs as a group decreased between end-March 2008 and end-September 2008, it continued to remain above the regulatory minimum of 12 per cent. While companies having CRAR less than 12 per cent declined both in absolute and percentage terms during the period, there was also a marginal decline in percentage terms of companies with CRAR exceeding 30 per cent (Chart VI.2). The

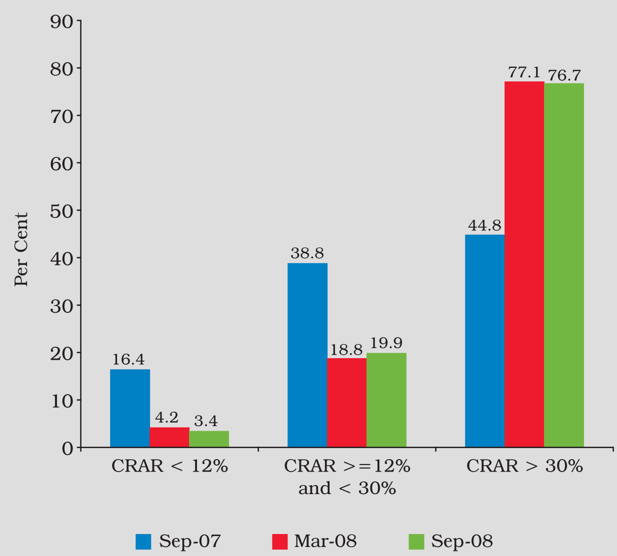
Table 6.10: CRAR and Net NPAs of Select Financial Institutions
(End-March 2009)

(Per cent)

Financial Institution	CRAR	Net NPAs (Rupees crore)	Net NPAs to Net Loans
1	2	3	4
Term-Lending Institutions (TLIs)			
EXIM Bank	16.77	79.08	0.23
All TLIs	**16.77**	**79.08**	**0.23**
Refinancing Institutions (RFIs)			
NABARD	27.96	20.82	0.02
NHB	18.17	0	0
SIDBI	36.03	26.07	0.08
All RFIs	**28.60**	**46.89**	**0.03**
All FIs	**25.49**	**125.97**	**0.07**

Source: Off-site returns submitted by FIs.

Chart VI.2: Frequency Distribution of CRAR of Reporting NBFCs



CRAR of primary dealers also declined during 2008-09 but remained higher than regulatory minimum.

Asset Quality

VI.98 Gross NPAs as percentage of gross advances of SCBs and the net NPA ratio remained virtually unchanged during 2008-09 (Table 6.11). There has, however, been a significant rise in this ratio for foreign banks and new private sector banks, particularly after September 2008, reflecting deterioration in the asset quality of these bank groups following the global financial meltdown. Since, in absolute terms, both gross and net NPAs increased during 2008-09 despite extension of certain relaxations permitted to banks to restructure certain advances, banks need to exercise better risk management and vigil to avoid future slippage in asset quality. Net NPAs of nine banks were in excess of 2 per cent of net advances in 2008-09 (Table 6.12). Asset quality of scheduled UCBs continued to improve during the year. Out of the

Table 6.11: Scheduled Commercial Banks - Performance Indicators

(Per cent)

Item/ Bank Group	2007-08	2008-09	2008-09			
			Q1	Q2	Q3	Q4
1	2	3	4	5	6	7
Operating Expenses/ Total Assets*						
Scheduled Commercial Banks	1.8	1.8	1.9	1.8	1.8	1.8
Public Sector Banks	1.6	1.5	1.6	1.6	1.6	1.5
Old Private Sector Banks	1.7	1.7	1.7	1.8	1.8	1.7
New Private Sector Banks	2.5	2.5	2.6	2.5	2.5	2.5
Foreign Banks	2.8	2.7	2.7	2.6	2.6	2.7
Net Interest Income/Total Assets*						
Scheduled Commercial Banks	2.4	2.4	2.6	2.6	2.6	2.4
Public Sector Banks	2.2	2.2	2.3	2.3	2.4	2.2
Old Private Sector Banks	2.4	2.6	2.7	2.8	2.8	2.6
New Private Sector Banks	2.4	2.9	2.8	2.9	2.9	2.9
Foreign Banks	3.8	3.9	3.8	3.7	3.9	3.9
Net Profit/Total Assets*						
Scheduled Commercial Banks	1.0	1.0	0.9	0.9	1.0	1.0
Public Sector Banks	0.9	0.9	0.6	0.8	0.9	0.9
Old Private Sector Banks	1.0	1.0	0.8	1.0	1.1	1.0
New Private Sector Banks	1.0	1.1	0.9	1.0	1.1	1.1
Foreign Banks	1.8	1.7	2.7	1.8	1.7	1.7
Gross NPAs to Gross Advances**						
Scheduled Commercial Banks	2.4	2.4	2.4	2.3	2.3	2.4
Public Sector Banks	2.3	2.1	2.2	2.1	2.1	2.1
Old Private Sector Banks	2.3	2.4	2.4	2.3	2.4	2.4
New Private Sector Banks	2.9	3.6	3.2	3.4	3.4	3.6
Foreign Banks	1.9	4.2	1.9	2.1	2.8	4.2
Net NPAs to Net Advances**						
Scheduled Commercial Banks	1.1	1.1	1.1	1.0	1.0	1.1
Public Sector Banks	1.1	1.0	1.0	1.0	0.9	1.0
Old Private Sector Banks	0.7	0.9	0.8	0.8	0.8	0.9
New Private Sector Banks	1.4	1.6	1.5	1.6	1.7	1.6
Foreign Banks	0.8	1.7	0.7	0.9	1.1	1.7
CRAR**						
Scheduled Commercial Banks	13.0	13.2	12.7	12.5	13.1	13.2
Public Sector Banks	12.5	12.3	12.3	12.0	12.4	12.3
Old Private Sector Banks	14.1	14.3	13.9	14.1	14.3	14.3
New Private Sector Banks	14.4	15.1	14.0	13.9	15.0	15.1
Foreign Banks	13.1	15.1	12.2	12.2	13.7	15.1

* : Annualised to ensure comparability between quarters.
** : Position as at the end of the quarter.
Note : Provisional and unaudited data. Figures rounded off to single decimal point.
Source : Off-site supervisory returns submitted by the banks pertaining to their domestic operations.

Table 6.12: Net NPA to Net Advances of Scheduled Commercial Banks

(Frequency Distribution)

Year	Public Sector Banks		Private Sector Banks		Foreign Banks
	SBI Group	Nationalised Banks	Old Private Sector Banks	New Private Sector Banks	
1	2	3	4	5	6
2004-05					
Up to 2 per cent	7	10	4	6	22
Above 2 per cent and up to 5 per cent	1	8	12	3	2
Above 5 per cent and up to 10 per cent	0	2	4	1	2
Above 10 per cent	0	0	0	0	4
2005-06					
Up to 2 per cent	7	15	11	6	26
Above 2 per cent and up to 5 per cent	1	5	7	2	0
Above 5 per cent and up to 10 per cent	0	0	2	0	0
Above 10 per cent	0	0	0	0	3
2006-07					
Up to 2 per cent	8	18	14	7	27
Above 2 per cent and up to 5 per cent	0	2	2	1	1
Above 5 per cent and up to 10 per cent	0	0	1	0	0
Above 10 per cent	0	0	0	0	1
2007-08					
Up to 2 per cent	7	19	15	7	25
Above 2 per cent and up to 5 per cent	1	1	0	1	2
Above 5 per cent and up to 10 per cent	0	0	0	0	0
Above 10 per cent	0	0	0	0	1
2008-09 P					
Up to 2 per cent	7	20	14	4	24
Above 2 percent and up to 5 per cent	0	0	1	3	5
Above 5 percent and up to 10 per cent	0	0	0	0	1
Above 10 per cent	0	0	0	0	0

P: Data unaudited and provisional.

Source: Off-site supervisory returns submitted by the banks pertaining to their domestic operations only.

53 scheduled UCBs, net NPA ratios of 44 were 5 per cent or less (Table 6.13).

Table 6.13: Net NPAs to Net Advances of SUCBs

(Frequency Distribution)

	2004-05R	2005-06R	2006-07R	2007-08R	2008-09
1	2	3	4	5	6
Up to 2 per cent	20	24	24	25	24
Above 2 and up to 5 per cent	5	7	13	11	20
Above 5 and up to 10 per cent	12	13	7	8	3
Above 10 per cent	18	11	10	9	6
Total	55	55	54	53	53
Net NPAs to Net Advances (per cent)	8.4	5.5	4.3	2.9	2.3

R: Revised.

Note: Provisional data.

Source: Off-site surveillance returns.

Earnings and Profitability Indicators

VI.99 While the cost of deposits and cost of funds for all bank groups increased in 2008-09, the return on advances and return on funds also registered an increase (Table 6.14).

VI.100 In terms of measures of profitability, the performance of SCBs was not affected by the economic slowdown as the RoA of SCBs was higher during 2008-09, than last fiscal year (Table 6.15). The non-interest income of SCBs increased by nearly 25 per cent. The increase in income more than

Table 6.14: Scheduled Commercial Banks – Cost of Funds and Return on Funds

(Per cent)

Item	End-March	Public Sector Banks	Old Private Sector Banks	New Private Sector Banks	Foreign Banks	All Scheduled Commercial Banks
1	2	3	4	5	6	7
Cost of Deposits	2008	5.41	5.72	5.93	3.81	5.41
	2009	5.60	6.14	6.39	4.28	5.67
Cost of Borrowings	2008	3.47	4.58	3.13	4.44	3.57
	2009	3.99	5.02	3.71	3.89	3.90
Cost of Funds	2008	5.29	5.70	5.53	3.96	5.26
	2009	5.52	6.11	6.00	4.19	5.54
Return on Investment	2008	6.64	6.34	6.42	7.09	6.62
	2009	6.23	5.66	6.89	6.74	6.35
Return on Advances	2008	8.57	9.59	10.00	9.75	8.93
	2009	9.06	11.03	10.79	12.28	9.56
Return on Funds	2008	7.98	8.53	8.72	8.74	8.19
	2009	8.18	9.09	9.45	9.81	8.52

Note: 1. Provisional data.
2. Cost of Deposits = Interest Paid on Deposits/Deposits.
3. Cost of Borrowings = Interest Paid on Borrowings/Borrowings.
4. Cost of Funds = (Interest Paid on Deposits + Interest Paid on Borrowings)/(Deposits + Borrowings).
5. Return on Advances = Interest Earned on Advances /Advances.
6. Return on Investments = Interest Earned on Investments /Investments.
7. Return on Funds = (Interest Earned on Advances + Interest Earned on Investments)/(Advances + Investments).
8. The ratios for 2009 do not include data of three banks – Tamilnadu Mercantile Bank, ABN Amro Bank, and Bank International Indonesia as these banks' annual accounts have not yet been received.

Source: Annual accounts of respective banks.

Table 6.15: Operational Results of Scheduled Commercial Banks – Key Ratios

(Amount in Rupees crore)

Indicators	2007-08	2008-09
1	2	3
1 Total Income (i+ii)	3,55,505	4,49,065
(i) Interest Income (net of interest tax)	2,96,289	3,74,995
(ii) Non-interest income	59,216	74,069
2 Total Expenditure	2,74,924	3,41,604
(i) Interest Expenses	1,98,721	2,53,937
(ii) Operating Expenses	76,202	87,667
3 Earnings before Provisions and Taxes (EBPT)	80,197	1,07,299
4 Provisions and Contingencies	39,305	56,494
5 Profit After Tax	40,892	50,805
	As per cent to total assets	
1 Total Income (i+ii)	8.62	9.05
(i) Interest Income(net of interest tax)	7.18	7.56
(ii) Non-interest income	1.44	1.49
2 Total Expenditure	6.67	6.89
(i) Interest Expenses	4.82	5.12
(ii) Operating Expenses	1.85	1.77
3 Earnings before Provisions and Taxes (EBPT)	1.94	2.16
4 Provisions and Contingencies	0.95	1.14
5 Profit After Tax	0.99	1.02

Note : Unaudited and provisional data.

Source : Off-site supervisory returns submitted by banks pertaining to their domestic operations only.

offset the increase in expenditure such that profits before provisions and taxes (as per cent to total assets) also registered an increase during the year. Out of a total of 79 banks, 55 registered an increase in earnings before provisions and taxes while 37 recorded an increase in return on assets during the year (Table 6.16). The return on total assets of scheduled UCBs increased during 2008-09 (Table 6.17).

Sensitivity to Market Risk

Interest Rate Risk

VI.101 Interest rate risk faced by the banks as at end-March 2009, though subdued due to a higher proportion of held-to-maturity (HTM) portfolio in total investments, still poses some risk due to widening spreads between short-term and long-term yields and because the HTM portfolios generally have higher duration bonds. Though sovereign yields have been declining, expectations of large fiscal deficit and inflationary pressures are

Table 6.16: Operational Results of Scheduled Commercial Banks: 2008-09
(Number of banks showing increase in ratios during the period)

Ratio to Total Assets	Public Sector Banks		Private Sector Banks		Foreign Banks	All Banks
	SBI Group	Nationalised Banks	Old Private Sector Banks	New Private Sector Banks		
1	2	3	4	5	6	7
1. Total Income	7	16	12	7	14	56
(i) Interest Income	7	18	13	7	12	57
(ii) Non-interest Income	3	13	11	3	16	46
2. Total Expenditure	7	17	13	7	10	54
(i) Interest Expenses	7	17	13	6	10	53
(ii) Operating Expenses	1	6	10	4	13	34
3. Earnings before Provisions and Taxes	6	14	10	6	19	55
4. Provisions and Contingencies	6	14	10	7	21	58
5. Profit After Tax	5	6	6	5	15	37

Note: Data are provisional and unaudited.
Source: Off-site supervisory returns submitted by the banks pertaining to their domestic operations only.

reversing the decline. The AIFIs are vulnerable to interest rate risk as they have a large part of their assets as investment in government securities and the cushion available to them to absorb losses due to rise in interest rate is limited.

Currency Risk

VI.102 Till the end of last quarter of financial year 2008-09, slowdown in exports, deterioration in the current account balance and weakening crude oil continued to weaken the rupee. Due to their nominal foreign currency exposure, commercial banks are not exposed to currency risk. Moreover, they also have lower overnight positions. The present outlook shows that the resilience of the Indian economy amidst the global crisis is attracting FDI inflows coupled with equity market opportunities. This has the positive effect of arresting the depreciation in the rupee. The unhedged foreign currency exposures of banks on behalf of their clients may pose currency risk, which needs to be monitored.

Table 6.17: Operational Results of SUCBs – Key Ratios

(As per cent to Total Assets)

Item	2007-08	2008-09
1	2	3
1. Total Income	7.0	7.9
(i) Interest Income	6.4	7.0
(ii) Non-interest Income	0.6	0.8
2. Total Expenses	5.7	6.4
(i) Interest Expense	4.1	4.7
(ii) Non-interest Expenses	1.6	1.7
3. Earning before Provisions and Taxes	1.3	1.5
4. Provisions for Taxes (if any)	0.5	0.3
5. Net Profit After Tax	0.8	1.2

Provisional data.
Source: Off-site surveillance returns.

Credit Risk

VI.103 As crunch persisted in other fronts of funding, commercial sectors continued to look for domestic credit supply. Accelerated steps such as cuts in policy rates, relaxation in prudential norms, restructuring and moral persuasion by the Reserve Bank enabled the commercial banks to lend more. However, this has also raised concerns of credit risk and could affect bank's asset quality. As at end-March 2009, banks' off-balance sheet exposures had come down as percentage of total balance sheet assets and in terms of notional principal amount accounted for marginally more than two times of their total on balance sheet assets. This is a significant decline when compared with the figure of more than four times in June 2008. Majority of the derivatives are over the counter deals and largely concentrated among a few foreign banks.

Liquidity Risk

VI.104 When compared with the first three quarters of 2008-09, the last quarter saw some easing on the liquidity front enabled by the Reserve Bank's series of monetary easing and liquidity enhancing measures. Despite the additional pressure on demand for bank credit, commercial banks preferred to tread cautiously and maintain liquidity on hand. The banking system has come back to surplus mode since last quarter. Large demand for long-term credit by the real and infrastructure sectors hardens liquidity management of banks. Continued recessionary conditions also creates more funding and timing risk. Funding risk arises due to unexpected withdrawal of deposits, especially wholesale deposits. Liquidity timing risk could arise when expected cash inflows falter. This calls for diligent liquidity management by commercial banks despite being in surplus mode at present.

VI.105 The effectiveness of the Reserve Bank's regulatory and supervisory structure in dealing with a major contagion from a severe global crisis was tested in 2008-09. All financial soundness indicators for the Indian banking system, however, exhibited signs of stability and strength at the end of March 2009. Not only did every bank remain above the minimum regulatory capital requirement but even the quality of capital was high, which is evident from the fact that Tier I capital alone was at 9.0 per cent for the banking system. Gross NPAs as percentage of gross advances has not deteriorated, while profitability indicators (*i.e.*, RoE and RoA) further improved during 2008-09. Stress test results also revealed that Indian banks could withstand probable extreme shocks. The comprehensive self-assessment was conducted by the CFSA at a time when a relook at the Indian regulatory architecture was necessary in the context of the global financial crisis. The findings of the Committee corroborated the resilience of the Indian banking system to withstand extreme shocks.

VI.106 The main factors responsible for this endurance in the financial system were the robust regulatory regime in place and an effective supervisory mechanism. While assessing the safety, soundness and solvency of banks, the risk profile and systemic risk potential of banks, both at the individual and sector level are also assessed. Any symptom of build-up of large imbalances across institutions/different economic segments/ sectors as also perception of risks which could escalate into a contagion are dealt with appropriately by enhancing the rigorousness of available prudential and other regulatory and supervisory measures. Several measures such as enhanced provisions, risk weights, targeted appraisals, special supervisory review along with regulatory restrictions and penalties are resorted to, as and when considered necessary. A system of Prompt Corrective Action (PCA), based on three parameters *viz.*, CRAR, net NPAs and RoA is in place.

VI.107 When the crisis reached a flashpoint in September 2008, besides meeting the liquidity needs of the banking system through provision of both domestic and foreign currency liquidity, the Reserve Bank also prudently changed the counter-cyclical risk weights, provisioning requirements and asset classification norms for restructured assets, all of which created enabling conditions for preventing sharp moderation in credit growth during the economic slowdown. NBFCs, mutual funds and finance companies experienced some liquidity stress, which was carefully examined by the Reserve Bank. Contrary to the initial perception, it turned out that liquidity problems were confined to only a small section of NBFCs. The problem was swiftly addressed by the Reserve Bank through appropriate liquidity enhancing measures. With a view to preserving and further strengthening the regulatory and supervisory architecture, the Reserve Bank would constantly review the lessons from the global financial crisis, as also the emerging views in the context of Basel II framework relating to procyclicality, risk coverage, quality of bank capital, credit ratings, stress tests, management of liquidity and other emerging issues relating to cross-border supervision and supervisory cooperation, monitoring of large and complex banks and enhancing the scope of regulation and supervision for systemic stability. As on March 31, 2009 all Indian banks, including the foreign banks, had migrated to the Basel II simpler approaches, and as such they will be subject to the SREP under Pillar 2 of Basel II for assessing the capital requirement as also the capital adequacy of each bank *vis-a-vis* its risk profile and the standard of its internal control system and risk management practices.

VII PUBLIC DEBT MANAGEMENT

The expansionary counter-cyclical fiscal policy stance adopted by the Government, in the face of emerging ramifications of the global economic crisis for growth and aggregate demand, resulted in a sharp increase in both the borrowings of the Central and State Governments during 2008-09 over their respective budget estimates. The key challenge for the Reserve Bank in its debt management operations for 2008-09, therefore, was to manage this vastly expanded government market borrowing programme without creating any disruptive pressures on the government securities market. The Reserve Bank employed a combination of measures involving monetary easing and use of innovative debt management tools such as synchronising the Market Stabilisation Scheme (MSS) buyback auctions and open market purchases with the Government's normal market borrowings and de-sequestering of MSS balances. By appropriately timing the release of liquidity to the financial system to coincide with the auctions of government securities, the Reserve Bank ensured a relatively smooth conduct of the Governments' market borrowing programme, resulting in the decline in the cost of borrowings during 2008-09 for the first time in the last five years. Reflecting the continued need for fiscal stimulus in 2009-10, the combined net market borrowing programme of the Centre and the State Governments (dated securities and 364-day Treasury Bills) is estimated to be Rs.5,37,957 crore as against Rs.3,46,083 crore in 2008-09. This calls for continuance of the active debt management strategy by the Reserve Bank so as to mitigate pressures on interest rates and avert possible crowding-out of private sector demand for credit.

VII.1 Management of large government borrowing programme in a manner supporting the expansionary counter-cyclical fiscal policy stance of the Government without creating any disruptive pressures on the government securities market was a key challenge for the Reserve Bank in 2008-09. To deal with the growth dampening moderation in private consumption and investment demand, some deviation from the fiscal consolidation path and introduction of adequate fiscal stimulus became essential, which concomitantly escalated the size of the borrowing programme significantly. In 2008-09, larger recourse to market borrowing and flight to safety were the common trends across countries around the world; while the cost of borrowings declined in general, reflecting the low policy interest rates and quantitative easing stance of the central banks, significant increase in risk aversion and resultant preference for government securities led to a larger demand for these securities.

VII.2 Recognising the challenge, the Reserve Bank had to continuously review and adapt its debt management strategy, in consultation with the Central Government, in response to the evolving economic conditions, while striving to ensure that the sharp and abrupt increase in the Government's market borrowing programme was conducted in a non-disruptive manner, without any conflict with its monetary management function. Higher government borrowings could potentially raise the interest rates in the system by pushing up yields on government securities, which entail the risk of conflicting with the low interest rate stance that may be pursued by the monetary authority in the face of an economic slowdown. During the second half of 2008-09, the Reserve Bank's policy stance aimed at increasing bank credit to the commercial sector at lower cost, reflecting the trends in policy rates to support the revival of economic growth; this objective had to be attained while managing a large Government borrowing programme. The Reserve Bank, therefore, employed a combination of measures involving easing of monetary conditions and use of innovative tools for debt management such as synchronising the Market Stabilisation Scheme (MSS) buyback auctions and open market purchases with Government's normal market borrowings and de-sequestering of MSS balances. The release of liquidity to the financial system by the Reserve Bank was timed appropriately to coincide with the auctions of government securities, ensuring the smooth conduct of the large market borrowing programme of the Government.

VII.3 The debt management operations of the Reserve Bank during 2008-09 are presented in this chapter in the context of specific policy issues. The fiscal year 2008-09 saw a sharp increase in the market borrowings of Central and State Governments on account of the fiscal stimulus measures undertaken by the Governments in the wake of the global economic slowdown and other additional expenditures such as the Agricultural Debt Waiver and Debt Relief Scheme, various rural development schemes and the revision in Central Government pay scales following the recommendations of the Sixth Pay Commission. Despite the sharp increase in the quantum of market borrowings, the debt management strategy continued to be guided by the prime objectives of minimisation of cost over time and determination of maturity profiles consistent with rollover risk. In the first half of the year, the debt management operations were undertaken in an environment of pre-emptive monetary tightening measures that aimed at containing the inflationary impulses in the economy. During the second half, however, while the monetary conditions eased significantly, in response to the softening of inflationary pressures coupled with economic slowdown, the frequency and amount of issuances by the Central and State Governments increased significantly.

VII.4 The gross market borrowing programme of the Central Government (dated securities and 364-day Treasury Bills) was about 181 per cent of the budget estimate for 2008-09 and the net borrowing, about 210 per cent of the budget estimates. During the first half of the year, the auctions for dated securities were broadly in accordance with the relevant issuance calendar. For the second half, though, three additional calendars were issued in supersession of the scheduled issuance calendar, which became necessary to meet the additional expenditure approved under supplementary demands for grants. The weighted average cost of market borrowings moved upwards up to August 2008 but decelerated subsequently, up to January 2009, largely reflecting the pattern in monetary policy rates. Due to higher than expected borrowing programme by both the Central and the State Governments, however, the weighted average cost of borrowings moderately increased thereafter. For the year as a whole, the weighted average yield was lower than in 2007-08.

VII.5 As in the previous two financial years, the entire market borrowing programme of the State Governments during 2008-09 was conducted through the auction route. The gross amount raised during 2008-09 was 74 per cent higher than that in the previous year as States were sanctioned additional allocations by the Centre to meet the shortfall in the National Small Savings Fund (NSSF) collections and to facilitate additional capital expenditure by the States as part of the fiscal stimulus measures. The weighted average yield on the State Development Loans (SDLs) decreased by 38 basis points during the year, although the weighted average spread over comparable Central Government securities was higher by 74 basis points, reflecting the increased size and bunching of issuances during the last quarter of the year, particularly during March 2009 when about 26.5 per cent of the total borrowings of the States were raised.

VII.6 The combined net market borrowings of the Central and the State Governments in 2008-09 were 209 per cent of their net borrowings during 2007-08. In addition, special securities (oil and fertiliser bonds) amounting to Rs.95,942 crore were issued by the Central Government outside the market borrowing programme for 2008-09.

CENTRAL GOVERNMENT

Market Borrowings

Dated Securities

VII.7 In line with global trends of increased Government spending as a response to counter economic slowdown, the Government of India announced three stimulus packages in 2008-09. Accordingly, the net market borrowing through dated securities was nearly twice the amount raised in 2007-08 and more than twice the budget estimate for 2008-09 (Table 7.1). The gross market borrowing through dated securities was 75 percent higher than during 2007-08 (6.8 per cent higher in 2007-08) (Appendix Table 58).

VII.8 The Reserve Bank continued with the policy of passive consolidation of dated securities during 2008-09. Barring four new securities, of which two were 10-year benchmark securities, the remaining securities issued during the year were reissuances (Appendix Table 59). In 2007-08, out of the securities issued during the year, only one was a new security. Over one quarter of the outstanding securities, each with a minimum outstanding amount of Rs.25,000 crore, accounted for 61 per cent of the total outstanding amount as at end-March 2009 as against 54 per cent at end-March 2008. In a year that encountered pressures on market liquidity, this trend provides an indication of potential liquidity in these securities.

VII.9 The aggregate amount raised during the first half of 2008-09 was Rs.1,06,000 crore, which was Rs.10,000 crore more than the amount indicated in the issuance calendar. The issuances were in accordance with the calendar for the first half of the year, except on two occasions. In the auction of July 24, 2008, a 10-year benchmark security was issued in place of a security with higher maturity in view of the uncertain market conditions. An auction of dated securities amounting to Rs.10,000 crore was advanced to September 26, 2008 from the second half of the year, keeping in view the emerging requirements of the Government, market conditions and other relevant factors. The auction schedule for the second half of 2008-09 (October-March) was revised due to the unprecedented developments in the global financial market and their impact on India in terms of the increased demand for liquidity as well as the substantial increase in Government borrowings. There were two cancellations of auctions scheduled for October 2008. While the auction scheduled for October 10, 2008 for dated securities amounting to Rs.10,000 crore was cancelled in view of the then prevailing tight liquidity conditions that emerged from the financial turmoil in the global markets, the auction scheduled for October 20, 2008 was cancelled in view of the cut in the repo rate that was announced on the same day. The proposed market borrowing of Rs.39,000 crore in the second half of the year was completed by end-November 2008 with the advancement of an auction scheduled for December 5-12, 2008. Due to the sharp increase in government spending and deceleration in tax revenues, the Reserve Bank, in consultation with the Central Government, issued three additional indicative calendars on December

Table 7.1: Gross and Net Market Borrowings of the Central Government#

(Rupees crore)

Item	2007-08	2008-09			2009-10	
	Actual	Budget Estimates	Revised Estimates	Actual	Budget Estimates	Actual*
1	2	3	4	5	6	7
Gross borrowing	1,88,205	1,76,453	3,42,769	3,18,550 ^	4,91,044 ^	2,63,302 ^
Net Borrowing	1,09,504	1,15,571	2,66,539	2,42,317 ^	3,97,957 ^	2,16,368 ^
i. Dated Securities	1,10,671	1,00,571	2,61,972	2,28,972 ^	3,97,957 ^	2,19,911 ^
ii. 364-day Treasury Bills	-1,167	15,000	4,567	13,345	-	-3,543
Memo						
i. Additional 182-day Treasury Bills	-76	-1,000	19,390	10,995	-	200
ii. Additional 91-day Treasury Bills	-431	-1,571	43,720	45,224	-	951
iii. MSS de-sequestering	-	-	-	12,000	33,000	28,000

: Dated securities and 364-day Treasury Bills. ^ : Includes MSS de-sequestering * : Up to August 17, 2009 .

5, 2008, January 6, 2009 and February 10, 2009 and accordingly, Rs.1,16,000 crore was raised between December 2008 and March 2009.

VII.10 The challenge posed to the debt management function needs to be viewed in the context of global developments whereby many countries, including advanced economies, announced fiscal stimulus packages to compensate for the fall in consumption and investment demand (Box VII.1). In India, specific strategic measures

Box VII.1
Debt Management and the Global Financial Crisis

The global financial crisis created large and unanticipated pressures on the fiscal position of many countries. While some countries had to support the financial sector directly or through operations giving rise to higher contingent liabilities, most countries had to expand fiscal expenditure to contain recessionary impulses.

While fiscal balances have been affected by the crisis in the short-run, the impact on government debt ratios will be felt over the medium term. The deterioration of the fiscal outlook raises issues of fiscal solvency and has the potential to trigger adverse market reactions. In turn, higher interest rates (and exchange rate depreciations in countries with significant borrowing in foreign currency, like most emerging economies) could further add to government debts which in some cases, result in 'snowballing' debt dynamics.

Market confidence in gilts issued by various Governments has been a source of stability and has, so far, helped to avoid a complete meltdown of financial markets, notwithstanding the hardening of credit default swap (CDS) premia for many Government issues, implying higher cost of insurance against default. Thus far, government debt market reaction to the weaker fiscal outlook has been relatively muted. Nevertheless, some of the Government bond auctions since January 2009 have witnessed pressures. UK, Germany and Netherlands could not mobilise the notified amount on some occasion/s whereas France, Italy, Austria and Portugal were forced to pay higher interest rates. On May 25, 2009, the UK DMO failed for the first time since 1995 to sell conventional government bonds in an auction, attracting bids of 1.63 billion pounds against the notified amount of 1.75 billion pounds of 2049 gilts. The Ministry of Finance, China also failed to sell, for the first time since 2003, one-year government bonds of yuan 28 bn in an auction held on July 7, 2009. On May 7, 2009, US Treasury yields soared by 20 basis points to 4.30 per cent after the 30-year bond auction saw poor demand. The rating outlook of sovereign borrowings for countries, such as Portugal, Spain, Greece and the UK was downgraded by credit rating agencies. An abrupt market reaction to weakening fundamentals remains a concern. Towards boosting nominal demand by increasing broad money, lowering gilt yields and improving corporate credit markets, the Bank of England has undertaken open market purchase of government bonds while the US Federal Reserve and the Bank of Japan have also carried out such open market purchases towards 'quantitative' easing. In the context of the on-going global financial crisis, Iceland has recently shifted debt management from the DMO to the central bank. For smooth conduct of large borrowing programme of the Governments, with minimal impact on the financial markets, closer co-ordination between the Treasury and the central bank, as is being practised in large countries like the US, Canada and India has assumed greater importance.

Deterioration in the fiscal position and increased government borrowings have raised the level of roll-over risk even for advanced economies. Many sovereign defaults have originated in the past, from situations of excessive short-term debt. It is, therefore, imperative for the debt management authorities to set an acceptable level of roll-over risk. If there is a high default risk premium built into longer term rates, shorter term debt may be cheaper but could increase risk by increasing the volatility of debt-servicing costs. Building up liquidity in longer benchmark maturities could help in reducing refinancing risk and also decrease risk premia over time, even if there are higher debt-servicing costs when this strategy is initially adopted.

In some countries, Government support to weak financial institutions has been extended as implicit or explicit guarantees or similar forms of contingent liability. A sharp increase in contingent liabilities introduces greater uncertainty to the fiscal position as it could complicate accurate estimation of the probability of devolvement. Debt managers need to not only reckon such contingent liabilities but also estimate probability of devolvement and consequent addition to public debt.

As the frequency and volume of public debt increases significantly, debt managers need to ensure transparency so that investors are not taken by surprise. Clarity in communication and adherence to the indicative borrowing programme would add credibility and thereby cushion volatility in market yields, which ultimately may help in contributing to lower cost of borrowing.

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3. Standard and Poors (2009), United Kingdom Outlook Revised To Negative On Deteriorating Public Finances; 'AAA/A-1+' Ratings Affirmed, May 21.

were initiated to conduct the increased market borrowings in a non-disruptive manner. The Memorandum of Understanding (MoU) signed between the Government of India and the Reserve Bank in March 2004 on the Market Stabilisation Scheme (MSS) was amended on February 26, 2009, to enable the Reserve Bank to de-sequester MSS cash balance for financing the Government's approved expenditure in *lieu* of the approved market borrowings. Accordingly, it was decided to transfer an amount of Rs.45,000 crore in installments, as and when necessitated, from the MSS cash account to the regular cash account of the Government of India by March 31, 2009.[1] An equivalent amount of government securities was to form part of the normal borrowing of the Central Government. An amount of Rs.12,000 crore was, accordingly, transferred from the MSS cash account to the regular cash account of the Central Government on March 4, 2009. In view of its comfortable cash position, the Government of India, in consultation with the Reserve Bank, decided not to transfer the balance amount of Rs.33,000 crore in 2008-09. Based on the emerging funding requirements of the Government, an amount of Rs.28,000 crore was de-sequestered from the MSS cash account on May 2, 2009 against the approved market borrowing programme for 2009-10.

VII.11 During the first half of 2008-09, the weighted average yield increased from 8.14 per cent in April 2008 and peaked at 8.81 per cent in September 2008. The yields softened thereafter, reflecting the availability of liquidity in the system (Chart VII.1). The weighted average yield on dated securities issued during the year, therefore, decreased for the first time in the last five years in 2008-09. The weighted average coupon on the outstanding stock of dated securities as on March 31, 2009 also declined over the previous year. The weighted average maturity of the dated securities issued during the year was the lowest since 2003-04. As a result, the weighted average maturity of the outstanding stock as on March 31, 2009 decreased over the previous year (Table 7.2).

Chart VII.1: Weighted Average Yield of Primary Issues of Dated Securities

VII.12 The yield movement in the primary market was, in general, marginally higher than the secondary market yield (10-year bench-mark securities) (Table 7.3). As opposed to the variable price auctions normally used, during 2008-09, uniform price-based auctions for dated securities were held on July 24, August 8 and 22, 2008 and March 26, 2009, in view of the uncertain market conditions. Overall, the weak market sentiments subsequent to the announcement of additional market borrowings, were reflected in higher devolvement on primary dealers (PDs) during the year (Rs.10,773 crore) than in 2007-08 (Rs.957 crore).

VII.13 The maturity pattern of outstanding Government of India securities (excluding MSS) shows that two-thirds of the securities (face value) had residual maturity of less than 10 years, while 15.6 per cent of the securities had a residual maturity of more than 20 years as at end-March 2009

[1] Under MSS cash account, the funds are unavailable to the Government for its expenditure and the same is impounded by the Reserve Bank for the purpose of liquidity management. Under the regular cash account, however, the funds are available to the Government to finance its expenditure needs.

Table 7.2: Central Government's Market Loans - A Profile*

(Yield in per cent / Maturity in years)

Year	Range of YTMs at Primary Issues			Issues during the year			Outstanding Stock	
	under 5 years	5-10 years	Over 10 years	Weighted Average Yield	Range of Maturities	Weighted Average Maturity	Weighted Average Maturity	Weighted Average Coupon
1	2	3	4	5	6	7	8	9
2003-04	4.69	4.62-5.73	5.18-6.35	5.71	4-30	14.94	9.78	9.30
2004-05	5.90	5.53-7.20	4.49-8.24	6.11	5.30	14.13	9.63	8.79
2005-06	-	6.70-7.06	6.91-7.79	7.34	5-30	16.90	9.92	8.75
2006-07	7.69-7.94	7.06-8.29	7.43-8.75	7.89	4-30	14.72	9.97	8.55
2007-08	-	7.55-8.44	7.62-8.64	8.12	6-29	14.90	10.59	8.50
2008-09	6.24-6.77	5.44-9.14	6.53-10.03	7.69	4-30	13.81	10.45	8.23

*: Excludes issuances under MSS; YTM: Yield to Maturity; - : No Issues

(Table 7.4). During 2008-09, 61 per cent of the market borrowings was raised through issuances of dated securities having residual maturity of up to 10 years, the same as in 2007-08. However, while the predominant share of market borrowings belonged to the 5-10 year maturity bucket, 6 per cent of the securities issued during 2008-09 had residual maturities less than 5 years, unlike the previous year when no security of less than 5-year maturity was issued.

VII.14 The sharp increase in the financing requirements of the Government, some of which were not provided for in the Budget for 2008-09, gave rise to market strains in terms of rising yields. As the size and frequency of borrowings increased, the Reserve Bank's efforts were aimed at ensuring that the borrowing programme was completed in a non-disruptive manner. The sharp increase in the size and frequency of borrowings raised apprehensions about the ability of the market to absorb the borrowing programme and whether the issue of private placements with the Reserve Bank should be revisited. In India, the Fiscal Responsibility and Budget Management (FRBM) Act, 2003, precludes the Reserve Bank from subscribing to the primary issuances of Central Government, barring under exceptional circumstances. Cross-country practices indicate that while in some countries the constraint on Central Government's

Table 7.3: Primary Cut-Off Yield and Prevailing Secondary Market Yield
(10-year benchmark securities)

Date of Auction	Residual Maturity (Years)	Gross Amount Raised (Rs. Crore)	Cut-off Yield (%)	Prevailing Secondary Market Yield (%)	Spread (basis points) (4-5)	Bid- Cover Ratio
1	2	3	4	5	6	7
April 21, 08	10.00	6,000	8.24	8.23	1	3.49
May 23, 08	9.91	6,000	8.07	8.13	-6	3.16
June 6, 08	9.87	6,000	8.26	8.26	0	3.13
July 4, 08	9.79	6,000	9.13	8.92	21	2.03
August 8, 08	9.70	6,000	9.14	9.10	4	2.50
September 12, 08	9.60	5,000	8.30	8.27	3	2.11
November 7, 08	9.45	6,000	7.73	7.71	2	2.62
January 16, 09	9.26	3,000	5.44	5.71	-27	2.30
January 30, 09	10.00	4,000	6.05	6.18	-13	4.51
February 13, 09	9.96	6,000	5.94	5.89	5	3.48
March 6, 09	9.90	8,000	6.50	6.30	20	1.72
March 20, 09	9.86	6,000	6.59	6.51	8	2.36
March 26, 09	9.84	7,000	6.97	6.97	0	1.79

Table 7.4: Maturity Profile of Central Government Dated Securities*

(per cent)

Year	Issued during the year			Outstanding Stock #		
	Under 5 Years	5-10 Years	Over 10 Years	Under 5 Years	5-10 Years	Over 10 Years
1	2	3	4	5	6	7
2004-05	11	11	78	25	31	44
2005-06	0	26	74	25	32	43
2006-07	7	47	46	26	35	39
2007-08	0	61	39	26	38	36
2008-09	6	55	39	26	40	34

* : Excludes issuances under MSS. # : As at end-March.

access to central bank credit is binding, in some others it is weak (Box VII. 2).

Market Borrowings during 2009-10

VII.15 The gross and net market borrowings of the Central Government through dated securities for 2009-10 are budgeted higher, at Rs.4,51,093 crore and Rs.3,97,957 crore, respectively, than the actual amount raised in 2008-09. On March 26, 2009, the issuance calendar for dated securities for the first half of 2009-10 (April-September) was released in consultation with the Central Government. Accordingly, an amount of Rs.2,41,000 crore was scheduled to be raised as compared with Rs.1,06,000 crore raised during the corresponding period of the previous year. Following the revision in the market borrowing requirement as per the Union Budget, 2009-10, a new issuance calendar for dated securities was released on July 16, 2009 for mobilization of Rs. 1,10,000 crore during July 18, 2009 through September 30, 2009 (as against Rs. 79,000 crore as per the earlier calendar issued on March 26, 2009).

VII.16 During 2009-10 so far (up to August 17, 2009), the Central Government raised Rs.2,25,000 crore on gross basis (excluding MSS de-sequestering of Rs.28,000 crore) and the net market borrowings amounted to Rs 1,91,911 crore, through dated securities under the market borrowing programme. Market borrowing through dated securities was higher than that indicated in the calendar on account of increased requirement of the Government. The monthly amount raised increased from Rs.48,000 crore in April 2009 to Rs.60,000 crore in June 2009 before declining to Rs.39,000 crore in July 2009. The weighted average yield of dated securities issued during 2009-10 (up to August 17, 2009) declined to 6.96 per cent from 8.72 per cent in the corresponding quarter of the previous year. The weighted average maturity of securities issued was lower at 10.92 years as compared with 15.21 years in the corresponding period of the previous year.

Treasury Bills

VII.17 The notified amounts of 91-day,182-day and 364-day Treasury Bills under the normal market borrowing programme as per the annual issuance calendar released on March 24, 2008, were kept unchanged at Rs.500 crore (weekly auction), Rs.500 crore (fortnightly auction) and Rs.1,000 crore (fortnightly auction), respectively, for 2008-09. Additional Treasury Bills over and above the notified amounts were, however, raised during 2008-09, which were nearly seven times those raised during 2007-08 (Appendix Table 60). The additional Treasury Bills issuances were spread throughout the year unlike in 2007-08 when they were concentrated in the month of June to enable the Government to acquire the Reserve Bank's stake in State Bank of India in 2007. During 2008-09, while initially the additional resources raised through Treasury Bills were meant to partly meet the expenditure on agricultural debt waiver scheme,

Box VII.2
Private Placement of Sovereign Debt with the Central Banks – Cross-country Practices

The extent of accommodation of fiscal deficit by the central bank is often seen as an indicator of the nature of co-ordination between monetary and fiscal authorities. The monetisation of fiscal deficit through devolvement in auctions or private placement entails the risk of subordinating monetary policy to the fiscal policy, which, in turn, could engender inflationary expectations. Since inflation expectations play a key role in determining actual inflation, central banks aim at entrenching their credibility so that inflation expectations could be stabilised at lower levels. Prohibition of central bank credit to the Government is one of the instruments for achieving this credibility. The sanctity of prohibition on central bank credit to the Government usually stems from frameworks based on clear mandate/fiscal rule as enshrined in fiscal responsibility legislation or central bank Act. Countries with binding constraints on Government's access to central bank credit include the US, the UK, the Euro zone, Mexico, Peru and Argentina. Countries with weak constraints or flexible legislation include Canada, Chile, Japan, Korea, Malaysia and South Africa permitting central bank purchases of Government securities from the primary market as detailed below.

Canada: The Bank of Canada Act, 1934 permits the central bank to make loans to the Government of Canada or the Government of a province, within stipulated limits.

Chile: The Basic Constitutional Act of the Central Bank of Chile prohibits the Central Bank from directly purchasing securities from the Government. However, in the event of foreign war or threat of foreign war, to be qualified by the Council on National Security by means of a secret resolution, the Bank may obtain, confer or finance credits to the state and to public or private entities.

Japan: The Public Finance Law, 1947 explicitly prohibits the Bank of Japan from directly participating in the primary issuance of public bonds and from underwriting the issue. However, the prohibition is relaxed for some special reasons and the DIET (the Japanese Parliament) may allow private placement within the approved limits.

Korea: Korean Central Bank is permitted by the Bank of Korea Act, 1950 to subscribe to the Government Bond issues and also to the bonds guaranteed by the Government.

Malaysia: Bank Negara Malaysia is permitted by the Central Bank of Malaysia Act, 1958 to invest in Central Government securities and also to underwrite the same.

South Africa: South African Central Bank is prohibited from holding government securities directly purchased from the Treasury, beyond certain limits stipulated by the South African Reserve Bank Act of 1989.

In the Indian context, the Reserve Bank of India Act, 1934 authorises the Bank to grant advances repayable not later than three months from the date of advance, thereby enabling the Government to bridge the temporary mismatches in its receipts and expenditures. These provisions are, however, enabling and are not mandatory. In practice, this became a permanent source of financing the Government budget deficit through automatic creation of *ad hoc* Treasury Bills (with a tenor of 91 days) whenever Government's balances with the Reserve Bank fell below the minimum stipulations. Monetisation of deficit was not restricted to the amount issued through the *ad hoc* Treasury Bills but also by way of subscription to primary issuances of Government securities. In September 1994, the Reserve Bank and the Central Government signed a landmark agreement to phase out automatic monetisation through *ad hoc* Treasury Bills. Effective April 1997, with the phasing out of *ad hoc* Treasury Bills, the scheme of Ways and Means Advances (WMA) was introduced which provides temporary accommodation to the Government (up to 90 days) and is subject to limits. The Fiscal Responsibility and Budget Management (FRBM) Act 2003 which was subsequently enacted has since prohibited direct borrowings by the Centre from the Reserve Bank with effect from April 2006 except by way of WMA or under exceptional circumstances. Till date, the proviso in the FRBM Act 2003 permitting borrowings from the central bank under exceptional circumstances has not been invoked.

Source: Websites of respective central banks.

subsequently, in view of the large increase in the gross fiscal deficit (GFD) which could not be entirely funded by issuances of dated securities, Treasury Bills also served as an instrument of financing GFD. Reflecting the disinvestment by States in the non-competitive segment of the auction treasury bills, the net issuances of Treasury Bills during 2008-09 amounted to Rs.69,564 crore, contributing to financing 21.3 per cent of GFD (as per the revised estimates) as against a negative contribution of 1.8 per cent to GFD financing in 2007-08 (Appendix Table 61).

VII.18 The primary market yields of Treasury Bills across all maturities hardened up to August 2008 and softened, thereafter, reflecting the interest rate cycle coupled with improvement in liquidity conditions from October 2008 (Table 7.5 and

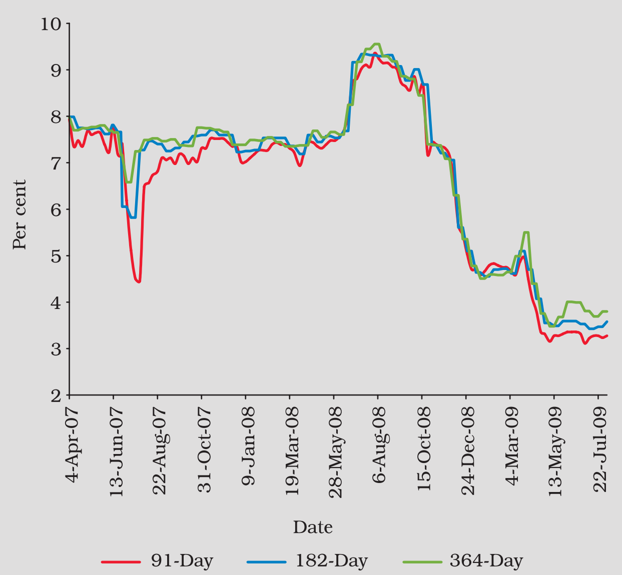
Table 7.5: Treasury Bills in the Primary Market

Year / Month	Notified Amount * (Rs. Crore)	Average Implicit Yield at Minimum Cut-off Price (Per cent)			Average Bid-Cover Ratio		
		91-day	182-day	364-day	91-day	182-day	364-day
1	2	3	4	5	6	7	8
2008-09	2,99,000@	7.10	7.22	7.15	3.43	2.91	3.47
April	26,000	7.28	7.41	7.53	2.64	3.17	2.36
May	17,000	7.41	7.55	7.61	2.92	2.73	3.43
June	11,500	8.01	8.42	7.93	2.45	2.76	2.80
July	21,000	9.07	9.33	9.39	2.84	2.72	3.52
August	18,500	9.15	9.31	9.24	2.99	2.86	4.24
September	25,000	8.74	8.92	8.83	3.06	3.04	3.57
October	35,000	8.13	8.36	7.92	1.95	2.42	4.00
November	28,000	7.30	7.13	7.23	2.40	2.97	3.51
December	18,000	5.49	5.35	5.47	7.01	4.67	5.59
January	37,000	4.69	4.60	4.55	2.30	3.22	3.54
February	32,000	4.78	4.71	4.62	2.81	1.86	2.62
March	30,000	4.77	4.86	5.25	2.60	2.67	1.44
2009-10							
April	39,000	3.81	4.11	4.07	3.22	2.79	5.07
May	29,000	3.26	3.54	3.58	3.18	2.25	3.14
June	22,500	3.35	3.56	3.99	3.37	5.65	2.86
July	40,000	3.23	3.45	3.76	3.92	2.86	3.90

@ : Total for the financial year.
* : Excludes issuances under MSS.

Chart VII.2). During March 2009, however, the yields hardened from their levels in January and February 2009 due to increased market borrowings by both the Central and the State Governments and quarterly advance tax outflows.

Chart VII.2: Primary Market Yields of Treasury Bills



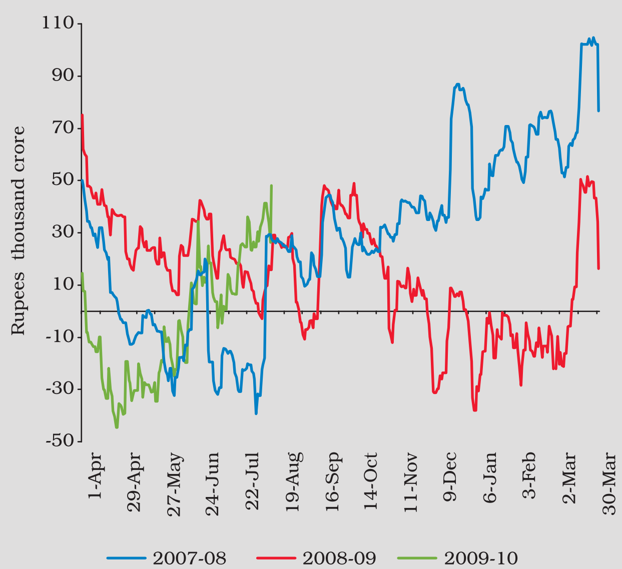
VII.19 The calendar for the regular auction of Treasury Bills for 2009-10 was announced on March 31, 2009. It was decided to rollover the Treasury Bills which were issued for enhanced amounts in the fiscal year 2008-09 and were due for redemption in the first quarter of 2009-10. Accordingly, the issuance of 91-day Treasury Bills for the first quarter was raised to Rs.8,000 crore for five weekly auctions since April 10, 2009, which was revised downward to Rs.5,000 crore for the remaining weekly auctions during the first quarter except for June 5, 2009 where the notified amount was fixed at Rs.4,500 crore. On July 16, 2009, it was decided to rollover the maturing amount of Treasury Bills till September 30, 2009. Accordingly, Treasury Bills amounting to Rs.1,27,000 crore, Rs.14,375 crore and Rs.10,302 crore were issued in respect of 91-day, 182-day and 364-day Treasury Bills up to August 17, 2009.

Cash Management

VII.20 The limits for Ways and Means Advances (WMA) for 2008-09 were initially fixed at Rs.20,000 crore for the first half of the year (April to September) and Rs.6,000 crore for the second half (October to March) in consultation with the Government of India. In view of the unanticipated mismatches between Government receipts and payments arising from the cancellation of two auctions scheduled for October 2008 due to the then prevailing liquidity conditions, and the bunching of the expenditure following the approval of supplementary demand for grants, the limit for the third quarter (October-December) was retained at the first half limit of Rs.20,000 crore, while that for the fourth quarter was kept at the original limit of Rs.6,000 crore.

VII.21 As the Central Government started the year 2008-09 with a large surplus cash balance of Rs.76,686 crore, which was built up primarily from the State Governments' surplus balances invested in Treasury Bills, its recourse to WMA was limited to brief spells during the first half of 2008-09, *viz.,* during August 4-6, 2008 and again during September 2-14, 2008 (Chart VII.3). During the third quarter of 2008-09, following the unfolding ramifications of the global financial crisis, the Central Government announced fiscal stimulus packages even as revenue receipts, as estimated in the Budget did not materialise due to the sluggishness in tax revenues. Consequently, the Central Government had to resort to WMA for 23 days and was in overdraft (OD) for 10 days during the third quarter. With the cash flow mismatches persisting during the fourth quarter, the Central Government resorted to WMA for 70 days and was in OD for 55 days. Thus, for the year as a whole, the Central Government was in cash deficit for 109 days (65 days in OD) as against 91 days (37 days in OD) during 2007-08. The daily average utilisation of WMA and OD by the Central Government during 2008-09 were at Rs.2,077 crore and Rs.1,823 crore, respectively, as compared with Rs.3,605 crore and Rs.647 crore, respectively, during 2007-08. Unlike the previous years, the Government was in cash deficit mostly during the second half of the year. Consequently, the cash surplus, which generally remained high in recent years, was at a lower level of Rs.16,319 crore as on March 31, 2009.

Chart VII.3: Cash Balances of the Central Government



VII.22 The WMA limit for the first half of 2009-10 was kept unchanged at Rs.20,000 crore, as in the previous year while the limit for the second half was fixed higher at Rs.10,000 crore. The Central Government started the year 2009-10 with a modest surplus cash balance of Rs.16,319 crore, and soon took recourse to WMA on April 4, 2009 due to its expenditure commitments. Having reached the WMA ceiling of Rs.20,000 crore on April 15, 2009, it went into OD. The Central Government continued to be in WMA up to June 15, 2009 and was also on OD on three occasions during the year so far. The cash balances turned positive thereafter on account of the quarterly advance tax inflows and stood at Rs.33,918 crore as on August 11, 2009. The surplus transfer from the Reserve Bank amounting to Rs 25,009 crore on August 13, 2009 boosted the Government's cash balance to Rs. 48,071 crore as on August 13, 2009. The Centre, however, availed WMA during July 6-9, 2009.

Special Securities issued by the Central Government

VII.23 In addition to dated securities, the Central Government issued special securities aggregating to Rs.95,942 crore to oil marketing companies and fertiliser companies during 2008-09, as compared with Rs.38,050 crore during 2007-08. With a view to compensating oil marketing companies towards estimated under-recoveries on account of sale of petroleum products at administered prices, the Central Government issued four special securities to three oil marketing companies for an aggregate amount of Rs.75,942 crore: Rs.22,000 crore (15-year maturity) on November 10, 2008, Rs.22,000 crore (16-year maturity) on December 23, 2008, Rs.21,942 crore (17-year maturity) on February 4, 2009 and Rs.10,000 crore (17-year maturity) on March 23, 2009. During 2008-09, the Central Government issued three special securities of 14-year maturity, each, aggregating to Rs.20,000 crore to fertiliser companies as compensation towards fertiliser subsidy during 2008-09: Rs.10,000 crore on December 10, 2008, Rs.4,000 crore on December 24, 2008 and Rs.6,000 crore on January 29, 2009.

STATE GOVERNMENTS

Market Borrowings

VII.24 The net allocation under the market borrowing programme of State Governments inclusive of additional allocations for shortfall in National Small Savings Fund (NSSF) collections and towards the second stimulus package for 2008-09 was about two-thirds higher than that in 2007-08. Taking into account the repayments, the gross allocation amounted to Rs.1,29,081 crore during 2008-09, of which 91.5 per cent was actually raised by the State Governments during the year (Table 7.6, Appendix Table 62). The entire amount was raised through the auction route during 2008-09 as in the previous year. Two States (*viz.*, Chhattisgarh and Orissa) did not participate in the market borrowing programme during 2008-09 as against four States (*viz.*, Chhattisgarh, Haryana, Orissa and Tripura) during 2007-08. Besides, 13 States did not raise their full allocations as against 11 States during 2007-08.

Table 7.6 : Annual Market Borrowings of State Governments #

(Rupees crore)

Item	2007-08	2008-09
1	2	3
1. Net Allocation	28,781	51,719
2. Additional Allocation	4,454	14,326
3. Additional Allocation on account of NSSF shortfall	35,780	19,768
4. Additional Allocation towards second stimulus package	-	28,896
5. Total Net Allocation (1+2+3+4)	69,015	1,14,709
6. Repayments	11,555*	14,371
7. Gross Allocation (5+6)	80,570	1,29,081
8. Total Amount Raised	67,779	1,18,138
9. Net Amount Raised (8-6)	56,224	1,03,766
10. Outstanding State Development Loans (end-period)	2,98,845	4,02,611

: Includes the Union Territory of Puducherry.
* : Excludes Rs.156 crore of buy-back of securities by the Government of Orissa.

VII.25 During 2008-09, 27 State Governments/UT (i.e., except Chhattisgarh and Orissa) accessed the market in 23 tranches as compared with 25 States/UT through 18 tranches during 2007-08. Almost all the States accessed the market during the second half of the year raising 86.6 per cent of the total borrowings during the year, the bulk of which was in the fourth quarter. In March 2009 alone, more than a quarter of the total borrowings was raised, which exerted pressure on the market. As a result, the net supply of State Development Loan (SDL) securities in the market increased from Rs.8,472 crore during the first half of 2008-09 to Rs.95,294 crore during the second half. The bunching of SDLs of the States/UT during the last quarter was mainly due to the Government of India's sanctions under Article 293(3) towards NSSF shortfalls and the second stimulus package sanctioned during the quarter. All the issues during 2008-09 were of 10-year maturity.

VII.26 Reflecting the softer interest rate environment since the second half of the year, the weighted average yield of State Government

Table 7.7: Yield on State Government Securities

(Per cent)

Year	Range	Weighted Average
1	2	3
1997-98	12.30-13.05	12.82
1998-99	12.15-12.50	12.35
1999-00	11.00-12.25	11.89
2000-01	10.50-12.00	10.99
2001-02	7.80-10.53	9.2
2002-03	6.60-8.00	7.49
2003-04	5.78-6.40	6.13
2004-05	5.60-7.36	6.45
2005-06	7.32-7.85	7.63
2006-07	7.65-8.66	8.10
2007-08	7.84-8.90	8.25
2008-09	5.80-9.90	7.87

securities issued during 2008-09 was lower than the previous year despite the significantly larger market borrowings (Table 7.7). The average range of cut-off yield during 2008-09, however, was considerably wide due to large intra-year variations. The cut-off yield increased gradually and peaked in July 2008 before declining till January 2009 due to easy liquidity conditions in the market. The cut-off yield moved up, thereafter, in February and March 2009 (Table 7.8). The spread in the auction of the SDLs over the corresponding Central Government securities of 10-year tenor was widely dispersed, reflecting the investor response to the sheer size of the borrowings and the concentration of the issuances of securities in the second half of the year. The spread between the weighted average yield of SDLs and that of the Central Government 10-year security narrowed in the auction held on September 25, 2008 but widened significantly thereafter, up to December 2008. The spread declined briefly in January 2009 but reached its maximum in the auction held on March 9, 2009 (Chart VII.4). Following the monetary easing, the yield curve shifted downwards and the spread over Central Government yield declined in the last auction held on March 24, 2009. The weighted

Table 7.8: Month-wise Market Borrowings of State Governments

Month/ Date	No. of States /U.T.	No. of Tranches	Amount (Rupees crore)	Cut-off Yield (Percent)	Spread over Central Government Dated Security (Basis points)
1	2	3	4	5	6
2008-09					
1. April	4	1	2,648	8.50-8.60	35-45
2. May	5	1	3,264	8.39-8.68	30-59
3. June	3	1	2,300	9.38-9.59	77-98
4. July	4	2	2,600	9.81-9.90	48-52
5. August	3	1	2,060	9.30-9.44	34-48
6. September	5	2	3,012	8.80-8.88	21-34
7. October	8	2	6,312	7.97-8.89	41-85
8. November	12	2	8,445	7.77-8.54	51-84
9. December	13	2	10,705	6.34-7.10	43-80
10. January	15	3	18,498	5.80-7.13	58-120
11. February	19	3	26,935	7.24-7.98	132-196
12. March	24	3	31,358	8.08-8.89	136-236
Total		**23**	**1,18,138**	**5.80- 9.90**	**21-236**
2009-10					
1. April	7	3	7,316	7.04-7.77	83-115
2. May	5	2	7,000	7.10-7.53	77-100
3. June	10	1	5,950	7.80-7.89	81-90
4. July	9	3	12,300	7.76-7.97	85-96
5. August*	6	1	7,474	7.95-8.03	95-103

* : Up to August 17, 2009 . U T: Union Territory of Puducherry.

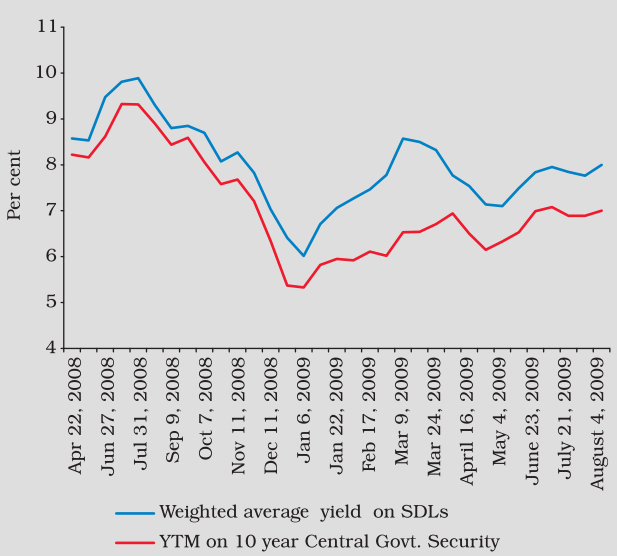
Table 7.9 : Weighted Average Spreads during 2008-09

Weighted Average Spread (Basis Points)	General Category States/UTs	Special Category States
1	2	3
up to 50	–	Sikkim
51-100	Kerala, Punjab and West Bengal	Manipur and Uttarakhand
101-150	Andhra Pradesh, Goa, Gujarat, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and Puducherry	Himachal Pradesh, Jammu & Kashmir, Meghalaya, Mizoram and Nagaland
151-200	Bihar, Haryana, Jharkhand, Karnataka	Arunachal Pradesh and Tripura
above 200	–	Assam

average spread was lower at below 50 basis points for Sikkim and over 200 basis points for Assam (Appendix Table 63). The spread was between 100-150 basis points in respect of 14 States during the year (Table 7.9). The differential in spread is observed to be a function, among others, of the liquidity conditions in the market, supply of securities, the timing of the borrowing and the market perceptions of fiscal conditions.

VII.27 Some State Governments accessed the market very frequently during the year. West Bengal accessed the market as many as eleven times, followed by Andhra Pradesh, Kerala and Tamil Nadu, on ten occasions. Arunachal Pradesh,

Chart VII.4: Weighted Average Yield on SDLs and Yield to Maturity (YTM) on 10-year Central Government Security



Sikkim and Tripura raised their loans on one occasion only (Table 7.10 and Appendix Table 64). In all, 141 new securities were issued by all the States taken together during 2008-09 for a gross amount of Rs.1,18,138 crore averaging Rs.838 crore per issue. The corresponding average issue size stood at Rs.565 crore during the previous year. The increase in the average issue size of State Governments securities during 2008-09 was mainly on account of the additional allocation compensating for the NSSF shortfall and for meeting the fiscal stimulus package.

VII.28 At end-March 2009, about 71 per cent of the total outstanding debt of State Governments was in the maturity bucket of 6-10 years as compared with 68.1 per cent at end-March 2008. The share of loans in the maturity bucket of 6-10

Table 7.10 : Frequency Distribution of Tranches of Auctions during 2008-09

No. of times States accessed the market	No. of States*	No. of Securities Issued
1	2	3
1	3	3
2	4	8
3	3	9
4	3	12
5	3	15
6	3	18
8	1	8
9	3	27
10	3	30
11	1	11
Total	27	141

* : including Union Territory of Puducherry.

years ranged between 39.7 per cent (Orissa) and 100.0 per cent (Puducherry) (Appendix Table 65). It may be noted that Orissa did not raise resources through market borrowings since 2006-07 and Puducherry started participation in market borrowing programme only since 2007-08. The maturity profile of market borrowings shows large repayment obligations in the years 2017-18 and 2018-19 reflecting the sharp increase in market borrowings in the past two years. The outstanding SDLs and power bonds of all the State Governments increased by 31.2 per cent in 2008-09 over the previous year (Table 7.11).

Market Borrowings of State Governments during 2009-10

VII.29 During 2009-10 (up to August 17, 2009), ten tranches of auctions have been conducted under the market borrowing programme of the State Governments. Seventeen State Governments raised an aggregate amount of Rs.40,041 crore as compared to Rs.10,812 crore by eight State Governments during the corresponding period of the previous year. The cut-off yield ranged between 7.04-8.03 per cent as compared to 8.39-9.90 per cent during the corresponding period of the previous year. The spread arrived in the auctions of the SDLs over the corresponding Central Government securities of 10-year tenure ranged between 77-115 basis points compared to 30-98 basis points during the corresponding period of 2008-09. The weighted average yield of gross borrowings of the States was 7.72 per cent as compared with 9.07 per cent during the corresponding period of 2008-09.

Table 7.11 : Maturity Profile of Outstanding State Development Loans and Power Bonds

(Rupees crore)

Year of Maturity	State Development Loans	Power Bonds	Total Outstanding
1	2	3	4
2009-10	16,238	2,907	19,145
2010-11	15,660	2,907	18,567
2011-12	21,993	2,907	24,900
2012-13	30,628	2,870	33,498
2013-14	32,079	2,870	34,949
2014-15	33,384	2,870	36,254
2015-16	35,191	2,907	38,098
2016-17	31,522	1,453	32,975
2017-18	67,779	0	67,779
2018-19	1,18,138	0	1,18,138
Total	**4,02,611**	**21,691**	**4,24,302**

Cash Management

VII.30 Keeping in view the cash position of the State Governments, the WMA limits of State Governments have been left unchanged since 2006-07. Accordingly, the extant State-wise Normal WMA limits was fixed at Rs.9,925 crore for 2008-09 (inclusive of Rs.50 crore for the Union Territory of Puducherry) and the limit has been retained for the year 2009-10 as well (Appendix Table 66). The rate of interest on Normal and Special WMA and OD continued to be linked to the repo rate. The net incremental annual investment in the revised Consolidated Sinking Fund (CSF) and the revised Guarantee Redemption Fund (GRF) continued to be eligible for fixing Special WMA limit, up to a ceiling equivalent to the Normal WMA limit.

VII.31 The monthly average utilisation of Normal WMA by the State Governments showed a fluctuating trend. During 2008-09, six States, *viz.,* Kerala, Madhya Pradesh, Nagaland, Punjab, West Bengal and Uttarakhand resorted to WMA as against eight States, *viz.,* Kerala, Nagaland, Punjab, West Bengal, Himachal Pradesh, Manipur, Mizoram and Uttarakhand in the previous year. The monthly average utilisation of ODs by the States in 2008-09 was significantly lower than the previous year (Table 7.12). Three States, *viz.,* Nagaland, West Bengal and Uttarakhand resorted to ODs during 2008-09 while Kerala, West Bengal and Nagaland were the three states that resorted to overdraft in 2007-08. During 2008-09, West Bengal availed of WMA for a maximum 39 days whereas Uttarakhand availed of OD for 15 days during the year (Table 7.13).

VII.32 Despite some deterioration in their finances during the second half of 2008-09 on account of the fiscal stimulus measures

Table 7.12 : WMA/Overdrafts of the State Governments*

(Rupees crore)

Month	Special WMA			Normal WMA			Overdraft			Total		
	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
1	2	3	4	5	6	7	8	9	10	11	12	13
April	235	489	619	114	287	294	15	139	111	364	916	1024
May	437	310	126	654	3	50	461	0	2	1552	313	178
June	204	9	5	222	0	67	10	0	0	436	9	72
July	389	25	76	310	0	7	3	0	0	702	25	83
August	307	2		476	47		281	0		1064	49	
September	961	139		601	18		225	0		1787	158	
October	254	653		184	83		128	0		566	736	
November	279	754		351	152		127	0		757	906	
December	161	223		103	0		13	0		277	223	
January	72	370		81	0		34	0		187	370	
February	72	86		8	0		0	0		80	86	
March	5	320		1	62		0	11		6	392	
Average	**281**	**282**	**206**	**259**	**54**	**105**	**108**	**13**	**28**	**648**	**349**	**339**

*: Average of daily outstanding.

undertaken by them, most of the State Governments accumulated sizeable cash surpluses, reflecting the sharp increase in their market borrowings during 2008-09. The surplus cash balances of State Governments are automatically invested in 14-day Intermediate Treasury Bills, the discount rate of which is fixed at 5 per cent. While the monthly average outstanding investment in the 14-day Intermediate Treasury Bills by the State Governments during 2008-09 increased by around 35 per cent, that in auction Treasury Bills decreased by around 15 per cent over the previous year. Total investment in Treasury Bills was, however, higher on an average in 2008-09 than in 2007-08 (Table 7.14).

Consolidated Sinking Fund (CSF) and Guarantee Redemption Fund (GRF)

VII.33 The Reserve Bank maintains the consolidated sinking fund (CSF) and the guarantee redemption fund (GRF) on behalf of the State

Table 7.13 : State-wise Availment of WMA/Overdraft

States	WMA		Overdraft			
	2007-08	2008-09	2007-08		2008-09	
	Number of days	Number of days	Number of Occasions*	Number of of days	Number of Occasions*	Number of days
1	2	3	4	5	6	7
Non-Special Category States / U.T.						
1. Kerala	184	18	9	51	0	0
2. Madhya Pradesh	0	2	0	0	0	0
3. Punjab	19	21	0	0	0	0
4. West Bengal	142	39	6	65	1	4
Special Category States						
1. Himachal Pradesh	1	0	0	0	0	0
2. Manipur	3	0	0	0	0	0
3. Mizoram	4	0	0	0	0	0
4. Nagaland	30	18	1	3	1	4
5. Uttarakhand	5	28	0	0	2	15

* : Refers to fresh occurrences of overdrafts during the year.

Table 7.14 : Investments of the State Governments / UT*

(Rupees crore)

Month	Investment in 14-day Treasury Bills			Investment in Auction Treasury Bills			Total		
	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
1	2	3	4	5	6	7	8	9	10
April	31,160	48,192	74,607	34,496	31,780	8,875	65,656	79,972	83,482
May	31,359	48,280	66,585	32,612	32,244	8,664	63,971	80,525	75,249
June	44,430	42,865	69,482	32,500	40,285	6,125	76,930	83,150	75,607
July	35,938	46,742	75,403	39,557	38,802	2,125	75,495	85,543	77,528
August	36,458	44,110		42,477	43,069		78,935	87,179	
September	34,282	40,112		39,201	40,927		73,483	81,038	
October	32,052	39,328		35,195	32,705		67,247	72,033	
November	30,556	41,878		33,872	26,988		64,428	68,866	
December	38,042	51,551		31,565	24,055		69,607	75,606	
January	45,029	63,420		29,661	20,084		74,690	83,504	
February	50,633	75,193		32,403	14,150		83,036	89,342	
March	65,910	1,01,557		29,181	6,893		95,091	1,08,450	
Average	**39,654**	**53,602**	**71,519**	**34,393**	**29,332**	**6,447**	**74,047**	**82,934**	**77,966**

*: Average of Friday outstanding.

Governments from contributions made by them. While the CSF provides a cushion for amortisation of market borrowing/liabilities, the GRF provides a cushion for the servicing of contingent liability arising from invocation of guarantees issued by the State Governments in respect of bonds issued and other borrowings by state level undertakings or other bodies. The aggregate outstanding investments in CSF by the 18 State Governments increased to Rs. 24,032 crore at end-March 2009 from Rs.18,946 crore in respect of 17 States at end-March 2008. As on March 31, 2009, nine States notified their GRF scheme and the aggregate outstanding investments in GRF by these States increased to Rs.3,082 crore as on March 31, 2009 from Rs.2,805 crore in respect of 8 States as on March 31, 2008.

Conference of State Finance Secretaries

VII.34 The 21st Conference of State Finance Secretaries was held on May 15, 2008. Apart from operational issues pertaining to Government transactions, the discussions primarily focused on issues relating to the fiscal transparency at the State level, financing of local (urban) bodies, management of investment portfolio of the States, estimation of the States' market borrowings and budget management of the States. Following discussions in the Conference, three Working Groups, *viz.,* Working Groups on 'Fiscal Management beyond FRBM', 'Local (urban) Finances' and 'Fiscal Transparency at State Level' have been set up to examine the related issues. The major issues focused in the 22nd Conference of the State Finance Secretaries held on May 29, 2009, related to surplus cash balances of the State Governments; projections on market borrowings of the States; advance planning for borrowing by the States; imparting of liquidity to the State Development Loans by reissuance and consolidation; electronic benefit transfer to the beneficiaries of the social security assistance of the Governments and impact of counter-cyclical fiscal measures taken by the States.

VII.35 The Reserve Bank has responded to the challenge of managing the large market borrowing programme with an appropriate assessment of the liquidity conditions and market disruptions have been avoided by synchronising liquidity enhancing operations, such as unwinding balances under the MSS and conducting open market purchases of government securities, with the timing of borrowing programmes, while also seeking feedback from market participants on a regular basis. Hence, despite the sharp increase in the size of borrowings, the market borrowing programme of the Central and State Governments during 2008-09 could be completed in a non-disruptive manner. Apart from the Reserve Bank's active and dynamic debt management strategy which was well co-ordinated with monetary management in terms of ensuring ample liquidity in the system and cut in monetary policy rates, other factors which facilitated the relatively smooth conduct of the market borrowing programme included decline in inflation, weak private sector demand for credit and greater appetite for government securities by commercial banks due to higher risk aversion.

VII.36 The size of combined net market borrowing requirements of the Central and State Governments for 2009-10 (dated securities and 364-day Treasury Bills), at Rs.5,37,957 crore, is estimated to be higher than the 2008-09 actual borrowings by 55.4 per cent, which was on top of an increase of 108.8 per cent over 2007-08. Accordingly, the smooth conduct of debt management would assume even greater importance during the current fiscal year. Hardening of yields witnessed in recent months could militate against the low interest rate regime required to stimulate and revive the economy. The Reserve Bank would continue with its active liquidity management policy to ensure that the large government borrowing does not crowd out present and potential credit demand from the private sector. As the private sector demand picks up with the revival of the economy, and the need for fiscal stimulus also declines correspondingly, the Government could phase out its large borrowings, thereby allowing the private sector demand to propel and sustain the growth momentum, without being constrained by concerns on the availability of liquidity in the system.

VIII CURRENCY MANAGEMENT

During 2008-09, there was a marked improvement in the quality of banknotes. The value of banknotes increased by 17.1 per cent and by 10.7 per cent in volume terms. The Reserve Bank has taken further steps to strengthen mechanised processing of banknotes, as a part of the Clean Note Policy. The Reserve Bank is examining various options to increase the life of banknotes, especially in the lower denominations. For the third year in succession, the indent for banknotes for 2008-09 was met in full by the printing presses. The Bank continued its efforts to bring down the cost of banknotes while maintaining their quality. The policy of rationalisation and consolidation of currency chests resulted in further decline in the number of chests maintained by the public sector banks. The Reserve Bank has taken several steps to check the menace of counterfeit banknotes.

VIII.1 Issue and management of currency continues to be one of the traditional functions of the Reserve Bank since its inception. But the challenges to managing currency have increased over time. Given the expansion of the economy and the growing needs for banknotes, the task of currency management has become increasingly complex. Distribution of fresh notes as well as withdrawal and destruction of soiled notes constitute the core of the currency management operations of the Reserve Bank.

VIII.2 The Reserve Bank, during 2008-09, continued to take various measures to meet the increased public demand for banknotes and coins while simultaneously improving the quality of banknotes. The demand for banknotes was thus met in full during 2008-09 along with a marked improvement in the quality of banknotes, particularly in Rs.10 denomination banknotes. The number of soiled banknotes disposed of by the Reserve Bank during 2008-09 increased significantly, following continued and concerted efforts to increase its disposal capacity. All the currency chests maintained with the banks have already been equipped with Note Sorting Machines (NSMs). Going forward, the Reserve Bank has taken steps to procure and install desktop NSMs in select 210 non-currency chest branches during 2008-09. NSMs have been installed at 192 branches as a part of this initiative.

VIII.3 During 2008-09, the indent for banknotes placed with the printing presses was met in full in terms of volume and substantially in terms of value. The Reserve Bank also adequately met the increased demand for coins, which began from October 2006 and strengthened further during 2008-09. The total number of currency chests declined during 2008-09, reflecting the impact of the ongoing policy of rationalisation and consolidation of currency chests by public sector banks. This chapter documents the measures and initiatives taken by the Reserve Bank during the course of the year on specific aspects of currency management.

BANKNOTES IN CIRCULATION

VIII.4 The value as well as the volume of banknotes continued to increase during 2008-09 (Table 8.1). The growth in the volume of banknotes, however, was lower than that in value terms, reflecting the gradual compositional shift towards higher denomination banknotes, particularly Rs.1,000 and Rs.500. The volume of Rs.10 denomination banknotes, however, increased by 31.0 per cent due to sustained efforts to infuse a

Table 8.1: Banknotes in Circulation

Denomination	Volume (Million pieces)			Value (Rupees crore)		
	End-March 2007	End-March 2008	End-March 2009	End-March 2007	End-March 2008	End-March 2009
1	2	3	4	5	6	7
Rs.2 and Rs.5	6,008 (15.1)	7,405 (16.7)	7,867 (16.1)	2,334 (0.5)	2,747 (0.5)	2,936 (0.4)
Rs.10	7,155 (18.0)	9,333 (21.1)	12,222 (25.0)	7,155 (1.4)	9,333 (1.6)	12,222 (1.8)
Rs.20	2,089 (5.2)	2,054 (4.6)	2,200 (4.5)	4,178 (0.8)	4,108 (0.7)	4,399 (0.6)
Rs.50	5,590 (14.0)	5,302 (12.0)	4,888 (10.0)	27,951 (5.6)	26,508 (4.6)	24,440 (3.6)
Rs.100	13,544 (34.0)	13,457 (30.4)	13,702 (28.0)	1,35,444 (27.3)	1,34,575 (23.1)	1,37,028 (20.1)
Rs.500	4,508 (11.3)	5,262 (11.9)	6,166 (12.6)	2,25,400 (45.4)	2,63,108 (45.2)	3,08,304 (45.3)
Rs.1,000	937 (2.4)	1,412 (3.2)	1,918 (3.9)	93,676 (18.9)	1,41,219 (24.3)	1,91,784 (28.2)
Total	**39,831**	**44,225**	**48,963**	**4,96,138**	**5,81,598**	**6,81,113**

Note: Figures in parentheses in columns 2 to 7 indicate percentage to total banknotes in circulation.

greater number of fresh banknotes into circulation for improving the quality of such banknotes.

VIII.5 The long-run secular decline in the share of currency in broad money (M_3) continued in 2008-09. The ratio has declined steadily from as high as 39.7 per cent as at end-March 1971 to 16.0 per cent as at end-March 2001 and gradually thereafter to 14.0 per cent as at end March 2009, reflecting financial deepening, increased use of credit and debit cards and liquid financial markets. The ratio of currency with the public to GDP, however, increased to 12.5 per cent in 2008-09 from 12.0 per cent a year ago (Chart VIII.1).

VIII.6 In volume terms, Rs.100 denomination banknotes had the largest share, while in terms of value, Rs. 500 denomination banknotes had the largest share as at end-March 2009 (Chart VIII.2).

COINS IN CIRCULATION

VIII.7 The increased demand for coins that started from October 2006, continued during 2008-09.

Chart VIII.1: Currency and Major Aggregates

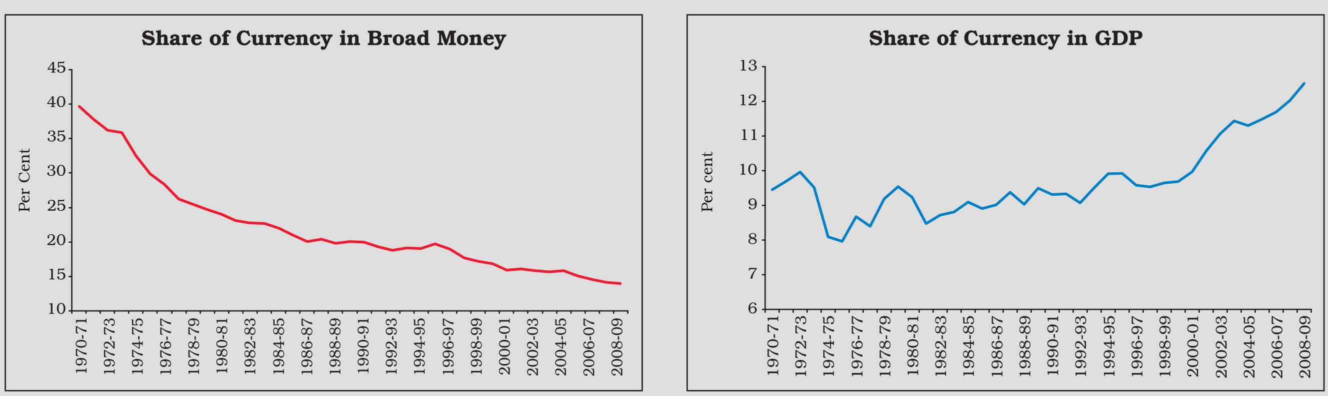
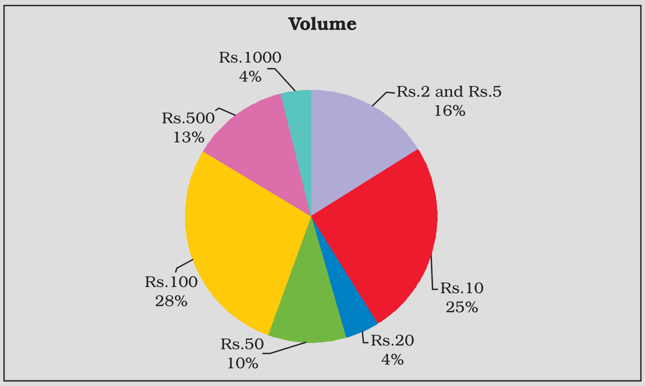
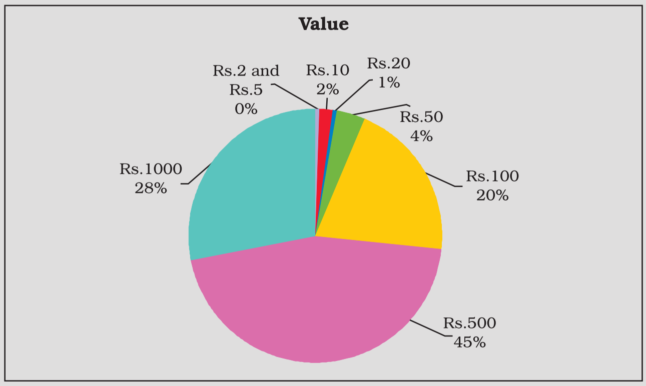


Chart VIII.2: Banknotes in Circulation: End-March 2009





The total value of coins, including small coins in circulation, increased by 9.6 per cent during 2008-09 as compared with 13.3 per cent in the previous year. In volume terms, the increase was 4.7 per cent during 2008-09 as compared with 5.7 per cent a year ago (Table 8.2).

CURRENCY OPERATIONS

VIII.8 Reserve Bank continued with its efforts to provide good quality banknotes and took a series of initiatives under a multi-pronged approach involving regular supply of fresh banknotes, speedier disposal of soiled banknotes and extended mechanisation of cash processing activity. The Reserve Bank has also been examining various options to enhance the life of the banknotes as part of its clean note policy.

Currency Chests

VIII.9 The core central banking function of note issue and currency management is performed by the Reserve Bank through its 19 Issue Offices, a currency chest at Kochi and a wide network of 4,279 currency chests and 4,040 small coin depots (Table 8.3 and Table 8.4). The Reserve Bank has agency arrangements, mainly with scheduled commercial banks, under which currency chest facility is granted to them. The currency chests with Sub

Table 8.2: Coins in Circulation

Denomination	Volume (Million pieces)			Value (Rupees crore)		
	End-March			End-March		
	2007	2008	2009	2007	2008	2009
1	2	3	4	5	6	7
Small coins	54,277 (60.1)	54,735 (57.3)	54,736 (54.7)	1,364 (17.0)	1,455 (16.0)	1,455 (14.6)
Re. 1	22,878 (25.3)	24,721 (25.9)	26,957 (26.9)	2,288 (28.5)	2,472 (27.2)	2,696 (27.1)
Rs. 2	7,441 (8.2)	9,535 (10.0)	11,179 (11.2)	1,488 (18.6)	1,907 (21.0)	2,236 (22.5)
Rs. 5	5,761 (6.4)	6,500 (6.8)	7,141 (7.1)	2,881 (35.9)	3,250 (35.8)	3,570 (35.9)
Total	**90,357**	**95,491**	**1,00,013**	**8,021**	**9,084**	**9,957**

Note : Figures in parentheses in columns 2 to 7 indicate percentage to total coins in circulation.

Table 8.3: Currency Chests

Category	Number of Currency Chests as at the End of			
	June, 2006	June, 2007	June, 2008	Dec., 2008
1	2	3	4	5
Treasuries	116	23	19	15
State Bank of India	2,182	2,127	2,089	2,166*
SBI Associate Banks	994	988	985	900
Nationalised Banks	1,028	1,061	1,084	1,090
Private Sector Banks	83	94	101	102
Co-operative Banks	1	1	1	1
Regional Rural Banks	0	0	0	1
Foreign Banks	4	4	4	4
Reserve Bank (offices and currency chests)	20	20	20	20
Total	**4,428**	**4,318**	**4,303**	**4,299**

* : Includes 84 currency chests belonging to the erstwhile State Bank of Saurashtra.

Table 8.4: Small Coin Depots

Category	Number of Small Coin Depots as at the End of			
	June, 2006	June, 2007	June, 2008	Dec., 2008
1	2	3	4	5
Treasuries	1	-	-	-
State Bank of India	2,088	2,043	2,019	2,098*
SBI Associate Banks	1,013	965	965	882
Nationalised Banks	895	917	943	953
Private Sector Banks	80	92	100	101
Co-operative Banks	1	1	1	1
Regional Rural Banks	0	0	0	1
Foreign Banks	4	4	4	4
Reserve Bank (offices and currency chests)	20	20	20	20
Total	**4,102**	**4,042**	**4,052**	**4,060**

* : Includes 83 small coin depots belonging to the erstwhile State Bank of Saurashtra.

Treasury Offices (STOs) are being gradually phased out and their number reduced further to 15 during 2008-09. The State Bank Group continued to have the largest share (71.3 per cent) of currency chests, followed by nationalised banks (25.3 per cent).

Indent and Supply of Fresh Banknotes

VIII.10 For the third year in succession, the indent for banknotes for 2008-09 was met in full by the printing presses. The indent was matched by the supply both in volume and value terms (Tables 8.5 and 8.6), which affirms the effective monitoring of supplies and efficient allocation and management of the capacities at the banknote presses.

VIII.11 The Bharatiya Reserve Bank Note Mudran Pvt. Ltd. (BRBNMPL), a wholly owned subsidiary of the Reserve Bank was set up in 1996 to take over the work of the New Note Press project. BRBNMPL prints bank notes at its two note presses *viz.,* Mysore (Karnataka) and Salboni (West Bengal). The total supply of banknotes by BRBNMPL during 2008-09 (July-June) was 8,501 million pieces as compared with 8,488 million pieces during 2007-08. During 2008-09, 5,160 million pieces of notes were supplied by Government owned Security Printing and Minting Corporation of India Limited (SPMCIL) as compared with 5,442 million pieces in 2007-08.

Printing Costs of Banknotes

VIII.12 It has been the Reserve Bank's effort to consistently bring down the cost of printing banknotes and to encourage the note printing presses to bring about greater efficiencies in their operations, while maintaining the quality of the printed banknotes. As a part of these ongoing efforts, the Reserve Bank continued to source banknotes from the lowest cost producers, *viz.,* the Security Printing and Minting Corporation of India Ltd. (SPMCIL) and the Bharatiya Reserve Bank Note Mudran (Pvt.) Ltd. (BRBNMPL) (Table 8.7).

Table 8.5: Volume of Banknotes Indented and Supplied

(Million pieces)

Denomination	2006-07			2007-08			2008-09			2009-10
	Indent	Supply	% of supply to indent	Indent	Supply	% of supply to indent	Indent	Supply	% of supply to indent	Indent
1	2	3	4	5	6	7	8	9	10	11
Rs. 5	-	50	-	-	-	-	250	250	100	1,000
Rs. 10	3,500	3,480	99	4,200	4,193	100	5,000	5,030	101	5,000
Rs. 20	500	438	88	600	636	106	500	500	100	800
Rs. 50	1,400	1,458	104	1,200	1,213	101	1,000	1,008	101	1,000
Rs. 100	4,000	4,034	101	4,200	4,199	100	4,200	4,215	100	4,000
Rs. 500	1,500	1,473	98	1,800	1,805	100	3,500	3,459	99	4,000
Rs. 1,000	600	589	98	700	699	100	800	763	95	1,000
Total	**11,500**	**11,522**	**100**	**12,700**	**12,745**	**100**	**15,250**	**15,225**	**100**	**16,800**

Table 8.6: Value of Banknotes Indented and Supplied

(Rupees crores)

Denomination	2006-07			2007-08			2008-09			2009-10
	Indent	Supply	% of supply to indent	Indent	Supply	% of supply to indent	Indent	Supply	% of supply to indent	Indent
1	2	3	4	5	6	7	8	9	10	11
Rs. 5	-	25	-	-	-	-	125	125	100	500
Rs. 10	3,500	3,480	99	4,200	4,193	100	5,000	5,030	101	5,000
Rs. 20	1,000	876	88	1,200	1,272	106	1,000	999	100	1,600
Rs. 50	7,000	7,292	104	6,000	6,065	101	5,000	5,042	101	5,000
Rs. 100	40,000	40,348	101	42,000	41,990	100	42,000	42,152	100	40,000
Rs. 500	75,000	73,655	98	90,000	90,250	100	1,75,000	1,72,950	99	2,00,000
Rs.1,000	60,000	58,910	98	70,000	69,900	100	80,000	76,247	95	1,00,000
Total	**1,86,500**	**1,84,586**	**99**	**2,13,400**	**2,13,670**	**100**	**3,08,125**	**3,02,545**	**98**	**3,52,100**

Indent, Supply and Distribution of Coins

VIII.13 The demand for coins that increased in the last few years continued during 2008-09. Accordingly, there was a spurt in the indent placed by the Reserve Bank on the mints (Tables 8.8 and 8.9). The Reserve Bank continued with its measures to meet the increased demand for coins, which included (i) arrangements for retail distribution through post offices, RRBs and UCBs, in addition to bank branches; (ii) identification of 2,000 bank branches across the country for distribution of coins; (iii) issuance of press release informing the public of the identified bank branches and placing the list of these bank branches on the Reserve Bank website; (iv) organisation of coin melas by several Issue Offices of the Reserve Bank at prominent centres for disbursing coins directly to consumers; (v) bulk issuance of coins to registered associations of hotels, retail shops and chemists; and (vi) participation of the Reserve Bank offices in exhibitions/trade fairs and distribution of coins directly to the members of public.

VIII.14 During the year, for the first time new bi-metallic Rs.10 coins (with themes 'Unity in Diversity' and 'Connectivity and Information Technology') were introduced. A total of 80 million pieces of the same were minted and issued through public counters of RBI/banks.

Disposal of Soiled Banknotes

VIII.15 During 2008-09, as many as 11,962 million pieces of soiled banknotes (24.4 per cent of banknotes in circulation) were processed and removed from circulation (Table 8.10). As against this, 13,809 million pieces of fresh banknotes were

Table 8.7: Supply and Cost of Banknotes

Year (July-June)	SPMCIL		BRBNMPL		Total	
	Supply (Million pieces)	Cost (Rupees crore)	Supply (Million pieces)	Cost (Rupees crore)	Supply (Million pieces)	Cost (Rupees crore)
1	2	3	4	5	6	7
2004-05	4,160	783	7,391	660	11,551	1,443
2005-06	2,697	406	4,194	629	6,891	1,035
2006-07	5,136	1,042	7,348	978	12,484	2,020
2007-08	5,442	908	8,488	1,118	13,930	2,026
2008-09	**5,160**	**906**	**8,501**	**1,157**	**13,661**	**2,063**

SPMCIL : Security Printing and Minting Corporation of India Ltd.
BRBNMPL : Bharatiya Reserve Bank Note Mudran (Pvt.) Ltd.

Table 8.8: Indent and Supply of Coins (Volume)

(Million pieces)

Denomination	2006-07		2007-08		2008-09		2009-10
	Indent	Supply	Indent	Supply	Indent	Supply	Indent
1	2	3	4	5	6	7	8
50 paise	0	0	185	127	400	153	200
Re. 1	0	45	1,500	1,294	2,500	2,110	3,000
Rs. 2	700	686	1,500	1,562	1,800	1,671	2,000
Rs. 5	0	11	300	173	1,200	335	800
Rs. 10	**0**	**0**	**0**	**0**	**0**	**80**	**100**
Total	**700**	**742**	**3,485**	**3,156**	**5,900**	**4,349**	**6,100**

Table 8.9: Indent and Supply of Coins (Value)

(Rupees crores)

Denomination	2006-07		2007-08		2008-09		2009-10
	Indent	Supply	Indent	Supply	Indent	Supply	Indent
1	2	3	4	5	6	7	8
50 paise	-	-	9	6	20	8	10
Re. 1	-	5	150	129	250	211	300
Rs. 2	140	137	300	312	360	334	400
Rs. 5	0	5	150	87	600	168	400
Rs. 10	0	0	0	0	0	80	100
Total	**140**	**147**	**609**	**534**	**1,230**	**801**	**1,210**

supplied to members of public and currency chests during the year. The number of banknotes withdrawn from circulation and eventually disposed of at the Reserve Bank offices increased during the year as part of the ongoing efforts for speedier removal of soiled banknotes from currency chests and augmenting the disposal capacity at Reserve Bank offices.

VIII.16 Out of 11,962 million pieces of banknotes disposed during 2008-09, 6,748 million pieces were processed through 54 Currency Verification and Processing Systems (CVPS) (6,287 million pieces a year ago). The remaining banknotes were disposed of under the Dynamic Working Model, which is a statistical method employed for processing notes up to Rs.50 denomination in which a representative sample of a lot (*i.e.,* soiled banknotes considered for processing) is taken for checking of discrepancies, *i.e.,* shortages and counterfeits. If the discrepancies detected in the representative sample are within the 'tolerance limit', then the remaining lot is shredded, otherwise it is subjected to 100 per cent checking.

Mechanisation

VIII.17 Mechanisation of cash processing activity and disposal of soiled banknotes continued to be one of the major thrust areas of the Reserve Bank in currency management. With all the currency chests currently equipped with at least one note sorting machine, banks have been advised to install desktop note sorting machines (NSMs) in non-

Table 8.10: Disposal of Soiled Notes and Supply of Fresh Banknotes

Denomination	Volume in million pieces					
	2006-07		2007-08		2008-09	
	Disposal	Supply	Disposal	Supply	Disposal	Supply
1	2	3	4	5	6	7
Rs. 1,000	7	405	17	663	39	664
Rs. 500	276	1,427	444	1,756	735	2,611
Rs. 100	2,360	3,716	3,727	4,015	3,690	4,277
Rs. 50	1,456	1,438	2,172	1,522	2,403	1,042
Rs. 20	489	739	834	728	1,003	605
Rs. 10	2,243	2,719	3,030	4,580	3,700	4,607
Up to Rs. 5	494	259	472	478	392	3
Total	**7,325**	**10,703**	**10,696**	**13,742**	**11,962**	**13,809**
Memo:						
Total Banknotes in circulation		**39,831**		**44,225**		**48,963**

Note : Supply figures are notes issued to public and remittances sent to currency chests by the Reserve Bank and, therefore, differ from the figures in Table 8.5, which gives notes supplied by presses to the Reserve Bank.

Table 8.11: Counterfeit Notes Detected

Denomination	Number of pieces			Value (Rupees)		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
1	2	3	4	5	6	7
Rs. 10	110 (-)	107 (-)	68 (-)	1,100	1,070	680
Rs. 20	305 (0.1)	343 (0.2)	341 (0.2)	6,100	6,860	6,820
Rs. 50	6,800 (1.2)	8,119 (1.5)	12,792 (2.6)	3,40,000	4,05,950	6,39,600
Rs. 100	68,741 (5.1)	1,10,273 (8.2)	1,33,314 (9.7)	68,74,100	1,10,27,300	1,33,31,400
Rs. 500	25,636 (5.7)	66,838 (12.7)	2,19,739 (35.6)	1,28,18,000	3,34,19,000	10,98,69,500
Rs. 1,000	3,151 (3.4)	10,131 (7.2)	31,857 (16.6)	31,51,000	1,01,31,000	3,18,57,000
Total	**1,04,743 (2.6)**	**1,95,811 (4.4)**	**3,98,111 (8.1)**	**2,31,90,300**	**5,49,91,180**	**15,57,05,000**

– : Negligible.
Note: 1. Data are exclusive of the counterfeit notes seized by police and other enforcement agencies.
2. Figures in parentheses in columns 2, 3 and 4 indicate pieces per million (ppm) to total banknotes in circulation (Table 8.1).

currency chest branches also based on, *inter-alia*, volume of cash handled. The Reserve Bank has also taken steps for installation of 250 NSMs at its offices and select non-currency chest bank branches across the country. Reserve Bank's New Delhi office has started distribution of coins in pouches and note packets through Prototype Vending Machines. Based on the feedback from the public and further refinements, such machines will be introduced in other offices as well.

Counterfeit Banknotes

VIII.18 Detection of counterfeit banknotes showed a rising trend. 3,98,111 counterfeit banknotes were detected at the Reserve Bank's offices and bank branches during 2008-09 as compared to 1,95,811 in the previous year (Table 8.11). Out of this, 3,42,281 pieces were detected at bank branches, which indicates the increased use of NSMs at their end (Table 8.12).

Table 8.12: Number of Counterfeit Notes Detected at the Reserve Bank and Bank Branches

Year	Detection at Reserve Bank	Detection at other banks	Total
1	2	3	4
2006-07	59,048 (56.4)	45,695 (43.6)	1,04,743
2007-08	62,134 (31.7)	1,33,677 (68.3)	1,95,811
2008-09	55,830 (14.0)	3,42,281 (86.0)	3,98,111

Note : Figures in parentheses in columns (2) and (3) represent the shares in total.

VIII.19 The Reserve Bank has taken several steps to check the menace of counterfeit bank notes (Box VIII.1). The installation of NSMs by all the banks at their currency chest branches (to facilitate examination and detection of counterfeit notes at the currency chest level itself), and the setting up of the Forged Note Vigilance Cells (FNVCs) at the banks (to ensure stringent levels of anti-counterfeit management in the banking system) helped significantly in the increased detection of counterfeit bank notes.

Computerisation of Currency Management

VIII.20 In order to achieve seamless flow of information from currency chests to Reserve Bank on stock position *etc.* the Reserve Bank established the Integrated Computerised Currency Operations and Management System (ICCOMS).

Box VIII.1
Steps taken by the Reserve Bank to curb currency counterfeiting

To check the menace of counterfeiting of banknotes, the Reserve Bank initiated several measures. These measures include augmenting security features on the banknotes so as to render counterfeiting difficult and expensive and running education campaigns for members of public and cash handlers so as to facilitate detection of counterfeits. Some of the steps taken in this regard are as follows:

- All currency chest branches of banks (and certain identified non-chest branches which are close to international borders or have heavy cash transactions) have been equipped with Note Sorting Machines to detect and curb the circulation of counterfeit notes.
- The Reserve Bank has been co-ordinating with the investigating agencies as well as State police authorities for information sharing. State Level Committees headed by Director General of Police involving all agencies concerned have been formed to deal with the issue of counterfeiting.
- Forged Note Vigilance Cells have been formed at all the banks to pay focused attention to counterfeiting.
- As a part of the ongoing endeavour to stay ahead of the counterfeiters, new security features/ new designs in the banknotes in all denominations were introduced in 2005-06, incorporating improved anti-counterfeiting design and security features.
- The Reserve Bank regularly conducts training programmes for employees of banks and other organisations handling bulk quantities of cash like Railways *etc.* as well as police authorities.
- As a part of the public awareness campaign, the Reserve Bank has placed on its web site extensive information on security features of Indian banknotes. Posters on 'Know Your Banknotes' are also displayed at bank branches.
- A film on 'Know Your Banknotes' got prepared by RBI through Films Division, has been supplied across our Issue offices/Currency Chests, public utilities, theatres and other media for screening.

During 2008-09, ICCOMS was implemented successfully at all issue circles. ICCOMS comprises three components, *viz.,* Currency Chest Reporting System (CCRS), ICCOMS-Issue Department (ICCOMS-ID) and Currency Management Information System (CMIS) at currency chests maintained by various banks, Issue Departments in regional offices and in the Central Office respectively. Implementation of ICCOMS has facilitated prompt, efficient and error-free reporting and accounting of the currency chest transactions and seamless flow of information among Currency Chests, the Issue Departments and the Central Office in a secure manner with proactive monitoring. The CCRS component under ICCOMS has enabled the Reserve Bank to account for currency transfer transactions efficiently. Under the second component, *viz.,* ICCOMS-ID, transactions are put through by all the 19 offices of the Reserve Bank on a 'straight through put' process. As part of CMIS, the data replicated from all the issue offices has enabled the Reserve Bank to identify stock of banknotes and coins, accumulation and disposal of soiled notes, and notes in circulation at any point of time on an all-India basis. In the first quarter of 2009-10, the module on the CMIS is expected to be completed.

Customer Service

VIII.21 During the year, the Reserve Bank stepped up its measures towards improvement of customer services in matters relating to issue/acceptance of coins from public and exchange of soiled and mutilated banknotes. The Reserve Bank reiterated its directions to all scheduled commercial banks to issue/accept coins and soiled banknotes in transactions or for exchange without any restriction. Reserve Bank also advised its Regional Offices to arrange for organisation of coin camps in consultation with the banks at the identified locations where there was increased demand. Efforts were continued to provide timely and efficient customer service not only at the public counters of Reserve Bank's offices but also at the chests and the bank branches.

VIII.22 The Reserve Bank has finalised simplification of the existing Note Refund Rules to improve customer service in exchange of mutilated banknotes.

VIII.23 The Citizens Charter for currency management has been revised in order to provide better customer service.

VIII.24 Providing adequate supply of good quality banknotes and coins in the country would continue to be the focus of currency management operations in the Reserve Bank. With the computerisation of currency chests along with enhanced mechanisation of note processing activities, the Reserve Bank would continue to effectively respond to the emerging challenges. It would also continue with its efforts to further strengthen security features in the banknotes to mitigate the risk posed by counterfeiting. The initiatives in other areas of currency management would also be pursued vigorously, particularly examining various options for increasing the circulation life of banknotes of lower denominations, ensuring printing of banknotes meeting very strict quality rules/standards, reviewing the banknotes and coins handling practices including recycling of banknotes and coins *etc*.

IX PAYMENT AND SETTLEMENT SYSTEMS AND INFORMATION TECHNOLOGY

The payment and settlement systems in India functioned normally in the midst of the global financial crisis, ensuring the continued confidence of the public in these systems. The Payment and Settlement Systems Act, Board for Regulation and Supervision of Payments and Settlement Systems Regulations, 2008 and the Payment and Settlement Systems Regulations, 2008 have come into effect in August 2008 and accordingly, the Board for Regulation and Supervision of Payment and Settlement Systems was reconstituted. While the growth and penetration of conventional non-cash modes of payments continued to remain strong in 2008-09, new modes of payments like mobile payment transactions and pre-paid credit instruments have also started. Harnessing information technology (IT) for internal functioning of the Reserve Bank as well as for delivery of services have continued to ensure greater efficiency. The rapid advances in the application of IT and emerging forms of payments and their settlement systems necessitate the Reserve Bank to improve the regulatory frameworks while integrating these developments to the overall goals of the financial system.

IX.1 The ability of economic agents to transfer money and exchange financial claims embedded in financial instruments smoothly and securely through payment and settlement systems is critical not only for sustaining the public confidence in the financial system but also for creating an efficient and deep financial system. The Reserve Bank, as the supervisor and regulator of the payments and settlement systems, strives to ensure development of efficient and smooth systems matching the needs and growing sophistication of the financial sector. The rapid advancements in the field of information technology (IT) have contributed to emergence of new products as well as methods of payment and settlement. Emergence of new modes of payments and increasing complexity of transactions, however, also pose challenges in terms of formulating appropriate regulatory and supervisory frameworks. Apart from facilitating advancements in the payment and settlement systems, the information and communication technology has been harnessed into the functioning of the Reserve Bank in all important areas.

IX.2 This chapter outlines the major developments in the payment and settlement systems in India during 2008-09 as well as the progress made in terms of use of information technology both in service delivery as well as in operations relating to core functional areas of the Reserve Bank. Various developments in terms of designing and implementing regulatory frameworks to effectively monitor the emerging modes of payments and settlements as well as the increasing diversification of payments and settlement systems in terms of greater penetration of information technology are discussed in detail. Apart from this, the developments in information technology front, both in terms of use of IT within the Reserve Bank and initiatives for enhancing IT intensity of the financial sector are also highlighted.

PAYMENT AND SETTLEMENT SYSTEMS

IX.3 The Reserve Bank, as the Central Bank of the country has played a catalytic role, over the years, in creating an institutional framework for development of a safe, secure, sound and efficient payment system in the country. A major milestone was achieved when the Payment and Settlement Systems Act, 2007 was enacted empowering the Reserve Bank to regulate and supervise the payment and settlement systems, lay down policies to this effect and provide a legal basis for multilateral netting and settlement finality. Accordingly, the Reserve Bank framed and notified the 'Board for Regulation and Supervision of Payment and Settlement Systems Regulations, 2008' and 'Payment and Settlement Systems Regulations, 2008' for operationalisation of the Payment and Settlement Systems Act.

Regulation and Supervision of Payment Systems

IX.4 The Payment and Settlement Systems Act, 2007 (the PSS Act, 51 of 2007) and the two regulations (i) Board for Regulation and Supervision of Payment and Settlement Systems Regulations 2008 and (ii) Payment and Settlement Systems Regulations, 2008 have come into effect from August 12, 2008. The PSS Act stipulates that no person other than the Reserve Bank shall commence or operate a payment system, except under and in accordance with an authorisation issued by the Reserve Bank as per the provisions of the PSS Act. All persons operating a 'payment system' or desirous of setting up a payment system as defined in the PSS Act, need to apply for authorisation to the Reserve Bank, unless specifically exempted in terms of the PSS Act, in the form and manner as stipulated in the Payment and Settlement Systems Regulations, 2008. The Stock Exchanges and the Clearing Corporations of the Stock Exchanges have been exempted from the provisions of the PSS Act.

IX.5 Since the PSS Act became effective, the Reserve Bank has received applications for authorisation from operators/proposed operators of prepaid and other cards, payment gateways, money transfers, mobile payments, Automated Teller Machine (ATM) network, *etc.* Authorisation has so far been accorded to 21 entities for operating specified payment systems. The banks providing mobile payment services in accordance with the "Mobile Banking Transactions in India - Operative Guidelines for Banks" issued on October 8, 2008 under Section 18 of the PSS Act, are required to obtain approval from the Reserve Bank. Approval has so far been accorded to 29 banks to provide mobile payment services.

Board for Regulation and Supervision of Payment and Settlement Systems (BPSS)

IX.6 In order to strengthen the institutional framework for the payment and settlement systems in the country, the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS) as a Committee of its Central Board was constituted by the Reserve Bank in March 2005 following the notification of the Reserve Bank of India, Regulations, 2005. The BPSS was reconstituted in August 2008 following the notification of the PSS Act and the Board for Regulation and Supervision of Payment and Settlement Systems Regulations, 2008. The Board met on five occasions during the period from July 2008 to June 2009. The operationalisation of the PSS Act, issuance of guidelines for smooth operations of payment systems and transparency in charges levied to customers for the services offered by banks were some of the key focus areas of the BPSS at its meetings. The important directions of the Board, *inter-alia,* include: (i) grant of authorisation to various payment system providers in terms of the provisions of the PSS Act, (ii) guidelines on mobile payments, (iii) guidelines on issuance and operation of prepaid payment instruments in India, (iv) rationalisation of the charges for electronic payment products and outstation cheque collection, (v) migration of large-value payments to more secure electronic modes and (vi) incentivising the usage of satellite communication for penetration of banking services to remote places.

IX.7 In accordance with the directions of the BPSS, operative guidelines on mobile banking for banks were issued on October 8, 2008 and Guidelines for prepaid payment instruments in India were issued on April 27, 2009. The use of other bank ATMs for cash withdrawal has become free of charge with effect from April 1, 2009. The

Reserve Bank has also rationalised the service charges for 'Electronic Payment Products' and outstation cheque collection. Steps have been initiated to increase the threshold limit of cheques in 'High Value Clearing' from Rs.1 lakh to Rs.10 lakhs and to progressively discontinue this service in view of alternate channels being already available to clear high value transactions.

DEVELOPMENTS IN PAYMENT AND SETTLEMENT SYSTEMS

IX.8 The total turnover under various payment and settlement systems rose by 13.9 per cent in terms of value during 2008-09 as compared with 41.8 per cent during 2007-08. As a ratio to GDP, the annual turnover in terms of value increased marginally from 12.7 per cent in 2007-08 to 12.9 per cent in 2008-09 (Table 9.1). The Systemically Important Payment System's (SIPS) share in the total turnover accounted for 53.8 per cent followed by Financial Markets' Clearing at 33.9 per cent.

IX.9 The SIPS continued to exhibit the rising trend and there was an increase of 12.2 per cent in terms of value in 2008-09 on top of the increase of 39.6 per cent in the previous year. The rise was mainly contributed by increase in Real Time Gross Settlement (RTGS) transactions in 2008-09, while high value clearing component of SIPS, declined by 17.3 per cent during the year. This decline in high value SIPS clearing could be due to shift from

Table 9.1 : Payment System Indicators - Annual Turnover

Item	Volume (000s)				Value (Rupees crore)			
	2005-06	2006-07	2007-08	2008-09	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8	9
Systemically Important Payment Systems (SIPS)								
1. High Value clearing	15,924	18,730	21,919	21,848	49,81,428	50,34,007	55,00,018	45,50,667
2. RTGS	1,767	3,876	5,840	13,366	1,15,40,836	1,84,81,155	2,73,18,330	3,22,79,881
Total SIPS (1+2)	**17,691**	**22,606**	**27,759**	**35,214**	**1,65,22,264 (4.6)**	**2,35,15,162 (5.7)**	**3,28,18,348 (6.9)**	**3,68,30,548 (6.9)**
Financial Markets Clearing								
3. Government Securities Clearing	151	167	216	270	25,59,260	35,78,037	56,02,602	62,54,519
4. Forex Clearing	490	606	757	838	52,39,674	80,23,078	1,27,26,832	1,69,37,489
Total Financial Markets Clearing (3+4)	**641**	**773**	**973**	**1108**	**77,98,934 (2.2)**	**1,16,01,115 (2.8)**	**1,83,29,434 (3.9)**	**2,31,92,008 (4.4)**
Others								
5. MICR Clearing	10,15,912	11,25,373	12,01,045	11,40,492	44,92,943	54,01,429	60,28,672	58,49,642
6. Non-MICR Clearing	2,54,922	2,23,177	2,37,600	2,33,566	18,54,763	16,06,990	18,67,376	20,60,893
7. Retail Electronic Clearing	83,241	1,48,997	2,18,800	2,80,610	1,06,598	1,86,160	9,71,485	4,16,419
8. Cards	2,01,772	2,29,713	3,16,509	3,87,215	39,783	49,533	70,506	83,903
Total Others (5 to 8)	**15,55,847**	**17,27,260**	**19,73,954**	**20,41,883**	**64,94,087 (1.8)**	**72,44,112 (1.8)**	**89,38,039 (1.9)**	**84,10,857 (1.6)**
Grand Total (1-8)	**15,74,179**	**17,50,639**	**20,02,686**	**20,78,205**	**3,08,15,285 (8.6)**	**4,23,60,389 (10.3)**	**6,00,85,821 (12.7)**	**6,84,33,413 (12.9)**

Note: 1. High value clearing refers to cheques of Rs. 1 lakh / 10 lakh and above .
2. Settlement of government securities clearing and forex transactions is through Clearing Corporation of India Ltd.
3. At the end of April 2009, the MICR clearing was available at 66 centres (60 centres during previous year).
4. Electronic clearing comprise Electronic Clearing Services (ECS), Electronic Funds Transfer (EFT), National/Special Electronic Funds Transfer (NEFT/SEFT) (SEFT from April 2003 to February 2006 and NEFT from November 2005).
5. Cards include credit cards and debit cards.
6. Figures in parentheses are ratios to GDP at current market prices.
7. Retail Electronic Fund Transfer for 2007-08 (Volume and Value) includes refund of the oversubscription amount of IPOs floated by companies using electronic mode as mandated by the stock exchange.

paper based transactions to electronic modes of payments like RTGS, besides the impact of the general slowdown in the economy on the value and volume of such transactions.

Retail Payment Systems

IX.10 The retail payment system includes cheque clearing (automated clearing done using magnetic ink character recognition (MICR) and non-MICR), retail electronic fund transfer and card payments. The year 2008-09 registered a decline of 5.9 per cent in the overall turnover of various retail payment products as compared to an increase of 23.4 per cent during 2007-08, mainly on account of negative growth in retail electronic clearing and MICR clearing. The issue and refund of IPOs during 2007-08, among others, was one of the reasons for the significant increase in 2007-08. The depressed primary and secondary market in 2008-09 partly contributed to the drop in turnover from the high base in 2007-08.

Paper-based Clearing and Settlement

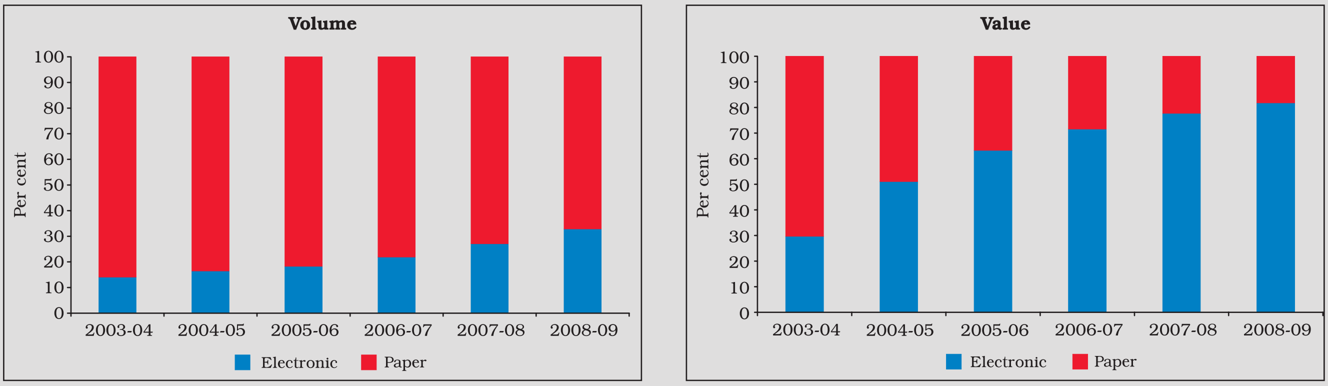
IX.11 Cheque is still being predominantly used as an important instrument of cashless paper based mode of payment and, therefore, sustaining and promoting efficiency in this system for clearing and settlement of cheques assumes importance. During 2008-09, six new MICR cheque processing centres (Belgaum, Bhavnagar, Jamnagar, Kota, Tirunelveli and Anand) were opened. At present there are 71 MICR-CPCs functioning in the country. At centres where setting up of MICR-CPC was not found to be viable, the settlement operations have been computerised (1064 clearing houses) so that the settlement is done electronically even though the instruments still continue to be sorted manually. So far, operations of more than 99.3 per cent of the total number of 1138 Clearing Houses in the country have been computerised. The year 2008-09 registered a decline of 5.0 per cent in the volume and 3.0 per cent in the value of MICR transactions. This decline could be attributed to shift to electronic modes of payment and general slowdown in the economy.

IX.12 *High Value Clearing:* High Value Clearing is available at 24 major locations in the country. In view of the various risks associated with the use of paper-based instruments for clearing and settlement of large-value transactions, it has been decided to increase the threshold limit for cheques eligible to be presented in High Value Clearing from the present Rs.1 lakh to Rs.10 lakh. This is also a step towards encouraging migration of large value payments from paper based instruments like cheque to electronic mode like RTGS/NEFT.

IX.13 *Speed Clearing*: A new clearing arrangement named *'Speed Clearing'* was introduced in June 2008 for collection of outstation cheques through local clearing, if such cheques are drawn on core banking enabled branches of the paying banks. Under Speed Clearing, cheques drawn on outstation CBS branches of a drawee bank can be processed in the local clearing. Speed Clearing reduces the time taken for realisation of outstation cheques and can now be paid on T+1 or T+2 basis. Speed Clearing has been introduced at 53 centres. The introduction of Speed Clearing has reduced the volume of cheques processed in Inter-City Clearing (conducted at Reserve Bank locations) to a great extent; as a result Inter-City (Outward) Clearing has also been discontinued at 11 Reserve Bank locations and is now available at only 4 centres.

IX.14 *Cheque Truncation*: To enhance the efficiency of the paper based clearing system, the Cheque Truncation System (CTS) was implemented in February 2008 as a pilot project with the 10 banks in the National Capital Region (NCR). Since July 2008, all the member banks of the New Delhi Bankers' Clearing House are participating in the CTS. To encourage complete migration of cheques in the National Capital Region of Delhi to CTS, the processing charges in respect of cheques presented in CTS were waived till June 2009. With the complete migration of cheque to CTS, the separate paper based clearing held has been discontinued from July 2009. A fee of Rs.0.50 per instrument each for both the presenting and the paying bank in CTS has been introduced from July 1, 2009.

Chart IX.1: Share of Paper-based versus Electronic Transactions



IX.15 The trends in the volume and value of paper clearing *versus* electronic clearing over the recent years show that while in value terms the share of electronic transactions has increased significantly, in volume terms paper based transactions still dominate (Chart IX.1).

Electronic Fund Transfer Systems

IX.16 Electronic fund transfer systems comprising electronic clearing service (ECS), electronic funds transfer (EFT) and national electronic funds transfer (NEFT) showed a decline of 57.1 per cent in value during 2008-09 as compared to a rise of over 422.0 per cent during 2007-08. The sharp growth in 2007-08 was due to the transactions relating to refund of oversubscription amount relating to IPOs floated by companies through ECS Credit and NEFT. The ECS Debit and EFT/NEFT showed a growth of 36.9 per cent and 79.6 per cent, respectively, in terms of value. The coverage of ECS has been increased to 75 centres and T+1 Settlement cycle (from earlier T+3) is implemented across all the centres. A new system called National Electronic Clearing Service (NECS) having centralised processing capabilities was operationalised with effect from September 29, 2008 to bring in uniformity and efficiency in the system. While NECS-Credit facilitates multiple credits to beneficiary accounts at destination branches across the country against a single debit in the account of a user with the sponsor bank from a single central location at Mumbai, the NECS-Debit when implemented shall facilitate multiple debits to destination account holders across the country against a single credit to the user account at Mumbai. The NECS is a nationwide system leveraging on core banking solutions (CBS) of member banks. All CBS bank branches are participants in the system, irrespective of their location. As of March 31, 2009 as many as 114 banks with 26,275 branches participate in NECS. Local ECS (Credit) at Mumbai was merged with NECS-Credit effective from March 24, 2009.

IX.17 It has been decided to extend the waiver of charges for processing electronic payment products (ECS / NECS / NEFT / RTGS) for a further period of one year, *i.e.,* up to 31st March 2010.

IX.18 Banks have been advised to encourage their customers to use NEFT which is a nation-wide electronic fund transfer system. As at the end of March 2009, 55,225 branches of 89 banks were participating in NEFT. To encourage the retail electronic payment systems various measures were initiated by the Reserve Bank, *viz.,* (i) facilitating initiation of NEFT transactions by accepting cash from walk-in customers (from the earlier account to account transfer), (ii) option to make credit card payments, (iii) extending the settlement time window for NEFT by one and half hours. Reflecting these, there has been substantial increase in both the volume and amount of transactions in retail electronic fund transfer systems during 2008-09 (Table 9.2).

Table 9.2 : Retail Electronic Funds Transfer Systems

Item	Volume (000s)				Value (Rupees crore)			
	2005-06	2006-07	2007-08	2008-09	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8	9
ECS / NECS Credit	44,216 (10.4)	69,019 (56.1)	78,365 (13.5)	88,394 (12.80)	32,324 (60.2)	83,273 (157.6)	7,82,222 (839.3)	97,487 (-87.5)
ECS Debit	35,958 (135.0)	75,202 (109.1)	1,27,120 (69.0)	1,60,055 (25.9)	12,986 (344.6)	25,441 (95.9)	48,937 (92.4)	66,976 (36.9)
EFT/NEFT	3,067 (20.3)	4,776 (55.7)	13,315 (178.8)	32,161 (141.5)	61,288 (12.2)	77,446 (26.4)	1,40,326 (81.2)	2,51,956 (79.6)

Note: 1. Figures in parentheses represent percentage change over previous year.
2. The ECS Credit figures of 2007-08 include transactions for refunds of oversubscribed IPOs by various companies as mandated by the Stock Exchange.

Cards

IX.19 The use of card based payments rose by 22.3 per cent in volume and by 19.0 per cent in value during 2008-09. One notable trend in the context of economic slowdown was that while the growth in value of credit card transactions decelerated in 2008-09, the growth in the value of debit card transactions continued to remain strong as in the previous year (Table 9.3).

Automated Teller Machines (ATMs)

IX.20 ATMs have become an important channel for delivering banking transactions and services in India, particularly for cash withdrawal and account balance enquiry. The spread of ATMs has increased from 34,789 in March 2008 to 43,651 in March 2009. To extend the facility of use of ATMs of one bank to the customers of other banks, banks have entered into bilateral or multilateral arrangements with other banks to have bilateral or inter-bank ATM networks. The charges levied on the customers for use of ATMs varied from bank to bank and also varied according to the ATM network that was used for the transaction. In order to bring greater transparency and reasonableness in ATM charges being levied by banks on their customers, the Reserve Bank issued directives making use of own bank's ATM or any other bank's ATM free of charge for cash withdrawal, from April 1, 2009. The volume of ATM transactions has increased from 17,797 lakh aggregating to Rs.4,38,151 crore during 2007-08 to 23,530 lakh aggregating to Rs.6,16,456 crore during 2008-09.

IX.21 ATMs have the potential to provide facilities other than balance enquiry and cash dispensing. Some banks have tapped these capabilities and are providing value added services to their customers such as funds transfer, bill payment services, mobile phone recharge, *etc.* An assessment carried out in the Reserve Bank revealed that density of ATM availability (as the ratio

Table 9.3 Card-Based Payment Transactions

Item	Volume (000s)				Value (Rupees crore)			
	2005-06	2006-07	2007-08	2008-09	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8	9
Credit Cards	156,086 (20.6)	169,536 (8.6)	228,203 (34.6)	259,561 (13.7)	33,886 (31.9)	41,361 (22.1)	57,985 (40.2)	65,356 (12.7)
Debit Cards	45,686 (10.0)	60,177 (31.7)	88,306 (46.7)	127,654 (44.6)	5,897 (10.0)	8,172 (38.6)	12,521 (53.2)	18,547 (48.1)

Note: Figures in parentheses represent percentage change over previous year.

of availability of ATM to population) in India was very low compared to developed countries and some emerging market economies. The population per ATM in India was more than 29,500 (March 2008) as against the range of 1000 – 9500 in some of the EMEs. To encourage the spread of ATMs for building the national payment infrastructure, relaxation has been announced in the Annual Policy Statement 2009-10 to allow scheduled commercial banks (SCBs) to set up offsite ATMs without prior approval of the Reserve Bank.

Real Time Gross Settlement (RTGS) System

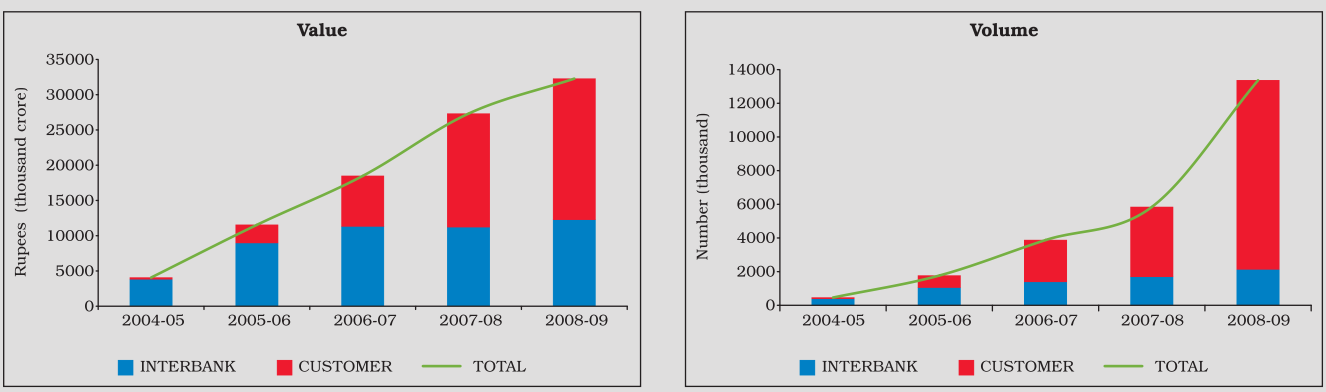
IX.22 The RTGS system in operation since March 2004 is primarily for large value transactions with the minimum threshold limit at Rs.1 lakh. The service window for customer transactions is available from 09.00 hours to 16.30 hours on weekdays (up to 12.30 hours on Saturdays). For inter-bank transactions, the RTGS system stays open up to 18.00 hours on week days (14.30 hours on Saturdays).

IX.23 The number of RTGS enabled bank branches stood at 55,006 as on March 31, 2009 with the addition of 11,494 branches to the RTGS network during the year 2008-09. The increased network coverage is reflected in the increase in the volume and value settled in RTGS (Chart IX.2). RTGS peak volume and value in a day were 1,28,295 transactions and Rs.2,73,450 crore, respectively, on March 30, 2009.

IX.24 RTGS being a systemically important payment system, which is reflected in value settled in RTGS and also with other Multilateral Net Settlements relating to important retail and large value payments being settled in RTGS, it was imperative to assess the operations of the system against the international standards. The assessment was done against the Core Principles for Systemically Important Payment Systems, published by the Committee on Payment and Settlement Systems of the Bank for International Settlements (BIS). The Reserve Bank's own assessment published as part of the Report of the Committee on Financial Sector Assessment (CFSA) assessed that the RTGS system in India fully complied with 6 core principles and broadly complied with the Core Principle numbers 3, 7 and 8 relating to management of credit and liquidity risk, operational reliability and efficiency. Core Principle 5 is not applicable to RTGS.

IX.25 Reserve Bank also commissioned an external assessment of the RTGS system by a team of experts from the Swiss National Bank. These experts viewed that the RTGS system in India is compliant with all the Core Principles, except the one on efficiency. The recommendations made by the team for compliance with this Core Principle is

Chart IX.2: Trends in Real Time Gross Settlement (RTGS) Transactions



to have a strategy and project business development over the next 5 to 10 years, to monitor the relationship with third-party vendors and ensure effective safeguards in order to retain full control over all aspects of the RTGS system, to have a cost-benefit-analysis, appropriate pricing of payment services, *etc.*

Indo-Nepal Remittance Facility Scheme

IX.26 The Indo-Nepal Remittance Facility Scheme was launched in May 2008, which enables one-way funds transfer from India to Nepal. A remitter can transfer funds up to Indian rupees 50,000 from any of the NEFT-enabled bank branches in the country to Nepal. The beneficiary would receive funds in Nepalese Rupees. The charges for effecting funds transfer under the Scheme were rationalised and revised effective from February 9, 2009, with the maximum charge being Rs.75. Although the use of this scheme has been minimal, efforts are being made to popularise this scheme through meetings held with associations of Nepalese migrant workers in various cities in India.

New Payment Channels / Products

IX.27 The developments in computer and communication technology have also resulted in the spread of new retail payment products and new modes of delivering/settling such payments. These products and channels of effecting payments are innovative, using the latest available technology interfaces and such transactions do not rely on traditional payment systems to transfer value between person to person.

Mobile Banking Transactions

IX.28 Rapid expansion in the use of mobile phones as a mode of communication has created new opportunities for banks to use this mode for banking transactions. Many countries have adopted this delivery channel as a means of financial inclusion as this facilitates small value payments at a very low cost (Box IX.1). Predominantly, two distinct models are in vogue in countries where mobile banking has taken off – the bank-led model and the telecom company-led model. The telecom company led model is preferred in countries which have relatively less coverage of formal banking facilities (*e.g.* Kenya). After taking into account various issues involved, India has adopted the bank-led model.

IX.29 Operative guidelines for Mobile Banking Transactions in India were notified on October 8, 2008. The major features of the guidelines are: (i) Only banks who have received one time approval from Reserve Bank are permitted to provide this facility to customers; (ii) Banks can extend this facility only to their customers and their holders of debit/credit cards issued as per the extant Reserve Bank guidelines; (iii) banks can extend only Indian Rupee based domestic services as per the guidelines; (iv) banks can extend this facility through their business correspondents also in order to promote financial inclusion; (v) Minimum "Technology and Security Standards" have been prescribed in the guidelines; (vi) limit of Rs.5000 per transactions for funds transfer and m-commerce transaction limit of Rs.10,000 has been prescribed to ensure the safety of transactions through this channel; and (vii) the guidelines mandate interoperability among service providers to ensure prevention of monopoly by one or a few mobile operators.

Pre-paid Payment Instruments

IX.30 Prepaid payment instruments are payment instruments where value for use is stored in advance, such as, smart cards, magnetic strip cards, internet accounts, internet wallets, mobile accounts, mobile wallets, paper vouchers, *etc.* Prepaid payment instruments enhance convenience as a mode of payment *in lieu* of cash. Also, this facilitates e-payment for goods/services purchased/availed through internet/ mobile. The maximum loss on account of fraudulent use of the card is limited to balance available on the card.

Box IX.1
Mobile Banking : Select Country Experiences

The efforts for promoting financial inclusion are often constrained by the spread/dispersion of banks' networks, cost of banking services, and lower priority attached to small value transactions associated with customers who are underprivileged. The wide penetration and acceptance of mobile phones in the country, irrespective of the social and economic status of the people, provides an opportunity to extend banking facilities to the hitherto excluded sections of the population.

The developing countries have adopted different approaches for promoting mobile phone based banking facility in their countries, depending on the banking and financial infrastructure available. Two models have mainly been chosen – 'Bank Led Model' and 'Mobile Service Provider Led Model'. The bank-led model provides for promotion of mobile phone banking through business correspondents of banks, whereas in mobile service providers led model, the agent network of cellular operators are identified as the correspondents.

The experiences of Philippines, Kenya and South Africa in implementing mobile banking facilities are outlined below:

Philippines: The country has been the pioneer in implementation of mobile phone led banking facilities. Both bank-led and mobile service provider led models have been implemented in the country. SMART Cash is a bank led model where the customer service outlets are provided by the mobile service providers and the customer accounts are maintained by the partnering banks. Customers are also given a debit card linked to their account for cash withdrawal. Cash based transactions at the agents of mobile service provider require identification of the customer.

'G-Cash' is a mobile service provider led model. In this model the funds collected are maintained at a bank by the mobile service provider as per the requirement prescribed by the central bank. The agents of the mobile service provider facilitate customer acquisition and extension of services to the customers.

Both the models facilitate a number of transactional banking services. Receipt of cross border remittance is also permitted. The Philippines central bank has placed restriction on the amount that can be maintained in SMART Cash and G-Cash accounts.

Kenya: In Kenya, mobile service providers (Safaricom and Vodafone) have implemented the mobile banking facility called M-Pesa. The accounts of the customers are maintained with the mobile service provider. M-Pesa provides a number of transactional services to its customers. The agents of mobile service provider act as the agent for customer acquisition and servicing. M-Pesa facilitates receipt of cross border remittances also.

South Africa: South Africa has mainly chosen bank led mobile banking facilities. One of the products, 'MTN Banking' is the result of the tie-up between a bank and a mobile service provider. The agents of mobile service provider act as the agent for collection, customers acquisition and servicing. 'Wizzit' is another mobile banking facility promoted by a commercial bank. Wizzit has been set-up as a branchless bank. The customer acquisition and servicing are done through dedicated group of people known as Wizzkids. Wizzit provides number of transactional banking services to its customers. The customers are also provided debit cards facilitating cash withdrawal.

IX.31 The development of any new payment product and mode of payment requires the confidence of the public in the efficiency and safety of the technology and the systems offered. Further, to bring about efficiency and competitive pricing, a level playing field has to be ensured. Taking into consideration these issues, the Reserve Bank issued Policy Guidelines for 'Issuance and Operation of Pre-paid Payment Instruments in India on April 27, 2009' (Box IX.2).

Information Exchange

IX.32 An international seminar on Payment and Settlement Systems was held in March 2009 at Chennai, which was organised jointly by the Reserve Bank and the Committee on Payment and Settlement Systems set up under the *aegis* of Bank for International Settlements. Deliberating on the theme 'Retail Payment – Issues and Risks', the seminar highlighted that with the role of non-banks gaining importance in payment systems, the central banks worldwide have to remain more vigilant about the challenges to regulate and monitor the operations of diverse entities in payments arena; rationalise charges for retail payments; mitigate risks in retail payment systems; and implement initiatives needed to address customer-protection related issues.

Box IX.2
Pre-paid Payment Instruments in India

Consequent to the passing of the Payment and Settlement Systems Act, 2007, all persons currently operating payment systems involved in the issuance of Pre-paid Payment Instruments and those proposing to operate such systems would have to approach the Reserve Bank for authorisation. To ensure orderly development and operation of pre-paid payment instruments in the country, a set of guidelines were issued by the Reserve Bank in April 2009.

The salient aspects covered in the guidelines are:

Categorising the instruments: The pre-paid payment instruments that can be issued in the country are classified under three categories, *viz.* (i) closed system payment instruments, (ii) semi-closed system payment instruments and (iii) open system payment instruments.

(i) Closed System Payment Instruments: These are payment instruments issued by a person for facilitating the purchase of goods and services from him/it. These instruments do not permit cash withdrawal or redemption. As these instruments do not facilitate payments and settlement for third party services, issue and operation of such instruments are not classified as payment systems.

(ii) Semi-Closed System Payment Instruments*:* These are payment instruments which are redeemable at a group of clearly identified merchant locations/ establishments which contract specifically with the issuer to accept the payment instruments. These instruments do not permit cash withdrawal or redemption by the holder.

(iii) Open System Payment Instruments*:* These are payment instruments which can be used for purchase of goods and services at any card accepting merchant locations (point of sale terminals) and also permit cash withdrawal at ATMs.

- **Eligibility**: Banks and non-banks would be permitted to issue pre-paid payment instruments in the country. While banks would be permitted to issue all categories of these instruments, non-banks would be permitted to issue only semi-closed system payment instruments.
- **Capital**: Only banks and Non-Banking Financial Companies (NBFCs) complying with CRAR norms would be permitted to issue prepaid instruments. All other entities shall have to have a minimum paid-up capital of Rs. 100 lakh and positive net owned funds.
- **Maximum Limit**: The maximum value of any pre-paid payment instrument has been fixed at Rs 50,000/-.

The money collected against issue of pre-paid payment instruments at a point of time could be substantial. Further, the turnover of funds may also be rapid. The confidence of public and merchant establishments on pre-paid instruments schemes depends on the timely settlement of claims arising from use of such instruments. To ensure timely settlement, conditions have been stipulated on deployment of money collected by the issuer.

The money collected by banks against issue of pre-paid payment instruments shall be part of the 'net demand and time liabilities' for the purpose of maintenance of reserve requirements.

Other non-banks issuing payment instruments are required to maintain their outstanding balance in an '**escrow account'** with any scheduled commercial bank. The amount in the escrow account would be only for making payment to the participating merchant establishments and **no** interest is payable by the bank on such balances, and no loan is permissible against such deposits. The entities can enter into an agreement with the bank where escrow account is maintained to transfer "core portion" (*i.e.,* the average of the lowest daily outstanding balance (LB) on a fortnightly (FN) basis, for one year (26 fortnights) from the preceding month) of the amount, in the escrow account to a separate account on which interest is payable, subject to the bank satisfying itself that the amount deposited represents the "core portion". The amount shall be linked to the escrow account, *i.e.,* the amounts held in the interest bearing account shall be available to the bank, to meet payment requirements. This facility is, however, only available to entities who have been in business for more than a year.

- Banks have been permitted to issue and reload such payment instruments at their branches, ATMs and through their business correspondents appointed as per the guidelines issued by the Reserve Bank in this regard.
- Others have been permitted to issue and reload such payment instruments through their authorised outlets or through their agents.
- The prepaid card issued must have a minimum validity period of six months from the date of activation/ issuance to the holder.
- Pre-paid payment instrument issuers must disclose all important terms and conditions in clear and simple language (preferably in English, Hindi and the local language) comprehensible to the holders while issuing the instruments. These, among others, include (i) charges and fees associated with the use of the instrument, (ii) expiry period, *etc.* A customer redressal mechanism has to be also put in place by the issuer.

IX.33 The Fifth Annual Conference of the Heads of National Clearing Cells was organised in February 2009 at Jaipur with active participation from heads of Banking Departments and National Clearing Cells from Reserve Bank, senior executives from IBA, settlement banks and vendors. The focus of the Conference was to synergise and organise the oversight and monitoring mechanism to deliver optimal benefits efficiently by the Clearing Houses in their payment system activities. The deliberations at the seminar on the recent initiatives and the participants' expectations as well as suggestions for shaping the future of payment systems provided inputs for reforms in the payment systems.

National Payments Corporation of India (NPCI)

IX.34 The process for setting-up an umbrella organisation for retail payment systems was initiated by Indian Banks' Association (IBA). Accordingly, National Payments Corporation of India (NPCI) has since been incorporated as a company under section 25 of the Companies Act. NPCI has an authorised capital of Rs.300 crore.

Oversight of the Payment and Settlement Systems

IX.35 In order to ensure that the efforts taken for improving the clearing and settlement operations and the various instructions issued for the same are adhered to by all, the Reserve Bank has framed the minimum standards of operational efficiency (MSOE) for MICR CPCs, MSOE for MMBCS (automated) Clearing Houses, Benchmark Indicators for ECS and NEFT benchmark indicators of efficiency. The minimum standards prescribed require submission of quarterly/half yearly self assessment reports to the Regional Office of the Reserve Bank under whose jurisdiction they operate.

DEVELOPMENTS IN USE OF INFORMATION TECHNOLOGY

Information Technology in the Reserve Bank

IX.36 In its efforts to ensure that IT paves the way for efficiency and excellence, the Reserve Bank has been taking steps to ensure that users of IT get the IT services at their desktop and ensure business continuity at all times without the end users having to worry about the activities 'behind the scene'. Towards this end, the major focus of the IT related endeavours was on migration of various application systems to the data centres, aimed at providing all IT based services from the data centres, for both the users within the Reserve Bank as well as external users.

IX.37 Operations resulting in the uninterrupted availability of critical payment and settlement systems such as the RTGS system, the Public Debt Office – Negotiated Dealing System/Securities Settlement System(PDO-NDS/SSS), the Centralised Funds Management System (CFMS) and the Structured Financial Messaging System (SFMS)) were also primary focus areas of the data centres – aimed at the financial sector in particular and the general public at large. In respect of the RTGS system, the system has been fine-tuned to be able to process increasing transactions, which have increased substantially to about 80,000 transactions a day during 2008-09 from about 40,000 transactions on an average day during 2007-08.

IX.38 The Reserve Bank followed a three-pronged approach with regard to the technology initiatives within the organisation. The first pertained to the centralisation of all application systems while providing for decentralised access to IT users within the Reserve Bank. The second related to the migration of all IT based application systems to the 'state-of-the-art' data centres of the Reserve Bank. The third - at the heart of all IT initiatives - was the implementation of appropriate security safeguards in all the IT based systems.

IX.39 As part of the approach towards centralisation of IT based application systems, all the application systems pertaining to the Banking Department have been restructured to function in a centralised environment, with users spread across the various locations having access to these systems in a decentralised manner. The first initiative in this area was the 'Centralised Public

Debt Office' (CPDO) system which has been in vogue for some time now. The 'Integrated Accounting System' for the Deposit Accounts Department has established itself well in the Mumbai Regional Office where it was used as the primary accounting system for the first time during the year 2008-09. The implementation of the 'Centralised Public Accounts Department System' (CPADS) across all offices of the Reserve Bank during the year resulted in the culmination of efforts aimed at centralising the Banking Department's functions. Continuing the trend of centralisation, the 'Integrated Computerised Currency Operations and Management System' (ICCOMS) was extended to cover all the currency chests in the country and all the Issue Departments of the Reserve Bank, thereby making the IT based currency management system also function in a centralised manner.

IX.40 The housekeeping and other internal functions of the Reserve Bank were also brought under the ambit of computerisation during 2008-09. The complete operationalisation of the 'Integrated Establishment System' (IES) across all the offices took care of the establishment related functions for the staff of the Reserve Bank. The advanced level of completion of the 'Human Resources Management System' (HRMS), the implementation of the computerisation modules of the 'Central Debt Division' of the Department of Government and Bank Accounts and the issue of Multi-Application-Smart Card based identity cards for the staff members of the Reserve Bank on an enterprise wide basis, have been some of the other IT based projects providing support to the internal requirements of the Reserve Bank.

IX.41 During 2008-09, substantial progress could be made in the migration of existing application systems to the newly set up IT infrastructure at the data centres. The use of IT based applications for workflow and knowledge management has emerged as a key development in the use of IT within the Reserve Bank (Box IX.3).

IX.42 A self evaluation of the IT based operational thresholds of the Reserve Bank reveals a high level of conformity to the objectives in this regard (Table 9.4).

IX.43 An important constituent of IT based operations pertains to business continuity, with the objective being that IT based systems should be available even in the event of any breakdown, and more so, if a disaster strikes. All the critical systems at the data centres have been planned and designed in such a manner that there is adequate provision for redundancy and back-up. Furthermore, Disaster Recovery (DR) exercises covering all systems as also the participants are conducted on a regular basis.

Technology upgradation

IX.44 On account of the quick rate of technological obsolescence, continuous

Box IX.3
Work Flow and Knowledge Management

Knowledge management and workflow refers to a system which ensures that all users have instant access to all the information needed for their roles within an organisation. Some of the other aspects covered under workflow and knowledge management include training management features and user-specific responsibilities notification and reporting. As a central feature of the knowledge management workflow, there is a 'dashboard' which is customisable to ensure that all users are aware of the tasks, actions and documents that they are responsible for or need to be aware of. The dashboard also provides user-specific traffic light performance and compliance scorecards and keeps users up-to-date with news, events and alerts.

Resource features allow users to share information and enable executives and senior managers to set, communicate and monitor compliance with policies, procedures and guidelines. This 'resources library' also provides easy access to best practices, corporate guidance and the features necessary to document the expanding knowledge base of experience and expertise of the organisation.

Communication and people search tools make it quick and easy to locate and connect with other users within the organisation, so that organisational knowledge is optimally used.

Table 9.4: Evaluation of Critical IT Implementation: 2008-09

Critical requirement factor	Performance yardstick	Status as of 2005-06	Status as of 2006-07	Status as of 2007-08	Latest Status (2008-09)
1	2	3	4	5	6
Standardisation	Across All Departments	85 per cent completed; 10 per cent under progress	95 per cent completed; 5 per cent under progress	97 per cent achieved	99 per cent achieved
Integrated Application Systems	For all functional units	65 per cent completed; 35 per cent under progress	85 per cent completed; 15 per cent under progress	90 per cent achieved; 10 per cent under progress	95 per cent achieved; 5 per cent under progress
Server Consolidation	At all locations	70 per cent completed; 30 per cent under progress	90 per cent completed; 10 per cent under progress	95 per cent completed; 5 per cent under progress	97 per cent completed; 3 per cent under progress
Connectivity	Across all offices and all locations	100 per cent	100 per cent	100 per cent	100 per cent
Productivity Tools	For all critical mainframe applications	100 per cent	100 per cent	100 per cent	100 per cent
Corporate e-mail	For all users at all locations	100 per cent	100 per cent	100 per cent	100 per cent
IS Security	For all Information Systems	90+ per cent	95+ per cent	100 per cent	100 per cent

technological upgradation is an aspect that is given adequate importance in respect of the IT systems implemented in the Reserve Bank. The major initiatives on technological upgradation taken by the Reserve Bank during 2008-09 include migration of the inter-office communication network to Multi Protocol Label Switching (MPLS) technology. MPLS adopts the usage of Virtual Private Networks, with enhanced security levels, (Box IX.4), thereby improving network based telecommunication.

IT for the Financial Sector

IX.45 IT intensity of banks and the speed of adaptation of new technology in the financial sector are closely related, to a large extent, on the IT initiatives of the Reserve Bank. With the objective of achieving harmony, the Reserve Bank publishes the Financial Sector Technology (FST) Vision, which enable the banks to plan their IT implementation in a manner which would ensure

Box IX.4
Virtual Private Networks : Safety and Efficiency Parameters

A virtual private network (VPN) is a computer network in which some of the links between nodes use virtual circuits in larger networks, such as the Internet, as opposed to running across a single private network. One common approach is to secure communications through the public Internet, as the VPN has security features such as authentication and encryption. For example, VPNs can also be used to separate the traffic of different user communities over an underlying network with strong security features, or to provide access to a network via customised or private routing mechanisms.

From the security standpoint, VPNs either trust the underlying delivery network, or must enforce security with mechanisms in the VPN itself. Unless the trusted delivery network runs only among physically secure sites, both trusted and secure models need an authentication mechanism for users to gain access to the VPN. Some Internet Service Providers offer managed VPN service for business customers who want the security and convenience of a VPN but prefer not to undertake administering VPN services themselves. In addition to providing remote workers with secure access to their employer's internal network, other security and management services are sometimes included as part of the package. Examples include keeping anti-virus and anti-spyware programs updated on each client's computer.

Secure VPNs use cryptographic tunneling protocols to provide the intended confidentiality and sender authentication to achieve privacy. When properly chosen, implemented, and operated, such techniques can provide secure communications over unsecured networks.

congruity with the approaches followed by the Reserve Bank. The latest version of the FST Vision document was published in 2007-08, which outlined various goal posts for adoption by both the Reserve Bank and the commercial banks.

IX.46 A review of the achievements *vis-à-vis* the goals reveal the following: (i) network based operations and centralised processing of data has been achieved by the migration to core banking systems by banks, (ii) sharing of resources for reaping economies of scale and mutual benefit has commenced for the ATMs by making them part of the National Financial Switch (NFS) established by the Institute for Development and Research in Banking Technology (IDRBT), (iii) initial trial runs have commenced for introduction of Extensible Markup Language (XML) for easy inter-operability, (iv) completion of the implementation of core banking systems (CBS) in banks has been almost achieved with many banks reporting 100 per cent CBS coverage, (v) integrating the CBS with common interbank applications such as the RTGS, NEFT, PDO-NDS/Security Settlement Systems (SSS), *etc.* has been completed by most of the banks, (vi) migration to electronic modes of payments on a time bound basis has been achieved in a phased manner by means of a minimum limit for RTGS transactions, compulsory processing of large values only through electronic means and the discontinuance of the high value clearing, (vii) effective and failsafe business continuity plans (BCP) have been put in place and periodical BCP exercises initiated by the Reserve Bank, (viii) Information Systems Audit is now an integral part of the controls and checks measures implemented by banks and (ix) management of outsourcing, especially with reference to vendor management, has improved.

IX.47 Efforts have been directed at benchmarking the various payment products and systems to assure availability and continuity of business, even in the unlikely event of disruptions to normal operations, besides assessment against Systemically Important Payment Systems. The new frontiers of technology are being adopted to make further advances in areas like mobile banking, electronic fund transfer, development of pre-paid payment instruments, speed clearing, cheque truncation, besides gradual shifting of paper based payments to electronic payment modes. The Reserve Bank's approach is also to ensure that regulations do not stifle innovations and competition, and the new products and systems must embrace high levels of safety and security so as to instill confidence among the users. The infrastructure of core-banking solutions that is available across the banking industry has to be leveraged to launch payment applications and products that benefit the cross-section of customers across banks in a cost-effective manner.

IX.48 To sum up, non-disruptive functioning of the payment and settlement system during the period of global financial crisis is a notable aspect of the Indian financial system. Since markets and institutions in India functioned normally even during the peak of the crisis, it did not give rise to concerns regarding payment and settlement of transactions. More importantly, the advancements made in payment and settlements on account of sustained forward looking measures taken by the Reserve Bank have contributed to strengthening a major pillar of the financial system, which provides resilience against shocks to the financial system. The regulatory interventions of the Reserve Bank in new emerging modes of payments and their settlement have ensured appropriate institutional mechanisms for their functioning in consonance with the overall objectives of an efficient and stable financial system. The IT initiatives, both for the internal functioning of the Reserve Bank and for adoption in the financial system have facilitated improved service delivery as well as greater efficiency of the financial system, besides substantially contributing to the Reserve Bank's efforts for promoting financial inclusion.

X HUMAN RESOURCES DEVELOPMENT AND ORGANISATIONAL MATTERS

As a knowledge driven public institution, the Reserve Bank assigns significant importance to the management of human resources. The Reserve Bank constantly strives to enhance the professional skills of the staff through appropriate training as well as providing scope for learning in every important area relevant to central banking for the staff at all levels. The two-way interactions through various collaborative efforts with different external institutions and agencies, both within the country and outside, provide opportunities for acquiring relevant feedback and gaining important insights from the experience and practices of others. The interactions of the Reserve Bank with the public through its various education as well as customer service delivery mechanisms aim at greater information dissemination about the Reserve Bank's role and functions in the economy. Various modes of communication have also been effectively utilised to improve the flow of information, with better clarity. The improvements in internal functioning of the various departments have been ensured through appropriate checks and balances and internal auditing policy. The contribution of the Reserve Bank to economic research activities in India has been significant, which range from research by its own staff members to supporting academic research initiatives outside.

X.1 The range of complex issues and policy challenges that emerged from the global financial crisis clearly highlight the importance of the quality of human resources available in the central banks to ensure financial stability in a market economy. The global crisis brought the role of central banks to the centre stage of crisis management, testing the resolve and competence of the available human resources to face the challenges. The Reserve Bank, as the central bank of one of the fastest growing emerging economies in the world with an expanding and liberalised financial system, recognises the critical significance of ensuring quality human resources to be able to discharge all the responsibilities effectively and efficiently. In its continued concerted efforts to strengthen the human resources, as a public institution, it faces stiff competition from the market in search of right talent. Moreover, in view of the increasing importance of coordination and cooperation among central banks in a globalised world on the one hand, and the need for continuous interactions with the market entities on the other, to enhance the understanding of issues and to maintain the flow of information through relevant feedback, existing human resources need to be exposed on a regular basis to other central banks and markets. Empowering the existing staff with adequate training in leading universities and research organisations is another important task of human resources management in central banks. The Reserve Bank has a multi-pronged approach to strengthen its human resources, using alternative available avenues in relation to the Bank's identified needs. This Chapter documents the specific aspects of Reserve Bank's various human resource development initiatives.

HUMAN RESOURCE INITIATIVES

Training and Skills Enhancement

X.2 The two training establishments of the Reserve Bank, *viz.,* the Reserve Bank Staff College (RBSC), Chennai and the College of Agricultural Banking (CAB), Pune cater to the training needs of the officers of the Reserve Bank and the banking industry. The four Zonal Training Centres (ZTCs) focus on training of Class III and IV staff of the Reserve Bank (Table 10.1).

Reserve Bank Staff College (RBSC), Chennai

X.3 The RBSC was established to impart training to the Reserve Bank's own officers in junior and middle management cadres and specialised development of officers in the senior management cadre. It continues to contribute to the skill-upgradation of officers across all cadres of the Bank. It has been consistently modernising the techniques for imparting training as well as revamping the course content in response to the evolving challenges for the central banks and the changing needs for training.

X.4 A number of topical programmes covering a host of areas were organised by the College during the year (Table 10.2). An interactive training programme was organised by the college with Police Officers from *Sardar Vallabhbhai Patel* National Police Academy, Hyderabad on various issues about the training structure, training modules and activities conducted at RBSC. The College hosted the second meeting of the High Level Group (HLG) on Systems and Procedures for Currency Distribution. The HLG comprised top executives from banks and renowned institutions. The college also conducted a study on 'central bank balance sheet', which was relevant in the context of the global economic crisis as central banks use their balance sheets as an instrument for aggressive quantitative easing. The College also developed an animation CD, 'Mani loses Money' for creating awareness amongst the common man regarding NBFCs in English, Hindi and Tamil. The delegates attending International Training Programme on Training Methods and Skills for Managers (TMSM) organised by the National Institute for Micro, Small and Medium Enterprises (NIMSME), Hyderabad visited the College and had an interactive session on the Reserve Bank, its functions and role in the economy.

College of Agricultural Banking (CAB), Pune

X.5 The CAB, originally set up with a focus on training the senior and middle level officers of rural and co-operative credit sectors, has, in recent years, diversified and expanded the training coverage into areas relating to non-banking financial companies, human resource management and information technology. Keeping in view the

Table 10.1: Reserve Bank Training Establishments - Programmes Conducted

Training Establishment	2004-05 (July-June)		2005-06 (July-June)		2006-07 (July-June)		2007-08 (July-June)		2008-09 (July-June)	
	No. of Progra-mmes	No. of Parti-cipants	No. of Progra-mmes	No. of Parti-cipants	No. of Progra-mmes	No. of Parti-cipants	No. of Progra-mmes	No. of Parti-cipants	No. of Progra-mmes	No. of Parti-cipants
1	2	3	4	5	6	7	8	9	10	11
BTC, Mumbai **	153	3,287	85	1,908	89	2,148	42^	1,242^	-	-
RBSC, Chennai	133	2,895	127	2,633	138	2,941	158	3,302	149	3,015*
CAB, Pune	146	3,364	152#	3,812#	146	4,279	154	4,511	161	4,867@
ZTCs (Class I-IODP)	-	-	-	-	-	-	10	254	17	370
ZTCs (Class III)	245	5,442	230	4,710	215	4,069	191	3,563	150	2,602
ZTCs (Class IV)	40	1,295	76	1,592	78	1,605	65	1,309	64	1,329

^ : Figures pertain to July-February.
** : Closed on April 1, 2008.
# : Includes 13 off-site programmes involving 437 participants.
* : Includes 19 concurrent auditors, 3 officers of BRBNM (Pvt) Ltd. and 38 foreign participants.
@: Includes 38 foreign participants.
BTC : Bankers' Training College. RBSC : Reserve Bank Staff College.
CAB : College of Agricultural Banking. ZTC : Zonal Training Centre.

Table 10.2: Select Programmes/ Seminars/ Workshops Conducted by Training Colleges during 2008-09

Reserve Bank Staff College (RBSC)

1. The Pilot Workshop on Training as a HR Tool.
2. First Programme on General Administration and Management.
3. International Seminar on Currency Management.
4. Pilot Program on Advanced Derivatives.
5. International Seminar on Basel II with focus on Pillar 2.
6. Pilot Programme on Forensic Audit.

College of Agricultural Banking (CAB)

1. An International Seminar on Use of XBRL for Developing Economies.
2. Three Training of Trainers Programme on District Planning and Human Development (in collaboration with the Planning Commission and the UNDP).
3. An overseas exposure programme to France, Belgium, Netherlands and Germany in collaboration with UNICO (umbrella organisation for large cooperative banks in Europe) and EACB (European Association of Cooperative Banks) for the Chairpersons/Directors of Urban Cooperative Banks.
4. An Overseas Exposure Programme on Agri-business and Agro-processing was organised in Germany and Netherlands.
5. Programme on Training of Trainers in collaboration with Newcastle University (NCU) Business School, UK.
6. Programme on Training of Trainers on Micro Finance (in collaboration with APRACA – CENTRAB).
7. Two programmes on Credit Risk Measurement and Management were conducted in Collaboration with Eurofinance.
8. The International Programme on Restructuring and Strengthening Agricultural/Rural Financial Institutions was conducted by CAB in collaboration with CICTAB (Centre for International Cooperation and Training in Agricultural Banking).
9. A Seminar for Hindi Media Persons.
10. State Focused Programmes on Financing Agribusiness to create an awareness about the potentials and prospects for different crops and practices were organised by the College in the States of Madhya Pradesh and Rajasthan.
11. Workshop on Communication for Regulators in the SAARC Region.
12. The Seminar for Senior Officers of State Governments/Police on the need for curbing the deposit accepting activities of unincorporated bodies.
13. The Workshop for SLBC Convener Banks to discuss various strategies to ensure enhanced flow of credit to the priority sectors and other focused areas of the economy.

emerging training needs, the College organised several training programmes during the year (Table 10.2). The College conducted a workshop for State Level Bankers' Committee (SLBC) convenor banks on the ways and means to accelerate flow of credit to priority sector for overall rural development. A customised programme for the Directors of State Co-operative Banks and District Central Co-operative Banks in Bihar was conducted by the College to create comprehensive awareness about developments in the financial sector, including regulatory and supervisory guidelines, particularly relating to the co-operative sector.

Deputation of Officers for Training in India and Abroad

X.6 The Reserve Bank deputes its officers to various external training institutes, conferences, seminars and workshops with a view to upgrading their skills and providing exposure to international perspective on topical issues. During 2008-09, 718 officers were deputed by the Bank to participate in training programmes, seminars and conferences organised by external management/banking institutions in India. The areas of training included human resources management, risk management, security, labour laws and micro finance. The Reserve Bank also deputed 426 officers to attend training courses, seminars, conferences and workshops conducted by banking and financial institutions and multilateral institutions in more than 30 countries (Table 10.3). The areas of training covered, *inter alia*, banking supervision, derivatives, risk management, financial programming and policies, central bank accounting, monetary policy and operations, finance for agriculture, rural development and macroeconomic management, human resources (HR), debt, reserve management,

Table 10.3: Number of Officers Trained in External Training Institutions in India and Abroad

Year	No of officers trained in India	No of officers trained abroad
1	2	3
2001-02	355	137
2002-03	452	208
2003-04	433	242
2004-05	521	171
2005-06	625	273
2006-07	871	352
2007-08	895	520
2008-09	718	426

extensible business reporting language (XBLR), payment systems, women empowerment, deposit insurance, financial markets, microfinance and IT audit. One officer has been sponsored by the Bank to pursue two-year Post Graduate Programme in Banking and Finance (PGPBF) for the year 2009-2011 conducted by National Institute of Bank Management (NIBM), Pune.

X.7 In order to enhance adequate familiarity with new developments in the field of economics, finance and quantitative techniques of analysis and sharpen executive skills, the Reserve Bank has decided from the year 2007-08 to depute senior officers in Grade 'F' for advanced management/ executive education programmes of about 2 to 3 weeks' duration conducted at leading international business schools. Four senior officers in Grade 'F' were deputed to pursue such courses in 2008-09 at internationally renowned business schools, *viz.,* the J.K. Kellog School of Management, North Western University, US and MIT Sloan School of Management, Cambridge, US.

X.8 With a view to acquiring a global mindset through relevant exposure, two Advanced Management Programmes for senior officers (Grades 'E' and 'F') of the Bank and major public sector banks were conducted in collaboration with MDI, Gurgaon during the year. The first one titled "March Towards World Class Banking", was conducted during September–October 2008 and the second one titled "Leading Change: Organisational Issues and Challenges" was conducted in April 2009. Both the programmes involved one week module at MDI, Gurgaon and two weeks module at London, Paris and Basel.

X.9 Two programmes captioned as 'Advanced Management Programme' were conducted during October 2008 and March 2009 in collaboration with IIM, Lucknow. The programme had two components: the domestic learning component of one week at IIM, Lucknow followed by the overseas component at Malaysia and Singapore for one week. 60 officers in Grade 'C' and 'D' and one observer have been deputed so far for the programme.

Joint India-IMF Training Programme (ITP)-Pune

X.10 The joint India-IMF Training Programme (ITP) was established at the NIBM campus in Pune to impart policy-oriented training to nominees of Governments and central banks of the participating SAARC and East African countries, apart from India, in economics and related operational fields. During the year, seven programmes were conducted under the joint training programme (Table 10.4).

Developments in the Short-term Secondment Scheme

X.11 Effective collaboration and coordination between central banks has become critical for dealing with the challenges in a globalised world.

Table 10.4: Courses Conducted under Joint India- IMF Training Programme - Pune

Course Title	Duration
1	2
1. Program and Performance Budgeting	July 7-11, 2008
2. International Investment Position/External Debt Statistics	September 8-19, 2008
3. AML/CFT Workshop on Policy Development in South Asia	October 20-24, 2008
4. Macroeconomic Management and Financial Sector Issues	December 1-12, 2008
5. Macroeconomic Management and Fiscal Policy	February 23- March 6, 2009
6. Monetary and Financial Statistics	March 16-27, 2009
7. Financial Programming and Policies	April 13-24, 2009

Working in other central banks for a short period could provide direct exposure to the Bank's officers to the approach adopted in other central banks in performing more or less similar broad functions. In pursuance of the Short-term Secondment Scheme that the Reserve Bank has worked out with select central banks, *i.e.,* the Bank of England, Reserve Bank of Australia and Banque de France, two officers from the Reserve Bank were seconded to Bank of England in their Monetary and Financial Statistics Division and International Economic Analysis Division, respectively. One more official from the Reserve Bank was also seconded to the Financial Markets Group in the Reserve Bank of Australia during the period. Under the arrangement other central banks have with the Reserve Bank, while one official from Banque de France took up his secondment in the Department of Banking Supervision and Department of Banking Operations and Development, another official from the Reserve Bank of Australia undertook her secondment work in the Department of Economic Analysis and Policy.

International Seminar

X.12 As part of inter-institutional synergy initiatives, the Reserve Bank and Banque de France had decided in the year 2007 to organise joint seminars on topics of contemporary and mutual relevance. Taking these initiatives forward, a collaborative seminar was organised on a broad theme- "Issues in Capital Account Convertibility and Lessons from the Current Financial Crisis" on April 02 and 03, 2009 at the CAB, Pune. While the resource persons for the seminar covered a combination of Senior Executives of the Reserve Bank, Banque de France and the IMF, the participants comprised select officers from the Reserve Bank, French Consulate in India and various French credit institutions located in India. The Reserve Bank and the Bank of England co-hosted a G-20 Workshop on the "The Causes of the Crisis: Key Lessons" in Mumbai on May 24-26, 2009. The focus of the Workshop was on the role played by macroeconomic factors in the crisis and its propagation around the world. The workshop deliberated on the role and possible reforms of the international monetary system and the international financial institutions. Senior executives from the governments and central banks of the G-20 member countries participated in the Workshop.

X.13 Five officers were selected during 2008-09 under the Golden Jubilee Scholarship Scheme for higher studies abroad. In all, 95 officers have been selected under this scheme since its inception in 1986. Under this scheme, officers of the Bank get the opportunity to pursue academic excellence in the leading international universities. Two officers availed study leave under different schemes for pursuing higher studies during the year.

Zonal Training Centres (ZTCs)

X.14 ZTCs of the Reserve Bank organised training programmes on functional areas of the Bank, information technology and behavioural areas for Class III and IV employees of the Reserve Bank. Apart from conducting regular programmes at their premises, ZTCs also conduct off-site programmes on personnel effectiveness, functions and working of the Reserve Bank for Class III staff and developmental programme for Class IV staff.

X.15 In addition to the regular training initiatives, ZTC Belapur (Mumbai) and ZTC, Kolkata had introduced Integrated Officers Development Programmes (IODP) during 2007-08. Observing the success of these programmes at ZTCs, a total of 17 such programmes were conducted during 2008-09 at ZTC, Belapur and ZTC Kolkata. For 2009-10, 20 Integrated Officers Development Programmes (IODP), now renamed as Basic Management Programme (BMP), at ZTC, Belapur and 15 BMPs at ZTC, Kolkata have been scheduled.

Deputation of Class III and IV Staff to External Institutions in India

X.16 Under the scheme for deputation of Class III and IV staff for training in external institutions in India, 92 Class III employees and 79 Class IV employees were deputed for external training institutions during July 2008-June 2009. In addition, 817 Class III employees and 397 Class IV employees have been deputed for in-house programmes within the Bank.

OTHER INITIATIVES

360-Degree Appraisal for Officers in Grade 'F' in the Bank

X.17 The Bank has constituted a panel of HR consultants to assist the Bank in framing, implementing and delivering integrated HR solutions in the areas of HR policies, processes and systems, *etc.,* as and when the need arises. Subsequent to a Quality and Cost Based Selection (QCBS), M/s Ernst and Young have been awarded the contract by the Bank for conduct of a 360-degree feedback exercise for Grade 'F' Officers of the Bank. The exercise, which is being co-ordinated by Central Office, Human Resources Development Department, is purely developmental in nature.

RBI Young Scholars Scheme 2008-09

X.18 The Reserve Bank launched the Reserve Bank Young Scholars Scheme for students in the age group of 18 and 23 years, studying in undergraduate classes in various institutions across the country in 2007. Under the scheme for 2009, a country-wide selection test was conducted in all scheduled languages for the purpose and 150 Young Scholars were selected for being located at various Reserve Bank offices spread across India. This marks a significant effort on the part of the Bank, especially in view of its uniqueness of being perhaps the first such exercise, which was conducted in all major Indian languages. The underlying purpose of taking this innovative initiative has, in a sense, been quite well served as this has been a major awareness and sensitisation exercise on the role of the Reserve Bank and the banking system across the country.

Committee of Executive Directors on Regional Offices

X.19 A Committee of Executive Directors was set up by the Bank in April 2007 for identifying major focus areas for its Regional Offices and making better use of human resources deployed therein. Human Resources Development Department provided the Secretariat for the Committee. The mandate and terms of reference of the Committee required it to identify redefined roles for the Regional Offices of the Reserve Bank and situating them in the overall context of the evolving challenges for the central bank and policy concerns. The Report of this Committee of Executive Directors, which was submitted to the Bank in July 2008, focused on 4 major areas, namely: (i) Organisational Issues; (ii) Customer Service; (iii) Communication Strategies and (iv) Financial Education and Inclusion Initiatives. The broad thrust of the recommendations made in this Report has since been considered and given in-principle approval by the Bank and currently the Bank's Department of Administration and Personnel management is co-ordinating the follow-up exercise to implement the said recommendations across the Bank's offices/departments.

Senior Management Conference 2008

X.20 The Senior Management Conference 2008 of the Bank was held in Mumbai from November 20 to 23, 2008. The broad theme of the Conference was "Financial Sector Development in India: Agenda for the Reserve Bank in the Next 5 years". Besides individual sessions by the Top Executives of the Bank and diverse functional presentations, 4 eminent guest speakers addressed the Conference on emerging issues of contemporary relevance. These varied lectures focused on issues like the need to move beyond growth alone to an expansive view of India's future, building of a new financial architecture, the need for putting in place proper Information System Controls in modern organisations and the usage and possibilities of the Right to Information (RTI) Act. The Guest Speakers at the Senior Management Conference 2008 were: (i) Sir Mark Tully, former Chief of BBC India Bureau; (ii) Smt. Ela Bhatt, Chairperson of the Self-Employed Women's Association (SEWA), Ahmedabad;

(iii) Shri K. Natarajan, Chief Executive Officer, Mindtree Ltd., Bangalore; and (iv) Shri Arvind Kejriwal, leading RTI Activist and Ramon Magsaysay Award Winner.

Human Resources Audit

X.21 The Reserve Bank has several HR systems and policies designed to enhance and harness the potential of its human capital. The Bank has decided to undertake an HR audit in order to further improve the HR processes and evolve the HR function accordingly. This audit, while analysing the existing HR processes, will help identify areas for further improvement. The HR audit will be employed in some critical HR areas like Performance Appraisal, Recruitment Policies and Practices, Transfers and Rotations, Promotions, Training and Development and Compensation Policy.

SAARCFINANCE Study on HR

X.22 In pursuance of the deliberations at the 17th SAARCFINANCE Governors' meeting held in Washington DC on April 12, 2008, a paper was prepared with a broad theme of "Loss of central bank's human capital to commercial organisations and the appropriate ways and means to retain the best talent keeping in view the predefined roles and functions of the central bank". While attempting a brief scan of human resources in central banks in general and analysing the broad trends in the evolving manpower turnover scenario therein, the paper delved into the Indian context and the challenges faced in this regard by the Reserve Bank, and the strategies that the Bank has adopted or needs to consider as appropriate response. With a view to having more definitive insights from the internal and external stakeholders, along with a comparative analysis of talent processes in the Reserve Bank *vis-à-vis* those in select Indian banks and a couple of leading central banks in Asia for making the present exercise more comprehensive, the Bank has also taken relevant research inputs from M/s Hewitt Associates, India, which is in the Bank's approved panel of HR Consultants.

Knowledge Sharing Series

X.23 The Bank has initiated a regular interface mechanism in the form of a knowledge-sharing lecture series, wherein leaders from the financial and corporate world are invited to share their knowledge and experiences with the Bank's officials on a wide range of critical issues. Several interactive lectures have been organised by the Bank under the ambit of this series, which include interfaces with renowned nutritionist and dietician, cardiologist, gynecologist, and lectures on the art of storytelling, positive thinking and counseling, music therapy for stress relieving *etc.*

Incentive Scheme for Distance Learning/Part-time Courses

X.24 During 2008-09 (July-June), 468 employees availed the benefits under the incentive scheme for pursuing select categories of part time and distance education courses. The major areas of the study are management, information technology, financial analysis, commerce and economics.

Awards for Without Reserve

X.25 The Bank's in-house journal "Without Reserve" received an award for overall excellence and a citation of encomium in the XIth All India Journal Competition instituted by the Mayaram Surjan Foundation, Raipur. "Without Reserve" also bagged the National Award for House Magazine (First Prize) 2007 for the fourth consecutive year for being the best National in-house magazine in a contest organised by the Press Club, Thiruvananthapuram. The Association of Business Communicators of India (ABCI), at the 48th annual awards competition, awarded "Magazine of the Year" award along with 8 other prizes in various categories covering internal magazines, bilingual publication, magazine design, features (English), features (language), special column (language), illustration and wall calendar.

Visits/Attachments

X.26 With a view to strengthening the scope for acquiring relevant knowledge from other institutions on a sustained basis as also to spread better awareness outside about the critical role played by the Reserve Bank in the economy, an External Services and Technical Co-operation Cell was constituted in the Human Resources Development Department. The Department coordinates training/ exposure purpose visits by external visitors/ delegations to the Bank from foreign central banks, overseas universities and other institutions from India and abroad. During the year 2008-09, the department arranged interface/training sessions for a total of 73 international visitors from foreign central banks and reputed international educational institutions. Interface sessions were also arranged for 148 domestic visitors, mainly from the Foreign Service Institute, National Defense College and participants of the Higher Command Courses from the armed forces.

Grants to various Institutions

X.27 Apart from its own training colleges mentioned earlier, the Reserve Bank has also catalysed the creation of four more research and training institutions in India, *viz.,* (i) Indira Gandhi Institute of Development Research (IGIDR), Mumbai; (ii) National Institute of Bank Management (NIBM), Pune; (iii) Indian Institute of Bank Management (IIBM), Guwahati; and (iv) Institute for Development and Research in Banking Technology (IDRBT), Hyderabad. The Reserve Bank extended financial support of Rs.11.52 crore, Rs.83.10 lakh and Rs.39.59 lakh to IGIDR, NIBM and IIBM, respectively, during 2008-09.

Summer Placement

X.28 The Reserve Bank has a Summer Placement Scheme, which provides an opportunity to domestic and foreign students to expose themselves to the working environment in a central bank and apply their knowledge to various operational issues while pursuing their internship. During the year 2009, the Bank has selected 79 Summer Trainees for taking up projects in various central office departments in Mumbai as well as at Regional Offices of the Bank located at the Metro centres. In addition, 11 Summer Trainees have been selected from amongst the desirous candidates studying in reputed institutes abroad.

Industrial Relations

X.29 Industrial relations in the Bank remained, by and large, peaceful during 2008-09. The Bank continues to hold periodical meetings with the recognised Associations/Federations of workman/ employees/officers on various matters related to service conditions and welfare measures.

Recruitment

X.30 During 2008 (January-December), the Reserve Bank recruited 174 employees. Of this, 22 belonged to Scheduled Castes (SCs) and Scheduled Tribes (STs) categories, constituting 12.6 per cent of total recruitment (Table 10.5)

Staff Strength

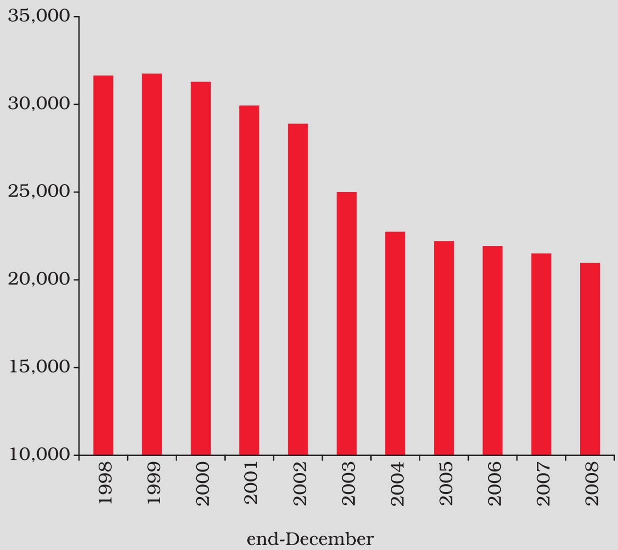
X.31 The total staff strength of the Reserve Bank as on December 31, 2008 was 20,952 as compared with 21,494 a year ago (Chart X.1). Of the total staff, 21.2 per cent belonged to Scheduled

Table 10.5: Recruitment by the Reserve Bank - 2008*

Category of recruitment	Total	*of which*		Percentage	
		SC	ST	SC	ST
1	2	3	4	5	6
Class I	91	5	3	5.5	3.3
Class III	02	1	0	50.0	0.00
Class IV					
a) Maintenance Attendant	45	7	4	15.6	8.9
b) Others	36	1	1	2.8	2.8
Total	**174**	**14**	**08**	**8.0**	**4.6**

* : January-December

Chart X.1: Total Staff Strength of the Reserve Bank



Castes and 8.9 per cent belonged to Scheduled Tribes (Table 10.6).

X.32 During the year 2008 (January-December), meetings between the Management and the representatives of the All India Reserve Bank Scheduled Castes/Scheduled Tribes and the Buddhist Federation were held on four occasions to discuss issues relating to the implementation of reservation policy in the Reserve Bank. In accordance with the Central Government's policy, the Reserve Bank provided reservation to Other Backward Classes (OBCs) effective from September 8, 1993. The number of OBCs (recruited after September 1993) in the Reserve Bank as on December 31, 2008 stood at 874. Of these, 293 were in Class I, 82 in Class III and 499 in Class IV. Two meetings were held with the All India Reserve Bank OBC Employees' Welfare Association to discuss issues relating to implementation of reservation policy in the Reserve Bank.

X.33 The total strength of ex-servicemen in the Reserve Bank as on December 31, 2008 stood at 198 in Class I, 178 in Class III and 777 in Class IV. The total number of physically handicapped employees in Class I, Class III and Class IV cadres in the Reserve Bank stood at 191, 138 and 130, respectively, as on December 31, 2008.

X.34 Of the total staff, 41.8 per cent was in Class I, 23.4 per cent in Class III and the remaining 34.8 per cent in Class IV (Table 10.7).

X.35 Almost one-fourth of the total staff is involved in work related to currency management (Table 10.8).

X.36 Mumbai centre (including the Central Office Departments) continued to have the maximum number of staff (29.2 per cent) followed by Kolkata (9.8 per cent), Chennai (7.4 per cent) and Delhi (7.1 per cent) (Table 10.9).

X.37 The Reserve Bank has come a long way. The year 2009 marks a momentous milestone in the history of the Bank as it entered into its 75th year of its establishment. In order to commemorate the Platinum Jubilee of the Reserve Bank of India, the year 2009 has been earmarked for launching a series of initiatives and events for making the Reserve Bank a more useful and effective public

Table 10.6: Staff Strength of Reserve Bank

Category	Category-wise strength						Percentage to total strength	
	Total Strength		SCs		STs		SCs	STs
	December 31, 2007	December 31, 2008	December 31, 2007	December 31, 2008	December 31, 2007	December 31, 2008	December 31, 2008	
1	2	3	4	5	6	7	8	9
Class I	7,760	8,760	1,145	1,278	562	614	14.6	7.0
Class III	6,268	4,908	1,001	786	623	545	16.0	11.1
Class IV	7,466	7,284	2,443	2,383	728	718	32.7	9.9
Total	**21,494**	**20,952**	**4,589**	**4,447**	**1,913**	**1,877**	**21.2**	**8.9**

SCs : Scheduled Castes. STs : Scheduled Tribes.

Table 10.7: Category-wise Actual Staff Strength
(As on December 31, 2008)

Class	Actual Strength
1	2
Class I	
1. Senior Officer in Grade F	95
2. Senior Officer in Grade E	213
3. Senior Officer in Grade D	362
4. Officers in Grade C	913
5. Officers in Grade B	1,348
6. Officers in Grade A	5,533
7. Treasurers	18
8. Deputy Treasurers	52
9. Assistant Treasurers	226
Total Strength in Class I	**8,760**
Class III	
1. Senior Assistant	1,802
2. Assistant	1,603
3. Secretarial Assistant	156
4. Word Processor Assistant	440
5. Special Assistant (Teller)	364
6. Class III (Others)	543
Total Strength in Class III	**4,908**
Class IV	
1. Maintenance Staff	1,535
2. Service Staff	4,741
3. Technical Staff	221
4. Other Staff	787
Total Strength in Class IV	**7,284**
Total Strength in the Reserve Bank	**20,952**

entity so as to enable it to serve the country and its public in general better (Box X.1).

Promotion of Hindi

X.38 The Reserve Bank continued with its efforts to promote the use of Hindi in its working during 2008-09. In pursuance of the statutory requirements of Rajbhasha Policy involving implementation of the provisions of the Official Languages Act, 1963, the Official Language Rules, 1976 and the Annual Programme issued by the Government of India, the Reserve Bank conducted various Hindi training programmes and other promotional activities such as publication of reference material, shield competitions, inter-bank Hindi essay competition and inter-bank/financial institutions and Hindi/ bilingual in-house journal competitions. Many programmes were conducted during Hindi fortnight observed from September 14, 2008. As a part of promotional activity, the Reserve Bank continued to bring out its various publications in bilingual form, *i.e.,* both in Hindi and English.

X.39 A quarterly journal ‘Rajbhasha Samachar’ is being published regularly by the Rajbhasha Department. The journal is focused on the latest developments in the area of implementation of Official Language Policy and other activities. Understanding and dissemination of new banking concepts also forms a part of this publication. A quarterly Hindi magazine "Banking Chintan Anuchintan" is also published by the department containing useful articles in Hindi on banking and HR subjects. Besides a bilingual in-house journal "Without Reserve" is published by Bank's Central Office. The regional offices also made attempts to publish regular magazines in Hindi during the year.

X.40 Translation workshops were conducted for Rajbhasha Officers of the Reserve Bank so as to encourage the adaptation of translation work. A few workshops were also conducted for senior officers to familiarise themselves with the Official Language policy and instructions thereon. An annual conference of Rajbhasha Officers of the Bank was also held to discuss various issues pertaining to the use and promotion of Hindi language.

X.41 The Reserve Bank through its Rajbhasha Department further strengthened the use of Hindi in computerisation. A reporting package is being developed so that all the Departments/Offices of the Bank and head offices of the public sector banks will be able to submit Hindi data by using ‘on line’ facility. On guidelines received from the Government of India, the Bank has adopted use of Unicode Hindi fonts for all its Hindi requirements. Revised edition of ‘Prashasanik Shabdavali’ containing administrative terms, names of departments and designations was released in electronic form for the use of the Reserve Bank staff. Preparation of banking terminology in Hindi ‘Paribhashik Kosh’ is at an advanced stage.

Table 10.8: Department-wise Staff Strength of the Reserve Bank (as on December 31, 2008)

Sr. No.	Department	Class I			Class III			Class IV			Grand Total
		C.O.	R.O.	Total	C.O.	R.O.	Total	C.O.	R.O.	Total	
1.	2	3	4	5	6	7	8	9	10	11	12
1.	Customer Services Department (CSD)	24	178	202	5	20	25	6	41	47	274
2.	Department of Administration and Personnel Management (DAPM)	128	1,114	1,242	54	725	779	53	3,058	3,111	5,132
3.	Department of Banking Operations and Development (DBOD)	142	-	142	51	-	51	78	-	78	271
4.	Department of Banking Supervision (DBS)	143	625	768	23	90	113	26	114	140	1,021
5.	Department of Currency Management (DCM)	43	1,339	1,382	15	1,504	1,519	18	1,891	1,909	4,810
6.	Department of Economic Analysis and Policy (DEAP)	229	50	279	102	23	125	87	21	108	512
7.	Department of Expenditure and Budgetary Control (DEBC)	101	464	565	40	308	348	36	137	173	1,086
8.	Department of External Investment and Operations (DEIO)	64	-	64	17	-	17	13	-	13	94
9.	Department of Government and Bank Accounts (DGBA)	79	1,150	1,229	36	848	884	50	483	533	2,646
10.	Department of Statistics and Information Management (DSIM)	157	39	196	78	24	102	76	13	89	387
11.	Department of Information Technology (DIT)	88	67	155	8	8	16	17	2	19	190
12.	Department of Non-Banking Supervision (DNBS)	50	272	322	7	64	71	8	60	68	461
13.	Department of Communication (DOC)	10	-	10	4	-	4	6	-	6	20
14.	Foreign Exchange Department (FED)	109	290	399	56	168	224	48	162	210	833
15.	Financial Markets Department (FMD)	23	-	23	1	-	1	5	-	5	29
16.	Human Resources Development Department (HRDD)	62	12	74	22	1	23	25	1	26	123
16A.	Reserve Bank Staff College, Chennai	-	42	42	-	20	20	-	36	36	98
16B.	Zonal Training Colleges	-	23	23	-	4	4	-	6	6	33
16C.	College of Agricultural Banking, Pune	-	61	61	-	25	25	-	87	87	173
17.	Internal Debt Management Department (IDMD)	34	-	34	6	-	6	7	-	7	47
18.	Inspection Department (ID)	57	-	57	14	-	14	11	-	11	82
19.	Legal Department (LD)	39	11	50	8	5	13	15	2	17	80
20.	Premises Department (PD)	51	332	383	32	238	270	46	256	302	955
21.	Rural Planning and Credit Department (RPCD)	90	345	435	26	51	77	33	67	100	612
22.	Secretary's Department	50	-	50	11	-	11	42	-	42	103
23.	Urban Banks Department (UBD)	81	391	472	24	88	112	38	63	101	685
24.	Rajbhasha Department	-	36	36	-	18	18	-	8	8	62
25.	Deposit Insurance and Credit Guarantee Corporation (DICGC)	-	50	50	-	29	29	-	25	25	104
26.	Reserve Bank Services Board (RBSB)	15	-	15	7	-	7	7	-	7	29
	Total	**1,869**	**6,891**	**8,760**	**647**	**4,261**	**4,908**	**751**	**6,533**	**7,284**	**20,952**

Note: 1. C.O. - Central Office. R.O. - Regional Office.
2. The staff in Monetary Policy Department (MPD) are not shown separately since the staff are drawn from five other Departments, *viz.*, DEAP, DSIM, DBOD, RPCD and DAPM. The staff strength of MPD in different categories as on December 31, 2008 was 45 in Class I, 13 in Class III and 17 in Class IV.
3. The Department of Payment and Settlement Systems (DPSS) is not shown separately as their staff forms part of DIT.
4. The Banking Codes and Standard Board of India (BCSBI) have not been shown separately as their staff forms a part of RPCD.
5. The staff shown against DCM is inclusive of staff employed in Issue Department.
6. The staff shown against DGBA is inclusive of staff employed in Banking Department, Public Accounts Department and Public Debt Offices.

Table 10.9: Reserve Bank's Office-wise Strength of Staff
(As on December 31, 2008)

	Office	Class I	Class III	Class IV	Total
1		2	3	4	5
1.	Ahmedabad	412	221	296	**929**
2.	Bangalore	471	223	295	**989**
3.	Belapur	138	101	225	**464**
4.	Bhopal	167	32	102	**301**
5.	Bhubaneswar	183	112	228	**523**
6.	Chandigarh	216	38	112	**366**
7.	Chennai	570	415	559	**1,544**
8.	Dehradun (Sub-Office)	11	2	3	**16**
9.	Guwahati	238	141	226	**605**
10.	Hyderabad	348	175	317	**840**
11.	Jaipur	273	178	241	**692**
12.	Jammu@	108	13	58	**179**
13.	Kanpur	310	216	422	**948**
14.	Kochi	40	54	44	**138**
15.	Kolkata	700	612	739	**2,051**
16.	Lucknow	211	72	137	**420**
17.	Mumbai	908	732	1,221	**2,861**
18.	Nagpur	305	311	299	**915**
19.	New Delhi	637	387	457	**1,481**
20.	Panaji, Goa	7	4	2	**13**
21.	Patna	306	99	291	**696**
22.	Pune-CAB-CRDC-ITP	61	25	87	**173**
23.	Raipur (Sub-Office)	14	-	-	**14**
24.	Ranchi (Sub-Office)	12	-	-	**12**
25.	Shimla (Sub-Office)	10	-	-	**10**
26.	Thiruvananthapuram	235	98	172	**505**
A.	**Total**	**6,891**	**4,261**	**6,533**	**17,685**
B.	**Central Office Departments**	**1,869**	**647**	**751**	**3,267**
	Grand Total	**8,760**	**4,908**	**7,284**	**20,952**

CRDC: Central Records and Documentation Centre.
@ : Includes Srinagar Sub-Office.

X.42 The Committee of Parliament on Official Language visited Regional Office of the Reserve Bank at New Delhi in September 2008 and expressed satisfaction over the use of Hindi in the Bank.

Complaints Redressal Mechanism – Prevention of Sexual Harassment of Women at Workplace

X.43 Pursuant to the guidelines laid down in the Supreme Court Judgment [Vishaka and Others *vs.* State of Rajasthan (1997) SCC 241], a Complaints Redressal Mechanism for prevention of incidence of sexual harassment of women at workplaces was put in place in the Reserve Bank in 1998. Under the system, a Central Complaints Committee (CCC) headed by a lady officer in Grade 'F' is functional at the Central Office level. In order to provide an easy access to the complaints redressal mechanism for the lady staff working in offices located at various other places, additional complaints committees have been formed at six locations in the Reserve Bank's offices in Mumbai and 20 Regional Offices. These committees are also headed by senior woman officers. The CCC and Regional Complaints Committees (RCCs), besides having a member from NGOs, have more than 50 per cent women members. The CCC acts as the focal point for matters relating to prevention of sexual harassment of women at work place and receives references related to sexual harassment from the RCCs. The CCC and RCCs both, apart from providing a complaint redressal mechanism, have also generated better awareness of sexual harassment issues. They are also providing counselling to aggrieved persons. During 2008-09 (July-April), only one complaint of the sexual harassment was received, investigations in respect of which revealed that the matter related to dispute over allocation of their duties rather than sexual harassment. A complaint received prior to this period is at the final stage of disposal.

Customer Service and Grievance Redressal System in the Reserve Bank

X.44 The Reserve Bank renders services to members of the public, banks, Central and State Governments and financial institutions in areas covering currency management, Government receipts and payments, public debt management, clearing and remittance of funds and foreign exchange, *etc.* In order to further improve the delivery of customer service, a Customer Service Department was set up in July 2006 by bringing in various customer service activities handled by different Departments of the bank under a single roof. The aim of the Customer Service Department is to work towards fair and responsible banking and to ensure cost effective and credible system of dispute resolution for common persons utilising the

Box X. 1
Commemoration of Reserve Bank's Platinum Jubilee Year

The Reserve Bank, which commenced its operations on April 1, 1935, has entered into its 75th year of establishment. Not only does this Platinum Jubilee year mark a momentous milestone in the history of the Bank in terms of past numerous achievements in serving the nation, it also provides an occasion for introspection, an occasion to reflect on the evolution of the institution and to reinvent as to how the institution could fulfill its objectives even better so that the Reserve Bank continues to make a positive difference in the life of every Indian.

Keeping this in view, a series of initiatives and events has been planned to coincide with the Platinum Jubilee year of the Reserve Bank. Besides various events of celebration, a number of initiatives and activities have been proposed for making the Reserve Bank a more useful, relevant, professional and effective public institution that can serve the country better. The broad components of these celebrations will be three-fold: (i) learning events such as seminars, memorial lectures, *etc.*; (ii) functions and events like the Down the Memory Lane events, bringing out special issue of "Without Reserve", the annual Senior Management Conference, release of commemorative stamp and coin, cultural and sports events, *etc.* and (iii) Outreach programmes.

The Bank plans to make use of this to more effectively reach out to the users of its services by seeking to associate them proactively in the dissemination and deliberation process. For this, seminars and panel discussions on key issues and themes are being organised at select Regional Offices of the Reserve Bank inviting various constituents of the Bank. It is expected that such an initiative will form an important part of the Reserve Bank's efforts, especially through its Regional Offices, to seize and create potential for newer and wider engagement in the local development processes so as to be able to look after the soundness of the financial system. This will also seek to ensure that the broad economic concerns of all sections of the population of these areas, with the vulnerable and marginalised groups at the core of the agenda, are adequately addressed.

Keeping in mind that these Platinum Jubilee Year celebrations of the central bank need to reflect the Bank's past and also manifest its current and future approach, the Governor, in his broadcast to the members of the Bank's staff on April 1, 2009, has elucidated the significance of the occasion and set forth the Bank's broad agenda for the near/medium term.

banking services. Towards this vision, the Department focused on several important activities during the year, *viz.,* to ensure redressal of grievances of users of banking services in an inexpensive, expeditious, fair and reasonable manner so as to provide impetus to improved customer services in the banking sector on a continuous basis; to provide valuable feedback/ suggestions to the Reserve Bank towards framing appropriate and timely guidelines to banks to improve the level of customer service and to strengthen their internal grievance redressal systems; to enhance the awareness of the Banking Ombudsman Scheme; and to facilitate quick and fair (non-discriminatory) redressal of grievances through use of IT systems, comprehensive and easily accessible database and enhanced capabilities of staff through training.

X.45 The Complaints Redressal Cell (CRC) of the Customer Service Department coordinates with different Departments of the Bank, which have direct dealings with the public for prompt disposal of complaints against the services rendered by the Reserve Bank to the satisfaction of members of the public. Complaints by the members of public/Bank's constituents pointing out deficiencies in the services rendered by the various Departments of the Bank at different centres, including Central Office Departments, fall within the ambit of the CRC. CRC covers all service-oriented Departments of the Bank and in particular, the Banking Department [Public Accounts Department (PAD), Deposits Accounts Department (DAD), and Public Debt Office (PDO)], Foreign Exchange Department and Issue Department.

X.46 CRCs have been established at all Offices/ Central Office Departments. Advertisements, giving wide publicity about the functioning of the CRC at various Centres and also at the Central Office are simultaneously published on a half-yearly basis, on first Sunday of January and July every year. The advertisements are published in the leading English and regional dailies. Citizens' Charter specifying the timeframe for each of the customer related activities of the Banking Department is prominently displayed in the Banking Hall for the benefit of the customers/members of the public visiting the Reserve Bank for availing of various kinds of services. Due publicity to the Citizens' Charter is also given through the Reserve Bank's website and hard copies of the same are made available to the customers/members of public over the counter. CRC obtains Monthly Status Reports on the receipt and disposal of complaints from all offices/Departments. CRC also receives Quarterly Reports based on the feedback received in writing from the Bank's customers on Citizens' Charter. The Regional Offices are required to assess the level of customer service every quarter. CRC analyses these reports to assess the level of customer service. The issues relating to the customer service and redressal of complaints are discussed at the Branch Level Management Committee meetings that are held at periodic intervals. Offices also arrange periodic meetings with the customers, *viz*., commercial banks, urban co-operative banks, Government agencies/ departments and members of public and submit reports thereon to the CRC. Customer service complaints/grievances, both against the Reserve Bank and commercial banks were brought within the purview of Local Boards.

X.47 The Complaint Tracking System (CTS) is being periodically updated to deal with the rising number of complaints and also to get quick response from the banks. The upgraded version of the CTS envisages paperless office at Banking Ombudsmen (BO) offices. The upgradation would provide alert facility to Nodal Officers of the respective banks under each BO's jurisdiction as soon as the complaint against the concerned bank is received by the BO office for the purpose of monitoring at the bank level. It also provides for comprehensive reports of the complaints received by BO offices under different categories, reasons and bank-wise classification.

X.48 Customer Service Department plans to publish four booklets during 2009-10 on the rights and obligations of customers related to credit cards, service charges, housing loans and collection of cheques. The booklets on housing loans and collection of cheques have already been finalised and are in the process of being printed. Furthermore, Microsoft excel based programme has been developed by the Customer Service Department, which would be put up on the Bank's website so as to enable the customers to calculate EMIs and loan amounts and compare the same across banks for different maturities and interest rates. Also a massive publicity campaign on the Banking Ombudsman Scheme is being launched covering both print and electronic media (*Jago Grahak Jago* campaign) in collaboration with the Government of India.

X.49 Customers, particularly in rural and semi-urban areas, find it difficult to switch their accounts from one bank to another because of lack of geographic coverage. Hence, there is a need for regulatory oversight as also creating customer awareness. Banking Ombudsmen (BO) have undertaken face to face interaction with the stakeholders at fora like farmer's associations, consumer societies, chambers of commerce, trade associations, *etc*. BOs have been advised to hold quarterly meetings with the lead banks at district levels to explain the policies of the Reserve Bank. BOs were also advised to take particular interest in dissemination of knowledge on the recent changes in the BO Scheme and the rationale for the same. BOs have been encouraged to spread awareness about the Scheme in the interior parts of the country to empower the customers and also to sensitise bankers to deal with the customers fairly.

Management of the Bank's Premises

X.50 Premises Department is responsible for framing policies for creation, maintenance, renovation and consolidation of the Bank's physical infrastructure (office/residential buildings) by adopting modern technologies and materials, *etc*. The Department, in coordination with Estate Office at Regional Offices, is focusing on providing modern infrastructural facilities in office buildings as well as residential quarters in a planned manner so as to inculcate a sense of pride and belongingness amongst officers/staff.

X.51 Keeping in view the importance attached to scarce resources, the Premises Department has initiated energy/water saving measures, as a part of its responsibility to address ecological and environmental concerns. The Department has taken up the national objective of reduction in energy consumption and implementation of environment friendly measures. The initiatives taken by the Bank in upgrading energy efficiency in all its office buildings and detailed monitoring of energy use have been recognised by Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India. BEE has developed norms for the 'Building Energy Star Rating Programme' and all the buildings of the Bank have been rated as the most energy efficient buildings in the country. BEE, on the occasion of launching of the star rating program for the buildings at New Delhi on February 25, 2009 recognised the Reserve Bank's commitment to enhancing energy efficiency and awarded the first star rating labels to the Bank's building at Bhubaneswar and New Delhi. The four buildings located at Bhubaneswar, Chennai, Kochi, Kolkata are recognised as 5-star building under the rating system. Nine buildings at Bhopal, Chandigarh, Hyderabad, Jaipur, Kanpur, Mumbai, Nagpur, New Delhi and Thiruvananthapuram have been given 4-star rating by BEE. Keeping in view the phasing out dates declared by Ministry of Environment and Forests for the Ozone Depleting Substances (ODS), the Premises Department reviewed the air-conditioning plant working on these refrigerants in the Bank's buildings and an action plan has been prepared for replacement of these plants by 2010. Replacement of air-conditioning plants was taken up at Belapur, Mumbai Regional Office, Kolkata and Thiruvananthapuram during the year 2008-09 and is at various stages of implementation/ processing.

X.52 Water conservation and water audit have been initiated and all the Regional Offices have been advised to conduct Water Audit. The action points have been identified for immediate implementation and advised to all the Regional Offices accordingly. The Bank is exploring the feasibility of implementing 'Green Building Projects' to rationalise the use of natural resources. Steps have also been initiated to enhance the greenery and to maintain the ecological balance in our surroundings by undertaking tree planting in Bank's properties.

X.53 The Department has initiated the process of construction of Officers' residential flats at New Delhi, Mumbai, Chennai, Jammu and Hyderabad under Design – Build mode of Construction in which a single entity, *i.e.,* DB Developers assumes complete responsibility of executing the project. The project is likely to be completed in the next 2 years and will address the Officers' residential requirement at these centres. The Department has taken up major structural rehabilitation work in the Central Office Building, which is likely to be completed by the close of 2009.

X.54 In the light of the experience gained over the years, a need was felt to revisit and revise the policy and practices relating to dead stock management and also to computerise the maintenance of dead stock accounts in order to reduce the administrative and operational costs. Accordingly, a revised Fixed Asset Policy was put in place with the approval of the Committee of the Central Board. The policy was designed to be in line with the best global accounting practices and in conformity with AS 10 of the Institute of Chartered Accountants of India (ICAI). The Department developed a computerised Inventory Management System for implementation with effect from 1st July 2009. The system is web-based, accessed from Nagpur Data Centre and will address the functions of Estate Department at Regional Offices.

Inspection of Offices/Departments in the Reserve Bank

X.55 The Management Audit and Systems Inspection (MASI), Information Systems Audit, Concurrent Audit (CA) and Control Self-Assessment Audit (CSAA) of the Offices/ departments of the Reserve Bank are undertaken at prescribed intervals. The MASI evaluates the adequacy and reliability of existing systems and procedures to ensure that laws, regulations, internal policy guidelines and instructions are meticulously followed. Aspects relating to organisational goals, delegation of power and customer service in the department/Office and management efficacy are also looked into under Management Audit. During the year 2008-09, Systems Inspections, including Information Systems Audits of eleven Regional Offices (ROs), fifteen Central Office Departments (CODs), one Training Establishment (TE) and one Associate Institute were completed. In addition, Risk Based Inspection/Audit of New Delhi Office was also taken up and completed.

X.56 The monitoring of the efficacy of the Concurrent Audit and Control Self Assessment Audit prevailing at various ROs/CODs continued to be undertaken through an off-site Audit Monitoring Arrangement and on-site snap audits of offices (ROs/ CODs/ TEs). During the year 2008-09, snap audits of 21 Regional Offices, 24 Central Office Departments and two Training Establishments were conducted.

X.57 Technology audits of critical and important IT applications/ systems were undertaken by involving external experts in the field of Information Systems Audit. During the year, technology audits of National Electronic Clearing Systems (NECS), Centralised PAD Systems (CPAD), Clearing Corporation of India Limited (CCIL) Transactions and Integrated Accounting Systems (IAS) were conducted. Technology Audits of e-Treasury application and Liquidity Adjustment Facility (LAF) module covering functionality and security review are underway. The project for obtaining ISO 9001-2000 Certification in select work areas/Departments was taken up in the Bank, in phases (Box X.2).

Information Systems (IS) Audit Policy

X.58 In order to address the changing business environment and needs ushered in by increased usage of technology in the Reserve Bank as also to map Bank's IS Audit Policy to international best practices and standards, a comprehensive review of the existing Policy was undertaken in consultation with the Institute of Internal Auditors (IIA). The revised IS Audit Policy has been approved in March 2009. An IS Audit strategic plan document prepared to facilitate achievement of Policy objectives has also been approved (Box X.3).

Risk Based Internal Audit (RBIA)

X.59 Implementation of the project for introduction of Risk Based Internal Audit (RBIA) in the Reserve Bank has been taken forward during the year by taking up live run of RBIA at New Delhi RO. Based on the experience gained during this Audit and some more such live runs to follow, methodology for conducting such audits is being evolved in order to facilitate transition from the existing Systems of Inspection to RBIA in a year's time.

Communication

X.60 The Reserve Bank recognises the critical significance of a sound communication policy. The goals of its communication policy are intimately interlinked to its objectives. Transparency, clarity, managing expectations and promoting two-way flow of information along with dissemination of information, statistics and research at various frequencies continued to remain the principal goals of the Reserve Bank's communication policy.

X.61 In keeping with its communication policy, the Reserve Bank continued to disseminate information through various channels, such as, press releases, notifications, speeches, publications, frequently asked questions (FAQs), advertisements in print and electronic media and the website. Press and video conferences with the participation of national and regional media following the announcement of annual, quarterly

Box X.2
ISO Certifications in the Bank

As a part of the Reserve Bank's continuing initiatives to adopt and adhere to the international best practices and standards, the project of obtaining Quality Management System (QMS) certification (ISO 9001) and Information Security Management System (ISMS) certification (ISO 27001) in select work areas was undertaken in phases. ISO 9001-2000 is a generic management standard providing an internationally accepted framework for establishing quality management systems with customer focus and continual improvement as the key elements. Quality Management System (QMS) enables the organisation to identify, measure, control and improve various business processes for better achievement of its business objectives. The ISO 9001 Standards are flexible enough to be implemented in any kind and size of organization and have 'Plan, Do, Check, Act' cycle as operating principle. Information Security Management System (ISMS) is a systematic approach to managing sensitive information. It encompasses people, processes and Information Management systems. The Standard provides a framework for selection of adequate security controls proportionate to the criticality of the information processed/ stored and business process risks in a particular work area/ domain by alignment of business processes and information security needs. It is implemented through the process of information system asset inventorisation, risk identification and documentation of management and information security policies as well as control procedures for effective risk mitigation.

Status of ISO 9001 Certification in the Bank

During the first phase, ISO 9001 certification was obtained for DCM, DGBA, and Issue and Banking Departments at Kolkata and Hyderabad ROs. It completed first cycle of 3 years in April 2009 and recertification at these locations was successfully accomplished through external certifying agency. During second phase of certification, Issue and Banking Departments at New Delhi, Jaipur, Bangalore and Chennai ROs were certified. These locations successfully faced second surveillance (sustenance) audit during the year. The certified Departments have benefited from implementation of standards by way of continual improvement through measurable quality objectives, particularly in the areas of house-keeping, record management and customer service; re-emphasised calibration system of measuring/processing devices, especially Currency Verification and Processing Systems (CVPS), among others. Currently, third phase of certification covering DEAP, DAPM, HRDD and Issue and Banking Departments at Ahmedabad, Bhopal, Nagpur and Thiruvananthapuram ROs is underway. Fourth phase of certification at Issue and Banking Departments in 8 of the remaining ROs has been initiated. As a part of extending ISO certification to other work areas, FED is also planned for implementing these Standards.

Status of ISO 27001 Certification in the Bank

ISO 27001 Standards are implemented in select work areas of the Reserve Bank, in phases, with assistance from external experts/consultants. During the first phase, such certification was obtained for Departments such as DEIO and IDMD. First cycle of 3 years was completed at these locations in April 2009 and recertification was successfully accomplished through external certifying agency. During the second phase of certification, two more Departments, *viz.* DBS and DBOD were covered. DBS successfully faced 1st surveillance (sustenance) audit during the year. Implementation of ISO 27001 has been taken-up Department-wise, in view of the diverse functionality, multiple information processing systems and varying levels of criticality of information across Departments. The certified Departments have benefitted from implementation of Standards by way of increased security awareness at all levels, documented incident reporting system, dynamic IS risk assessment and treatment. Currently, third phase of ISO 27001 certification covering Central Accounts Section (CAS), Nagpur and Financial Market Department (FMD) is underway.

and half yearly monetary policy statements continued to play a significant role in reaching out to the public at large. Occasional interviews of the Top Management with national and international media helped in covering the Reserve Bank's assessment of the economy and the financial system conveying to the wider audience.

X.62 During the year ended June 30, 2009, the Reserve Bank issued 2,119 press releases, 79 master circulars and 517 notifications. It organised meetings, workshops and seminars to interact with special audiences. Queries relating to banking, foreign exchange, economy, customer service were received through e-mail in the helpdesk email boxes set up in the various Departments and Regional Offices. These queries were over and above the queries received under the Right to Information Act, 2005.

X.63 With accent on transparency and accountability, the Reserve Bank has been making increasing use of its website (*URL:http://www.rbi.org.in*)

Box X.3
IS Audit Policy

Information Systems Audit (ISA) function was formalised in the Reserve Bank, with the necessary responsibilities entrusted to the Inspection Department in 2001, in the wake of increasing computerisation and growing usage of IT in work processes. An IS Audit Policy, with provision for periodical review was also formulated. Considering the emerging business environment characterised by increased technology usage as also enhanced complexity of technologies being deployed, risks and resultant assurance needs have grown over the years. The IS Audit policy was, therefore, revised in order to refocus the approach to IS Audit in the Bank, in tandem with international best practices.

The objective of the revised IS Audit Policy is to assess and provide independent, objective assessment of the state of affairs and make audit recommendations regarding IT and IS in terms of Functionality, Security and Performance. The policy, prepared in consultation with Institute of Internal Auditors (IIA) also refers to guidelines provided by the Information Systems Audit and Control Association (ISACA) and other best practices followed internationally. The key changes in the revised IS Audit Policy apart from relevance and business need perspective include: (i) issues related to functionality and performance aspect of the IT systems delivering the business objectives along with risk assessment, (ii) consulting role in IS Audit function at various stages of IT projects and applications and (iii) provision for effective deployment and appropriate and adequate resources, internal as well as external, with necessary flexibility.

During 2008-2009, a strategic plan for aligning IS Audit function to the organisational requirements in the wake of increasing use of technology in business processes was approved. It included taking up periodical third party IS Audits. The components of strategic plan include: (i) risk orientation of audit function, (ii) changing the audit report structure, (iii) skill up-gradation and knowledge dissemination/sharing, (iv) availing external assistance wherever required, (v) audit resource augmentation and (vi) introducing a system or regular third party audits in IT/IS aspects thereby achieving the attributes such as valued assurance, scalable model and sustainable effort in IS Audit function.

Various steps were taken to operationalise the strategic plan such as: (i) the major IT systems were classified based on the importance (criticality, important or normal) based on the availability factor along with complexity of rating, (ii) audit activities pertaining to periodical review with respect to the major IT systems were categorised into three levels and (iii) the broad scope of periodic audit was formalised for these audit activities. The audit guidelines are being prepared for generic/application specific scopes against key components defined in live run of Risk Based Internal Audit.

for communicating with the external audiences. The site is used not only to disseminate information emanating from the Reserve Bank but also to seek feedback on reports and recommendations as well as on draft regulatory guidelines. During 2008-09, eight draft guidelines, one draft report and two approach papers were placed on the website for feedback. The number of users who registered themselves for receiving information available on the Reserve Bank's website through email increased two-fold during the year. As many as 19,096 users registered themselves during the year taking the total number of registered users to 34,104.

X.64 Under the outreach programme and to give an insight into its role and functions, the Reserve Bank had, in 2006, embarked on a programme of inviting school/college children and other interest groups of members of the public to its offices. The outreach programme is conducted at the Reserve Bank's Central Office and some of the Regional Offices. As many as 1,600 school children, teachers and other interest groups took advantage of this opportunity in Mumbai alone in the last one year. As a module of learning about the role and functions of the Reserve Bank, they visited the Central Office, Monetary Museum and National Clearing Cell in Mumbai and had an interactive session with officers of the economic research department of the Reserve Bank.

X.65 Under the outreach programme, the staff of the Reserve Bank also visited schools, colleges, professional and other academic/vocational institutions in both, Mumbai and various other regional centres for an interactive session. The interaction was mainly on subjects, such as, role and functions of the Reserve Bank, Indian economy, evolution of money, salient security features of currency notes, the Reserve Bank's financial literacy project, understanding of payment system and general banking.

X.66 The Reserve Bank arranged an interactive workshop for communicators of central banks of SAARC countries and other regulators of financial sector in India in February 2009. Hosted by the College of Agricultural Banking, Pune, the objective of the three-day workshop was to facilitate exchange of ideas and networking. Topics, such, as communication policy, internal communication, role and tools of communication and challenges of communication were discussed at the workshop. The workshop was organised under the SAARCFINANCE forum.

X.67 Regional Directors of select offices interacted with the representatives of local print and electronic media to disseminate information on financial literacy initiatives taken up by the Reserve Bank, coin and note distribution measures of the regional offices and other matters pertaining to currency management. Participation in radio and television programmes by senior officers also helped in spreading awareness and sensitising the public about the role of the central bank and the importance of financial literacy.

Customer Service

X.68 During the year under review, Regional Offices undertook various measures including the evaluation of customer satisfaction for further improving customer service in the areas of banking, currency management, foreign exchange management and clearing mechanism. The efforts included training programmes/workshops/ meetings to educate officials of various banking and non-banking organisations, such as, State and Central Government undertakings, authorised foreign exchange dealers, rural and urban money lenders, representatives of major NGOs, professors and farmers' organisations.

X.69 Officers in some regional centres made incognito visits to bank branches to assess customer service in areas, such as, exchange of defective notes, display of service charges and interest rate on various deposits, cheque drop box facility, conduct of foreign exchange business, the Banking Ombudsman Scheme, *etc.* Several Regional Offices organised *melas* for exchange of soiled/mutilated notes and coin distribution as well as camps on weekly market days for supply of new notes and coins.

X.70 Workshops/seminars/meetings were held with banks, micro finance institutions, rural insurance agencies, officials of Department of Posts and other field level functionaries to familiarise them with the Reserve Bank's instructions on financial inclusion and also to discuss issues, such as, opening of no-frills accounts, IT-enabled financial inclusion, formation of self-help groups, etc.

X.71 Advertising campaigns were undertaken to highlight investor friendly features of the Government Securities Act, 2006 and to caution the public against fictitious offers of remitting cheap funds from abroad.

Financial Education and Literacy

X.72 In an effort to enhance and promote financial education and literacy, a few more comic books were released under Raju and Money Kumar series. These included 'Raju and the Sky Ladder', 'Raju and the Magical Goat' and 'Money Kumar and Caring for Currency'. A few Regional Offices of the Bank collaborated with the state level bankers' committees and district level government officials in dissemination of financial education material in the local language.

X.73 Regional Offices also participated in fairs/ exhibitions of local and national reach to disseminate information on the Reserve Bank's role as a central bank, besides currency management, clean note policy, security features of new series of notes issued in 2005, star series notes, detection of forged notes, foreign exchange facilities to residents, investment in non-banking financial companies and Banking Ombudsman Scheme, *etc.* Dissemination of useful information emanating from the Reserve Bank in local language, besides English and Hindi, was the objective of participating in exhibitions and melas.

X.74 Students were encouraged to take up short projects for spreading financial literacy and disseminating information to various target groups, *viz.,* students, women, rural and urban poor, defence personnel and senior citizens, especially in the rural/ semi-urban areas. Select Regional Offices conducted quiz competition/inter-school debate, essay competition on banking, currency notes and financial inclusion related topics for school students.

X.75 As a part of village level awareness programmes, some Regional Offices visited select villages and met agricultural labourers, farmers, members of self help groups and primary agricultural credit societies, workers from non-Government organisations and other community based organisations to discuss issues relating to financial planning, accessing banking services, availing loans under differential rate of interest (DRI) Scheme and other Government sponsored schemes, simplification of lending procedures for crop loans, advantages of kisan credit cards*, etc.*

The Right to Information (RTI) Act, 2005

X.76 The Right to Information Act, 2005 was enacted on June 15, 2005 and came into effect from October 12, 2005. The Reserve Bank has a centralised system for providing information under the Act. Shri V.S. Das, Executive Director, has been designated as the Central Public Information Officer (CPIO) and Shri H.R. Khan, Executive Director as the Alternate Central Public Information Officer. Smt. Usha Thorat, Deputy Governor is the Appellate Authority (AA) and Dr. K.C. Chakrabarty, Deputy Governor, took over the responsibility of the Alternate Appellate Authority. With a view to assisting members of public to submit requests for information, senior officers have been designated as Central Assistant Public Information Officers at each office/Central Office Departments of the Bank.

X.77 Increased awareness of the RTI Act resulted in a rise in the number of requests for information from 2,455 during 2007-08 to 3,333 in 2008-09 (Table 10.10). Almost 98 per cent of the

Table 10.10: Right to Information Act, 2005 – Requests Received and Resolved during the Year

Item	July-June	
	2007-08	2008-09
1	2	3
A. 1) Requests pending as at end of previous year	**207**	**185**
2) Requests received during the year	**2,455**	**3,333**
3) Requests resolved during the year	**2,466**	**3,305**
of which:		
i) Requests met fully	2,051	2,879
ii) Requests met partly	62	38
iii) Requests declined	92	135
iv) Resolved in other manner	261	253
4) Requests under consideration	**196**	**213**
B. 1) Appeals pending as at end of previous year	**96**	**49**
2) Appeals received by the Bank's Appellate Authority (AA) during the year	**493**	**550**
of which:		
i) Appeals under consideration	49	75
ii) Appeals disposed off	540	524
of which:		
a. Appeals, which were partially allowed / where general directions to furnish additional information were issued by AA	223	193
b. Appeals, where CPIO's decisions were upheld	317	331
C. 1) Orders issued by Central Information Commission	**69**	**33**
i) Appeals partially allowed	24	7
ii) Appeals where CPIO/AA's decisions were upheld	45	26

requests had been responded to. The requests, in respect of which the information could be fully disclosed and hence disclosed, rose from 68 per cent as at the end of June 30, 2008 to 75 per cent as on June 30, 2009. Also, against the decision of CPIO /non-disclosure of information, 493 appeals in 2007-08 and 550 appeals during 2008-09 were received. Central Information Commission (CIC) has so far dealt with 125 appeals (including decisions on cases pertaining to earlier period). The Commission upheld the decisions of the CPIO/ first Appellate Authority of the Bank in 87 cases and provided minor directions in 38 cases. Some of the important decisions of the CIC have been summarised in the Box X.4

X.78 Majority of the requests for information that were received during the year pertained to the Reserve Bank's regulatory and supervisory functions. Besides, there were also several requests pertaining to other areas, such as currency management, foreign exchange facilities, customer service and personnel management. Certain requests seeking opinions, views, reasons,

Box X.4
Major Decisions of the Central Information Commission (CIC)

1) **Information not in the possession of a public authority need not be procured for furnishing to the RTI applicant:** The appellant sought details of phone banking conversations he had with the 24 Hour Customer Care Center of one commercial bank on various dates during January 6 to June 10 2007 from the Reserve Bank. The CPIO informed the appellant that the Reserve Bank did not possess the said information. CIC stated that under the RTI Act, a public authority is obligated to disclose the information, which is in its possession and as the Reserve Bank has stated that the said information is not in its possession, the question of directing the Reserve Bank to furnish the information does not arise (Decision No. PBA/2008/395 dated August 21, 2008).

2) **Reiteration of valid mode of payment of prescribed fee for RTI and attempt should not be made to elicit views or opinions of CPIO:** CIC reiterated that the valid mode of payment of prescribed fee of RTI is in the form of cash, Bank Draft or IPO for seeking information under the RTI Act, 2005, indicating that fee paid in any other mode is not valid and such application may not be valid. Also, the appellant was advised to refrain from seeking opinions of CPIO (Decision No.3088 /IC (A) /2008 dated August 18, 2008).

3) **Redressal of grievance outside the purview of the RTI Act:** CIC reiterated that a redressal of grievance, is outside the purview of the RTI Act, 2005 (Decision No. CIC/PB/C/2008/00312-SM dated March 31, 2009).

4) **Copies of external commercial borrowing (ECB) application form details of third party need not be disclosed:** CIC upheld the Bank's contention that the disclosure of copies of forms containing details about the loans availed of or proposed to be availed of by third parties from various external sources and also information regarding particular projects based on which the loan is supposed to be granted, would adversely affect the competitiveness of those parties and would, therefore, be exempt as provided in Section 8(1)(d) of the Right to Information Act (Decision No. CIC/PB/A /2008/00574-SM dated February 02, 2009).

5) **Information sought should be clear and specific and the applicant should refrain from seeking opinion of CPIO on hypothetical situations:** In this case, the appellant had not specified the exact information he wanted nor had he given any particular timeframe with reference to which the information was sought. CIC advised him to approach the CPIO with a new application listing clearly and specifically the exact information he wants with reference to any particular time period and to refrain from seeking response or opinion of the CPIO on hypothetical situations (Decision No. CIC/SM/A/2008/00103-SM dated March 30, 2009).

6) **Ensuring repayment of investment made by the appellant is not the responsibility of public authority under the RTI Act:** The appellant sought information in respect of each of the non-banking finance institutions in which the appellant had claimed to have invested and the CPIO had provided the available information. As the CPIO had given available information, CIC stated that the CPIO could not give any more information than what he has already given. Further, CIC stated that in any case, it is not the responsibility of the Public Authority under the Right to Information Act to ensure repayment of the investment made by the appellant in any financial institution, and therefore, his appeal is devoid of any merit (Decision No. CIC/PB/A/2008 /00119-SM dated February 02, 2009).

interpretations or grievance redressal were outside the scope of the Act and dealt with accordingly. Information, which is exempted from disclosure under the provisions of the RTI Act was not furnished. A 'Disclosure Log' summarising disclosures of general interest has also been placed on the Reserve Bank's website.

RESEARCH ACTIVITIES

X.79 The Reserve Bank, as in the case of other central banks, has been at the forefront of promoting research activities both, within and outside the Bank. Timely availability of relevant information and quality analysis of the information in the country specific context are critical for formulating appropriate policies. All Departments, in particular the economic research and statistics Departments, have constantly strived to meet the growing research and information needs of the Reserve Bank. Staff members of the Bank are also encouraged to conduct independent research and publish their personal views in the occasional papers, staff studies and external research journals (Annex IV). A number of research articles were published by the staff of the Reserve Bank during 2008-09. In order to explain the rationale and the analytics of its policy initiatives to the public, the Reserve Bank disseminated wide ranging information through publications and speeches.

X.80 The Reserve Bank over time has been widely recognised for its qualitative reports and research publications. These reports not only contribute to strengthening the communication policy of the Bank on all important functional areas of the Bank but also serve as an important channel for explaining the Bank's views on emerging economic issues. The challenges that emerged during the current global financial crisis clearly manifest the need for better understanding of issues and relevant analytical and empirical research for undertaking crisis prevention as well as crisis management policy measures. Against this backdrop, the research Departments of the Bank, *viz.*, Department of Economic Analysis and Policy (DEAP) and Department of Statistics and Information Management (DSIM) continued to provide analytical research inputs on various aspects of the Indian economy for the conduct and formulation of policies by the Reserve Bank.

Department of Economic Analysis and Policy

X.81 The Department of Economic Analysis and Policy is engaged in conducting policy oriented research relating to various facets of the Indian economy as well as emerging issues of contemporary relevance. The Department plays an important role in terms of furnishing high quality research inputs on various policy matters concerning the Reserve Bank. As in the past, two statutory reports of the Reserve Bank, *i.e.,* Annual Report and the Report on Trend and Progress of Banking in India during 2007-08 were prepared in the Department. A study titled 'State Finances – A Study of Budgets of 2008-09' was published in December 2008, which carried a special theme on 'Revenue Receipts of the State Governments'. The Department also brought out the Summary of the Union Budget 2009-10 (Vote-on-Account) and Railway Budget 2009-10 (Vote-on-Account) in the Reserve Bank Bulletin.

X.82 The Report on Currency and Finance 2006-08, covering the theme "The Banking Sector in India: Emerging Issues and Challenges" was also released. Further, a special edition of Reports on Currency and Finance covering the period 2003-04 to 2006-08 was also released. This special edition of Reports on Currency and Finance brings together the analytical work of last four Reports with the objective of providing greater access to research conducted in the Reserve Bank in the areas of monetary policy, central banking, financial markets and the banking sector. The Report on Currency and Finance, 2008-09 covering a theme of most contemporary relevance, *viz.,* "Global Financial Crisis and the Indian Economy" is currently under preparation.

X.83 The Department assisted the Thirteenth Finance Commission, Government of India by presenting a study in National Institute of Public

Finance and Policy (NIPFP) on 'Fiscal Consolidation by Central and State Governments'. In pursuance of the decision taken at the twenty first Conference of State Finance Secretaries, two working Groups*, viz.,* (i) Fiscal Transparency at State Level and (ii) Working Group on Local (Urban) Finance have been set up. The Department has been providing secretarial assistance to the Working Groups. Based on a request from the Thirteenth Finance Commission, three Concept Papers on terms of reference of the Commission, *viz.,* (i) Introducing Expenditure Quality in Inter-Governmental Transfers: A Triple-E Framework, (ii) Strengthening Decentralisation - Augmenting the Consolidated Fund of the States by the Thirteenth Finance Commission: A Normative Approach and (iii) An Outline of Post 2009 FRBM Fiscal Architecture of the Union Government in the Medium-term were forwarded to the Commission. These Concept Papers are being published as Development Research Group (DRG) Studies. In addition, the Department provided technical inputs for the paper "Post FRBM Fiscal Architecture-Suggestions" forwarded to the Thirteenth Finance Commission. Inputs were also provided for the presentations at the twenty second Conference of State Finance Secretaries held on May 29, 2009.

X.84 The Department functioned as a nodal unit for preparing the Reserve Bank's comments on the 'Committee on Financial Sector Reforms' (Chairman: Prof. Raghuram Rajan). It also provided inputs/material for the Committee on Financial Sector Assessment (Chairman: Dr. Rakesh Mohan). The Department prepared a paper titled 'Financial Inclusion in SAARC Countries – Approaches, Issues and Challenges' for circulation among SAARCFINANCE members. The Department also hosted the seminar on 'Strengthening Financial Stability Arrangements' which was jointly organised by the Reserve Bank and the World Bank at Mumbai during June 15-18, 2009. There were 10 participants from the SAARC member countries, 8 from the World Bank and 12 from the Reserve Bank.

X.85 The Department acted as the Secretariat to the 'High Level Committee on Estimation of Savings and Investment' set up by the Government of India under the Chairmanship of Dr. C. Rangarajan and coordinated and released the final Report on behalf of the Ministry of Statistics and Programme Implementation on March 2, 2009. The Department participated in the inter-departmental Monetary Policy Strategy meetings and provided projections for 2008-09 and 2009-10 for growth, inflation, demand side aggregates and savings. Secretariat to the Working Group on the Real Sector is also with the Department. The Report of the Working Group on the Real Sector has been submitted to Top Management, appraising developments in the real sector of the economy at the time of monetary policy formulation. The Report of the Inter-departmental Working Group on 'Co-operative Credit Institutions in India-Data Availability' was also submitted to the Top management. During May 2009, the compilation work of Flow of Funds (FOF) has been initiated, which is expected to be finalised by the end of September 2009.

X.86 The Department released the 'Macroeconomic and Monetary Developments' on a quarterly basis during 2008-09 which is issued along with the Monetary Policy Statements/ Reviews. Presentations on macroeconomic and monetary developments were made by the Department before the Technical Advisory Committee on Monetary Policy at each of its quarterly meetings during the year. The Department also regularly published a monthly review on "India's Foreign Trade" in the Reserve Bank Bulletin. The Department published on a quarterly basis, a detailed article on "Indian Investment Abroad in Joint Ventures and Wholly Owned Subsidiaries".

X.87 The Department is the primary source of data on balance of payments of the country, which are released at the end of each quarter with a lag of one quarter. The Reserve Bank releases a Press Release at the end of every quarter detailing the trends in Balance of Payments (BoP) statistics. Further, an article on the developments in India's BoP during every quarter is also published in the monthly issue of the Reserve Bank Bulletin. The quarterly data on external debt are compiled by the Department for two quarters, while the Government of India compiles the same for the remaining two quarters. The Department also compiles the index of Nominal and Real Effective Exchange Rate (36-country) for India. These data are disseminated through various publications of the Department. The Department also disseminates the various economic indicators under the Special Data Dissemination Standards (SDDS) of the IMF. Apart from primary compilation of data, the Department also focuses on research relating to balance of payments, capital flows, exchange rate and foreign exchange reserves. The articles on areas such as 'India's External Debt as at end-March 2008', 'India's External Debt: Trend, Policy Changes and Cross Country Comparisons'; 'Invisibles in India's Balance of Payments' and 'An Analysis of Trade in Services, Remittances and Income and India's Balance of Payments Developments' during four quarters of 2008-09 were published in the Reserve Bank Bulletin. A 'Working Group on Balance of Payments Manual for India' has been constituted under the chairmanship of Shri Deepak Mohanty, Executive Director, Reserve Bank, to draft comprehensive manual/guidelines on the definition, methodology, coverage and compilation of BoP in India consistent with the international best practices.

X.88 The Department is also entrusted with the responsibility of compiling the major macroeconomic aggregates such as data on monetary aggregates, consolidated state finances, flow-of-funds accounts and household financial savings. Detailed time-series statistical information covering various sectors of the Indian economy – real, monetary, fiscal, external and financial markets – continued to be released through the publication titled "Handbook of Statistics on Indian Economy, 2007-08" for use by researchers. The publication provides annual data (in many cases from 1950-51 onwards), quarterly/monthly data (from 1990-91 onwards) as well as daily data in the case of many financial variables for the last few years. The Department also disseminated information on key parameters of the Indian economy in the Reserve Bank's Monthly Bulletin and its Weekly Statistical Supplement. During 2008-09, the Department prepared the Weekly Financial and Commercial Report for the Committee of the Central Board/Central Board Meeting and the Annual Memorandum on Current Economic Situation for Central Board Meetings. Analytical studies in areas concerning the Indian economy were published in the Reserve Bank's Occasional Papers.

X.89 The Department monitors developments in the international monetary and financial system with a view to examining their implications for India. In pursuit of the above objective, it undertakes policy oriented research pertaining to issues like global financial and currency crises, analyses of various reports prepared by the IMF on developments in the global economy such as the World Economic Outlook (WEO) and Global Financial Stability Report (GFSR) and prepares reports on the developments in the global economy. The Department serves as the nodal point for most of the work pertaining to multilateral institutions such as the IMF and the BIS and tracks developments in these institutions. It prepares briefs/comments on documents released by the IMF for discussions by its Executive Board, co-ordinates work relating to the visit of the IMF team to India in connection with discussions under Article IV and serves as the back office for ED (IMF), India's office. It also provides briefs/background material for International Monetary and Financial Committee (IMFC) meetings, besides preparing briefs/comments/background material for bi-monthly meetings of Governors at BIS as also for the G-20 meetings, which are attended by the top management of the Bank, in collaboration with other operational Departments. Further, it acts as the Secretariat of the SAARCFINANCE activities. It also serves as a nodal unit for visits by dignitaries from multilateral financial institutions, central banks of other countries, international banks, credit rating agencies, academics, and other international delegations; arranges lecture series in the Reserve Bank.

X.90 The Department provided valuable inputs to the inter-Departmental groups, *viz.,* Group on Macro Prudential Indicators (MPI) (convened by DBS) and Corporate Performance Monitoring Group (CPMG) (convened by DSIM), the Technical Advisory Committee (TAC) on Money, Foreign Exchange and Government Securities Markets, RBI-SEBI Technical Committee on RBI Regulated Entities, the RBI-SEBI Standing Technical Committee and Standing Parliamentary Committee on Finance.

X.91 The Regional Offices of the Department continued to contribute to the research efforts of the Reserve Bank. Regular monthly/quarterly reviews pertaining to the specific States/regions were prepared. The Regional Economic Profiles were also prepared for the use of Central and Local Boards of the Bank. The Regional Expectation Survey was also submitted as an input for Monetary Policy formulation. A regional study on impact of global crisis on reverse migration of workers was prepared. To strengthen the research effort, DEAP Regional Offices' Conference was organised during March 30-31, 2009. The Conference, which was attended by eminent economists, covered three themes, *viz.,* (i) Beige Book, (ii) Impact of Global Crisis on India and (iii) Financial Inclusion. In addition, various studies on areas covering economic, banking and fiscal sectors were also undertaken by the regional offices. They also made several presentations in outside venues to a wider audience of academicians, policy makers, corporates, research scholars and students on the latest policy developments/measures of the Reserve Bank.

X.92 The Development Research Group (DRG) was constituted in the Reserve Bank in November 1991 with the objective to undertake quick and effective policy-oriented research, backed by strong analytical and empirical work. DRG continued to serve as a platform for collaborative research between outside experts/academics and pool of research talent available within the Reserve Bank. DRG has published 28 studies since its inception, and 8 more studies are expected to be published during the next few months. The studies cover a wide range of subjects relating to real sector, monetary policy, fiscal policy, banking, agriculture, external sector and social sector.

X.93 The Department also manages the Endowment Scheme of the Bank. Under the scheme, financial support is provided to various institutions for the purpose of research and training in areas of interest to the Reserve Bank. The financial support is provided through corpus funds. At present, there are 22 corpus funds, with a total corpus of Rs.26 crore. Besides the Endowment Scheme, the Reserve Bank also grants financial support to universities/institutions for funding research projects, publication of specialised journals and holding of conferences/seminars/ workshops. During the year 2008-09, two new projects were initiated: (i) the RBI-Madras School of Economics (MSE) Macroeconomic Modeling Project, and (ii) the Indian Institute of Foreign Trade (IIFT) Project on Exchange Rate Movement and India's Exports of Textile and Engineering Goods.

X.94 To increase the spread of research activities in the country, an expert committee (Chairman: Dr. Bimal Jalan) was constituted to review the mission, objectives, scope and modalities of the Reserve Bank's research funding policy and to suggest changes to provide greater clarity and effectiveness of the programme. The Expert Committee submitted its Report to the Governor on February 19, 2009. The Committee has made wide ranging recommendations covering various aspects of the research support activities of the Bank (Box X.5). The recommendations of the Committee have been accepted by the Bank and are under implementation.

Library

X.95 The Central Library of the Reserve Bank, attached to the Department of Economic Analysis and Policy (DEAP) plays an important role in the collection, storage and dissemination of information. The Library has a comprehensive collection of books, journals, working papers,

Box X. 5
Expert Committee on Research Funding Policy

The Reserve Bank of India Act, 1934 [Section 17 (15B)] permits the Reserve Bank of India (the Reserve Bank or the Bank) to provide facilities for training in banking and for the promotion of research, where in the opinion of the Bank, such provision may facilitate the exercise of its powers and functions or the discharge of its duties. In pursuance of this Act, the Bank has been providing financial support for research and training to universities/ institutions under the Reserve Bank Endowment Scheme. Besides, the Bank grants financial support to universities/ institutions for publication of specialised journals and holding of conferences/ seminars.

The Reserve Bank Endowment Scheme is reviewed periodically by the Department of Economic Analysis and Policy of the Bank. The last such review was undertaken in February 2008 and submitted to the Central Board of Directors of the Bank. In the meeting of the Central Board held on February 7, 2008, it was proposed that the following aspects of the endowment scheme need to be examined – policy on selection of universities/ institutions for instituting a corpus fund; funding arrangements; institutional mechanisms, including accountability and transparency; and eligibility criteria for expanded funding. In the meeting of the Central Board held on March 6, 2008, the proposal to set up an Expert Committee to review the mission, objectives, scope and modalities of the Bank's research funding policy and to suggest changes to provide greater clarity and effectiveness of the programme was approved.

Consequently, the Expert Committee was constituted on June 17, 2008 by the Bank under the Chairmanship of Dr. Bimal Jalan. DRG, DEAP provided the Secretariat to the Committee. The Committee deliberated on the terms of references, including the overall mission, objectives and scope of the Bank's research funding programme and submitted its Report to the Governor on February 19, 2009. The main recommendations of the Committee are as follows:

- The mission and objectives of the Bank's support for research activities should be clearly defined.
- There should be a coordinated approach to research within the Bank.
- The interested scholars/researchers could be advised to send their research proposals to the Bank for scrutiny.
- Enhancement of the corpus funds on account of changes in interest rates, inflation and recommendations of the Sixth Pay Commission. Increase in corpus fund should be done only after a thorough review and on a case-by-case basis, based on the requests received from the universities/institutions.
- The magnitude of grant for projects should be based on the need of the project, considering the theme/ subject area of each project proposed by the researcher/institution.
- To incentivise research in RBI Chairs, the magnitude of corpus fund could have two components – a nominal component and a special component.

reports, CD-ROMs and other documents. The Library maintains electronic databases of all these documents (OPAC-Online Public Access Catalogue), which can be accessed through Library website (homepage) from the Central Office building and from all other offices of the Reserve Bank. Central Library also subscribes to various online databases such as Bankscope, CentralBankNews.com, Datastream, RGE Monitor, World Bank resources. In addition, e-journals, *viz.,* JSTOR Business, Mathematics, Statistics and Legal collections, ECONLIT, Proquest Business Periodical Databases, Springer Business and Economics package and Elsevier Science Direct E-journals and E-handbooks are subscribed to by the Central Library. The Central Library is implementing new Library Website and a search software, *viz.,* ERMSS, which would scan all the subscribed electronic resources and display the results based on keyword based search. The Library database has a collection of about 99,246 documents comprising books, Government publications, working papers, discussion papers and complimentary publications. It also maintains an online database of 31,261 journal articles and receives 340 technical journals. The Library also provides information services and technical support to training colleges and libraries in other offices of the Reserve Bank.

Department of Statistics and Information Management

X.96 The Department meets the Bank's statistical needs, which range from collection, compilation, analysis and dissemination of information relating to various sectors of the economy to study important dynamics of the economy and the financial system through the application of econometric and statistical procedures. The Department has been entrusted with managing electronic data dissemination platform through Database on the Indian Economy, *i.e.,* Data Warehouse of the Reserve Bank. Providing technical support to other Departments in statistical analysis and large-scale data management in specific areas also form the core activities of the Department.

X.97 During 2008-09, the Department conducted the following surveys: (a) quarterly industrial outlook surveys for four quarters during the year, providing insight into the performance and prospects of the private corporate sector engaged in manufacturing activities; (b) quarterly Inflation Expectations Survey of Households, covering 4000 households in 12 cities; (c) quarterly Survey of Inventories, Order Books and Capacity Utilisation for the private corporate sector providing information relevant to business cycle analysis; d) biennial Survey of Small Borrowal Accounts (each with credit limit of Rs.2 lakh or below) with March 31, 2008 as the reference period.

X.98 An inter-departmental Working Group has been set up to assess the information requirement through surveys for monetary policy formulation and to carry out a review of the surveys being conducted by the Department. The Group is headed by Shri Deepak Mohanty, Executive Director and members are drawn from MPD, DEAP and DSIM.

X.99 With a view to reviewing the methodology and data quality of various rounds of the Inflation Expectation Survey and to suggest ways to improve it, a Technical Advisory Committee on Surveys was set up in 2007 under the Chairmanship of Dr. Rakesh Mohan, the then Deputy Governor. The members were drawn from MPD, DEAP, DSIM as well as external experts from IGIDR, ISI and agencies conducting economic surveys like ABN Amro and Dun and Bradstreet. The group is now finalising its report.

X.100 The information on the performance of the corporate sector is an important input to policy formulation. Though the domestic economy has been passing through a robust growth phase in recent years, it has felt the impact of unprecedented financial crisis world over on account of getting increasingly integrated with the global markets. Monitoring corporate performance has become more significant in the present scenario. The Department made concerted efforts to expand the scope of studies and analytical work on the corporate sector to extract useful information for policy formulation. Besides, as per the agreement between Central Statistical Organisation (CSO) and the Bank and also on recommendations of various committees, the Department estimates the saving and capital formation of the private corporate business sector and forwards it to CSO for inclusion in National Account Statistics every year.

X.101 Economic forecasting is a pre-requisite for a forward-looking macroeconomic policy. Forecasts of key macroeconomic indicators, such as output growth, inflation and interest rates are important not only for the Central Bank, but also for the Government, private businesses and individual households. The availability of reliable and accurate macroeconomic forecasts is essential for policymakers conducting monetary and fiscal policy. Against this background and keeping in view the international experience, the Department introduced 'Survey of Professional Forecasters' in 2007 on a quarterly basis. Eight rounds of the survey have been conducted successfully. The results of the survey are placed on the Reserve Bank's website and are also published in the quarterly Macroeconomic and Monetary Developments.

X.102 The house prices are traditionally looked into for an assessment of operative asset price channel of monetary policy. However, construction of house starts database also provides additional and supplementary information about the impact of monetary policy impulses on housing investments. Keeping in view the importance of such an indicator for central bank, the Reserve Bank constituted a Technical Advisory Group (TAG) on Development of Housing Start Up Index (HSUI) (Chairman: Prof. Amitabh Kundu). The TAG, since submitted its final report, has recommended that the Housing Start-up Index based on newly built residential units in urban India may be compiled on a quarterly basis and the Reserve Bank may set up a Standing Committee to launch this initiative, monitor its progress, commission and overview the surveys for constructing start-up coefficients and consider increasing the scope and coverage of HSUI over time.

X.103 With a view to monitoring the current trends in real estate prices and rent, it was felt imperative to establish an appropriate statistical data collection system within the Reserve Bank. An Expert Group on Asset Price Monitoring System has been set up in the Bank with the objective of developing an information system on asset prices. The group has membership from the Reserve Bank (DSIM), State Bank of India, NHB, ICICI, IGIDR, ISI, CSO and HDFC Realty. The Department is providing the secretarial support to the Group.

X.104 The system of the Uniform Code Numbers (UCNs) was put in place in 1972, as a need was felt for a unique identification of each of the branches/offices of the banks in India. Under the system, a bank office/branch is allotted a unique code number, known as Uniform Code Number (UCN). These codes, for the branches transacting in foreign exchange, are also known as Authorised Dealers (AD) Codes. The UCNs, along with other particulars of bank branches, such as locational details (state, district, centre), population category, type of business conducted, AD Category, etc. is maintained in the DSIM in the form of the Master Office File (MOF) system. The details are updated in the MOF system based on the information submitted by the banks. These UCNs allotted to bank branches facilitate to get the spatial distributions of the bank branches functioning on a given date or opened or closed/merged/converted during a given period and also the distributions of the deposit and credit data received through the BSR returns. During the year, Department continued to update the MOF by the way of state/ district level amalgamation/ merger of RRBs and UCBs, continuous allotment of the new bank branches/ offices, affecting closures and any other changes. Based on the MOF, 115 Parliament queries/Government queries/ under Right to Information Act queries were replied, in addition to the 120 data supply cases relating to updated bank branch details to various state government departments in connection with their publications, disbursement of pension, online reporting of tax payment data to Online Tax Accounting System (OLTAS), the Office of the Customs and Central Excise (New Delhi), other organizations, other Departments of Reserve Bank, and researchers.

X.105 The BIS system of quarterly compilation of International Banking Statistics (IBS) was implemented by the Reserve Bank in December 1999. The data on IBS of India comprising 18 statements on locational banking statistics (LBS) and 5 statements on consolidated banking statistics (CBS) are being supplied to the BIS beginning March 2001. During the year, LBS and CBS statements in the prescribed format, based on IBS data for the three quarters from end-June 2008 to end December 2008 were supplied to the BIS.

X.106 With a view to reviewing the present position regarding receipt and compilation of data by the Reserve Bank and NABARD on bank credit to agriculture and other priority sectors, so as to ensure consistency and accuracy, a Working Group on Rationalisation of Returns furnished by scheduled commercial banks to the Reserve Bank and NABARD was constituted in the DSIM. The group submitted its report in the month of August 2008.

X.107 Data on various characteristics of credit and deposits are collected from offices of scheduled commercial banks through the Basic Statistical Returns (BSR) 1 and 2, under the BSR system. BSR 1 provides data on purpose (occupation)-wise distribution of credit along with spatial distribution of place of sanction and place of utilisation of credit. It also provides data on credit amount outstanding on various parameters like type of account, organisation, interest rate, bank groups and population groups. BSR 2 provides data on deposits amount outstanding according to type of deposits, spatial distribution of total deposits and classification of term deposits on various parameters such as original maturity period, interest rate range, size of deposits and residual maturity period. As stated in the last year's Annual Report, Basic Statistical Return 1 was revised and implemented with effect from March 2008. Data pertaining to March 2008 have been collected in the revised format and finalisation of results with March 31, 2008 as reference date is at advanced stage. The survey for March 2009 data with March 31, 2009 as reference date has been launched. In order to ensure improvement in quality/coverage of the BSR system and IBS data, the Department continued to conduct workshops/training programmes for officials of participating banks at the colleges and various centres of the Reserve Bank and other banks.

X.108 The Department compiles and disseminates International Investment Position (IIP) of India as per Special Data Dissemination Standard (SDDS) of IMF on annual basis. The annual data on International Investment Position (IIP) of India as at end- March 2008 were compiled and released on RBI website within two quarters lag. Further, IIP data is also being compiled and disseminated on quarterly basis since June 2006. The latest IIP was disseminated for the quarter as at end December 2008.

X.109 As per the recommendation of the Technical Group on Statistics for International Trade in Banking Services, comprising members from the Ministry of Finance, Ministry of Commerce and the concerned Departments of the Bank, a survey was launched in January 2008 for collecting information on trade in banking services, from foreign banks operating in India and the Indian banks having branches abroad. The article based on the 2006-07 survey was published in RBI Bulletin, January 2009. The survey for 2007-08 has been launched and the data have been processed. Further, the report submitted by the Technical Group on Computer Services Exports (comprising members from National Association of Software and Services Companies (NASSCOM), Software Technology Parks of India (STPI) and the Reserve Bank) in May 2008, was accepted by the Reserve Bank. As per the recommendations, a comprehensive survey for the period 2007-08 was launched in September 2008 to collect information on computer/software services exports from the companies dealing in computer software/ information technology (IT) and IT enabled services. The survey results have been finalised.

X.110 During the year, the Department was actively involved in migration of Database on Indian Economy (DBIE): Reserve Bank's Data Warehouse to the Bank's Data Centre and successfully completed migration of Database and Web layer of the DBIE site. Accordingly, URL of the site has been changed to *http://dbie.rbi.org.in*.

X.111 The ORFS, a web based platform for online submission of returns, has been successfully migrated in the state-of-art data centre of the Bank. The system is currently being used by DBOD, DBS, FED, DPSS, MPD and DSIM for receiving various returns submitted by commercial banks. As a result, the data submission and compilation time has come down significantly. The system has facilitated online submission of 17 important returns; including the statutory Section 42(2) form 'A' return, under the phase I of this project. In phase II, 41 more returns from DPSS, FED and DBS have been taken up under the coverage of ORFS. All returns under OSMOS system of DBS are also proposed to be covered under this phase. As on date, 13 returns of phase II are made live and others are at various stages of implementation.

X.112 The Department is coordinating the adoption of Extensible Business Reporting Language (XBRL) standard in Indian banking industry for financial reporting. This effort is being monitored by a High Level Steering Committee chaired by Smt Usha Thorat, Deputy Governor. The entire project of XBRL is targeting to cover all the returns submitted by commercial banks to the Reserve Bank by 2011. In the first stage, Basel II Reporting System has been developed and implemented in the Bank's data centre. On this content, an international seminar on "Use of XBRL by Developing Economies – Central Bank's Perspective" was also organized. Various subject matter experts from different organization, *viz.*, XBRL International Inc., Bank of Spain, Bank of Japan, and Australian Prudential Regulatory Authority (APRA), IT firms providing core banking solution in India, SEBI and a few selected commercial banks were invited for sharing their experiences. The High Level Steering Committee also took initiative in reducing the number of returns to be submitted by commercial banks to 225 from 291. Also, the first phase of the XBRL project covers five returns and is nearing completion. The XBRL Core Group is working in close coordination with the Institute of Chartered Accountants of India (ICAI) for designing the banking taxonomy for financial statements of the banks.

X.113 The Annual Conference of the Department of Statistics and Information Management was held during November 27-28, 2008. The theme of this year's conference was 'changing role of DSIM'. Shri Deepak Mohanty, Executive Director inaugurated the conference and all the officers of the DSIM across central office departments and regional offices participated. During two days, prospective role of every individual unit of DSIM were discussed.

X.114 As a part of the Platinum Jubilee celebration of the Reserve Bank, the Department organised the Statistics Day International Conference 2009 on July 2, 2009. The deliberations of the conference highlighted issues relating to revision, measurement, and collection of data, leading indicators for business cycles, financial soundness indicators, sample surveys, cross checking and validation of data, and data quality and policy. The Statistics Day marks the birth anniversary of Prof. P. C. Mahalanobis, the legendary statistician who contributed enormously on the development of statistics and statistical infrastructure in the country.

X.115 Continuing with the strong commitment for the knowledge and skill development of the officers, the Department arranged in-house lecture series on relevant topics in statistics, economics, econometrics and finance. As part of this programme, the Department organised the following lecture series during the year- Stochastic Frontier Analysis, Nonparametric smoothing (Regression), Resampling (Bootstrapping), Regression Diagnostics and International Financial Reporting Standards.

THE CENTRAL BOARD AND ITS COMMITTEES

X.116 Six meetings of the Central Board were held during the year. Of these, three meetings were held at traditional centres (Kolkata, Chennai and Mumbai) and three were held at non-traditional centres (Panaji, Ahmedabad and Bengaluru). The usual post-Budget meeting of the Central Board held in New Delhi in March every year was held this year on July 11, 2009 after the presentation of the Union Budget on July 6, 2009. Forty-six weekly meetings of the Committee of the Central Board were held during the year at Mumbai. Three Committees, *i.e.,* Committee of the Central Board, Board for Financial Supervision and Board for Regulation of Payment and Settlement System and three sub-Committees, *i.e.,* Inspection and Audit sub-Committee, Staff sub-Committee and Building sub-Committee have been constituted to assist the Central Board in its decisions on various affairs of the Reserve Bank. The Committee of the Central Board, as usual, attended to the current business of the Bank, including approval of the Reserve Bank's weekly accounts pertaining to the Issue and the Banking Departments. The discussions at the meetings of the Central Board broadly covered matters pertaining to general superintendence and direction of the Reserve Bank's affairs, in which the Directors, with their vast experience in diverse fields, actively contributed to important decisions pertaining to currency management, information technology, human resource development, banking regulation and supervision, monetary and credit policy, the Reserve Bank's accounting policy, internal debt management policy, global economic turmoil and functioning of Local Boards, among others. The deliberations of the Board also focused on the critical assessment of the percolation of benefits of growth to the poorer sections of the society and on agriculture and rural areas in general.

X.117 Four meetings of the Inspection and Audit Sub-Committee (IASC) were held during the year. The IASC examined, *inter alia,* the critical areas emanating from the Management and Systems Inspection of Central Office Departments and Regional Offices of the Reserve Bank.

X.118 The Building Sub-Committee (BSC) was reconstituted for a period of two years with effect from June 11, 2009. Shri Sanjay Labroo, Director of the Central Board, was nominated on the reconstituted BSC in place of Dr. D. Jayavarthanavelu. Three meetings of BSC were held during the year. BSC advised the Bank on various matters including construction of staff quarters under Design and Build mode, installation/replacement of air-conditioning plants and renovation of the executive floors of Central Office Building.

X.119 On the occasion of the meetings of the Central Board held at Panaji, Ahmedabad and Bengaluru, the Reserve Bank officials led by Governor held meetings with the senior officials of the State Government, commercial banks and financial institutions in Goa, Gujarat and Karnataka, to discuss the State-specific issues relating to banking. Pursuant to the deliberations at the meetings at Ahmedabad and Bangalore, major decisions were taken to energise financial inclusion in the respective States. A Task Force, consisting of the representatives of the State Government, the SLBC convenor and other bankers, was constituted to look into the distress arising on account of the problems faced by the diamond industry in Gujarat and to make practicable recommendations for mitigating the difficulties. It was decided to launch a pilot programme for financial literacy in Karnataka. This programme, to be launched by the Reserve Bank in collaboration with the State Governments, will involve introduction of financial and related material in the curriculum of schools and colleges. Steps would also be taken to make financial literacy part of non-formal education.

Directors / Members of the Central Board / Local Boards

X.120 Dr. Y. V. Reddy demitted the office of Governor of the Bank on September 5, 2008 on completion of five year term.

X.121 Dr. D. Subbarao assumed the office of Governor of the Bank on September 5, 2008 for a period of three years.

X.122 Shri V. Leeladhar relinquished the office of Deputy Governor of the Bank on completion of his term on December 8, 2008.

X.123 Dr Rakesh Mohan relinquished the office of Deputy Governor of the Bank, as at the close of business on June 10, 2009.

X.124 Dr. K. C. Chakrabarty assumed the Office of Deputy Governor of the Bank on June 15, 2009 for a period of three years.

Awards

X.125 Dr. Ashok S. Ganguly, Director of the Central Board was awarded Padma Vibhushan in the field of Trade and Industry on the Republic Day 2009.

Obituary

X.126 Shri S.S. Marathe, former Director of the Central Board and Chairman of the Local Board (Western Area) during January 16, 1986 to March 28, 1994, passed away on September 28, 2008.

Appointment of Executives

X.127 Shri Deepak Mohanty was appointed as Executive Director with effect from October 13, 2008.

Retirement of Executives

X.128 Dr. R.B. Barman, Executive Director retired from the Bank's service at the close of the business on July 31, 2008.

Foreign Dignitaries

X.129 A number of foreign delegations visited the Reserve Bank during the year and interacted with Top Management (Annex IV).

X.130 The sustained emphasis of the Reserve Bank in strengthening its human resources to meet the changing needs of the Reserve Bank was, thus, carried forward during 2008-09 with several new initiatives. The Reserve Bank explored and utilised alternative channels for enhancing the required skill levels of its officers, besides offering adequate incentives to the staff to seek knowledge and practical experience in any area that may be relevant to the functioning of the Bank. The initiatives taken by the respective Departments also contributed to strengthen the organisation in its capacity to meet new challenges and also in making advances with forward looking vision in the relevant areas.

XI THE RESERVE BANK'S ACCOUNTS FOR 2008-09

The balance sheet of the Reserve Bank for the year ended June 30, 2009 reflected the impact of liquidity augmenting measures adopted by the Reserve Bank to deal with the contagion from the global economic crisis. Unlike the significant expansion in the balance sheets of the central banks of several advanced economies that resulted from their policy responses to the crisis, the behaviour of the Reserve Bank's balance sheet was distinctly different since specific measures, such as reduction in CRR and unwinding of Government's MSS balances implied corresponding contraction in the Reserve Bank's liabilities, even as both measures were the key channels for injecting large liquidity to the financial system. Thus, through contraction in the balance sheet size, the Reserve Bank could expand the availability of liquidity. On the asset side of the balance sheet also, the contraction was driven by the decline in foreign assets. Even though domestic assets expanded because of OMOs and accommodation of liquidity needs of select Indian financial institutions, on account of large and sustained reverse repo operations, the net effect also contributed to the decline in the size of the balance sheet. During the year, gross income and expenditure of the Reserve Bank were at Rs.60,731.98 crore and Rs.8,217.88 crore, respectively; after meeting the allocation needs for both the Contingency Reserve (CR) and the Asset Development Reserve (ADR), Rs.25,009 crore was allocated for transferring to the Government. Earnings from foreign and domestic sources were at Rs.50,796.21 crore and Rs.9,935.77 crore, respectively.

XI.1 The key financial results of the Reserve Bank's operations during the year 2008-09 are presented in this Chapter.

INCOME AND EXPENDITURE

XI.2 The gross income, expenditure, appropriations and net disposable income of the Reserve Bank for the last five years are furnished below (Table 11.1).

Table 11.1: Trends in Gross Income, Expenditure and Net Disposable Income

(Rupees crore)

Item	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6
Total Income (Gross)	**19,028.28**	**26,320.31**	**41,039.73** **(75,348.33)** #	**57,750.79**	**60,731.98**
Less transfer to:					
(i) Contingency Reserve	6,125.92	10,936.42	20,488.97	33,430.74	26,191.40
(ii) Asset Development Reserve	687.09	1,126.79	1,971.51	3,207.92	1,309.70
Total (i + ii)	6,813.01	12,063.21	22,460.48	36,638.66	27,501.10
Total Income (Net)	12,215.27	14,257.10	18,579.25 (52,887.85) #	21,112.13	33,230.88
Total Expenditure	**6,811.27**	**5,849.10**	**7,164.25**	**6,097.13**	**8,217.88**
Net Disposable Income	5,404.00	8,408.00	11,415.00 (45,723.60) #	15,015.00	25,013.00
Less : Transfer to Funds *	4.00	4.00	4.00	4.00	4.00
Transfer of surplus to the Government	5,400.00	8,404.00	11,411.00 (45,719.60) #	15,011.00	25,009.00

: Figures in parentheses indicate amounts including profit on sale of shares of the State Bank of India (SBI) divested on June 29, 2007.

* : An amount of Rupees one crore each has been transferred to the National Industrial Credit (Long Term Operations) Fund, National Rural Credit (Long Term Operations) Fund, National Rural Credit (Stabilisation) Fund and National Housing Credit (Long Term Operations) Fund during each of the five years.

Table 11.2: Gross Income

(Rupees crore)

Item	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6
A. Foreign Sources					
Interest, Discount, Exchange	16,979.47	24,538.03	35,152.99	51,883.27	50,796.21
B. Domestic Sources					
(i) Interest	1,607.34	1,207.04	5,144.52	4,958.35	9,056.27
(ii) Profit on sale of investment in shares of SBI	-	-	34,308.60	-	-
(iii) Other Earnings	441.47	575.24	742.22	909.17	879.50
Total : [(i)+(ii)+(iii)]	2,048.81	1,782.28	40,195.34 (5,886.74)	5,867.52	9,935.77
C. Total Income (Gross) (A+B)	**19,028.28**	**26,320.31**	**75,348.33 (41,039.73)**	**57,750.79**	**60,731.98**

Note : Figures in parentheses indicate the amount excluding profit on sale of shares in SBI of Rs.34,308.60 crore.

Surplus Transferable to the Government of India

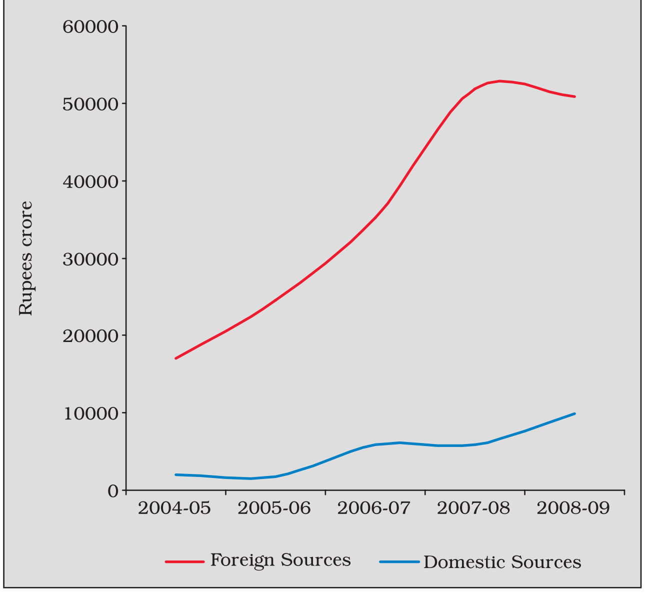
XI.3 The surplus transferable to the Government of India for the year 2008-09 amounted to Rs.25,009.00 crore, including Rs.1,436.00 crore towards the interest differential on special securities converted into marketable securities for compensating the Government for the difference in interest expenditure which the Government had to bear consequent on conversion of such special securities.

INCOME

XI.4 The gross income of the Reserve Bank for the year 2008-09 was Rs.60,731.98 crore as against Rs.57,750.79 crore in 2007-08 and registered an increase of 5.16 per cent over the previous year. This was mainly on account of increase in income from the domestic sources. Income from the domestic sources increased by 69.34 per cent during the year (Table 11.2 and Chart XI.1).

XI.5 The share of transfer to the Contingency Reserve, the Asset Development Reserve and the surplus transferred to the Government as a percentage to the total income is given in Table 11.3.

Chart XI.1: Sources of Income



Earnings from Foreign Sources

XI.6 The Reserve Bank's earnings from the deployment of foreign currency assets and gold decreased by Rs.1,087.06 crore (2.10 per cent) from Rs.51,883.27 crore in 2007-08 to Rs.50,796.21 crore in 2008-09 (Table 11.4). This was mainly on account of fall in interest rates in the international markets. Before accounting for mark-to-market depreciation on securities, the rate of earnings on foreign currency assets and gold

Table 11.3: Contingency and Asset Development Reserves and Surplus Transfer to the Government

(Rupees crore)

Item	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6
Total Income (Gross)	**19,028.28**	**26,320.31**	**41,039.73 ***	**57,750.79**	**60,731.98**
Transfer to Contingency Reserve	6,125.92 (32.19)	10,936.42 (41.55)	20,488.97 (49.92)	33,430.74 (57.89)	26,191.40 (43.13)
Transfer to Asset Development Reserve	687.09 (3.61)	1,126.79 (4.28)	1,971.51 (4.80)	3,207.92 (5.55)	1,309.70 (2.16)
Transfer of Surplus to the Government	5,400.00 (28.38)	8,404.00 (31.93)	11,411.00 * (27.80)	15,011.00 (25. 99)	25,009.00 (41.18)

* : Excluding profit on account of sale of shares of SBI.
Note : Figures in parentheses indicate proportion to the total income.

was 4.24 per cent in 2008-09 as against 5.09 per cent in 2007-08. The rate of earnings on foreign currency assets and gold, after accounting for depreciation, decreased from 4.82 per cent in 2007-08 to 4.16 per cent in 2008-09.

Earnings from Domestic Sources

XI.7 The income from domestic sources in 2008-09 at Rs.9,935.77 crore was higher as compared with the last year's level at Rs.5,867.52 crore. The higher income is primarily on account

Table 11.4: Earnings from Foreign Sources

(Rupees crore)

Item	As on		Variation	
	June 30, 2008	June 30, 2009	Absolute	Per cent
1	2	3	4	5
Foreign Currency Assets (FCA)	12,98,552.05	12,17,541.80	(-) 81,010.25	(-) 6.24
Gold	39,548.32	46,914.09	7,365.77	18.62
Special Drawing Rights (SDR)	47.57	2.48	(-) 45.09	(-) 94.79
Reserve Position in the IMF*	2,268.53	5,973.89	3,705.36	163.34
Total Foreign Exchange Reserves (FER)	13,40,416.47	12,70,432.26	(-) 69,984.21	(-) 5.22
Average FCA	10,75,984.86	12,19,693.16	1,43,708.30	13.36
Earnings (Interest, Discount, Exchange gain / loss, Capital gain / loss on securities) [a]	54,715.15	51,688.38	(-) 3,026.77	(-) 5.53
Depreciation on Securities [b]	2,831.88	892.17	(-) 1,939.71	(-) 68.50
Earnings Net of Depreciation [a-b]	51,883.27	50,796.21	(-) 1,087.06	(-) 2.10
Memo :				
Unrealised appreciation on Securities	2,122.72	10,896.95	8,774.23	413.35
Earnings as percentage of Average FCA	5.09	4.24	-	-
Earnings (net of depreciation) as percentage of Average FCA	4.82	4.16	-	-

* : Reserve Position in the International Monetary Fund (IMF), which was shown as a memo item from May 23, 2003 to March 26, 2004 has been included in the reserves from the week ended April 2, 2004.

Table 11.5: Earnings from Domestic Sources

(Rupees crore)

Item	As on		Variation	
	June 30, 2008	June 30, 2009	Absolute	Per cent
1	2	3	4	5
Domestic Assets	**1,64,431.13**	**1,90,652.64**	**26,221.51**	**15.95**
Weekly Average of Domestic Assets	1,06,412.90	1,72,220.65	65,807.75	61.84
Earnings	**5,867.52**	**9,935.77**	**4,068.25**	**69.34**
of which:				
Interest and Other Income	4,958.35	9,056.27	4,097.92	82.65
(i) Profit on Sale of Securities	7,089.80	16,500.32	9,410.52	132.73
(ii) Interest on Securities [a - b]	(-) 2,514.19	(-) 8,747.54	(-) 6,233.35	(-) 247.93
of which				
(a) Interest on Domestic Securities, LAF operations and Dividend	4,533.87	8,683.11	4,149.24	91.52
(b) Depreciation on Securities	7,048.06	17,430.65	10,382.59	147.31
(iii) Interest on Loans and Advances	325.60	1,254.80	929.20	285.38
(iv) Other Interest Receipts	57.14	48.69	(-) 8.45	(-) 14.79
Other Earnings	909.17	879.50	(-) 29.67	(-) 3.26
(i) Discount	-	-	-	-
(ii) Exchange	0.01	0.01	0.00	0.00
(iii) Commission	521.19	778.12	256.93	49.30
(iv) Rent realised and others	387.97	101.37	(-) 286.60	(-) 73.87
Memo:				
Earnings in percentage terms (on average domestic assets)	5.51	5.77	-	-

of increase in 'Interest on Domestic Securities and LAF operations' which increased from Rs.4,533.87 crore in 2007-08 to Rs.8,683.11 crore in 2008-09 and 'Interest on Loans and Advances' which increased from Rs.325.60 crore in 2007-08 to Rs.1,254.80 crore in 2008-09 (Table 11.5).

EXPENDITURE

XI.8 Total expenditure of the Reserve Bank increased by Rs.2,120.75 crore (34.78 per cent) from Rs.6,097.13 crore in 2007-08 to Rs.8,217.88 crore in 2008-09 (Table 11.6 and Chart XI.2).

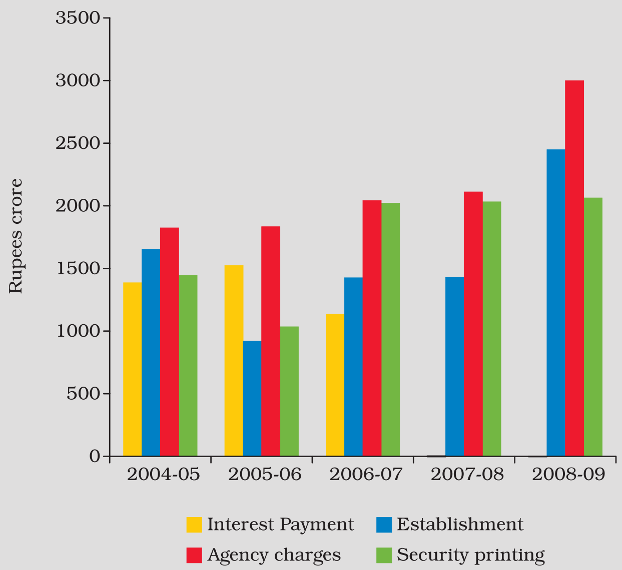
Table 11.6: Expenditure

(Rupees crore)

Item	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6
I. Interest Payment	**1,386.28**	**1,524.41**	**1,135.38**	**2.58**	**1.33**
of which:					
Scheduled Banks	1,276.83	1,523.72	1,134.85	1.90 *	0.00 *
II. Establishment	**1,653.17**	**919.88**	**1,425.81**	**1,430.87**	**2,448.25**
III. Non-Establishment	**3,771.82**	**3,404.81**	**4,603.06**	**4,663.68**	**5,768.30**
of which:					
a) Agency charges	1,824.17	1,833.55	2,042.50	2,111.14	2,999.19
b) Security printing	1,443.57	1,034.86	2,020.89	2,032.23	2,063.17
Total [I+II+III]	**6,811.27**	**5,849.10**	**7,164.25**	**6,097.13**	**8,217.88**

* : Pursuant to amendment to the Reserve Bank of India Act, 1934, interest payable on eligible CRR balances was withdrawn with effect from fortnight beginning March 31, 2007.

Chart XI.2: Major Items of Expenditure



Establishment Expenditure

XI.9 Establishment expenditure for the year 2008-09 was at Rs.2,448.25 crore as compared with Rs.1,430.87 crore during the year 2007-08 and showed an increase of Rs.1,017.38 crore (71.10 per cent). Establishment expenditure also includes provision towards Gratuity and Superannuation Fund and Leave Encashment Fund (Retiring employees) of Rs.1,037.92 crore (previous year Rs.221.02 crore). The increase in provision is mainly on account of enhancement of long term employee benefits. Salaries accounted for 17.39 per cent of the total establishment expenditure whereas allowances were 15.34 per cent and the other miscellaneous expenses were 23.41 per cent of the total establishment expenditure. The expenditure towards various funds (*i.e.*, Provident Fund, Gratuity and Superannuation Fund, *etc.*) constituted 43.86 per cent of the total establishment expenditure.

Non-Establishment Expenditure

XI.10 The expenditure incurred on security printing charges (cheques, note forms, *etc.*) in 2008-09 increased by Rs.30.94 crore (1.52 per cent) to Rs.2,063.17 crore from Rs.2,032.23 crore in 2007-08. Although the supply of banknotes in 2008-09 declined marginally by 269 million pieces from 13,930 million pieces in 2007-08 to 13,661 million pieces in 2008-09, the marginal increase in expenditure on security printing was on account of moderate increase in prices of banknotes. The amount of agency charges paid during 2008-09 was Rs.2,999.19 crore as against Rs.2,111.14 crore during 2007-08. The increase of Rs.888.05 crore was attributed to: (a) increase in the amount of underwriting commission paid to the Primary Dealers at Rs.249.45 crore in 2008-09 as against Rs.18.33 crore in 2007-08 in the context of large increase in the borrowing size of the Government of India and (b) increase in the agency commission from Rs.2,092.81 crore in 2007-08 to Rs.2,749.74 crore in 2008-09 largely due to rise in the volume of Government transactions conducted by the agency banks.

BALANCE SHEET

LIABILITIES

National Industrial Credit (Long-Term Operations) Fund

XI.11 The National Industrial Credit (Long-Term Operations) Fund was established by the RBI under Section 46 C of the Reserve Bank of India Act, 1934 on July 1, 1964. During 2008-09, there were no operations in the Fund except the credit of Rs.1.00 crore out of the Reserve Bank's surplus.

National Housing Credit (Long Term Operations) Fund

XI.12 The National Housing Credit (Long Term Operations) Fund was established by the Reserve Bank in terms of Section 46 D (1) of the Reserve Bank of India Act, 1934 in January 1989. A token contribution of Rs.1.00 crore was made to the Fund out of the Reserve Bank's surplus during 2008-09.

Deposits - Banks

XI.13 'Deposits - Banks' represent balances maintained by banks in their current accounts with the Reserve Bank for maintaining Cash Reserve

Ratio and as working funds for meeting payment requirements.

Deposits - Others

XI.14 'Deposits - Others' include deposits from financial institutions, employees' provident fund deposits and sundry deposits.

Other Liabilities

XI.15 'Other Liabilities' include the internal reserves and provisions of the Reserve Bank, Currency and Gold Revaluation Account (CGRA) and surplus pending transfer to the Government. The balance in 'Other Liabilities' increased by Rs.72,739.45 crore (22.52 per cent) from Rs.3,22,968.10 crore as on June 30, 2008 to Rs.3,95,707.55 crore as on June 30, 2009, mainly on account of increase in the level of Currency and Gold Revaluation Account (CGRA).

XI.16 The Contingency Reserve and the Asset Development Reserve reflected in 'Other Liabilities' are in addition to the 'Reserve Fund' of Rs.6,500.00 crore held by the Reserve Bank as a distinct balance sheet head.

Currency and Gold Revaluation Account (CGRA) and Exchange Equalisation Account (EEA)

XI.17 Gains / losses on valuation of foreign currency assets and gold due to movements in the exchange rates and / or prices of gold are not taken to the Profit and Loss Account but instead booked under a balance sheet head named as the Currency and Gold Revaluation Account (CGRA). The balance represents accumulated net gain on valuation of foreign currency assets and gold. During 2008-09, there was an accretion of Rs.35,630.20 crore in CGRA, thus increasing its balance from Rs.1,63,211.83 crore as on June 30, 2008 to Rs.1,98,842.03 crore as on June 30, 2009. The increase in CGRA was on account of net effect of depreciation of other currencies against the US dollar, depreciation of Indian rupee against the US dollar and increase in the price of gold. The balance in the Exchange Equalisation Account (EEA) represents provision made for exchange losses arising out of forward commitments. The balance in EEA as on June 30, 2009 stood at Rs.26.98 crore (Table 11.7)

Table 11.7: Balances in Currency and Gold Revaluation Account and Exchange Equalisation Account

(Rupees crore)

As on June 30	Currency and Gold Revaluation Account	Exchange Equalisation Account
1	2	3
2005	26,906.21	0.50
2006	86,789.18	3.28
2007	21,723.52	9.68
2008	1,63,211.83	-
2009	1,98,842.03	26.98

Contingency Reserve and Asset Development Reserve

XI.18 The Reserve Bank maintains a Contingency Reserve (CR) to enable it to absorb unexpected and unforeseen contingencies. With a transfer of Rs.26,191.40 crore to CR during 2008-09 from the Reserve Bank's income, the balance in CR increased to Rs.1,53,392.21 crore as on June 30, 2009 from Rs.1,27,200.81 crore as on June 30, 2008. The balance in CR is sufficient to meet the contingent liabilities.

XI.19 To meet the internal capital expenditure and make investments in its subsidiaries and associate institutions, the Reserve Bank had created a separate Asset Development Reserve (ADR) in 1997-98 with the aim of reaching one per cent of the Reserve Bank's total assets within the overall indicative target of 12 per cent set for CR and ADR. In the year 2008-09, an amount of Rs.1,309.70 crore was transferred from income to ADR, raising its level from Rs.12,772.25 crore as on June 30, 2008 to Rs.14,081.95 crore as on June 30, 2009. CR and ADR together constituted 11.89 per cent of the total assets of the Bank as on June 30, 2009 (Table 11.8). ADR now accounts for one per cent of the assets of the Bank.

Table 11.8: Balances in Contingency Reserve and Asset Development Reserve

(Rupees crore)

As on June 30	Balance in CR	Balance in ADR	Total	Percentage to total assets
1	2	3	4(2+3)	5
2005	62,344.68	6,466.03	68,810.71	10.08
2006	73,281.10	7,592.82	80,873.92	10.00
2007	93,770.07	9,564.33	1,03,334.40	10.31
2008	1,27,200.81	12,772.25	1,39,973.06	9.57
2009	1,53,392.21	14,081.95	1,67,474.16	11.89

ASSETS

Foreign Currency Assets

XI.20 The foreign currency assets comprise foreign securities held in the Issue Department, balances held abroad and investments in foreign securities held in the Banking Department. These assets declined by Rs.81,010.25 crore from Rs.12,98,552.05 crore as on June 30, 2008 to Rs.12,17,541.80 crore as on June 30, 2009. The decrease in the level of foreign currency assets was mainly on account of net sales of US dollars in the domestic foreign exchange market (Table 11.9 and Chart XI.3).

Investment in Government of India Rupee Securities

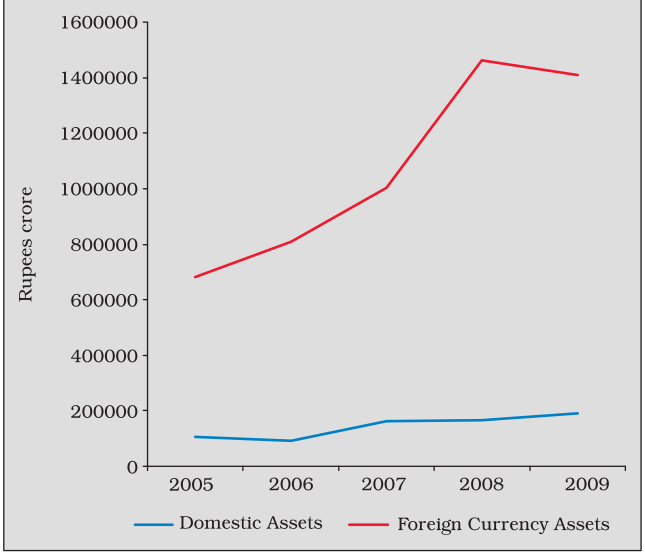
XI.21 Without adjusting for transfer of securities under the Liquidity Adjustment Facility (LAF) operations, the investment in Government of India securities increased by Rs.1,26,086.86 crore from Rs.72,540.33 crore as on June 30, 2008 to Rs.1,98,627.19 crore as on June 30, 2009. The increase was on account of purchase of special securities from the oil marketing companies (*i.e.* the Oil Bonds) under the Special Market Operations and increase in the open market operations.

Table 11.9: Outstanding Foreign Currency and Domestic Assets

(Rupees crore)

As on June 30	Foreign Currency Assets	Domestic Assets
1	2	3
2005	5,75,863.66	1,06,952.94
2006	7,18,701.18	90,106.99
2007	8,39,878.79	1,62,058.59
2008	12,98,552.05	1,64,431.13
2009	12,17,541.80	1,90,652.64

Chart XI.3: Trends in Foreign Currency and Domestic Assets (as at end of June)



Investments in Shares of Subsidiaries and Associate Institutions

XI.22 There was no change in the Reserve Bank's investments in the shares of its subsidiaries and associate institutions during the year (Table 11.10).

Table 11.10: Investments in Shares of Subsidiaries/Associate Institutions

(Rupees crore)

Institution	Book value of shares held as on June 30, 2008	Book value of shares held as on June 30, 2009
1	2	3
1. Deposit Insurance and Credit Guarantee Corporation	50.00	50.00
2. National Bank for Agriculture and Rural Development	1,450.00	1,450.00
3. National Housing Bank	450.00	450.00
4. Bharatiya Reserve Bank Note Mudran (Pvt.) Ltd.	800.00	800.00
Total	**2,750.00**	**2,750.00**

Other Assets

XI.23 'Other Assets' comprise income accrued but not received, fixed assets, gold holdings in the Banking Department, amounts spent on projects pending completion and staff advances. The level of 'Other Assets' increased by Rs.332.80 crore from Rs.30,805.95 crore as on June 30, 2008 to Rs.31,138.75 crore as on June 30, 2009.

Auditors

XI.24 The accounts of the Reserve Bank for the year 2008-09 were audited by M/s. Kalyaniwalla & Mistry, Mumbai and M/s. Mukund M. Chitale & Co. Mumbai as the Statutory Central Auditors. The branch offices were audited by the Statutory Branch Auditors, namely, M/s. Basant Ram & Sons, New Delhi, M/s. Ved Prakash Agrawal & Co., Nagpur, M/s. G. Natesan & Co., Chennai and M/s. S. K. Basu & Co., Kolkata. The auditors were appointed by the Central Government.

RESERVE BANK OF INDIA
BALANCE SHEET AS AT 30TH JUNE 2009

ISSUE DEPARTMENT

(Rupees thousands)

2007-08	LIABILITIES		2008-09	2007-08	ASSETS		2008-09
	Notes held in the				Gold Coin and Bullion:		
16,22,71	Banking Department	21,25,80		32308,81,20	(a) Held in India	38326,27,06	
612323,93,51	Notes in Circulation	701655,32,71		–	(b) Held outside India	–	
				578878,86,61	Foreign Securities	662064,41,42	
612340,16,22	Total Notes issued		701676,58,51	611187,67,81	Total		700390,68,48
				106,05,41	Rupee Coin		239,47,03
					Government of India		
				1046,43,00	Rupee Securities		1046,43,00
					Internal Bills of Exchange		
				–	and other Commercial Paper		–
612340,16,22	**Total Liabilities**		**701676,58,51**	612340,16,22	**Total Assets**		**701676,58,51**

BANKING DEPARTMENT

2007-08	LIABILITIES	2008-09	2007-08	ASSETS	2008-09
5,00,00	Capital paid-up	5,00,00	16,22,71	Notes	21,25,80
6500,00,00	Reserve Fund	6500,00,00	3,57	Rupee Coin	4,77
	National Industrial Credit		6,23	Small Coin	3,41
17,00,00	(Long Term Operations) Fund	18,00,00			
	National Housing Credit				
191,00,00	(Long Term Operations) Fund	192,00,00			
	Deposits			Bills Purchased and Discounted :	
	(a) Government		–	(a) Internal	–
191626,05,59	(i) Central Government	22990,42,88	–	(b) External	–
41,31,39	(ii) State Governments	41,34,50	–	(c) Government Treasury Bills	–
	(b) Banks				
298809,97,22	(i) Scheduled Commercial Banks	250664,49,62			
4122,66,68	(ii) Scheduled State Co-operative Banks	3520,91,11	688343,34,97	Balances Held Abroad	512320,77,65
5186,27,25	(iii) Other Scheduled Co-operative Banks	3489,08,20			
63,20,69	(iv) Non-Scheduled State Co-operative Banks	67,07,47	129208,79,55	Investments	151675,42,39
8699,14,56	(v) Other Banks	6671,76,11			
12110,22,52	(c) Others	16475,59,86		Loans and Advances to :	
			–	(i) Central Government	–
			–	(ii) State Governments	–
319,29,20	Bills Payable	195,86,03		Loans and Advances to:	
			2102,14,00	(i) Scheduled Commercial Banks	280,00,00
			–	(ii) Scheduled State Co-operative Banks	–
			–	(iii) Other Scheduled Co-operative Banks	–
			–	(iv) Non-Scheduled State Co-operative Banks	–
			–	(v) NABARD	–
			132,68,98	(vi) Others	11102,82,48
322968,10,34	Other Liabilities	395707,55,24		Loans, Advances and Investments from National Industrial Credit (Long Term Operations) Fund:	
				(a) Loans and Advances to:	
			–	(i) Industrial Development Bank of India	–
			–	(ii) Export Import Bank of India	–
			–	(iii) Industrial Investment Bank of India Ltd.	–
			–	(iv) Others	–
				(b) Investments in bonds/debentures issued by:	
			–	(i) Industrial Development Bank of India	–
			–	(ii) Export Import Bank of India	–
			–	(iii) Industrial Investment Bank of India Ltd.	–
			–	(iv) Others	–
				Loans, Advances and Investments from National Housing Credit (Long Term Operations) Fund:	
			50,00,00	(a) Loans and Advances to National Housing Bank	–
			–	(b) Investments in bonds/ debentures issued by National Housing Bank	–
			30805,95,43	Other Assets	31138,74,52
850659,25,44	**Total Liabilities**	**706539,11,02**	**850659,25,44**	**Total Assets**	**706539,11,02**

Significant Accounting Policies and Notes to the Accounts as per the Annex.

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 30TH JUNE 2009

(Rupees thousands)

2007-08	INCOME		2008-09
21112,12,68	**Interest, Discount, Exchange, Commission** *etc.*[1]		**33230,88,41**
21112,12,68	**Total**		**33230,88,41**
	EXPENDITURE		
2,58,19	**Interest**		**1,32,87**
1430,86,61	**Establishment**		**2448,25,15**
1,79,12	**Directors' and Local Board Members' Fees and Expenses**		**1,66,90**
30,56,42	**Remittance of Treasure**		**32,45,84**
2111,13,56	**Agency Charges**		**2999,19,46**
2032,23,04	**Security Printing (Cheque, Note forms** ***etc.*****)**		**2063,16,97**
16,29,01	**Printing and Stationery**		**20,63,03**
38,60,16	**Postage and Telecommunication Charges**		**52,69,10**
69,17,25	**Rent, Taxes, Insurance, Lighting** ***etc.***		**85,87,49**
2,01,16	**Auditors' Fees and Expenses**		**2,26,68**
2,13,64	**Law Charges**		**2,32,80**
156,16,54	**Depreciation and Repairs to Bank's Property**		**234,56,38**
203,57,98	**Miscellaneous Expenses**		**273,45,74**
6097,12,68	**Total**		**8217,88,41**
15015,00,00	**Available Balance**		**25013,00,00**
	Less: Contribution To:		
	National Industrial Credit (Long Term Operations) Fund	1,00,00	
	National Rural Credit (Long Term Operations) Fund [2]	1,00,00	
	National Rural Credit (Stabilisation) Fund [2]	1,00,00	
	National Housing Credit (Long Term Operations) Fund	1,00,00	
4,00,00			**4,00,00**
15011,00,00	**Surplus Payable to the Central Government**		**25009,00,00**

1. After making the usual or necessary provisions in terms of Section 47 of the Reserve Bank of India Act, 1934 amounting to Rs. 27501,09,93 thousands (2007-08: Rs. 36638,65,84 thousands).
2. These funds are maintained by the National Bank for Agriculture and Rural Development (NABARD).

S.V. Raghavan	**K.C. Chakrabarty**	**Usha Thorat**	**Shyamala Gopinath**	**D. Subbarao**
Chief General Manager	Deputy Governor	Deputy Governor	Deputy Governor	Governor

REPORT OF THE AUDITORS

TO THE PRESIDENT OF INDIA

We, the undersigned auditors of the Reserve Bank of India (hereinafter referred to as the Bank), do hereby report to the Central Government upon the Balance Sheet of the Bank as at June 30, 2009 and the Profit and Loss Account for the year ended on that date.

We have examined the Balance Sheet of the Bank as at June 30, 2009 and the Profit and Loss Account of the Bank for the year ended on that date and report that where we have called for information and explanations from the Bank, such information and explanations have been given to our satisfaction.

These financial statements include the accounts of nineteen Accounting Units of the Bank which have been audited by the Statutory Branch Auditors. The branch audit reports have been furnished to us which we have considered in preparing our report.

These financial statements are the responsibility of the Bank's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion and according to the best of our information and explanations given to us and as shown by the books of account of the Bank, the Balance Sheet read with Significant Accounting Policies and Notes to the Accounts is a full and fair Balance Sheet containing all necessary particulars and is properly drawn up in accordance with the Reserve Bank of India Act, 1934 and Regulations framed thereunder so as to exhibit a true and correct view of the state of the Bank's affairs in conformity with the accounting principles generally accepted in India.

For Kalyaniwalla & Mistry
Chartered Accountants
Daraius Z. Fraser
Partner
(M. No. 42454)

For Mukund M.Chitale & Co
Chartered Accountants
Abhay V. Kamat
Partner
(M.No. 39585)

Dated August 13, 2009

ANNEX

RESERVE BANK OF INDIA

SIGNIFICANT ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS FOR 2008-09

SIGNIFICANT ACCOUNTING POLICIES

1. CONVENTION

The financial statements are prepared in accordance with the Reserve Bank of India Act, 1934 and the notifications issued thereunder and in the form prescribed by the Reserve Bank of India General Regulations, 1949 and are based on historical cost except where it is modified to reflect revaluation.

The accounting practices and policies followed in the financial statements are consistent with those followed in the previous year unless otherwise stated.

2. REVENUE RECOGNITION

Income and expenditure are recognised on accrual basis except penal interest and dividend which are accounted for on receipt basis. Only realised gains are recognised.

Balances unclaimed and outstanding for more than three consecutive years in certain transitory accounts including Drafts Payable Account, Payment Orders Account, Sundry Deposits Account, Remittance Clearance Account and Earnest Money Deposit Account are reviewed and written back to income. Claims in this respect are considered and charged against income in the year of payment.

Income and expenditure in foreign currency are recorded at the exchange rates prevailing on the last business day of the preceding week / preceding month / year-end rates as applicable.

3. GOLD AND FOREIGN CURRENCY ASSETS AND LIABILITIES

(a) Gold

Gold is revalued at the end of the month at 90 per cent of the daily average price quoted at London for the month. The rupee equivalent is determined on the basis of the exchange rate prevailing on the last business day of the month. Unrealised gains / losses are adjusted to the Currency and Gold Revaluation Account (CGRA).

(b) Foreign Currency Assets and Liabilities

All foreign currency assets and liabilities are translated at the exchange rates prevailing on the last business day of the week as well as on the last business day of the month.

At the year end assets and liabilities in foreign currencies are translated at the exchange rates prevailing on the last business day except in cases where rates are contractually fixed. Foreign Securities other than Treasury Bills are valued at lower of book value or market price prevailing on the last business day of each month. The depreciation is adjusted against current income. Foreign Treasury Bills are valued at cost. Forward exchange contracts are evaluated half-yearly and net loss, if any, is provided for.

Exchange gains and losses arising from such translation of foreign currency assets and liabilities are accounted for in the Currency and Gold Revaluation Account and remain adjusted therein.

4. RUPEE SECURITIES

Rupee securities, other than Treasury Bills, held in the Issue and Banking Departments, are valued at lower of book value or market price. Where the market price for such securities is not available, the rates are derived based on the yield curve prevailing on the last business day of the month. The depreciation in the value, if any, is adjusted against current interest income.

Treasury Bills are valued at cost.

5. SHARES

Investments in shares are valued at cost.

6. FIXED ASSETS

Fixed Assets are stated at cost less depreciation.

Depreciation on computers (including software costing Rs.1 lakh and above), motor vehicles, office equipments, furniture and electrical fittings, *etc.*, is provided on straight–line basis.

Depreciation on other assets including premises and fixtures is provided on written–down value basis.

Software costing less than Rs.1 lakh and other Fixed Assets costing less than Rs.10,000 are charged to the Profit and Loss Account in the year of acquisition.

Depreciation is provided on year end balances of the Fixed Assets.

7. EMPLOYEE BENEFITS

The liability on account of long term employee benefits is provided based on actuarial valuation.

8. CONTINGENCY RESERVE AND ASSET DEVELOPMENT RESERVE

The Contingency Reserve represents the amount set aside on a year–to–year basis for meeting unexpected and unforeseen contingencies including depreciation in value of securities, exchange guarantees and risks arising out of monetary/ exchange rate policy compulsions.

In order to meet the internal capital expenditure and make investments in subsidiaries and associate institutions, a further sum is provided and credited to the Asset Development Reserve.

NOTES TO THE ACCOUNTS

1. SURPLUS TRANSFER TO GOVERNMENT OF INDIA

Surplus transferable to the Government includes Rs.1,436.00 crore (previous year Rs.1,699.00 crore) representing interest differential pertaining to the period April 1, 2008 – March 31, 2009 on account of conversion of the Special Securities into marketable securities.

2. EARMARKED SECURITIES

The Reserve Bank has earmarked certain Government securities having a book value of Rs.8,849.97 crore (previous year Rs.7,202.24 crore) from its Investments Account to cover the liabilities in the Provident Fund, Gratuity and Superannuation Fund and Leave Encashment (Retiring Employees) Fund.

3. RESERVE FUND

Reserve Fund comprises initial contribution of Rs.5.00 crore made by the Government of India and appreciation of Rs.6,495.00 crore on account of revaluation of Gold up to October 1990. Subsequent gains / losses on monthly revaluation of Gold are taken to the Currency and Gold Revaluation Account (CGRA).

4. DEPOSITS

4.1 Deposits of Central Government include Rs.22,889.92 crore (previous year Rs.1,74,432.56 crore) on account of operations under the Market Stabilisation Scheme (MSS). Deposits of State Governments include balance of Government of the Union Territory of Puducherry.

4.2 DETAILS OF DEPOSITS – OTHERS

(Rupees crore)

Particulars	As on June 30	
	2008	2009
1	2	3
I. Rupee Deposits from the Foreign Central Banks and the Foreign Financial Institutions	4,266.24	3,758.94
II. Deposits from the Indian Financial Institutions	253.61	335.08
III. Accumulated Retirement Benefits	7,149.68	8,303.08
IV. Miscellaneous	440.70	4,078.50
Total	**12,110.23**	**16,475.60**

5. DETAILS OF OTHER LIABILITIES

(Rupees crore)

Particulars	As on June 30	
	2008	2009
1	2	3
I. Contingency Reserve		
Balance at the beginning of the year	93,770.07	1,27,200.81
Add: Accretion during the year	33,430.74	26,191.40
Balance at the end of the year	**1,27,200.81**	**1,53,392.21**
II. Asset Development Reserve		
Balance at the beginning of the year	9,564.33	12,772.25
Add: Accretion during the year	3,207.92	1,309.70
Balance at the end of the year	**12,772.25**	**14,081.95**
III. Currency and Gold Revaluation Account		
Balance at the beginning of the year	21,723.52	1,63,211.83
Add: Net Accretion (+) /	1,41,488.31	35,630.20
Net Depletion (-) during the year	-	
Balance at the end of the year	**1,63,211.83**	**1,98,842.03**
IV. Exchange Equalisation Account		
Balance at the beginning of the year	9.68	**-**
Transfer from Exchange Account	21.69	26.98
Add: Net Accretion (+) /		
Net Utilisation (-) during the year	(-) 31.37	-
Balance at the end of the year	**-**	**26.98**
V. Provision for Outstanding Expenses	**1,759.01**	**1,822.88**
VI. Surplus transferable to the Government of India	**15,011.00**	**25,009.00**
VII. Employee Benefits Transitory Reserve	**346.89**	**0.00**
VIII. Miscellaneous	**2,666.31**	**2,532.50**
Total (I to VIII)	**3,22,968.10**	**3,95,707.55**

6. EMPLOYEE BENEFITS

In accordance with the Accounting Standard (AS) 15 – Employee Benefits (Revised), the liability for long term employee benefits has been ascertained under the 'Projected Unit Credit' method and provided for in the accounts.

Consequent to certain long term employee benefits being enhanced during the year, the revised past service liability as on July 1, 2008 amounting to Rs.426.15 crore has been charged to the extent of Rs.346.89 crore against the balance available in the 'Employee Benefits Transitory Reserve' account and the balance amounting to Rs.79.26 crore to the Establishment Expenses.

7. RBI GENERAL ACCOUNT

'Other Liabilities' include Rs.7.61 crore (previous year Rs.61.49 crore) in respect of inter–office transactions and balances under reconciliation which are at various stages of reconciliation and necessary adjustments are being effected as and when reconciled.

8. RUPEE INVESTMENTS

Securities purchased (Repo) and sold (Reverse Repo) under the Liquidity Adjustment Facility (LAF) are added to and reduced from 'Investments', respectively. As at the year end, the outstanding Repos and Reverse Repos amounted to Rs.895.00 crore (previous year Rs.22,805.00 crore) and Rs.88,335.00 crore (previous year Rs.300.00 crore) respectively.

9. DETAILS OF FOREIGN CURRENCY ASSETS

(Rupees crore)

Particulars	As on June 30	
	2008	2009
1	2	3
I. Held in Issue Department	5,78,878.87	6,62,064.41
II. Held in Banking Department -		
a) Included in Investments	31,329.83	43,156.61
b) Balances Held Abroad	6,88,343.35	5,12,320.78
Total	**12,98,552.05**	**12,17,541.80**

Note : Uncalled amount on partly paid shares of the Bank for International Settlements (BIS) as at June 30, 2009 was Rs.89.47crore (SDR 1,20,41,250). The amount was Rs. 84.49 crore (SDR 1,20,41,250) in the previous year.

10. DETAILS OF OTHER ASSETS

(Rupees crore)

Particulars	As on June 30	
	2008	2009
1	2	3
I. Fixed Assets (net of accumulated depreciation)	479.75	609.40
II. Gold	7,239.51	8,587.82
III. Income accrued but not received	22,203.28	16,734.04
IV. Miscellaneous	883.41	5,207.49
Total	**30,805.95**	**31,138.75**

11. INTEREST, DISCOUNT, EXCHANGE, COMMISSION, *etc.*

Interest income is net of depreciation on revaluation of securities amounting to Rs.17,430.65 crore.

Interest, Discount, Exchange, Commission, etc. include the following:

(Rupees crore)

Particulars	Year ended	
	June 30, 2008	June 30, 2009
1	2	3
I. Profit on sale of Foreign and Rupee Securities	7,823.52	18,957.36
II. Net profit on sale of Bank's Property	25.10	7.36
III. Dividend from Subsidiaries & Associate Institutions@	440.07	-

@: Dividend in respect of Bank's holding in the equity of SBI for the year ended June 2007 was accounted on cash basis. The entire equity holding in SBI was transferred to the Government of India on June 29, 2007.

12. Previous year's figures have been regrouped/ reclassified, wherever necessary, to conform to the current year's presentation.

ANNEX I

LIST OF SPEECHES BY GOVERNOR AND DEPUTY GOVERNORS: APRIL 2008 TO AUGUST 2009

Sr. No.	Title of Speech	Speech by	Month
1	2	3	4
1.	Government-owned Investment Vehicles and Capital Flows: Indian Perspective	Dr. Y.V. Reddy, Governor	April 2008
2.	India: The Global Partner	Dr. Y.V. Reddy, Governor	April 2008
3.	The Role of Fiscal and Monetary Policies in Sustaining Growth with Stability in India	Dr. Rakesh Mohan, Deputy Governor	April 2008
4.	Consolidation in the Indian Financial Sector	Shri. V. Leeladhar, Deputy Governor	April 2008
5.	Banks' Relationship with Customers – Evolving Perspective	Smt. Shyamala Gopinath, Deputy Governor	April 2008
6.	Inclusive Financial System for the Aged	Smt. Usha Thorat, Deputy Governor	April 2008
7.	Indian Economy: Prospects for Growth with Stability	Dr. Y.V. Reddy, Governor	May 2008
8.	Fiscal Policy and Economic Reforms	Dr. Y.V. Reddy, Governor	May 2008
9.	Ensuring Dignity for Indian Customer: Task Ahead for Indian Banks	Smt. Usha Thorat, Deputy Governor	May 2008
10.	Agriculture: Emerging Issues and Possible Approaches	Dr. Y.V. Reddy, Governor	June 2008
11.	The Virtues and Vices of Talking about Monetary Policy: Some Comments	Dr. Y.V. Reddy, Governor	June 2008
12.	Monetary and Regulatory Policies: How to Get the Balance with Markets Right	Dr. Y.V. Reddy, Governor	June 2008
13.	Global Financial Turbulence and Financial Sector in India: A Practitioner's Perspective	Dr. Y.V. Reddy, Governor	July 2008
14.	Payment and Settlement System in India	Shri. V. Leeladhar, Deputy Governor	August 2008
15.	The Indian Banking Industry – A Retrospect of Select Aspects	Shri. V. Leeladhar, Deputy Governor	August 2008
16.	Remarks by Smt. Shyamala Gopinath on the Launch of Currency Futures by NSE.	Smt. Shyamala Gopinath, Deputy Governor	August 2008
17.	Financial Inclusion and Information Technology	Smt. Usha Thorat, Deputy Governor	September 2008
18.	Lessons from the Global Financial Crisis with Special Reference to Emerging Market Economies and India	Dr. D. Subbarao, Governor	October 2008
19.	Global Financial Crisis and Key Risks: Impact on India and Asia	Dr. Rakesh Mohan, Deputy Governor	October 2008
20.	Contemporary International and Domestic Banking Developments and the Emerging Challenges	Shri. V. Leeladhar, Deputy Governor	November 2008
21.	Mitigating Spillovers and Contagion – Lessons from the Global Financial Crisis	Dr. D. Subbarao, Governor	December 2008
22.	The Global Financial Turmoil and Challenges for the Indian Economy	Dr. D. Subbarao, Governor	December 2008
23.	Some Reflections on the Recent Global Financial Turmoil – An Indian Perspective	Smt. Shyamala Gopinath, Deputy Governor	January 2009
24.	Impact of the Global Financial Crisis on India – Collateral Damage and Response	Dr. D. Subbarao, Governor	February 2009
25.	Retail Payments: Perspectives and Way Forward	Dr. D. Subbarao, Governor	March 2009

LIST OF SPEECHES BY GOVERNOR AND DEPUTY GOVERNORS

Sr. No.	Title of Speech	Speech by	Month
1	2	3	4
26.	India – Managing the Impact of the Global Financial Crisis	Dr. D. Subbarao, Governor	March 2009
27.	Lessons for Financial Policymaking – Interpreting the Dilemmas	Smt. Shyamala Gopinath, Deputy Governor	March 2009
28.	Retail Payment Systems – Select Issues	Smt. Shyamala Gopinath, Deputy Governor	March 2009
29.	Technology in Banks – Responding to the Emerging Challenges	Smt. Shyamala Gopinath, Deputy Governor	March 2009
30.	Platinum Jubilee Celebrations – Governor's Address to Staff	Dr. D. Subbarao, Governor	April 2009
31.	Statement by Dr. D.Subbarao, Alternate Governor at IMFC, Washington DC	Dr. D. Subbarao, Governor	April 2009
32.	Global Financial Crisis: Causes, Impact, Policy Responses and Lessons	Dr. Rakesh Mohan, Deputy Governor	April 2009
33.	Sub-National Fiscal Reforms and Debt Management – Indian Experience	Smt. Shyamala Gopinath, Deputy Governor	April 2009
34.	Information Technology and Banking – A Continuing Agenda	Dr. D. Subbarao, Governor	May 2009
35.	Risk Management in the Midst of Global Financial Crisis	Dr. D. Subbarao, Governor	May 2009
36.	Emerging Contours of Financial Regulation: Challenges and Dynamics	Dr. Rakesh Mohan, Deputy Governor	May 2009
37.	Addressing the Regulatory Perimeter Issues – Indian Experience	Smt. Shyamala Gopinath, Deputy Governor	June 2009
38.	Impact of Global Financial Crisis on Reserve Bank of India (RBI) as a National Regulator	Smt. Usha Thorat, Deputy Governor	June 2009
39.	Governor's Inaugural Address on Statistics Day.	Dr. D. Subbarao, Governor	July 2009
40.	Governor's Interview with Claire Jones, editor, centralbanking.com	Dr. D. Subbarao, Governor	July 2009
41.	Global Financial Crisis: Questioning the Questions	Dr. D. Subbarao, Governor	July 2009
42.	Pushing Financial Inclusion – Issues, Challenges and Way Forward	Dr. K.C. Chakrabarty, Deputy Governor	July 2009
43.	Technology, Financial Inclusion and role of Urban Co-oprative Bank	Dr. K.C. Chakrabarty, Deputy Governor	August 2009
44.	Banking: Key Driver for Economic Growth	Dr. K.C. Chakrabarty, Deputy Governor	August 2009

ANNEX II

LIST OF REPORTS OF GROUPS/COMMITTEES SUBMITTED: JULY 2008 TO JUNE 2009

Sr. No.	Title	Chairperson / Convenor	Date
1	2	3	4
1.	Report on Interest Rate Futures	Shri V.K. Sharma	August 2008
2.	Report of the Working Group on Technology Upgradation of Regional Rural Banks	Shri G. Srinivasan	August 2008
3.	Report of the Working Group on IT support for Urban Cooperative Banks	Shri R. Gandhi	August 2008
4.	Report of the Committee on the Global Financial System (CGFS) on Capital Flows and Emerging Market Economies	Dr. Rakesh Mohan	January 2009
5.	Report of the Technical Advisory Group on Development of Housing Start-Up Index in India	Prof. Amitabh Kundu	January 2009
6.	Task Force For Diamond Sector	Shri A.K.Bera	February 2009
7.	Report of the High Level Committee on Estimation of Savings and Investment	Dr. C. Rangarajan	March 2009
8.	Report of the Committee on Financial Sector Assessment	Dr. Rakesh Mohan	March 2009
	Executive Summary - Volume I	Dr. Rakesh Mohan	March 2009
	Overview - Volume II	Dr. Rakesh Mohan	March 2009
	Advisory Panel on Financial Stability Assessment and Stress Testing - Volume III	Shri M.B.N.Rao	March 2009
	Advisory Panel on Financial Regulation and Supervision – Volume IV	Shri M.S.Verma	March 2009
	Advisory Panel on Institutions and Market Structure - Volume V	Shri C. M. Vasudev	March 2009
	Advisory Panel on Transparency Standards - Volume VI	Shri Nitin Desai	March 2009
9.	Report of G20 Working Group on Enhancing Sound Regulation and Strengthening Transparency	Dr. Rakesh Mohan and Mr. Tiff Macklem	March 2009
10.	Report of the RBI-SEBI Standing Technical Committee on Interest Rate Futures	RBI and SEBI	June 2009

ANNEX III

LIST OF PUBLICATIONS BY THE STAFF OF THE RESERVE BANK: JULY 2008 TO JUNE 2009

Sr. No.	Title of the Paper/Article	Author/s	Publication/ Journal	Publication Month
1	2	3	4	5
1.	Trade Pattern of SAARC Countries: Recent Trends	Rajeev Jain J. B. Singh	Special Volume of SAARC FINANCE Governors' Symposium "South Asia's Recent Growth and Future Prospects", Central Bank of Sri Lanka.	August 2008
2.	Sovereign Wealth Funds for India: Delineating Issues and Options from International Experience#	Narayan Chandra Pradhan Ramesh Golait	Central Bank of Sri Lanka (CBSL) Inaugural International Research Conference 'Central Banking and Financial Markets', pp. 1-14	August 2008
3.	Oman's Monetary Policy Transmission Process under the Fixed Peg: Some Empirical Puzzles	Sitikantha Pattanaik	Macroeconomics and Finance in Emerging Market Economies (MFEME), Vol.1, No.2.	September 2008
4.	Some perspectives on the Possible Impact of the Recent Turmoil in the Global Financial Markets on the Indian Economy	Jayanthi K Anand D. P. Rath Gunjeet Kaur P. K. Nayak L. Lakshmanan Ramesh Golait Kumarjit Mandal S. M. Lokare Raj Rajesh Pankaj Kumar Naveen Kumar Rakesh Kumar	RBI Staff Study SS DEAP 2/2008	October 2008
5.	India's Financial Openness and Integration with Southeast Asian Countries: An Analytical Perspective	Chandan Sinha Narayan Chandra Pradhan	BIS Paper No. 42, pp. 181-201	October, 2008
6.	Integration of India's Stock Market with Global and Major Regional Markets	Janak Raj Sarat Dhal	BIS Papers 42	October 2008
7.	Does Sub-prime Mortgage Crisis in the US Impact India? An Exploration	T. Gopinath	Indian Economic Journal, Vo.56 (3)	October-December 2008
8.	Global Financial Crisis and its Fallout: A Stocktaking	Amaresh Samantaraya	CAB Calling Vol. 32 (4) PP. 10 – 15.	October-December 2008,
9.	Gender Inequality in Banking Services	Pallavi Chavan	Economic and Political Weekly	November 2008
10.	External Sector Openness and Purchasing Power Parity in India : A Long-Span Analysis	Sunil Kumar S. M. Lokare	45th Annual Conference of the Indian Econometric Society (TIES) Gauhati University, January 8 to 10, 2009.	January 2009
11.	Empirical Fiscal Research in India: A Survey	R.K.Pattnaik Deepa S. Raj Jai Chander	RBI Staff Studies	January 2009
12.	Can an Inter-Temporal Model Explain India's Current Account Balance	J.K. Khundrakpam Rajiv Ranjan	RBI Occasional Papers Vol.29, No.1, Summer-2008	February 2009
13.	Determinants of WADR for Commercial Paper: An empirical Analysis for India	Narayan Chandra Pradhan Saurabh Ghosh	-do-	February 2009
14.	Capital Adequacy in Indian Agriculture: A Riposte	Ramesh Golait S. M. Lokare	-do-	February 2009

Sr. No.	Title of the Paper/Article	Author/s	Publication/ Journal	Publication Month
1	2	3	4	5
15.	Public-Private Partnership in Indian Infrastructure Development : Issues and Options	L. Lakshmanan	RBI Occasional Papers Vol.29, No.1, Summer-2008	February 2009
16.	Is India's Stock Market Integrated with Global and Regional Market	Janak Raj Sarat Dhal	ICFAI Journal of Applied Finance Vol.15, No. 2	February 2009
17.	Employees' Productivity and cost - a comparative study of banks in India during 1997 to 2008	Sharad Kumar M. Sreeramulu	RBI Occasional Papers- Winter 2007	February 2009
18.	Profitability of Indian Corporate Sector: Productivity, Price or Growth?	Abhiman Das Manjusha Senapati	RBI Occasional Papers- Winter 2007	February 2009
19.	Corporate Choice for Overseas Borrowings: The Indian Experience	Bhupal Singh	RBI Occasional Papers, Winter 2007	February 2009
20.	Financing Transport Infrastructure And Services In India	S. Sriraman Sunando Roy	DRG Study No. 28	March 2009
21.	Some Unpleasant Policy Challenges from the Sub-Prime Lessons	Sitikantha Pattanaik	Macroeconomics and Finance in Emerging Market Economies (MFEME), Vol.2, No.1.	March 2009
22.	Money Market Microstructure and Monetary Policy : The Indian Experience	Indranil Bhattachayya, Mohua Roy, Himanshu Joshi, Michael D. Patra	Macroeconomics and Finance for Emerging Market Economies Vol. 2, No. 1, pp 59-77, Routledge.	March 2009
23.	Leading Change – Key Leadership Qualities	Sharad Kumar	The Indian Banker, Vol IV No. 4, (Published by IBA)	April 2009
24.	Fiscal Consolidation By Central and State Governments: The Medium Term Outlook	B. M. Misra, J. K. Khundrakpam	RBI, Staff Study	April 2009
25.	Measurement of Social Development	Amal Kanti Ray	Soziale Arbeit and Soziale Entwicklung, ed. Hans Gunter Homfeldt and Christian Reutlinger pp.148-164	April 2009
26.	Regional Economic Cooperation in Asia: A Feasibility Study	Rajiv Ranjan Rajeev Jain Atri Mukherjee	Foreign Trade Review Vol. XLIV, No.1.	April-June 2009
27.	An Empirical Analysis of Pro-cyclicality of Bank Credit in India: Role of Basel Prudential Norms	Amaresh Samantaraya	Indian Journal of Capital Market Vol. III (1)PP. 28 – 37	April-June 2009
28.	A Monetary Policy Index to Assess the Stance of Monetary Policy in India in the Post-reform Period"	Amaresh Samantaraya	Economic and Political Weekly Vol. 44 (20) PP. 46 – 50.	May 16, 2009
29.	The Global Financial Stability Architecture Fails Again: Sub-prime lessons for policy makers	Sitikantha Pattanaik	Asian Pacific Economic Literature (APEL), VII. 23, No.1.	May 2009
30.	An Empirical Analysis of Exchange Rate Pass-Through in India: Relevance for Inflation Management	Amaresh Samantaraya	ICFAI Journal of Monetary EconomicsVol. VII (2) PP. 17 – 31.	May 2009

Sr. No.	Title of the Paper/Article	Author/s	Publication/ Journal	Publication Month
1	2	3	4	5
31.	Structural Shifts in the Current Account of India's Balance of Payments	Bhupal Singh	Margin-The Journal of Applied Economic research 3:2(2009):133-171SAGE	June 2009
32.	Recent Performance of Consumer Goods Sector in India: Some Fact Finding	Rajesh, Raj Naveen Kumar	RBI Staff Studies, S S (DEAP) : 1 / 2008.	2008
33.	India's Social Development in a decade of Reforms: 1990-91/1999-2000	Amal Kanti Ray	Social Indicators Research Springer, The Netherlands, Vol.87, No.3, pp.409-425	2008
34.	Saving and Capital Formation in India: Some explanation	Sanjib Bardoloi	The Journal of Income and Wealth, Vol.30(1), January-June, pp.11-26	2008

ANNEX IV

VISITS OF FOREIGN DELEGATIONS TO THE RESERVE BANK

Sr. No.	Date of Meeting	Delegation led by	Officials met
1	2	3	4
1.	July 04, 2008	Ms. Magdalena Balcells, Adviser to Minister of Finance of Chile	Shri Anand Sinha, Executive Director and other Senior Officers
2.	August 08, 2008	Mr. Nicolas Ferrari, Regional Financial Councellor, Trade & Economic Commission of the French Embassy, New Delhi	Shri V.K. Sharma, Executive Director and other senior officers.
3.	August 25, 2008	Mr. Lee Boon Ngiap, Executive Director, Monetary Authority of Singapore	Shri V. Leeladhar, Deputy Governor, Shri Anand Sinha, Executive Director and other Senior Officers.
4.	September 12, 2008	Dr. Pattama Teanravisitsagool, Thailand	Shri V.K. Sharma, Executive Director and other senior officers.
5.	October 06, 2008	Group members of Royal College of Defence Studies, UK	Shri V.K. Sharma, Executive Director and other senior officers.
6.	November 10 & 11, 2008	Delegation from Central Bank of Russian Federation	Shri H.R.Khan, Executive Director and other Senior Officers
7.	November 19, 2008	Lord Nicholas Stern, IG Patel Professor, India Observatory, London School of Economics (LSE) UK	Dr. D. Subbarao, Governor- one to one meeting Dr. Rakesh Mohan, Deputy Governor - one to one meeting Address the Research Officers of Department of Economic Analysis and Policy
8.	November 26, 2008	Mr. Jerome Bonnafont, French Ambassador to India	Dr. D. Subbarao, Governor
9.	January 16, 2009	Swedish Parliament's Standing Committee on Foreign Relations led by Ms Carina Hagg, Social Democratic Party	Smt. Usha Thorat, Deputy Governor, S/Shri Anand Sinha, Deepak Mohanty, Executive Directors and other Senior Officers.
10.	February 24, 2009	Hon. Tim Groser, Minister of Trade, New Zealand	Dr. D. Subbarao, Governor, Smt.Shyamala Gopinath, Deputy Governor, Shri Deepak Mohanty, Executive Director and other Senior Officials.
11.	March 16, 2009	Mr. Robert Dohner, Deputy Assistant Secretary for Asia International Affairs of U S Treasury Department	Shri Anand Sinha, Executive Director and other Senior Officers
12.	March 18, 2009	Mr. Kevin Lynch, Clerk of Privy Council, Secretary to the Cabinet, Government of Canada	Dr. D. Subbarao, Governor.
13.	March 25, 2009	Dr. Ramakrishna Sithanen, Vice Prime Minister of Mauritius	Dr. D. Subbarao, Governor, Dr. Rakesh Mohan, Dy.Governor, Shri V.K.Sharma, Shri Anand Sinha, Shri Deepak Mohanty, Executive Directors.
14.	April 01, 2009	Mr. Benjamin Delozier, Senior Economist & Director, French Treasury.	Shri Deepak Mohanty, Executive Director and other Senior Officials.
15.	May 20, 2009	Mr.Hector Sants, CEO, Financial Services Authority, London (FSA), Mrs.Melanie Beaman, Senior Official, FSA and Mr.Andrew McNab, Head, Compliance Monitoring, FSA.	Dr. D. Subbarao, Governor, Mrs. Usha Thorat, Deputy Governor, Mr. Anand Sinha & Mr.G. Gopalakrishna, Executive Directors, Mr. H. N. Prasad, Chief Executive Officer, Deposit Insurance and Credit Guarantee Corporation and other Senior Officers.
16.	June 19, 2009	Mr.Durmus Yilmaz, Governor, Central Bank of the Republic of Turkey	Dr. D. Subbarao, Governor – One-to-one meeting. Smt.Shyamal Gopinath, Smt. Usha Thorat & Dr. K.C.Chakrabarty, Deputy Governors, S/Shri V.K.Sharma, C. Krishnan, Anand Sinha, V.S. Das, G.Gopalakrishna and Deepak Mohanty, Executive Directors.
17.	June 26. 2009	New Zealand Treasury Delegation led by Mr.Colin Hall, Acting Assistant Secretary of the New Zealand Treasury	Shri Deepak Mohanty, Executive Director and other Senior Officers.

ANNEX V

CHRONOLOGY OF MAJOR POLICY ANNOUNCEMENTS: APRIL 2008 – JULY 2009

Date of Announcement		POLICY ANNOUNCEMENTS
		I. MONETARY POLICY MEASURES
2008		
April	17	• CRR of scheduled banks increased by 50 basis points of their NDTL in two stages of 25 basis points each to 7.75 and 8.00 per cent (effective from April 26 and May 10, 2008).
	29	• Bank Rate kept unchanged at 6.0 per cent.
		• Reverse repo rate and repo rate kept unchanged at 6.00 per cent and 7.75 per cent, respectively.
		• CRR of scheduled banks increased to 8.25 per cent with effect from the fortnight beginning May 24, 2008.
May	30	• Special Market Operations were put in place, for the smooth functioning of financial markets and for overall financial stability.
June	11	• The repo rate under the LAF was increased by 25 basis points to 8.00 per cent from 7.75 per cent with effect from June 12, 2008.
		• The standing liquidity facilities *i.e.*, ECR and collateralised liquidity support provided to banks and PDs, respectively, were made available at the revised repo rate (*i.e.*, at 8.00 per cent) from June 12, 2008.
	24	• The repo rate under the LAF was increased from 8.00 per cent to 8.50 per cent with effect from June 24, 2008.
		• The standing liquidity facilities were made available at the revised repo rate, *i.e.*, 8.50 per cent.
		• The CRR of the SCBs, RRBs, scheduled state co-operative banks and scheduled primary UCBs was increased by 50 basis points to 8.75 per cent in two stages (25 basis points each), effective from the fortnights July 5, 2008 and July 19, 2008, respectively.
July	29	• The fixed repo rate under the LAF increased by 50 basis points from 8.5 per cent to 9.0 per cent with immediate effect.
		• CRR increased by 25 basis points to 9.0 per cent with effect from the fortnight beginning August 30, 2008.
Sept.	16	• The interest rate ceiling on FCNR (B) deposits of all maturities was increased, with immediate effect, by 50 basis points, *i.e.*, to LIBOR/ SWAP rates minus 25 basis points.
		• The interest rate ceiling on NR(E)RA for one to three years maturity was increased, with immediate effect, by 50 basis points, *i.e.*, to LIBOR/SWAP rates plus 50 basis points.
		• Scheduled banks were allowed to avail additional liquidity support under the LAF to the extent of up to one per cent of their NDTL and seek waiver of penal interest.
		• The Second LAF (SLAF) which was introduced with effect from August 1, 2008 on reporting Fridays was conducted on a daily basis with effect from September 17, 2008.
Oct.	6	• The CRR was reduced from the level of 9.0 per cent of NDTL by 50 basis points to 8.5 per cent of NDTL with effect from the fortnight beginning October 11, 2008.
	10	• The CRR was reduced by 150 basis points to 7.5 per cent of NDTL with effect from the fortnight beginning October 11, 2008 instead of the 50 basis points reduction announced on October 6, 2008.
	14	• A special 14 day repo at 9 per cent per annum for a notified amount of Rs.20,000 crore was announced with a view to enabling banks to meet the liquidity requirements of mutual funds.
	15	• The CRR was reduced by 100 basis points to 6.5 per cent of NDTL with effect from the reporting fortnight that began on October 11, 2008.
		• Banks were allowed to avail of additional liquidity support exclusively for the purpose of meeting the liquidity requirements of mutual funds to the extent of up to 0.5 per cent of their NDTL purely as a temporary measure.
		• The mechanism of SMO for public sector oil marketing companies provided in June-July 2008 would be instituted when oil bonds become available.
		• The interest rate ceiling on FCNR(B) deposits of all maturities was increased with immediate effect by 50 basis points, *i.e.*, to LIBOR/SWAP rates plus 25 basis points.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**I. MONETARY POLICY MEASURES** *(Contd.)*
Oct.	**15**	• The interest rate ceiling on NR(E) RA for one to three years maturity was increased, with immediate effect, by 50 basis points, *i.e.*, to LIBOR/SWAP rates plus 100 basis points.
		• Banks were allowed to borrow funds from their overseas branches and correspondent banks up to a limit of 50 per cent of their unimpaired Tier I capital as at the close of the previous quarter or US$ 10 million, whichever is higher, as against the existing limit of 25 per cent.
	20	• The repo rate under the LAF was reduced by 100 basis points to 8.0 per cent with immediate effect.
		• The standing liquidity facilities were made available at the revised repo rate, *i.e.*, 8.0 per cent.
	24	• The Bank Rate was kept unchanged at 6.0 per cent.
		• The repo rate and reverse repo rate under the LAF were kept unchanged at 8.0 per cent and 6.0 per cent, respectively.
		• The CRR was kept unchanged at 6.5 per cent.
Nov.	**1**	• The repo rate under the LAF was reduced by 50 basis points to 7.5 per cent with effect from November 3, 2008.
		• The standing liquidity facilities were made available at the repo rate, *i.e.*, 7.5 per cent.
		• The CRR of scheduled banks was reduced by 100 basis points from 6.5 per cent to 5.5 per cent of NDTL which were effected in two stages: by 50 basis points retrospectively with effect from the fortnight beginning October 25, and by a further 50 basis points prospectively with effect from the fortnight beginning November 8, 2008.
		• The SLR was reduced to 24 per cent of NDTL with effect from the fortnight beginning November 8, 2008.
		• A special refinance facility under Section 17(3B) of the Reserve Bank of India Act, 1934 was introduced under which all SCBs (excluding RRBs) were provided refinance (which can be flexibly drawn and repaid) from the Reserve Bank equivalent to up to 1.0 per cent of each bank's NDTL as on October 24, 2008 at the LAF repo rate up to a maximum period of 90 days.
		• The additional liquidity support exclusively for the purpose of meeting the liquidity requirements of mutual funds was extended and banks were allowed to avail liquidity support under the LAF through relaxation in the maintenance of SLR to the extent of up to 1.5 per cent of their NDTL. This relaxation in SLR is to be used exclusively for the purpose of meeting the funding requirements of NBFCs and MFs.
		• NBFCs-ND-SI are permitted to raise short- term foreign currency borrowings under the approval route, subject to their complying with the prudential norms on capital adequacy and exposure norms.
		• It was decided to conduct buyback of MSS dated securities so as to provide another avenue for injecting liquidity of a more durable nature into the system. This will be calibrated with the market borrowing programme of the Government of India.
	15	• The special term repo facility, introduced for the purpose of meeting the liquidity requirements of MFs and NBFCs will continue till end-March 2009. Banks can avail of this facility either on incremental or on rollover basis within their entitlement of up to 1.5 per cent of NDTL.
		• The interest rate ceiling on FCNR (B) deposits was increased by a further 75 basis points, *i.e.*, to LIBOR/SWAP rates plus 100 basis points with immediate effect.
		• The interest rate ceiling on NR(E)RA deposits was increased by a further 75 basis points, *i.e.*, to LIBOR/SWAP rates plus 175 basis points with immediate effect.
		• As a temporary measure, HFCs registered with the NHB were allowed to raise short-term foreign currency borrowings under the approval route, subject to their complying with prudential norms laid down by the NHB.
		• The Reserve Bank permitted Indian corporates to prematurely buyback their FCCBs at prevailing discounted rates.
		• The period of entitlement of the first slab of pre-shipment rupee export credit, currently available at a concessional interest rate ceiling of the benchmark prime lending rate (BPLR) minus 2.5 percentage points extended from 180 days to 270 days with immediate effect.
		• The eligible limit of the ECR facility for scheduled banks (excluding RRBs) enhanced from the existing level of 15 per cent to 50 per cent of the outstanding export credit eligible for refinance. The rate of interest charged on the ECR facility will continue to be the prevailing repo rate under the LAF.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**I. MONETARY POLICY MEASURES** *(Contd.)*
Nov.	**28**	• Special refinance facility up to 1.0 per cent of each bank's NDTL as on October 24, 2008 at the LAF repo rate was extended up to June 30, 2009.
		• Liquidity support under the LAF through relaxation in the maintenance of SLR to the extent of up to 1.5 per cent of their NDTL for the purpose of meeting the funding requirements of NBFCs, MFs and HFCs, which was available up to March 31, 2009, was extended to June 30, 2009.
		• Forex swaps facility of tenors up to three months, which was available on request, will be made available up to June 30, 2009.
		• In view of the difficulties being faced by exporters on account of the weakening of external demand, the period of entitlement of the first slab of post-shipment rupee export credit, which was available at a concessional interest rate ceiling of the BPLR minus 2.5 percentage points, was extended from 90 days to 180 days with effect from December 1, 2008.
Dec.	**6**	• The repo rate under the LAF was reduced by 100 basis points from 7.5 per cent to 6.5 per cent and the reverse repo rate by 100 basis points from 6.0 per cent to 5.0 per cent, effective December 8, 2008.
		• Refinance facility of an amount of Rs.7,000 crore was provided to SIDBI under the provisions of Section 17(4H) of the Reserve Bank of India Act, 1934. This refinance facility will be available up to March 31, 2010.
		• The prescribed interest rate as applicable to post shipment rupee export credit (not exceeding BPLR minus 2.5 percentage points) was extended to overdue bills up to 180 days.
	11	• Refinance facility of an amount of Rs 4,000 crore was provided to the National Housing Bank (NHB) under the provisions of Section 17(4DD) of the Reserve Bank of India Act, 1934. This refinance facility will be available up to March 31, 2010.
		• Refinance facility of Rs.5,000 crore was provided to the EXIM Bank under the provisions of Section 17(4J) of the Reserve Bank of India Act, 1934. This refinance facility will be available up to March 31, 2010.
2009		
Jan.	**2**	• Reduced the repo rate under the LAF by 100 basis points from 6.5 per cent to 5.5 per cent and the reverse repo rate by 100 basis points from 5.0 per cent to 4.0 per cent, effective January 03, 2009.
		• The CRR of scheduled banks was reduced by 50 basis points from 5.5 per cent to 5.0 per cent of NDTL with effect from the fortnight beginning January 17, 2009 releasing around Rs.20,000 crore into the system.
	27	• The special refinance facility for SCBs under Section 17(3B) of the Reserve Bank of India Act, 1934 was extended up to September 30, 2009.
		• The special term repo facility under LAF for the purpose of meeting the liquidity requirements of MFs, NBFCs and HFCs was extended up to September 30, 2009.
Feb.	**5**	• The foreign exchange swap facility was extended till March 31, 2010.
		• The ceiling rate on export credit in foreign currency was raised from LIBOR + 100 basis points to LIBOR + 350 basis points on February 5, 2009 subject to the condition that the banks would not levy any other charges.
		• Correspondingly, the ceiling interest rate on the lines of credit with overseas banks was also increased from 6-month LIBOR/EURO LIBOR/EURIBOR + 75 basis points to 6-month LIBOR/ EURO LIBOR/ EURIBOR + 150 basis points.
March	**4**	• The repo rate under the LAF was reduced by 50 basis points from 5.5 per cent to 5.0 per cent with effect from March 5, 2009.
		• The reverse repo rate under the LAF was reduced by 50 basis points from 4.0 per cent to 3.5 per cent with effect from March 5, 2009.
	26	• The Reserve Bank announced OMO purchase of government securities of the order of Rs.80,000 crore in the first half of 2009-10, of which Rs.40,000 crore is envisaged for the first quarter of 2009-10.
	31	• The facility of providing liquidity support to meet the temporary liquidity mismatches for eligible NBFCs-ND-SI, which was initially available for any paper issued up to March 31, 2009 was extended for any paper issued up to June 30, 2009. Accordingly, the SPV would cease to make fresh purchases after September 30, 2009 and would recover all dues by December 31, 2009.
April	**21**	• Repo rate under the LAF was reduced by 25 basis points from 5.0 per cent to 4.75 per cent with effect from April 21, 2009.

Date of Announcement		POLICY ANNOUNCEMENTS
2009		**I. MONETARY POLICY MEASURES** *(Concld.)*
April	21	• Reverse repo rate under the LAF was reduced by 25 basis points from 3.5 per cent to 3.25 per cent with effect from April 21, 2009.
		• CRR and bank rate were kept unchanged.
		• Further liberalisation of the FCCBs buyback policy.
		• Extension of the special refinance facility and term repo facility and increased limit for export credit refinance for banks up to March 31, 2010.
July	22	• The facility of providing liquidity support to meet the temporary liquidity mismatches for eligible NBFCs-ND-SI was further extended for any paper issued by NBFCs up to September 30, 2009. Accordingly, the SPV would cease to make fresh purchases after December 31, 2009 and would recover all dues by March 31, 2010.
	28	• Repo, reverse repo and bank rates were kept unchanged at 4.75 per cent, 3.25 per cent and 6 per cent, respectively. The CRR was also kept unchanged at 5 per cent.
		II. INTERNAL DEBT MANAGEMENT POLICIES
2008		
May	27	• Indirect access to the NDS-OM was extended to other segments of investors, such as, other NBFCs-ND, corporates and FIIs. These entities were allowed to place orders on NDS-OM through direct NDS-OM members, *viz.*, banks and PDs using the CSGL route.
June	2	• A system of 'Multi Modal Settlements' (MMS) in government securities market was put in place to facilitate the settlement of government security transactions undertaken by the non-bank/non-PD NDS members. Under this arrangement, the funds leg of the transactions would be settled through the fund accounts maintained by these entities with select commercial banks chosen as 'designated settlement banks' (DSB).
Sept.	26	• Lehman Brothers Fixed Income Securities Pvt. Ltd. was advised not to undertake transactions in government securities as a PD in the primary market. Further, it was advised not to declare any interim dividend or remit any amount to its holding company or any other group company without prior approval of the Reserve Bank.
Nov.	12	• The Reserve Bank, in consultation with the Government of India, decided to retain the limit for WMA to the Government of India at Rs.20,000 crore as against the limit of Rs.6,000 crore fixed earlier for the second half of the fiscal year 2008-09 (October to March) for a temporary period till December 31, 2008.
2009		
March	26	• The WMA limit for the Centre for the first half of 2009-10 was kept unchanged at Rs.20,000 crore, as in the previous year but the limit for the second half was fixed higher at Rs.10,000 crore.
	31	• The MoU signed by the Reserve Bank with the Government on March 25, 2004 on the MSS was amended on February 26, 2009 to enable the transfer of a part of the amount in the MSS cash account to the normal cash account as part of the Government's market borrowing programme for meeting Government's approved expenditure. An amount of Rs.12,000 crore was transferred from the MSS account to the normal cash account of the Government of India on March 4, 2009 and an equivalent amount of government securities issued under the MSS formed part of the normal market borrowing of the Government of India. Based on the emerging fund requirements of the Government, Rs.33,000 crore of MSS would be de-sequestered against the approved market borrowing programme or bought back in the fiscal year 2009-10.
		• On a review of the State-wise limits of normal WMA for 2008-09, it was decided to keep these limits unchanged for the year 2009-10. Accordingly, the aggregate normal WMA limit for the State Governments inclusive of the Government of Union Territory of Puducherry was placed at Rs.9,925 crore for the year 2009-10.
April	1	• The ceiling on the interest rate spreads at the time of issue of the subordinated instruments by the PDs under Tier II and Tier III capital requirements was removed with effect from April 1, 2009. The PDs were thus allowed to issue subordinated Tier II and Tier III bonds at coupon rates as decided by their Boards of Directors.
May	5	• An amount of Rs. 28,000 crore was transferred from the MSS cash account to the normal cash account of the Government on May 2, 2009 and an equivalent amount of MSS securities formed part of the normal market borrowing of the Government of India for the financial year 2009-10.

Date of Announcement		POLICY ANNOUNCEMENTS
2009		**II. INTERNAL DEBT MANAGEMENT POLICIES** *(Concld.)*
May	11	• The NDS auction platform which handles the auction of Treasury Bills has been upgraded to conduct auction of dated securities besides instruments such as inflation indexed bonds, floating rate bonds and zero coupon bonds. Further, the platform is now capable of handling non-competitive bidding in the auction of State Development Loans in addition to the existing system of non competitive bidding in the auction of GOI dated securities.
July	20	• The eligible category of entities permitted to participate in market repos was extended to unlisted companies who have been issued special securities by the Government of India and having gilt accounts with SCBs subject to certain conditions.
		III. FINANCIAL SECTOR MEASURES
2008		
April	1	• The lead bank responsibility in Pratapgarh district of Rajasthan was assigned to Bank of Baroda.
	2	• For Tier I UCBs, the 180 day loan delinquency norm for NPAs was extended by one year, *i.e.,* up to March 31, 2009 and the 12 month period for classification of a sub-standard asset in doubtful category would be effective from April 1, 2009 instead of April 1, 2008.
	9	• All commercial banks (excluding RRBs) were advised that the frequency of supervisory reporting of the Structural Liquidity position shall be fortnightly, with effect from April 1, 2008, to be submitted on the seventh day from the reporting date, *i.e.,* the first and third Wednesday of every month to the Reserve Bank.
	10	• All SCBs (excluding RRBs) were advised that the income criteria for availing loans under the DRI scheme were revised. Accordingly, borrowers with annual family income of Rs.18,000 in rural areas and Rs.24,000 in urban areas would be eligible to avail the facility.
		• SBI and its associates, all nationalised banks and select private sector banks were advised that electronic payment of tax by certain categories of tax payers was mandatory with effect from April 1, 2008.
	15	• All SCBs were advised to meet the entire credit requirements of SHG members as envisaged in the Union Budget for 2008-09.
		• Guidelines on new self employment scheme for rehabilitation of manual scavengers (SRMS) were issued to all public sector banks (excluding RRBs).
		• Scheduled UCBs were advised to formulate a comprehensive and transparent policy covering immediate credit of local/outstation cheques, timeframe for collection of local/outstation instruments and interest payment for delayed collection, taking into account their technological capabilities, systems and processes adopted for clearing arrangements and other internal arrangements for collection through correspondents. They were also advised to review their existing arrangements and capabilities and work out a scheme for reduction in collection period. The interests of the small depositors should be fully protected. The policy should also clearly lay down the liability of the banks by way of interest payments due to delay for non-compliance with the standards set by the banks themselves and should be integrated with the deposit policy formulation by the bank in line with the IBA's noted policy. Compensation by way of interest payment, where necessary, should be made without any claim from the customer. It should also be ensured that the customers are, in no way, worse off than earlier.
	17	• The Reserve Bank advised that the matter concerning accounting procedure to be followed for transfer of accounts under the Senior Citizens Savings Scheme (SCSS), from one agency bank to another agency bank/post office was examined by the Ministry of Finance, and the Ministry conveyed its approval for adopting the same procedure for inter agency bank/post office transfer of accounts under SCSS as was being followed for the PPF scheme, subject to the payment of transfer fee as applicable under the relevant rules of the captioned scheme. Accordingly, the Reserve Bank notified an illustrative list of procedures to be followed in this regard.
	21	• UCBs, were advised to include at all times, at least two professional directors on their Boards with suitable banking experience (at middle/senior management level) or with relevant professional qualifications, *i.e.,* C.A. with bank accounting/auditing experience. The scope of professional directors prescribed therein was reviewed and it was decided to enlarge the ambit of 'professional directors' to include persons with professional qualification in the fields of law, accountancy or finance. UCBs were advised to initiate steps to amend the bye-laws of their banks accordingly and ensure compliance with the above requirements.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
April	**22**	• All public sector banks were advised that with a view to reducing the burden on Boards of banks on account of the calendar of reviews to be undertaken by them and to ensure that the calendar reflected present day concerns, the calendar items were revised. The revised schedule would be brought into force with effect from June 1, 2008. If for any particular reason it was not possible to place the memorandum as per the calendar before the Board in the month that it was due, a note should be put up to the Board giving reasons for the delay and when the review was proposed to be placed before the board.
		• In order to enable the investors to make informed investment decisions in the security receipts (SRs), the disclosure in respect of underlying basket of assets required to be made by SCs/RCs in the offer documents as above, include disclosure in respect of the date of acquisition of the assets, valuation of the assets the interest of SCs/RCs in such assets at the time of issue of SRs.
	23	• Existing instructions were reviewed to fine-tune the requirement as regards identification of customers to ensure that NBFCs kept in mind the spirit of instructions issued by Reserve Bank and avoided undue hardships to individuals classified as low risk customers. NBFCs should ensure to update the consolidated list of individuals and entities as circulated by Reserve Bank. Further, the updated list of such individuals/entities could be accessed on the United Nations website. It may be ensured that the name of the proposed customer does not appear in the list and NBFCs also put in place adequate screening mechanism as an integral part of their recruitment /hiring process.
	24	• In view of the rise in the number of disputes and litigations against banks for engaging recovery agents in the recent past, it was felt that the adverse publicity would result in serious reputational risk for the banking sector as a whole. Against this background, the Reserve Bank issued detailed guidelines regarding the policy, practice, and procedure involved in the engagement of recovery agents by all SCBs (excluding RRBs).
		• It was decided to permit banks (including RRBs and local area banks) to engage retired bank employees, ex-servicemen and retired government employees as BCs with immediate effect, in addition to the entities already permitted, subject to appropriate due diligence. While appointing such individuals as BCs, banks were advised to ensure that these individuals were permanent residents of the area in which they proposed to operate as BCs and also institute additional safeguards as were considered appropriate to minimise agency risk.
May	**2**	• All SCBs (excluding RRBs) were advised to ensure that a suitable mechanism existed for receiving and addressing complaints from customers/constituents with specific emphasis on resolving such complaints fairly and expeditiously.
		• All SCBs (excluding RRBs) were advised to formulate a policy which would enable them to settle the claims of a missing person. Similar guidelines were issued to RRBs on September 12, 2008.
		• All UCBs with requisite infrastructure related to Indian Financial Network (INFINET), together with a Board resolution for seeking the membership in it would be granted membership of INFINET. Subject to the above parameters, unlicensed UCBs could also be permitted to avail of INFINET membership so long as their application for license has not been rejected by the Reserve Bank. The membership would not in any way entitle unlicensed UCBs to claim a banking license at a later date and their application for license would be examined independently on its merits.
	6	• All SCBs were advised to classify 100 per cent of the credit outstanding under GCCs and overdrafts up to Rs.25,000 (per account) granted against 'no frills' accounts in rural and semi-urban areas as indirect finance to agriculture under priority sector.
		• All SCBs (excluding RRBs) were advised that any shortfall in lending to weaker sections would also be taken into account for the purpose of allocating amounts for contribution to RIDF or funds with other FIs with effect from April, 2009.
		• The lead bank responsibility in Ramgarh and Khunti districts of Ranchi was assigned to Bank of India.
	8	• All SCBs (excluding RRBs and LABs) were advised that in view of the representations made in regard to delays in completion of infrastructure projects for legal and other extraneous reasons, the asset classification norms for infrastructure projects under implementation were modified with effect from March 31, 2008. The revised norms stipulated that in case of infrastructure projects, financed by the bank after May 28, 2002, the date of completion of the project should be clearly spelt out at the time of financial closure of the project and if the date of commencement of commercial production extended beyond a period of two years (as against the earlier norm of one year) after the date of completion of the project, as originally envisaged, the account should be treated as sub-standard.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
May	**12**	• All UCBs were advised to formulate a policy for settlement of claims of missing persons after considering the legal opinion and taking into account the facts and circumstances of each case. Further, keeping in view the imperative need to avoid inconvenience and undue hardship to the common person, UCBs were also advised that keeping in view the risk management systems, they should fix a threshold limit, up to which claims in respect of missing persons could be settled without insisting on production of any documentation other than (i) first information report (FIR) and the non-traceable report issued by police authorities and (ii) letter of indemnity.
	13	• All StCBs and DCCBs were directed to allow customers to use bank's own ATM for any purpose for free and also to use any other bank's ATMs for balance enquiries for free. Furthermore, banks were also instructed to bring down the charge for withdrawal of cash for non-customers to Rs. 20 with immediate effect and make it free with effect from April 1, 2009.
	14	• All commercial banks (excluding RRBs and LABs) were advised that there was change in risk weight for 'claims secured by residential property'. For loans with loan to value (LTV) ratio less than equal to 75 per cent, the risk weight was reduced to 50 per cent if the sanctioned loan amount was up to Rs.30 lakh and 75 per cent if the amount exceeded Rs.30 lakh. The risk weight was retained at 100 per cent for loans with LTV ratio more than 75 per cent.
	15	• It has been decided to permit Tier II UCBs to extend individual housing loans up to a maximum of Rs. 50 lakh from earlier ceiling of Rs. 25 lakh per beneficiary of a dwelling unit subject to extant prudential exposure limits.
		• UCBs other than those classified in grade III and IV and registered in States that have entered into MoU with the Reserve Bank or under Multi State Co-operative Societies Act, 2002, were permitted to undertake insurance as corporate agent without risk participation without the prior approval of the Reserve Bank. The minimum net worth criteria earlier applicable was dispensed with for such banks.
	22	• In terms of obligations of banks under the Prevention of Money Laundering Act, 2002, all SCBs (excluding RRBs) were advised to prepare a profile for each customer based on risk categorisation. The need for periodical review of risk categorisation was also emphasised. It was reiterated that banks, as a part of transaction monitoring mechanism, were required to put in place an appropriate software application to throw alerts when the transactions were inconsistent with risk categorisation and the updated profile of customers. Further, a reporting mechanism for attempted banking transactions and also for transactions involving counterfeit currency report was also introduced. Similar guidelines were issued to RRBs on June 18, 2008.
		• All RRBs were advised that they could sell loan assets held by them under the priority sector categories in excess of their priority sector lending target of 60 per cent.
		• In terms of earlier guidelines issued on 'KYC norms' and 'Anti-Money Laundering (AML) measures', FIs were required to prepare a profile for each customer based on risk categorisation. The need for periodical review of risk categorisation was also emphasised. It was reiterated that financial institutions, as a part of transaction monitoring mechanism, are required to put in place an appropriate software application to throw alerts when the transactions are inconsistent with risk categorisation and updated profile of customers.
	23	• The Finance Minister in his Budget Speech (2008-09) had announced the Debt Waiver and Debt Relief Scheme for farmers. A detailed scheme in this regard was notified for implementation by all SCBs, besides RRBs and co-operative credit institutions and UCBs. All SCBs (including LABs) and UCBs were advised that the implementation of the Agricultural Debt Waiver and Debt Relief Scheme should be completed by June 30, 2008.
	26	• As announced in the Annual Policy Statement for the year 2008-09, the eligibility norms for opening up of on-site ATMs were liberalised. Accordingly, UCBs that were registered in States which had entered into MoU with the Reserve Bank or were registered under the Multi-State Co-operative Societies Act, 2002 and classified in Grades other than Grade III and IV, could set up on-site ATMs without prior approval of the Reserve Bank.
		• Keeping in view the nature of membership and loan profile of the salary earners' banks (SEBs) and representations made by the banks and their federations, it was decided that the SEBs in Tier II may provide for Standard assets in respect of personal loans at the rate of 0.4 per cent instead of the existing level of 2.0 per cent. Provisioning requirement in respect of loans and advances qualifying as capital market exposure, commercial real estate loans and loans and advances to NBFCs–ND-SI would however continue to be 2.0 per cent for such banks.
		• Existing *mahila* UCBs which conform to the extant entry point norms for general category banks, were permitted to enroll male members up to a limit of 25 per cent of their total regular membership, subject to compliance by the banks with their respective bye-laws.

Date of Announce-ment		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
June	**2**	• As per the operative instructions for smooth implementation of the Agricultural Debt Waiver and Debt Relief Scheme, 2008 were issued. Accordingly UCBs were advised that one time consolidated claims for the bank as a whole could be submitted by them through their Head Office by September 30, 2008, to the respective regional office of the Reserve Bank. Guidelines regarding procedure for reimbursement of claims, data maintenance, monitoring of progress in implementation, procedure for audit of the claims were also issued.
	4	• All SCBs (excluding RRBs) were advised to ensure that all the banking facilities including cheque book facility including third-party cheques, ATMs, net banking, locker, retail loans, credit card, *etc.,* were invariably offered to the visually challenged without any discrimination. Banks were also advised to instruct their branches to render all possible assistance to the visually challenged for availing various banking facilities. Similar guidelines were issued to UCBs on June 12, 2008, to StCBs/DCCBs on July 9, 2008 and to RRBs on July 23, 2008.
		• It has been observed that, over the years, the Government of India has, from time to time, issued several special securities which do not qualify for the purpose of complying with the SLR requirements of State/Central co-operative banks/FIs. Such Government securities are governed by a separate set of terms and conditions and entail a higher degree of illiquidity spread. Currently, the guidelines issued by FIMMDA regarding the valuation of such non-SLR securities provide that such securities be valued by applying a mark-up of 50 basis points (bps) above the corresponding yield on Government of India securities. The issue of valuation of such special securities has since been examined. It has been decided that, for the limited purpose of valuation, all special securities issued by the Government of India, directly to the beneficiary entities, which do not carry SLR status, may be valued at a spread of 25 bps above the corresponding yield on Government of India securities. This amendment would come into force from the financial year 2008-09. Similar circular was issued for UCBs on June 17, 2008.
	9	• All private sector banks were advised that they should adhere to the revised calendar of reviews that was prescribed for public sector banks to the extent possible. The revised schedule would come into effect from July 1, 2008.
	12	• It was decided to enhance the limit of Rs.20 lakh to Rs.30 lakh in respect of bank loans for housing in terms of applicability of risk weights for capital adequacy purposes. Accordingly, such loans will carry a risk weight of 50 per cent.
		• Certain additional instructions for smooth implementation of the debt waiver scheme were issued to UCBs. A format for undertaking to be given by ‘other farmers’ eligible for one time settlement (OTS) relief was forwarded to banks.
	16	• The branch licensing norms have been liberalised. Approvals for branch expansion including off-site ATMs in respect of well-managed and financially sound UCBs in the States that have signed MoUs and those registered under the Multi-State Co-operative Societies Act, 2002, will henceforth be considered, based on their annual business plans, subject to certain conditions.
	17	• In order to ensure a measured movement towards strengthening the financials of all deposit taking NBFCs by increasing their NoF to a minimum of Rs.200 lakh, NBFCs-D having a minimum NoF of less than Rs.200 lakh were advised to freeze their deposits at the level currently held by them and further bring down public deposits to the revised ceiling of deposits as prescribed.
	20	• It was earlier mandated that all payment transactions above Rs.1 crore by the Reserve Bank regulated entities in the Reserve Bank regulated markets would have to be mandatorily routed through electronic payment systems like the RTGS system, NEFT system and ECS with effect from April 1, 2008. On review, the mandated threshold limit was reduced from Rs.1 crore to Rs.10 lakh with effect from August 1, 2008.
	24	• The definition of wilful defaulters was extended to include units that defaulted in meeting their payment/repayment obligation to the lender and had also disposed of or removed the movable fixed assets or immovable property given by them for the purpose of securing a term loan, without the knowledge of the bank/lender.
	30	• The reporting formats for priority sector lending by UCBs were revised. Accordingly, the UCBs were advised that data under the revised formats could be submitted to the Regional Office concerned on a yearly basis within 15 days of close of the financial year to which it pertained. UCBs were advised to submit the first set of returns by April 15, 2009.
July	**2**	• As a part of transaction monitoring mechanism, UCBs are required to put in place an appropriate software application to through alerts when the transactions are inconsistent with risk categorisation and updated profile of customers. They were also advised to initiate urgent steps to ensure electronic filing of CTR and STR to FIU-IND.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
July	**3**	• UCBs were advised that in terms of Agriculture Debt Waiver and Debt Relief Scheme, 2008, the Government of India had clarified that: "If the loan is for poultry farming or sheep rearing or piggery or a cattle farm and part of the loan amount is used for sheds, pens, fences, *etc.*, the entire composite loan amount would be reckoned for calculating 'eligible amount' as defined in the scheme. If it is a standalone loan for putting up fencing or sheds, *etc.*, these would not be covered". Accordingly the earlier circular in respect of the Scheme was modified.
	14	• All public sector banks were advised that the Government would continue to provide interest subvention of 2.0 per cent per annum in respect of short-term production credit up to Rs.3 lakh provided to farmers. This amount of subvention will be calculated on the amount of the crop loan disbursed from the date of disbursement/drawal up to the date of payment or up to the date beyond which the outstanding loan became overdue, *i.e.,* March 31, 2009 for *Kharif* and June 30, 2009 for *Rabi*, respectively, whichever was earlier.
	15	• In order to facilitate raising of capital funds (Tier 1 and Tier 2), UCBs were permitted to issue preference shares, *viz.*, (i) perpetual non-cumulative preference shares (PNCPS), (ii) perpetual cumulative preference shares (PCPS), (iii) redeemable non-cumulative preference shares (RNCPS) and (iv) redeemable cumulative preference shares (RCPS). Further, UCBs were permitted to raise term deposits for a minimum period of not less than five years, which would be eligible to be treated as Tier 2 capital.
	23	• Instructions were issued to all SCBs (excluding RRBs) on the issue of unsolicited credit cards and provision of insurance cover to credit card holders.
	31	• All SCBs (excluding RRBs) were advised that for fine-tuning the management of bank reserves on the last day of the maintenance period, it was decided to introduce a SLAF on reporting Fridays, with effect from August 1, 2008. SLAF would be conducted between 4.00-4.30 p.m. and the auction results would be announced by 5.00 p.m.
		• NBFCs were advised that the balance in DTL account would not be eligible for inclusion in Tier 1 or Tier 2 capital for capital adequacy purpose as it was not an eligible item of capital. Further, DTA would be treated as an intangible asset and should be deducted from Tier 1 capital.
August	**1**	• All SCBs (excluding RRBs) were advised that the Government had decided to bring to a close the scheme that provided interest rate subvention to exporters from specified sectors with effect from September 30, 2008. Banks were asked to bring this to the notice of their exporter clients covered under the scheme, so that the exporters got adequate time to make necessary adjustments.
		• NBFCs-ND-SI were advised that they would be required to achieve 12 per cent CRAR by March 31, 2009 and 15 per cent CRAR by March 31, 2010. A few modifications were made in their disclosure and ALM reporting norms as well.
	5	• All SCBs (excluding RRBs) were advised that the eligibility income criteria of Rs.24,000 for urban areas under the DRI scheme was applicable to semi-urban areas also.
		• Obligation of NBFCs in terms of Rules notified under PMLA 2002 and certain clarifications regarding cash transaction report and suspicious transaction report were furnished to NBFCs.
	6	• All SCBs (excluding RRBs) were advised about the eligibility criteria to become trading/clearing members of SEBI-approved exchanges.
	8	• Final guidelines on prudential norms for off-balance sheet exposure of banks were issued to all SCBs (excluding LABs and RRBs).
	12	• UCBs were advised that fictitious lottery and money circulation schemes aimed at defrauding members of the public had come to light from time to time. It was clarified that remittances in any form towards participation in lottery schemes was prohibited under Foreign Exchange Management Act, 1999. Further, these restrictions were also applicable to remittances for participation in lottery-like schemes functioning under different names, such as money circulation scheme or remittances for the purpose of securing prize money/awards *etc.*
	14	• All NBFCs-D were advised that they could report frauds perpetrated in their subsidiaries and affiliates/joint ventures. Such frauds should, however, not be included in the report on outstanding frauds and the quarterly progress reports. They were further advised that in respect of frauds in borrowal accounts additional information under FMR-1 as prescribed may be furnished.
	18	• The lead bank responsibility in Alirajpur and Singrauli districts of Madhya Pradesh was assigned to Bank of Baroda and Union Bank of India, respectively.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
August	**22**	• All SCBs (excluding RRBs) were issued detailed instructions for dealing with inoperative accounts. Banks were asked to consider launching a special drive for finding the whereabouts of the customers/legal heirs in respect of existing accounts which had been transferred to the separate ledger of 'inoperative accounts'.
		• All SCBs (excluding RRBs) were issued detailed instructions regarding display of information through comprehensive notice boards.
	26	• All SCBs were advised that they could accept an affidavit submitted by landless labourers, share croppers and oral lessees giving occupational status (*i.e.*, details of land tilled/crops grown) for loans up to Rs.50,000. Banks could also encourage the JLG/SHG mode of lending for such persons. However, banks should go through their procedures of identification as per KYC norms, appraisal and usual pre-sanction checks before extending finance.
	27	• All SCBs (including RRBs and local area banks) were advised that companies registered under Section 25 of the Companies Act, 1956, could be employed as BCs provided that the companies were stand-alone entities in which NBFCs, banks, telecom companies and other corporate entities did not have equity holdings in excess of 10 per cent. Further, while engaging Section 25 companies as BCs, banks would have to strictly adhere to the distance criterion of 15 kms/5 kms, as applicable, between the place of business of the BC and the branch.
	28	• All SCBs (excluding RRBs) were advised that banking by definition meant acceptance of deposits of money from the public for the purpose of lending and investment. As such, banks could not design any product which was not in tune with the basic tenets of banking. Further, incorporating such clauses in terms and conditions which restricted deposit of cash over the counters also amounted to an unfair practice. Banks were therefore advised to ensure that their branches invariably accepted cash over the counters from all their customers who desired to deposit cash at the counters.
		• All SCBs were advised that each bank could select one rain-fed district for introduction, on a pilot basis, of a new product for financing crop production whereby: (a) 80 per cent of the crop loan requirement of individual borrowers could be released through a short-term production loan in conformity with the extant norms/practices; and (b) the remaining 20 per cent representing the 'core component' (expenses for land preparation, pre-sowing operations, *etc.*, besides self-labour/consumption) could be sanctioned as a 'clean credit limit' to ensure year-round liquidity.
		• UCBs were advised to ensure that a suitable mechanism exists for receiving and addressing complaints from their customers with specific emphasis on resolving such complaints fairly and expeditiously. Several specific measures in this respect were suggested.
Sept.	**1**	• UCBs were advised to consider launching special drive for finding the whereabouts of the customers/legal heirs in respect of existing accounts which had been transferred to the separate ledger of 'inoperative accounts'.
		• In view of the increase in the amount of the unclaimed deposits with banks year after year and the inherent risk associated with such deposits, UCBs were advised to play a more pro-active role in finding the whereabouts of the account holders whose accounts have remained in-operative. Interests on savings accounts should be credited on regular basis whether the account is operative or not. If a matured fixed deposit is unpaid, the amount will attract savings bank rate of interest.
	4	• All SCBs (including LABs) were advised that procedures for reimbursement of claims and audit of claims under the Agricultural Debt Waiver and Debt Relief Scheme, 2008 had been modified. Similar guidelines are issued to UCBs on September 5, 2008.
	8	• All SCBs were advised that the name of the "Industrial Development Bank of India Limited" had been changed to "IDBI Bank Limited" in the Second Schedule to the RBI Act, 1934 with effect from May 7, 2008.
	9	• With a view to improving the quality of customer service in UCBs, scheduled UCBs were suggested to consider becoming members of BCSBI.
	12	• All SCBs (excluding RRBs) were advised to adopt the format devised by the Reserve Bank for display of information relating to interest rates and service charges which would enable the customer to obtain the desired information at a quick glance. Banks should also ensure that only the latest updated information in the above format was placed on their websites and the same was easily accessible from the home pages of their websites. UCBs were issued similar guidelines on September 18, 2008.

Date of Announce-ment		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
Sept.	**15**	• NBFCs (excluding RNBCs) were advised that the erstwhile equipment leasing/hire purchase NBFCs should, duly supported by statutory auditor's certificate as on March 31, 2008 approach the Regional Office concerned for appropriate classification latest by December 31, 2008. Those NBFCs which did not opt for the re-classification by the prescribed date would be deemed to be loan companies.
	17	• It was reiterated to all commercial banks (excluding RRBs) that they should ensure that they employ only those DMAs/ DSAs who are registered as telemarketers with the DoT. Further, any employment of telemarketers who are not registered with DoT would be treated as a violation of Hon'ble Supreme Court's directive by banks.
		• Guidelines on liquidity risk management were issued to Tier I UCBs. They were also advised to prepare separate returns as on the last reporting Friday of March/June/September/December and submit the same to the board within a month from the last reporting Friday. The first such set of returns may be put to the board as on the last reporting Friday of December 2008.
		• It was decided that in addition to scheduled UCBs for which guidelines are already in place, all other Tier II UCBs may also adopt ALM as per the guidelines forwarded to them. UCBs which have already adopted more sophisticated systems may ensure to fine-tune their current system to ensure compliance with the requirements of the ALM system suggested in the guidelines. To begin with UCBs should ensure coverage of at least 60 per cent of their liabilities and assets. UCBs were advised to set interim targets so as to cover 100 per cent of their business by April 1, 2010. Once the system stabilises, they should prepare to switch to more sophisticated techniques. To start with, the statement of structural liquidity should be prepared as on last reporting Friday of March/June/ September/ December and put up to ALCO(Asset-Liability Committee). In order to enable the UCBs to monitor their liquidity on a dynamic basis over a time horizon spanning 1-90 days, an indicative format was prescribed. UCBs were advised that the first such ALM return should be put to the ALCO/top management as on the last reporting Friday of December 2008.
		• UCBs which are recognised as AD category I and II may participate in designated currency futures exchanges recognised by SEBI as clients only, for the purpose of hedging their underlying foreign exchange exposures.
		• UCBs were, *inter alia,* advised to follow a more granular ALM guidelines, *i.e.,* to split the first time bucket (1-14 days at present) in the Statement of Structural Liquidity into three time buckets *viz.*, next day, 2-7 days and 8-14 days. The revised format would be effective from January 1, 2009.
	18	• New directions were issued regarding statutory auditors of NBFCs
	19	• All SCBs (excluding RRBs and local area banks) were advised to strengthen their information back-up about the borrowers enjoying credit facilities from multiple banks through a set of measures prescribed by the Reserve Bank.
		• In terms of a Supreme Court Judgement, UCBs have been advised that excess amount realised from their borrowers, if any, towards interest tax by way of rounding off may be deposited with a trust created for the benefit of disadvantaged people, by the Ministry of Social Justice and Empowerment.
	22	• All SCBs were advised about the access criteria for national payment systems.
		• AD category-1 banks were informed that the policy related to ECBs was reviewed and some aspects of the policy including the all-in-cost ceilings and those for borrowers from the infrastructure sector were modified.
	24	• It was decided to call for basic information from NBFCs-ND with asset size of Rs.50 crore and above but less than Rs.100 crore at quarterly intervals. The first such returns for the quarter ended September 2008 could be submitted by first week of December 2008. The quarterly return as at the end of each quarter could be filed online with the regional office of the Department of Non-Banking Supervision in whose jurisdiction the company was registered, within a period of one month from the close of the quarter.
	25	• It was decided to extend the simplified off-site surveillance (OSS) reporting system to all the remaining Tier I UCBs having deposits below Rs.50 crore. The annual return of the bank profile is to be prepared at March 31, every year and the other 4 quarterly returns are to be prepared at the end of March, June, September and December of every year. UCBs are required to submit all these returns to concerned Regional Offices of the Reserve Bank within one month from the end of the quarter/year. This would come into effect from quarter ending December 31, 2008 and the time for submission of the first quarter returns would be three months up to March 31, 2009.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
Sept.	**25**	• It was decided to extend the OSS reporting system to all the remaining Tier II UCBs having deposits below Rs.50 crore. The system comprises of a set of 8 returns of which 7 are required to be submitted at quarterly intervals while the eighth return on bank profile is an annual return. The annual return of the bank profile is to be prepared at March 31, every year and the other 7 quarterly returns are to prepared at the end of March, June, September and December of every year. UCBs are required to submit all these returns to concerned Regional Offices of the Reserve Bank within one month from the end of the quarter/year. This would come into effect from the quarter ending December 31, 2008.
	26	• UCBs were advised to review that their branches are operating from premises which have a subsisting and valid lease agreement, free of any dispute between the bank and the landlord of the premises in question.
	29	• All SCBs were advised that the name of "Centurion Bank of Punjab Ltd" was excluded from the Second Schedule to the RBI Act, 1934.
	30	• As per extant instructions on treatment of deposits with DCCB/StCB as SLR, UCBs availing loan from DCCBs/StCBs with which the UCB maintains deposits, can deduct the amount of loan availed from the deposits irrespective of whether lien had been marked on such deposits or not, for the purpose of reckoning such deposits as SLR. In this connection, salary earners' co-operative banks were allowed extension of time up to March 31, 2009 for complying with the instructions.
Oct.	**8**	• Operating guidelines regarding mobile banking transactions were issued to all SCBs.
	13	• Issues regarding asset classification status of overdue payments in respect of derivative transactions and restructuring of derivative contracts were examined and guidelines issued to all commercial banks (excluding RRBs and LABs).
	14	• Restrictions on lending and buyback only in respect of certificates of deposits held by mutual funds were relaxed effective from October 14, 2008 for a period of 15 days.
	15	• The Reserve Bank agreed to provide a sum of Rs.25,000 crore (as temporary liquidity support for financing agricultural operations) under the Agriculture Debt Waiver and Debt Relief Scheme to scheduled banks and NABARD, which the Government had agreed to provide to commercial banks, RRBs and co-operative credit institutions as the first installment.
		• All SCBs (excluding RRBs) were advised that the special fixed rate term repo under LAF would be conducted every day until further notice up to a cumulative amount of Rs.20,000 crore. Accordingly, the residual amount would be notified every day till further notice.
		• All StCBs/DCCBs were advised that the interest rates on fresh Non-Resident (External) Rupee (NRE) term deposits for one to three years maturity should not exceed the LIBOR/SWAP rates plus 100 basis points, as on the last working day of September 2008 for US dollar of corresponding maturities. The interest rates as determined above for three year deposits will also be applicable in case the maturity period exceeds three years. The changes in interest rates will also apply to NRE deposits renewed after their present maturity period. Similar guidelines were issues to UCBs on October 16, 2009.
	27	• All SCBs (excluding RRBs) were advised that the validity of interest rates on rupee export credit would be in force up to April 30, 2009.
	29	• All SCBs (excluding RRBs and LABs) were advised that the principle of borrower-wise asset classification to treat all other funded facilities granted to a client as NPA would apply only to the overdues arising from forward contracts and plain vanilla swaps and options.
		• Taking into consideration, the need for enhanced funds for increasing business and meeting regulatory requirements, it was decided that NBFCs-ND-SI may augment their capital funds by issue of PDIs subject to certain conditions.
	31	• As a temporary measure, it was decided to permit NBFCs-ND-SI to raise short-term foreign currency borrowings, under the approval route, subject to certain conditions pertaining to eligibility of borrower and lenders, end-use of funds, maturity *etc*.
Nov.	**3**	• Reserve Bank decided to extend the facility of temporary liquidity support for financing agricultural operations (announced in October 2008) for a period up to December 5, 2008. The rate of interest on the temporary liquidity support was revised to be the prevailing fixed repo rate under LAF.
	10	• In order to mitigate the inherent risks attached to sanction of loans and advances against gold/silver ornaments, safeguards were specified for UCBs.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
Nov.	**11**	• As regards the Agricultural Debt Waiver and Debt Relief Scheme, all SCBs (excluding RRBs) were advised that the Government of India had decided to pay interest on the 2nd, 3rd, and 4th instalments, payable by July 2009, July 2010, and July 2011 respectively, at the prevailing YTM on 364-day Government of India Treasury Bills. The SCBs were informed that the interest would be paid on these installments from the date of the reimbursement of the first installment (*i.e.* November 2008) till the date of the actual reimbursement of each installment. Similar circulars were issued to primary UCBs, StCBs, DCCBs and RRBs on November 17, 2008.
	15	• SIDBI and the NHB were allocated Rs.2,000 crore and Rs.1,000 crore, respectively, against banks' estimated shortfall in priority sector lending in March 2009.
		• The provisioning requirements for all types of standard assets were reduced to a uniform level of 0.40 per cent except in case of direct advances to agricultural and SME sector which shall continue to attract provisioning of 0.25 per cent, as hitherto. Risk weights on banks' exposures to all unrated claims on corporates, claims secured by commercial real estate and claims on NBFCs-ND-SI were reduced to 100 per cent.
	17	• RRBs were granted greater flexibility in opening new branches subjects to certain conditions regarding their profitability and improvements in financials.
	26	• On a review, it was decided to increase the proportion of SLR holdings in the form of Government and other approved securities as percentage of NDTL in the following manner, which should be achieved by non-scheduled UCBs by end-March 2011: (i) Non-scheduled UCBs in Tier I shall maintain SLR in the form of government and other approved securities not less than 7.5 per cent of their NDTL by September 30, 2009 and 15 per cent of their NDTL by March 31, 2010; (ii) The current prescription of holding SLR in government and other approved securities up to 15 per cent of their NDTL is respect of other non-scheduled UCBs would continue up to March 31, 2010; and (iii) From March 31, 2011 onwards all non-scheduled UCBs should maintain SLR in government and other approved securities up to 25 per cent of their NDTL.
Dec.	**1**	• Under the SRF, all SCBs (excluding RRBs) were provided refinance from the Reserve Bank equivalent to up to 1.0 per cent of each bank's NDTL as on October 24, 2008 at the repo rate up to a maximum period of 90 days during which refinance could be flexibly drawn and repaid. It was clarified that this facility could be rolled over. It was also decided to continue this facility up to June 30, 2009.
	2	• In the course of operations of the Indian banks' branches and subsidiaries abroad, it is possible that while complying with the host-country regulatory requirements in certain jurisdictions, they might be required to undertake an activity which is not permitted under the Banking Regulation Act/the respective statute of the public sector bank. In such circumstances, the banks were advised to ensure that they obtain relevant permissions from the Reserve Bank/ Government of India for undertaking such activities.
	6	• Loans granted by banks to HFCs for on-lending to individuals up to Rs.20 lakh per dwelling unit per family were classified under priority sector.
		• It was decided to extend exceptional/concessional treatment to the commercial real estate exposures, which are restructured up to June 30, 2009.
		• It was decided, as a one-time measure, that the second restructuring done by banks of exposures (other than exposures to commercial real estate, capital market exposures and personal/consumer loans) up to June 30, 2009, will also be eligible for exceptional regulatory treatment.
	8	• In respect of overdue bills, banks were earlier permitted to charge the rates fixed for Export Credit Not Otherwise Specified (ECNOS) for the period beyond the due date. In view of the difficulties faced by exporters on account of the weakening of external demand, it was decided that the prescribed interest rate as applicable to post-shipment rupee export credit (not exceeding BPLR minus 2.5 percentage points) may also be extended to overdue bills up to 180 days from the date of advance.
		• In view of the difficulties faced by the real estate sector, it was decided to extend exceptions/special treatment to the commercial real estate exposures which are restructured up to June 30, 2009, subject to certain conditions. Furthermore recognising the fact that in the face of the current economic downturn, even viable units may face temporary cash flow problems, it was decided, as a one-time measure, that the second restructuring done by banks of exposures (other than exposures to commercial real estate, capital market exposures and personal/consumer loans) up to June 30, 2009, will also be eligible for exceptional/special regulatory treatment.

Date of Announce-ment		POLICY ANNOUNCEMENTS
2008		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
Dec.	**10**	• It was noticed that some banks levy in addition to a processing fee, certain charges which are not initially disclosed to the borrower. Reserve Bank clarified that this is an unfair practice. RRBs were therefore advised to ensure that all information relating to charges/fees for processing are invariably disclosed in the loan application forms. Further, the banks must inform 'all-in-cost' to the customer to enable him to compare the rates charged with other sources of finance. Similar circular was issued to State and Central co-operative banks on December 19, 2008.
	16	• The Government of India decided to extend interest subvention of 2.0 per cent with effect from December 1, 2008 till March 31, 2009 on pre- and post-shipment rupee export credit, for certain employment oriented export sectors such as textiles (including handloom), handicrafts, carpets, leather, gems and jewellery, marine products, and small and medium enterprises, *etc.* The interest rate applicable to these credit were revised and banks were directed to charge interest rate not exceeding BPLR minus 4.5 percentage points on pre-shipment credit up to 270 days and post-shipment credit up to 180 days on the outstanding amount for the period December 1, 2008 to March 31, 2009 to the above mentioned sectors subject to certain conditions.
	23	• NBFCs-ND-SI were permitted, as a temporary measure, to raise foreign currency short term borrowings under the approval route subject to certain conditions. In this connection, all the NBFCs-ND-SI that had availed short-term foreign currency loans were advised to furnish a monthly return as per the prescribed format within 10 days from the end of the month to which it pertained.
2009		
Jan.	**2**	• In view of the fact that the rates of interest beyond a certain level may be seen to be excessive and can neither be sustainable nor be conforming to normal financial practice, Reserve Bank issued directions regarding excessive rates of interest charged by NBFCs.
	21	• Tier I UCBs were exempted from maintaining SLR in Government and other approved securities up to 15 per cent of their NDTL provided the amount was held in interest-bearing deposits with the State Bank of India and its subsidiary banks and the public sector banks, including IDBI Bank Ltd. In view of various representations received from UCBs and their Federations, it was decided to continue this exemption, provided that, with effect from October 1, 2009, such exemption shall not exceed 7.5 per cent of NDTL. The exemption shall stand withdrawn effective from April 1, 2010.
	22	• In order to sustain the momentum for financial inclusion, banks are advised to : (i) ensure that steps are taken to provide banking services nearer to the location of the no-frills account holders through a variety of channels including satellite offices, mobile offices, business correspondents, etc.;(ii) consider providing GCC/small overdrafts along with 'no frills' accounts to encourage the account holders to actively operate the accounts; (iii) conduct awareness drives so that the 'no frills' account holders are made aware of the facilities offered; (iv) review the extent of coverage in districts declared as 100 per cent financially included so as to meet the gaps in banking facilities to those desirous of obtaining such facilities; and (v) efficiently leverage on the technology enabled financial inclusion initiatives being implemented in various States with Reserve Bank support such as smart cards with biometric access involving hand-held devices/ mobile phones.
	23	• The Reserve Bank expressed willingness to consider financial restructuring proposals of weak UCBs as an additional option for resolution of problems, subject to fulfillment of certain conditions.
	30	• The extant guidelines, *inter alia*, provided that, where the net worth of the acquired bank is negative, the acquirer bank should protect the deposits of the acquired bank on its own or with upfront financial support from State Government. In legacy cases pertaining to UCBs having negative net worth as on March 31, 2007, it was decided that the Reserve Bank may also consider scheme of amalgamation that provides for payment to depositors. The detailed guidelines in this respect were issued. Further, guidelines were also laid down for valuations of assets and liabilities of the transferor bank.
Feb.	**2**	• All primary UCBs were advised regarding the framework of charges to be levied by banks for offering various electronic products, for outstation cheque collection services and transfer of surplus clearing funds.
	4	• All NBFCs (both deposit taking and non-deposit taking) with asset size of Rs.100 crore and above were instructed to furnish the information to the Reserve Bank about downgrading/upgrading of assigned rating of any financial product issued by them, within fifteen days of such a change in rating.
	5	• Banks were allowed to apply special regulatory treatment for accounts which were standard on September 1, 2008 and taken up for restructuring up to January 31, 2009 even if these had turned non-performing during this period. Subsequently, the time schedule for taking up restructuring was extended up to March 31, 2009.

Date of Announce-ment		POLICY ANNOUNCEMENTS
2009		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
Feb.	9	• In view of low usage of Indo-Nepal remittances scheme through NEFT system, it was decided to revise the service charges levied to customers for funds transfer from India to Nepal through this scheme. The revised charges were made applicable with immediate effect.
	13	• NBFCs (accepting public deposits) [Excluding RNBCs] were allowed investments in fixed deposits of SIDBI and NABARD for meeting the requirements of Section 45 IB of Reserve Bank of India Act, 1934.
	18	• Various risk mitigation measures regarding credit/debit card transactions of all SCBs (including RRBs), UCBs, StCBs and DCCBs were put in place. Accordingly the banks were advised to develop with effect from August 1, 2009: (i) a system of providing for additional authentication/validation based on information not visible on the cards for all on-line card (ii) a system of “online alerts” to the cardholder for all ‘card not present’ transactions of the value of Rs.5,000 and above.
		• All NBFCs-ND with asset size of Rs.100 crore and above were apprised that the Government of India had approved a scheme for providing liquidity support to eligible NBFCs-ND-SI through a SPV for meeting the temporary liquidity mismatches in the operations.
March	2	• NBFCs-ND with asset size of Rs.50 crore and above but less than Rs.100 crore were advised to submit the quarterly return on important financial parameters as hard copy and soft copy (*via* e-mail in excel format) to the concerned regional office, within a period of one month from the close of the quarter, till the online procedure in this regard was advised.
	6	• StCBs and DCCBs were informed that Government of India had decided to extend the last date of repayment of first instalment by the “other farmers” under the Debt Relief Scheme from September 30, 2008 to March 31, 2009. Similar circular was issued to RRBs on March 23, 2009.
		• In view of the current economic downturn and the spillover effects of the global recession on the Indian economy particularly from September 2008 onwards, which has created stress on liquidity and payments for the otherwise viable units/activities, the guidelines on restructuring of advances by UCBs were modified.
	25	• It was decided to extend interest subvention of 2 per cent on export credit for a further period of six months *i.e.* from April 1, 2009 till September 30, 2009 to the specified sectors.
		• It was clarified to all SCBs (including local area banks) that the regulatory norms for provisioning represent the minimum requirement and as such banks may voluntarily make specific provisions for NPAs at rates which are higher than the prescribed rates. Guidelines regarding the prudential treatment of different types of provisions in respect of loan portfolios were also specified.
	31	• UCBs were instructed that whenever they submit any data stored in their computer systems as evidence under Bankers’ Book Evidence Act, 1891 to a Court, the data must be accompanied by the specified certificate regarding identification and verification of the data. Similar guidelines were issued to StCBs and DCCBs on April 24, 2009.
April	8	• All the banks participating in RTGS system were informed that a bank customer receiving RTGS credit should be provided with the name of the remitter in his account statement/pass book and similarly a bank customer sending a RTGS remittance should be provided with the name of the beneficiary in his account statements/pass book. The banks were therefore instructed to comply with the wire transfer guidelines issued earlier with a view to capturing the details about sender and receiver information.
	13	• Guidelines were issued to all SCBs (excluding RRBs) to facilitate access of bank branches/ATMs to persons with disabilities. Similar guidelines were issued to RRBs on April 21, 2009 and to UCBs on April 29, 2009.
	17	• The SCBs (excluding RRBs and LABs) were clarified that in case of the pendency of application for restructuring of the advance, the usual asset classification norms continue to apply.
	22	• As per the extant guidelines, no bank guarantee was normally allowed to have a maturity of more than 10 years. However, in view of the changed scenario of the banking industry where banks extend long term loans for periods longer than 10 years for various projects, it was decided to allow banks to issue guarantees for periods beyond 10 years as well. However, banks were advised to take into account the impact of very long duration guarantees on their ALM while issuing such guarantees.
	24	• All SCBs were advised to calculate the payment of interest on savings bank accounts on a daily product basis with effect from April 1, 2010.

Date of Announcement		POLICY ANNOUNCEMENTS
2009		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
April	24	• All the SCBs and local area banks were informed that maximum distance criterion for the operation of a BC for rural, semi-urban and urban areas has been increased from the present 15 kms to 30 kms.
		• All RRBs were advised that the names of 8 amalgamated RRBs have been included in the second schedule to the RBI Act, 1934. Simultaneously, the names of 29 erstwhile RRBs have been excluded from the said schedule.
		• Clarifications were issued regarding repossession of vehicles financed by NBFCs.
	29	• All SCBs were advised that the period of validity of the interest rates on rupee export credit, which was to remain in force up to April 30, 2009 was extended up to October 31, 2009.
May	4	• The Working Group on Rehabilitation of Sick SME's (Chairman: Dr. K. C. Chakrabarty), which submitted its report in April 2008 had, *inter alia*, recommended that Reserve Bank of India may announce a one time settlement (OTS) scheme for the MSME sector. However, any policy on settlement of non-performing loans is essentially a management function to be exercised by individual banks, based on their commercial judgment. Accordingly, in the light of the recommendations of the Group, banks were advised to undertake a review and put in place the policies relating to extension of credit facilities, restructuring/rehabilitation policy for revival of potentially viable sick units/enterprises the MSE sector and non-discretionary OTS scheme for recovery of non-performing loans, with due approval by the Board of Directors. Similar guidelines were issued to UCBs on June 16, 2009.
		• The network-based communication facilities relating to critical IT based payment and other systems supported by the Reserve Bank, are being improved, based on technological developments in this sphere of operations. Accordingly, applications such as the NDS for transactions in government securities, the RTGS system, the CFMS, *etc.,* are being migrated to operate in a network-based environment using the Multi Protocol Label Switching (MPLS) technology, which uses a meshed network topology thereby providing increased redundancies *vis-à-vis* the point-to-point connectivity at cheaper costs without impacting the security aspects. Banks were advised to migrate to the MPLS system on a time-bound basis.
	6	• The earlier condition that post-restructuring, the management of UCB should be in the hands of a Board of Administrators consisting of representatives of individual depositors as well as professional bankers to ensure proper implementation of the reconstruction scheme including recovery of NPAs was dispensed with. Accordingly, management aspects will be considered on a case to case basis while considering the financial restructuring proposals of UCBs.
		• In order to provide avenues for organic growth to sound and well functioning uni-State Tier II UCBs, the extant norms regarding expansion of area of operation were liberalised. Accordingly it was announced that the Reserve Bank will henceforth consider requests for expansion of area of operation to the entire state from licensed Tier II UCBs registered in states that have entered into MoU with Reserve Bank and are classified as Grade I as per the last statutory inspection and/or conforming to the financials of a Grade I bank as per the latest audited reports.
	7	• The prudential guidelines on restructuring of advances, which were earlier made applicable to SCBs were extended to select AIFIs as well.
		• It was decided to allow banks operating in India to pay interest, at their discretion, on ACU Euro Vostro accounts in addition to ACU Dollar Vostro accounts maintained by them. The decision to pay interest and the rate at which it will be paid and other conditions is left to the discretion of each bank.
		• As per earlier instructions, the inter-changing of investments from permanent to current category and vice versa was allowed to be done with the prior authorisation of the Board of Directors. These instructions were reviewed and it was decided that banks may shift investments to/from permanent category with the approval of their Board of Directors only once a year. Such shifting may normally be allowed at the beginning of the accounting year. No further shifting to/from permanent category will be allowed during the remaining part of that accounting year.
	11	• All RTGS participants were advised to desist from the practice of pushing customer transactions in the interbank mode and strictly adhere to the RTGS procedural guidelines.
		• The position regarding long pending outstanding debit and credit entries in nostro accounts of banks was reviewed. In respect of outstanding debit/credit entries of individual value US$ 2500 and above or equivalent in Nostro accounts, banks were advised to continue to make efforts for reconciliation. Instructions were also issued in respect of outstanding credit entries of individual value less than US$ 2500 or equivalent in Nostro accounts originated up to March 31, 2002.

Date of Announcement		POLICY ANNOUNCEMENTS
2009		**III. FINANCIAL SECTOR MEASURES** *(Contd.)*
May	**13**	• RRBs were advised to strictly comply with the provisions of Banking Regulation Act, 1949 and Banking Companies (Nomination) Rules, 1985 and devise a proper system of acknowledging the receipt of the duly completed form of nomination, cancellation and/or variation of the nomination. RRBs were instructed to give such an acknowledgement to all the customers irrespective of whether the same is demanded by the customers.
	22	• Detailed guidelines were issued to RRBs regarding dealing with inoperative/dormant accounts. RRBs were advised to consider launching a special drive for finding the whereabouts of the customers/legal heirs in respect of existing accounts which have already been transferred to the separate ledger of 'inoperative accounts'.
		• It was decided to assign the lead bank responsibility of the newly founded Tiruppur district to Canara Bank.
	25	• State and Central Cooperative Banks were advised to desist from financing the commercial real estate sector. As regards the credit facilities already extended to this sector, it should be ensured that such exposures are well secured and adequate provisioning made, wherever required, as per the existing prudential guidelines. These banks were told to ensure that the credit facilities are not renewed.
	26	• The timeline for increase of CRAR of 12 per cent and 15 percent for NBFCs-ND-SI was deferred to March 31, 2010 and March 31, 2011 respectively.
		• The norms for capital adequacy treatment of banks' various types of credit risk exposures to the central counterparties (CCPs) were revised. Accordingly, the exposures to CCPs on account of derivatives trading and securities financing transactions (*e.g.* CBLOs, repos) outstanding against them, will be assigned zero exposure value for counterparty credit risk. The deposits/collaterals kept by banks with the CCPs will attract risk weights appropriate to the nature of the CCP. In the case of CCIL, the risk weight will be 20 per cent and for other CCPs, it will be according to the ratings assigned to these entities as per the New Capital Adequacy Framework.
	29	• It was clarified that the extant guidelines regarding issuing guarantees by banks on behalf of corporate entities apply only to loans and not to bonds or debt instruments. In view of the fact that guarantees by the banking system for a corporate bond or any debt instrument not only have significant systemic implications but also impede the development of a genuine corporate debt market, banks were advised to strictly comply with the extant regulations and in particular, not to provide guarantees or equivalent commitments for issuance of bonds or debt instruments of any kind.
June	**2**	• SLBC convenor banks were advised to set up the Sub-Committee to discuss exporters' problems in relation to export finance and other bank-related issues at the State level and hold meetings at prescribed intervals for this purpose. They were also advised to ensure that the intimation of the dates of convening forthcoming meetings are communicated to all concerned well in advance so that issues of the export sector are well represented.
	4	• It was observed that in a dynamic environment, the asset size of a NBFCs-ND-SI company can fall below Rs.100 crore in a given month, which may be due to temporary fluctuations and not due to actual downsizing. It was clarified to NBFCs-ND-SI that in such a case the company may continue to submit the Monthly return on important financial parameters to Reserve Bank and to comply with the extant directions as applicable to NBFCs-ND-SI, till the submission of their next audited balance sheet to Reserve Bank and a specific dispensation is received from the Bank in this regard.
	5	• SCBs were allowed, for limited statistical/reporting purposes, to close those fraud cases involving amounts up to Rs.25 lakh, where: (a) the investigation is on or challan/charge sheet not filed in the Court for more than three years from the date of filing of First Information Report (FIR) by the CBI/police; or (b) the trial in the courts, after filing of charge sheet/challan by CBI/police, has not started, or is in progress subject to certain conditions.
	9	• Further clarifications were issued to NBFCs regarding accounting for taxes on income under Accounting Standard 22 regarding treatment of DTA and DTL for computation of capital.
	11	• All commercial banks were advised to migrate to the MPLS technology on a time-bound basis.
	12	• SCBs were permitted to install off-site ATMs at centres/places identified by them, without having to take permission from the Reserve Bank in each case subject to certain conditions.
	15	• On a review of the Money Transfer Service Scheme (MTSS) scheme, it was decided that the amount of security deposits to be maintained by the agents with the UCBs acting as sub-agents may, henceforth, be decided mutually. However, UCBs were advised to ensure that the payouts by UCBs pending reimbursement by the agents should not, at any point of time, be higher than the security deposits.

Date of Announcement		POLICY ANNOUNCEMENTS
2009		**III. FINANCIAL SECTOR MEASURES** *(Concld.)*
June	15	• UCBs were advised that they may declare dividend without prior permission of the Reserve Bank subject to compliance with the condition that": (a) CRAR norms are as prescribed by the Reserve Bank; and (b) net NPA are less than 10 per cent after making all necessary provisions as per the assessment made by Reserve Bank in its last inspection report.
	16	• Short-term agricultural advances as well as advances for other purposes are granted by State Co-operative Banks/ Central Co-operative Banks to Central Co-operative Banks/Primary Agricultural Credit Societies respectively for the purpose of on-lending. As per extant instructions, out of such advances granted under on-lending system, only that particular facility which becomes irregular is treated as NPA and not all other facilities granted to them. On a review, it was decided to extend the above concession to all other credit societies under on-lending system, in addition to Primary Agricultural Credit Societies. However, in respect of all direct loans and advances granted to a borrower, all such loans will become NPA even if one loan account becomes NPA, as mentioned in the earlier guidelines.
	18	• In view of the interest subvention facility extended by the Government of India in respect of rupee pre-shipment credit up to 270 days and post-shipment credit up to 180 days, scheduled UCBs holding AD category I licences were advised to charge interest at 2.0 per cent below the interest rates charged from exporters in other categories of export sectors for the same period, on the outstanding amount of credit to the specified sectors for the period June 1, 2009 to September 30, 2009.
	24	• SCBs were advised to have a consolidated view of frauds committed by a borrower on different banks so as to ascertain the quantum of frauds, loss caused by the frauds, perceived ramifications thereof, *etc.* As such, all the banks which have financed a borrower under 'multiple banking' arrangement should take co-ordinated action, based on commonly agreed strategy, for legal/criminal actions, follow up for recovery, exchange of details on modus operandi, achieving consistency in data/information on frauds reported to Reserve Bank of India, *etc.*
	25	• SCBs were granted extension of transition period up to December 31, 2009 to comply with Reserve Bank's guidelines on loans extended by banks to Mutual Funds as also regarding the Irrevocable Payment Commitments (IPCs).
		• SCBs were informed about Government of India's decision to make the accounts of "other farmers" eligible for a debt relief of 25 per cent from Government of India, even if they pay their entire share of 75 per cent as one single installment, provided the same is deposited by such farmers till June 30, 2009. The banks were advised not to charge any interest on the eligible amount till June 30, 2009. Similar circular was issued to StCBs/DCCBs on June 26, 2009.
	29	• Guidelines in regard to the prudential treatment of different types of provisions in respect of loan portfolios of UCBs were laid down. Banks were advised that they may voluntarily make specific provisions for NPAs at rates which are higher than the rates prescribed under existing regulations if such higher rates are based on a policy approved by the Board of Directors to provide for estimated actual loss in collectible amount and the policy is consistently adopted from year to year or if provided in the respective State Cooperative Societies Acts/Multi-State Cooperative Societies Act 2002
	30	• All public sector banks were informed about Government of India's decision to continue SRMS scheme aimed at rehabilitating the remaining scavengers and their dependents beyond March 31, 2009. Banks were, therefore, advised to disburse loan to all eligible applicants under SRMS by September 30, 2009 in a time-bound manner.
July	7	• The time schedule for introduction of advanced approaches of Basel II framework in India was announced. Accordingly, the earliest date of making application by banks to the Reserve Bank for adoption of 'internal models approach for market risk' and 'the standardised approach for operational risk' was set at April 1, 2010. The same for adoption of 'advanced measurement approach for operational risk' and 'internal ratings-based approach for credit risk' was set at April 1, 2012. The likely dates for approval by Reserve Bank for adoption of these approaches were also specified.
	17	• The guidelines regarding time line of reconciliation of transactions of ATM failures were comprehensively reviewed. Accordingly, all the SCBs including RRBs, UCBs, StCBs, DCCBs were advised to reimburse to the customers, the amount wrongfully debited on account of failed ATM transactions within a maximum period of 12 days, from the date of receipt of customer complaint. Failure to re-credit the customer account within the stipulated time frame would attract a compensation of Rs.100 per day to the aggrieved customer.
	21	• All SCBs were advised to prominently display at the branches, the names of the officials who can be contacted for redressal of complaints, together with their direct telephone number, fax number, complete address and e-mail address etc. The SCBs were further advised to ensure that the name and other details of concerned Nodal Officer appointed under Banking Ombudsman Scheme is also displayed prominently.

Date of Announcement		POLICY ANNOUNCEMENTS
		IV. CAPITAL MARKET POLICIES
2008		**Securities and Exchange Board of India (SEBI)**
April	**3**	• Investors residing in Sikkim were exempted from the mandatory requirement of PAN for their investments in mutual funds.
	7	• Filing fees for offer documents was revised downwards by SEBI.
	8	• SEBI increased the aggregate ceiling for overseas investment by mutual funds to US$ 7 billion.
	9	• SEBI amended provisions with respect to independent directors in Clause 49 of the listing agreement.
	16	• Mutual funds were allowed to sell government securities contracted for purchase in DVP III mode for government securities market.
		• SEBI amended (Mutual Funds) Regulations, 1996 to permit mutual funds to launch Real Estate Mutual Funds.
	17	• Guidelines were issued by SEBI for Comprehensive Risk Management framework for cash market.
	30	• SEBI revised the format of Monthly Cumulative Report of Mutual Funds.
May	**5**	• Cross margining across cash and derivatives segments were allowed.
	6	• SEBI simplified the process of half-yearly reporting of information by merchant bankers. Accordingly, reports have to be submitted only in electronic form. SEBI also simplified reporting of information with respect to bankers to issue and debenture trustees.
	29	• SEBI (FIIs) Regulation, 1995 was amended. Under this, asset management company, investment manager, or institutional portfolio manager owned by NRIs, shall be eligible to be registered as FII subject to the condition that they shall not invest their proprietary funds. Furthermore, the type of securities in which FIIs were permitted to invest has been widened to include schemes floated by a Collective Investment Scheme.
June	**6**	• The cumulative debt-investment limit for FII Investments in Government Securities and corporate debt was increased to US$ 5 billion and US$ 3 billion from US$ 3.2 billion and US$1.5 billion, respectively.
	19	• SEBI (Intermediaries) Regulations, 2008 was released, whereby a comprehensive regulation, applicable to all intermediaries, simplified registration practices.
		• SEBI released SEBI (Public Offer and Listing of Securitised Debt Instruments) Regulations, 2008.
		• SEBI notified regulation for issuance and listing of debt securities to provide for simplified regulatory framework for issuance and listing of non-convertible debt securities issued by any company, public sector or statutory corporations.
	30	• SEBI clarified that PAN may not be insisted in case of Central Government, State Government and court officials for transacting in securities markets.
July	**7**	• SEBI instructed all registered intermediaries to create a designated email-id for regulatory communications. It was clarified that the email-id shall be an exclusive email-id only for the above purpose and should not be a person centric email-id.
	23	• SEBI instructed all the exchanges to conduct comprehensive audit relating to examination of trading systems, clearing and settlement systems (clearing corporation/clearing house), risk management, databases, disaster recovery sites, business continuity planning, security capacity management and information security of their systems by a reputed independent auditor on an annual basis.
	30	• In its continuing endeavour to make the existing public issue process more efficient, SEBI introduced a supplementary process of applying in public issues, *viz.*, the “Applications Supported by Blocked Amount (ASBA)” process. The ASBA process shall be available in all public issues made through the book building route. It shall co-exist with the current process.
August	**4**	• SEBI amended Employee Stock Option Scheme (ESOS) and Employee Stock Purchase Scheme (ESPS) Guidelines, 1999, bringing the accounting treatment prescribed by SEBI in line with the accounting treatment provided by ICAI in this regard.
	6	• As per recommendations of the Committee Report on Exchange Traded Currency Futures, SEBI instructed the recognised stock exchanges and their clearing corporations / clearing houses, clearing members and trading members regarding the compulsory requirements to introduce exchange traded currency derivatives.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**IV. CAPITAL MARKET POLICIES** *(Contd.)*
August	**8**	• SEBI decided that a calendar spread position on exchange traded equity derivatives may be granted calendar spread treatment till the expiry of the near month contract.
	22	• SEBI advised stock exchanges to direct stock brokers/clearing members to carry out internal audit, covering, *inter alia*, the existence, scope and efficiency of the internal control system, compliance with the provisions of the SEBI Act, circulars issued by SEBI, agreements, KYC requirements, Bye Laws of the Exchanges, data security and insurance in respect of the operations of stock brokers/clearing members.
	28	• SEBI amended the SEBI (DIP) Guidelines, 2000 with respect to reduction in timelines for rights issue; definition of “Qualified Institutional Buyers”; eligibility and pricing norms of “Qualified Institutions Placement”; lock-in on shares on exercise of warrants issued on preferential basis; eligibility of shares for promoters’ contribution and offer for sale and filing of offer documents at SEBI regional offices.
Sept.	**4**	• SEBI amended the Equity Listing Agreement in order to bring more transparency and efficiency in the governance of a listed company.
	25	• SEBI extended Applications Supported by Blocked Amount (ASBA) Facility in rights issues.
Oct.	**6**	• SEBI changed the eligibility criteria for introduction of derivatives on shares.
	7	• SEBI removed restrictions on P-Notes by FIIs against securities, including derivatives as underlying.
	15	• With a view to ensuring market safety and safeguard the interest of investors, SEBI increased the exposure margin to 10 per cent or 1.5 times the standard deviation (of daily logarithmic returns of the stock price) of the notional value of the gross open position in single stock futures and gross short open position in stock options in a particular underlying.
		• SEBI decided that the position of the securities lent by FIIs and their sub-accounts abroad shall be disseminated on a consolidated basis twice a week.
	16	• SEBI increased the cumulative debt investment limit from US$ 3 billion to US$ 6 billion for FII investments in corporate debt. SEBI decided to do away with the conditions provided in regulation 15(2) of SEBI FII regulations pertaining to restrictions of 70:30 ratio of investment in equity and debt, respectively.
	18	• SEBI revised norms for the valuation of debt securities by mutual funds taking into consideration tenure and credit rating of the security.
	31	• SEBI made some changes in the operationalisation of the securities lending and borrowing (SLB), *viz*., increased the tenure SLB to 30 days, extended the time for SLB session to the normal trade timings and advised the stock exchanges to follow the common risk management practices.
Nov.	**6**	• SEBI reduced the time period given to FIIs to utilise their allocated investment limits in debt instruments from 15 days to 11 working days.
	14	• The Foreign Investment Promotion Board (FIPB) allowed FDI in private equity (PE) funds registered as trusts, provided they register themselves as VC funds.
Dec.	**2**	• SEBI revised the existing facility of cross margining and extended it across cash and derivatives segments to all categories of market participants, in order to improve the efficiency of the use of the margin capital by market participants.
	5	• SEBI directed every company proposing to issue new securities to deposit before the opening of subscription list and keep deposited with the designated exchange, 1 per cent of the amount of securities offered for subscription to the public and/or to the holders of existing securities of the company.
	8	• SEBI allowed companies to issue non-convertible debentures (NCDs) along with warrants — which can be converted into shares — to qualified institutional buyers (QIB), to encourage participation of institutional buyers in the capital market. QIBs can subscribe to the combined offering of NCDs with warrants or to individual instruments issued by a listed company. NCDs and warrants can be separately listed on stock exchanges and traded.
	11	• In order to strengthen the framework for close-ended schemes, SEBI decided that for all close-ended schemes (except Equity Linked Savings Schemes) to be launched on or after December 12, 2008, the unit shall be mandatorily listed. NAV shall be computed and published on daily basis.
	29	• SEBI approved the broad guidelines to provide an exit option to such Regional Stock Exchanges whose recognition is withdrawn, renewal refused or/and who may want to surrender their recognition.

Date of Announcement		POLICY ANNOUNCEMENTS
2009		**IV. CAPITAL MARKET POLICIES** *(Contd.)*
Jan.	**21**	• SEBI has made it mandatory on the part of promoters (including promoter group) to disclose the details of pledge of shares held by them in listed entities promoted by them.
Feb.	**2**	• The Government of India increased the cumulative debt investment limit by US$ 9 billion (from US$ 6 billion to US$ 15 billion) for FII investments in corporate debt. Consequently, SEBI decided that US$ 8 billion would be allocated to the market participants in an open bidding platform. The minimum amount of bid would be Rs.250 crore and the minimum tick size would be Rs.100 crore.
	10	• SEBI revised the Annual Issuers' charges with effect from April 01, 2009. Accordingly, the Depositories may levy and collect the charges towards custody from the issuers, on a per folio (ISIN position) basis as at the end of the financial year or the minimum amount, by April 30 of each financial year failing which depositories may charge penal interest subject to a maximum of 12 per cent per annum.
	24	• SEBI has amended preferential issue norms, allowing companies to list warrants along with non-convertible debentures through qualified institution placements.
March	**2**	• In order to enhance the transparency of portfolio of debt oriented close-ended and interval schemes/plans, SEBI has decided that Asset Management Companies shall disclose the portfolio of such schemes on a monthly basis on their respective websites.
	24	• SEBI has revised the position limit applicable for Client and non-bank Trading Member for Exchange Traded Currency Derivatives as per the recommendations of the RBI-SEBI Standing Technical Committee.
April	**20**	• With the opening of a Western Regional Office at Ahmedabad, the allocation of regions for processing of draft offer documents for public/ rights issues, was modified and Merchant Bankers were advised to file the draft offer documents of size up to Rs. 50 crores, of the companies whose registered office falls in Gujarat and Rajasthan, with the regional office of SEBI in Ahmedabad.
	24	• SEBI decided to amend certain clauses in the Equity Listing Agreement to enhance disclosures regarding shareholding pattern in a listed company. These amendments include inter alia providing a uniform procedure for dealing with unclaimed shares; reducing the notice period for record date to 7 working days and for board meeting to 2 working days; uniformity in dividend declaration by listed companies on per share basis only; and disclosure of shareholding pattern for each class of shares and voting rights pattern.
May	**11**	• In order to develop the primary market for corporate bonds SEBI notified the Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008, which provided a simplified regulatory framework for issuance and listing of non-convertible debt securities by any issuer company, public sector undertaking or statutory corporation.
		• SEBI decided that those portfolio managers, who have not complied with sub-regulation (8) of regulation 16 of the SEBI (Portfolio Managers) Regulations, 2008, by which any portfolio manager holding the listed securities belonging to the portfolio account in its own name on behalf of its client shall segregate each clients' listed securities and keep them separately, shall immediately stop undertaking new clients for portfolio management services till the time they become fully compliant with the said requirements.
	20	• SEBI clarified that for securities market transactions and off-market/private transactions involving transfer of shares in physical form of listed companies, it shall be mandatory for the transferee(s) to furnish copy of PAN card to the Company/ RTAs for registration of such transfer of shares.
June	**9**	• SEBI clarified that mutual funds can invest in Indian Depository Receipts (IDRs) subject to compliance with SEBI (Mutual Funds) Regulations 1996 and guidelines issued thereunder, specifically investment restrictions as specified in the seventh schedule of the regulations.
	11	• All registered portfolio managers were required to submit a monthly report regarding their portfolio management activity every month as per the format prescribed by SEBI.
	12	• With a view to ensuring that the value of debt securities reflects the current market scenario in calculation of net asset value, SEBI decided that discretionary mark up and mark down shall be brought to the level as detailed in SEBI circulars dated September 18, 2000 and February 20, 2002 to the valuation methodology which allows the discretion of -50 basis points (bps) to +100 bps to account for the aforesaid risks.
	16	• SEBI issued separate listing requirements for listing of IDRs issued by companies from the countries whose securities market regulators are the signatories to the multilateral memorandum of understanding of IOSCO.

Date of Announce-ment		POLICY ANNOUNCEMENTS
2009		**IV. CAPITAL MARKET POLICIES** *(Concld.)*
June	**17**	• RBI and SEBI jointly unveiled norms enabling exchange-traded interest rate futures (IRF). Foreign portfolio investors have been allowed to trade in IRFs, but limits have been put in place to keep their influence under check. The regulations also allow banks to participate in IRFs.
July	**3**	• SEBI laid down that applicants seeking registration as Foreign Venture Capital Investors (FVCIs) with SEBI, have to obtain firm commitment from their investors in the form of a minimum contribution of US$ 1 million at the time of submission of applications.
	21	• SEBI amended the Equity Listing Agreement to prohibit listed companies from issuing shares with superior rights as to voting or dividend *vis-à-vis* the rights on equity shares that are already listed.
	22	• FIIs and NRIs have been permitted to invest in Indian Depository Receipts (IDRs) subject to specified conditions.
	27	• SEBI specified the risk management framework for the cash market transactions.
	31	• SEBI announced amendments in the DIP guidelines concerning general and disclosure requirements pertaining to IDR issues, *viz.,* the disclosure of financial information pertaining to the issuing company and the extent of applicability of the DIP Guidelines to the IDR issuances.
		• Mutual Funds, while reporting their trades in corporate bonds shall also report their inter-scheme transfers to BSE, NSE and FIMMDA, which maintain reporting platforms to capture information related to trading in corporate bonds.
		V. EXTERNAL SECTOR POLICIES
2008		
		a) Trade Policy
April	**11**	• The Annual Supplement (2008) to India's Foreign Trade Policy (2004-09) was announced by Government of India. The Supplement aimed at further strengthening of the export sector by introducing sectoral initiatives, promotional measures, relief to sectors affected by rupee appreciation, measures to reduce transaction cost and procedural simplification.
Oct.	**29**	• India's Duty Free Tariff Preference (DFTP) Scheme for the Least Developed Countries (LDCs) was announced by Government of India. The DFTP Scheme grants duty free access on 94 per cent of India's total tariff lines to be implemented over a period of five years. Specifically it would provide preferential market access on tariff lines that comprise 92.5 per cent of global exports of all LDCs. The Scheme is open to all 49 LDC members.
Nov.	**15**	• In order to support the export sector in the aftermath of global financial crisis, following measures were announced by the Reserve Bank:
		• The aggregate limit of ECR facility for SCBs (excluding RRBs) was enhanced from 15 per cent to 50 per cent of the outstanding export credit eligible for refinance.
		• The period of entitlement of the first slab of pre-shipment rupee export credit was extended from 180 days to 270 days.
		• The period of entitlement of the first slab of post-shipment rupee export credit was extended from 90 days to 180 days.
Dec.	**8**	• The prescribed interest rate as applicable to post-shipment rupee export credit (not exceeding BPLR minus 2.5 percentage points) was extended by the Reserve Bank to overdue bills up to 180 days.
2009		
Jan.	**2**	• To support exporters in an aftermath of global recessionary conditions, various measures were announced by Government such as restoration of DEPB rates to those prevailing prior to November 2008, extension of DEPB scheme till 31.12.2009, enhancement of duty drawback benefits on certain items including knitted fabrics, bicycles, agricultural hand tools and specified categories of yarn, constitution of a committee of secretaries to resolve procedural issues raised by exporters where modification of procedures could reduce delays faced by exporters, and credit line of Rs.5,000 crore for the EXIM Bank.

Date of Announcement		POLICY ANNOUNCEMENTS
2009		**V. EXTERNAL SECTOR POLICIES** *(Contd.)*
Jan.	**14**	• A Challenge Fund for export promotion activities by Indian Missions abroad, was set up with a corpus of Rs. 5 crore, under the Market Access Initiative (MAI) scheme. The MAI scheme of the Department of Commerce is an export promotion scheme envisaged to act as a catalyst to promote India's exports on a sustainable basis.
Feb.	**26**	• The Annual Supplement (2009) to India's Foreign Trade Policy (2004-09) was announced by the Government of India against the backdrop of the ongoing global financial crisis and economic recession in major economies, which has a bearing on India's trade performance. Various sector-specific and trade facilitation measures were announced in the Supplement with the aim of strengthening of India's exports. Specific measures were announced for certain sectors, *viz.*, leather, textiles, capital goods and gems and jewellery. Trade facilitation measures included, *inter alia*, simplification of procedures and promotional measures for exports.
July	**6**	• In Union Budget 2009-10, several measures were announced for export sector, which mainly comprised extension of period of Adjustment Assistance Scheme which was introduced earlier for badly hit export sectors, enhancement in allocation for Market Development Assistance Scheme, extension of period for interest subvention of 2 per cent on pre-shipment export credit, measures to facilitate the flow of credit at reasonable rates to Micro, Small and Medium Enterprises (MSMEs), extension of period for income tax benefits to export sector, sector-specific relief measures pertaining to customs duty and measures facilitating the refund of service tax to exporters.
	29	• An Inter-Ministerial Committee was constituted by Government of India to co-ordinate the plan to tackle non-tariff measures (NTMs) imposed by India's trading partners by taking an effective remedial action. An institutional mechanism in the form of a database of NTMs imposed by other countries on India's exports was also created.
	31	• Interest subvention of 2 per cent to all SCBs in respect of Rupee Export Credit to the specified categories of exporters, which was granted by the Reserve Bank earlier, was further extended till March 31, 2010.
2008		
		b) Foreign Exchange Market
April	**3**	• The aggregate ceiling for overseas investment by Mutual Funds registered with SEBI has been enhanced from US$5 billion to US$7 billion. The existing facility to allow a limited number of qualified Indian Mutual Funds to invest cumulatively up to US$1 billion in overseas exchange-traded funds, as may be permitted by SEBI, shall continue as hitherto. The investments would be subject to the terms and conditions and operational guidelines as issued by SEBI.
	16	• As a sector specific measure, the limit for direct receipt of import bills/documents was enhanced from US$100,000 to US$300,000 in the case of import of rough precious and semi-precious stones by non-status holder exporters.
	28	• Foreign direct investment was allowed in Credit Information Companies in compliance with the Credit Information Companies (Regulations) Act 2005 and subject to the following : i) The aggregate Foreign Investment in Credit Information Companies would be 49 per cent. ii) Foreign Investment up to 49 per cent would be allowed only with the prior approval of FIPB and regulatory clearance from RBI. iii) Investment by SEBI Registered FIIs would be permitted only through purchases in the secondary market to an extent of 24 per cent. iv) Investment by SEBI Registered FIIs would be within the overall limit of 49 per cent for Foreign Investment. v) No FII can individually hold directly or indirectly more than 10 per cent of the equity.
		• Foreign direct investment was allowed in Commodity Exchanges subject to the following conditions : i) There would be a composite ceiling of 49 per cent Foreign Investment, with a FDI limit of 26 per cent and an FII limit of 23 per cent. ii) FDI will be allowed with the specific approval of the Government. iii) FII purchases in equity of Commodity Exchanges will be restricted only to the secondary markets. iv) Foreign Investment in Commodity Exchanges would also be subject to compliance with the regulations issued, in this regard, by the Forward Market Commission.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**V. EXTERNAL SECTOR POLICIES** *(Contd.)*
May	**28**	• On a review the all-in-cost ceiling in respect of Trade Credits up to one year was enhanced from 50 bps to 75 bps over six months LIBOR
	29	• Some aspects of ECB policy were modified as indicated below: (i) borrowers in infrastructure sector may avail ECB up to US$ 100 million for Rupee expenditure for permissible end-uses under the approval route (earlier limit US$ 20 million); (ii) in the case of other borrowers, the existing limit of US$ 20 million for Rupee expenditure for permissible end-uses under the approval route has been enhanced to US$ 50 million. (iii) the all-in-cost ceilings in respect of ECB were modified as follows, with effect from May 29, 2008

Average maturity period	All-in-cost ceiling over six months LIBOR*	
	Existing	Revised
3 years & up to 5 years	150 bps	200 bps
More than five years	250 bps	350 bps

* For the respective currency of credit or applicable bench mark.

	30	• In order to capture the details of FDI in a more comprehensive manner, the reporting format *viz*. form FC-GPR was revised. Further, a standard format for reporting of the receipt of the amount of consideration for issue of shares / convertible debentures has been prescribed. A format for the KYC report on the non-resident investor from the overseas bank remitting the amount required to be submitted along with the form FC-GPR has also been introduced.
June	**2**	• Entities in the service sector *viz.* hotels, hospitals and software companies have been permitted to avail ECB up to US$ 100 million, per financial year, for the purpose of import of capital goods under the Approval Route.
	3	• Domestic crude oil refining companies have been permitted to hedge their commodity price risk exposure dynamically as under: a) To hedge their commodity price risk on domestic purchase of crude oil and sale of petroleum products on the basis of underlying contracts linked to International prices on overseas exchanges / market. b) Domestic crude oil refining companies have been permitted to hedge their commodity price risk on crude oil imports in overseas exchanges / market on the basis of their past performance up to 50 per cent of the volume of actual imports during the previous year or 50 per cent of the average volume of imports during the 3 previous financial years, whichever is higher. Contracts booked under this facility will have to be regularised by production of supporting import orders during the currency of hedge. • Regulations governing overseas investment were further liberalised as under : i) Energy and Natural Resources Sector – Indian companies have been permitted to invest in excess of 400 per cent of their net worth, as on the date of the last audited balance sheet, in the energy and natural resources sectors such as oil, gas, coal and mineral ores. The investment is required to be made with the prior approval of the Reserve Bank. ii) Unincorporated entities in oil sector – Other Indian entities have been permitted to invest in overseas unincorporated entities in oil sector up to 400 per cent of the net worth with the prior approval of the Reserve Bank. • AD Category-I banks have been permitted to write-off the export bills and delete them from XOS statement where documentary evidence about settlement of export claims from ECGC/insurance companies registered with IRDA is produced and export incentives, if any, have been surrendered. • With effect from June 3, 2008, the period of realisation and repatriation to India of the amount representing full export value of goods or software exported has been enhanced from 6 months to 12 months from the date of export, subject to review after one year.
	27	• Registered trusts and societies engaged in manufacturing/educational sector have been allowed to make investment in the same sector(s) in a joint venture or wholly-owned subsidiary outside India, with the prior approval of the Reserve Bank subject to compliance with the prescribed eligibility criteria.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**V. EXTERNAL SECTOR POLICIES** *(Contd.)*
July	**11**	• Under the extant ECB guidelines, the choice of security to be provided to the overseas lender/supplier for securing ECB is left to the borrower. However, creation of charge over immoveable assets and financial securities and issue of corporate or personal guarantees, on behalf of the borrower in favour of the overseas lender, to secure the ECB under automatic/approval route, require prior approval of the Reserve Bank.
		• AD Category–I banks have now been permitted to convey 'no objection' under the Foreign Exchange Management Act (FEMA), 1999 for creation of charge on immovable assets, financial securities and issue of corporate or personal guarantees in favour of overseas lender / security trustee, to secure the ECB to be raised by the borrower, subject to certain conditions. The 'no objection' is issued from the foreign exchange angle only.
	31	• Foreign companies having Project Offices in India were permitted to open only one foreign currency account for each project, subject to certain terms and conditions. With a view to avoiding currency exposures, AD Category – I banks have been allowed to open an additional foreign currency account for each Project Office (established under the general/specific approval of Reserve Bank) subject to the same terms and conditions as applicable to the existing foreign currency account provided that both the foreign currency accounts are maintained with the same AD Category – I bank.
August	**4**	• All exporters, as a temporary measure, were permitted to earn interest on EEFC accounts to the extent of outstanding balances of US$ 1 million per exporter. The permission was valid up to October 31, 2008 and was subject to review. The measure was reviewed in consultation with the Government of India and it has been decided to withdraw the facility from November 01, 2008. Accordingly, with effect from November 01, 2008, all EEFC accounts shall only be permitted to be opened and maintained in the form of non-interest bearing current accounts.
	6	• The detailed guidelines on trading of currency futures were issued on August 6, 2008. The exchange traded currency futures started trading first on the National Stock Exchange from August 29, 2008, followed by the Bombay Stock Exchange and MCX Stock Exchange from October 01, 2008 and October 7, 2008, respectively. As the product is exchange traded, the conduct of currency futures trading facility would be regulated by SEBI.
	13	• AD Category - I banks have been permitted to regularise cases of dispatch of shipping documents by the exporter direct to the consignee or his agent resident in the country of the final destination of goods, up to US$ 1 million or its equivalent, per export shipment, subject to certain conditions.
		• Registered Trusts and Societies which have set up hospital(s) in India have been allowed to make investment in the same sector(s) in a Joint Venture or Wholly Owned Subsidiary outside India, with the prior approval of the Reserve Bank, subject to compliance with the prescribed criteria.
	21	• Under the existing FEMA provisions, AD Category – I banks are permitted to make advance remittance without any limit on behalf of their importer constituents for import of goods, subject to the following conditions.
		• For advance remittance exceeding US$ 100,000 or its equivalent, AD Category – I banks are required to obtain an unconditional, irrevocable standby Letter of Credit or a guarantee from an international bank of repute situated outside India or a guarantee of an AD Category – I bank in India, if such a guarantee is issued against the counter guarantee of an international bank of repute situated outside India.
		• In cases where the importer (other than Public Sector Company or a Department / Undertaking of the Government of India / State Government) is unable to obtain bank guarantee from the overseas supplier and the AD Category – I bank is satisfied about the track record and the bonafides of the importer, the requirement of bank guarantee / Stand-by Letter of Credit was not insisted upon for advance remittance up to US$ 1,000,000 or its equivalent. This limit of US$ 1,000,000 has been enhanced to US$ 5,000,000 or its equivalent.
	22	• The tie-up of an AD Category – I bank with an Exchange House was required to be approved by the Reserve Bank. A cap of 20 on the number of arrangements and 300 on the number of drawee branches was prescribed by the Reserve Bank as a prudential measure, which could be relaxed by the Reserve Bank subject to the AD Category - I banks having sound risk management systems and on-line monitoring of funds position to avoid concealed overdrafts in the vostro accounts.
		• The instructions were reviewed and as a measure of further liberalisation AD Category – I banks have been permitted to designate drawee branches under Rupee Drawing Arrangements (RDA) beyond 300, provided such branches are under Core Banking Solution where on-line monitoring of funds position is ensured to avoid concealed overdrafts in vostro accounts, subject to the terms and conditions of Reserve Bank's approval for the tie-up with an Exchange House (EH) and the instructions pertaining to Rupee Drawing Arrangements issued by the Reserve Bank from time to time. The AD Category - I banks should obtain necessary Board approval before increasing the number of drawee branches beyond 300 and inform the Reserve Bank immediately. However, the extant instructions on obtaining prior permission from the Reserve Bank for tie-ups with EHs remain unchanged.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**V. EXTERNAL SECTOR POLICIES** *(Contd.)*
August	28	• Under the FEMA provisions, AD Category – I banks were permitted to approve Suppliers' and Buyers' credit (trade credit) up to US$ 20 million per import transaction for imports permissible under the Foreign Trade Policy of the DGFT with a maturity period up to one year from the date of shipment (three years in the case of capital goods).
		• These instructions were reviewed and accordingly the period of Suppliers' and Buyers' credit, including the usance period of Letters of Credit opened for import of Platinum, Palladium, Rhodium and Silver should not exceed 90 days from the date of shipment.
Sept.	1	• AD Category - I banks were permitted to make remittances for imports, where the import bills / documents were received directly by the importer from the overseas supplier and the value of import bill did not exceed US$ 100,000. This limit has been enhanced to US$ 300,000.
	8	• The limit for advance remittance for all admissible current account transactions for import of services without bank guarantee has been enhanced from US$ 100,000 to US$ 500,000 or its equivalent. AD Category – I banks may frame their own guidelines to deal with such cases as per the policy approved by the bank's Board of Directors.
	22	• The ECB policy was reviewed and liberalised as under : i) Borrowers in infrastructure sector are allowed to avail ECB up to US$ 500 million per financial year as against US$ 100 million for Rupee expenditure under the Approval Route. Borrowings in excess of US$ 100 million should have a minimum average maturity of 7 years. ii) The All-in-cost ceilings for ECBs have also been revised as under :

Average maturity period	All-in-cost ceilings over 6 months LIBOR	
	Existing	Revised
3 years and up to 5 years	200 bps	200 bps
More than 5 years and up to 7 years	350 bps	350 bps
More than 7 years	350 bps	450 bps

	23	• FCEB Scheme, 2008 has been operationalised with effect from September 23, 2008. Foreign Currency Exchangeable Bond means a bond expressed in foreign currency, the principal and interest in respect of which is payable in foreign currency, issued by an Issuing Company and subscribed to by a person who is resident outside India, in foreign currency and exchangeable into equity share of another company (offered company), in any manner, either wholly, or partly or on the basis of any equity related warrants attached to debt instruments. The FCEB may be denominated in any freely convertible foreign currency. Full details of the Scheme are given in the Notification issued by Ministry of Finance, Government of India, New Delhi vide G.S.R.89(E) dated February 15, 2008.
Oct.	8	• On a review of ECB policy and to promote development of mining, exploration and refinery sectors in the country, the definition of infrastructure for the purpose of availing ECB has been expanded to include mining, exploration and refining. Accordingly, the infrastructure sector henceforth is defined as (i) power, (ii) telecommunication, (iii) railways, (iv) road including bridges, (v) sea port and airport, (vi) industrial parks, (vii) urban infrastructure (water supply, sanitation and sewage projects) and (viii) mining, exploration and refining.
	15	• With a view to providing greater flexibility to AD Category-I banks in seeking access to overseas funds, AD Category-I banks have been permitted to borrow funds from their Head Office, overseas branches and correspondents and overdrafts in Nostro accounts up to a limit of 50 per cent of their unimpaired Tier-I capital as at the close of the previous quarter or US$ 10 million (or its equivalent), whichever is higher, as against the existing limit of 25 per cent (excluding borrowings for financing of export credit in foreign currency and capital instruments).
	17	• In order to accord flexibility to the FIIs to allocate their investments across equity and debt instruments, the Securities and Exchange Board of India (SEBI), in consultation with the Government of India, vide its Circular No.IMD/FII & C/33/2007 dated October 16, 2008 has dispensed with the conditions provided in Regulation 15(2) of the SEBI - FII Regulations pertaining to restrictions of 70:30 ratio of investments in equity and debt, respectively. Accordingly, FEMA Regulations have been amended. The existing stipulations in respect of FII holdings in security receipts issued by Asset Reconstruction Companies continue.

Date of Announcement		POLICY ANNOUNCEMENTS
2008		**V. EXTERNAL SECTOR POLICIES** *(Contd.)*

Oct. 22

- Based on a review, ECB policy has been modified as under :

  i) ECB up to US$ 500 million per borrower per financial year has been permitted for rupee expenditure and / or foreign currency expenditure for permissible end-uses under the Automatic Route. The requirement of minimum maturity period of seven years for ECB more than US$ 100 million for Rupee capital expenditure by the borrowers in the infrastructure sector has been dispensed with.

  ii) In order to further develop the telecom sector in the country, payment for obtaining license / permit for 3G Spectrum would be considered an eligible end-use for the purpose of ECB.

  iii) ECB proceeds were required to be parked overseas until actual requirement in India and such proceeds could be invested in specified liquid assets. Henceforth, borrowers have been granted flexibility to either keep these funds off-shore or keep it with the overseas branches / subsidiaries of Indian banks abroad or to remit these funds to India for credit to their Rupee accounts with AD Category-I banks in India, pending utilisation for permissible end-uses. However, as hitherto, the rupee funds will not be permitted to be used for investment in capital markets, real estate or for inter-corporate lending.

  iv) In view of the tight liquidity conditions in the International financial markets, the all-in-cost ceilings have been rationalised and enhanced as under :

<table>
<tr><td rowspan="2">Average maturity period</td><td colspan="2">All-in-cost ceilings over 6 months LIBOR</td></tr>
<tr><td>Existing</td><td>Revised</td></tr>
<tr><td>3 years and up to 5 years</td><td>200 bps</td><td>300 bps</td></tr>
<tr><td>More than 5 years and up to 7 years</td><td>350 bps</td><td rowspan="2">500 bps</td></tr>
<tr><td>More than 7 years</td><td>450 bps</td></tr>
</table>

27

- As the domestic importers are experiencing difficulties in raising trade credits within the existing all-in-cost ceilings in view of the tight liquidity conditions in the International credit markets, an enhancement of the all-in-cost ceiling for trade credit was announced in the Mid-term review of Annual Policy Statement for the year 2008-09. Accordingly, the revised all-in-cost ceiling for Trade Credits is as under :

<table>
<tr><td rowspan="2">Average maturity period</td><td colspan="2">All-in-cost ceilings over 6 months LIBOR</td></tr>
<tr><td>Existing</td><td>Revised</td></tr>
<tr><td>Up to one year</td><td>75 bps</td><td rowspan="2">200 bps</td></tr>
<tr><td>More than one year up to three years</td><td>125 bps</td></tr>
</table>

Nov. 10

- AD Category – I banks are allowed to make direct remittance towards payment obligations arising out of commodity derivative transactions entered into by their resident customers with overseas counterparties. With a view to providing greater flexibility to resident entities who have such payment obligations, AD Category – I banks have been allowed to issue guarantee / standby letters of credit to cover these specific payment obligations subject to conditions.

Dec. 2

- The existing instructions for Opening and Maintenance of Rupee / Foreign Currency Vostro accounts of Non-Resident Exchange Houses was reviewed and modified as under :

  (i) With a view to give more flexibility to Exchange Houses, the maximum float period was enhanced from three days to five days.

  (ii) In view of the reduction in time lag between issuance of drafts and payment to the beneficiaries, the period for collateral requirement was reduced from 30 days to 10 days, which can be kept either in the form of cash deposit or a bank guarantee from an international bank of repute.

8

- The proposals from Indian companies for buyback of FCCBs was, hitherto, being considered by the Reserve Bank under the approval route provided the buyback was financed out of their foreign currency resources held in India or abroad and / or out of fresh ECB raised in conformity with the prevailing ECB norms.

Date of Announce-ment		POLICY ANNOUNCEMENTS
2008		**V. EXTERNAL SECTOR POLICIES** *(Contd.)*
Dec.	**8**	• This policy was reviewed on December 8, 2008 and the procedure was revised as under : *Automatic Route* AD Category – I banks have been permitted to allow Indian companies to prematurely buyback FCCBs provided : (i) the buyback value of the FCCB is at a minimum discount of 15 per cent of the book value, (ii) the buyback was financed out of their foreign currency resources held in India (including funds held in EEFC account) or abroad and / or out of fresh ECB raised in conformity with the current ECB norms. *Approval Route* The Reserve Bank will consider proposals where the buyback is out of internal accruals, provided (i) the buyback value of the FCCB is at a minimum discount of 25 per cent on the book value, (ii) the internal accruals to be evidenced by a certificate from the Statutory Auditor and the designated AD Category – I bank, (iii) the total amount of buyback shall not exceed US$ 50 mn of the redemption value per company.
	10	• ADs were permitted to accept payment in cash up to Rs. 50,000 against sale of foreign exchange for travel abroad. Wherever the sale of foreign exchange exceeded the amount equivalent to Rs. 50,000, the payment must be received by crossed cheque / Bankers' cheque / Pay Order / Demand Draft. • With a view to providing flexibility in the mode of payment against sale of foreign exchange, ADs Category I & II and FFMCs are now permitted to accept payment through debit cards / credit cards / prepaid cards, subject to conditions.
	26	• With effect from January 01, 2009, participants in the Asian Clearing Union have the option to settle their transactions either in ACU Dollar or in ACU Euro. Accordingly, the Asian Monetary Unit (AMU) has been denominated as 'ACU Dollar' and 'ACU Euro' which shall be equivalent in value to one US Dollar and one Euro, respectively.
2009		
Jan.	**2**	• Some aspects of the ECB policy were modified as indicated below : (i) As per extant ECB policy, the all-in-cost ceilings for ECBs, in respect of both Automatic and Approval routes are as under: Average maturity period — All-in-cost ceilings over 6 months LIBOR* Three years and up to five years — 300 bps More than five years — 500 bps * for the respective currency of borrowing or applicable benchmark. The requirement of all-in-cost ceilings on ECB under the Approval Route has been dispensed with until June 30, 2009. Accordingly, eligible borrowers, proposing to avail of ECB beyond the permissible all-in-cost ceilings specified above may approach the Reserve Bank under the Approval Route. This relaxation in all-in-cost ceiling will be reviewed in June 2009. (ii) In May, 2007, Reserve Bank had withdrawn the exemption accorded to the 'development of integrated township' as a permissible end-use of ECB. It has now been decided to permit corporates, engaged in the development of integrated township, as defined in Press Note 3 (2002 Series) dated January 04, 2002, issued by DIPP, Ministry of Commerce & Industry, Government of India to avail of ECB under the Approval Route. Integrated township, as defined above, includes housing, commercial premises, hotels, resorts, city and regional level urban infrastructure facilities, such as roads and bridges, mass rapid transit systems and manufacture of building materials. Development of land and providing allied infrastructure forms an integrated part of township's development. The minimum area to be developed should be 100 acres for which norms and standards are to be followed as per local bye-laws / rules. In the absence of such bye-laws/rules, a minimum of two thousand dwelling units for about ten thousand population will need to be developed. The policy will be reviewed in June 2009.

Date of Announcement		POLICY ANNOUNCEMENTS
2009		**V. EXTERNAL SECTOR POLICIES** *(Contd.)*
Jan.	**2**	(iii) As per the extant ECB policy, Non-Banking Financial Companies (NBFCs) were permitted to avail of ECB for a minimum average maturity period of five years to finance import of infrastructure equipments for leasing to infrastructure projects in India. It has now been decided to allow NBFCs, which are exclusively involved in financing of the infrastructure sector, to avail of ECBs from multilateral / regional financial institutions and Government owned development financial institutions for on-lending to the borrowers in the infrastructure sector under the Approval route. While considering the applications, Reserve Bank will take into account the aggregate commitment of these lenders directly to infrastructure projects in India. The direct lending portfolio of the above lenders vis-à-vis their total ECB lending to NBFCs, at any point of time should not be less than 3:1. AD Category - I banks should obtain a certificate from the eligible lenders to this effect. This facility will be reviewed in June 2009. (iv) At present, entities in the services sector, *viz.*, Hotels, Hospitals and Software sector are allowed to avail of ECB up to US$ 100 million per financial year for import of capital goods, under the Approval route. It has now been decided to permit the corporates in the Hotels, Hospitals and Software sectors to avail of ECB up to US$ 100 million per financial year, under the Automatic Route, for foreign currency and / or Rupee capital expenditure for permissible end-use. The proceeds of the ECBs should not be used for acquisition of land.
Feb.	**4**	• Powers were delegated to AD Category - I banks, which have been granted permission by the Reserve Bank to approve commodity hedging, to allow hedging of freight risk by domestic oil-refining companies and shipping companies subject to certain terms and conditions.
	13	• The procedure for opening of Diamond Dollar Account/s was liberalised and AD Category – I banks were delegated powers to permit firms and companies to open and maintain DDA with AD Category – I banks, subject to the following terms and conditions: (i) The exporter should comply with the eligibility criteria stipulated in the Foreign Trade Policy of the Government of India, issued from time to time. (ii) The DDA shall be opened in the name of the exporter and maintained in US Dollars only. (iii) The account shall only be in the form of current account and no interest should be paid on the balance held in the account. (iv) No intra-account transfer should be allowed between the DDAs maintained by the account holder. (v) An exporter firm / company shall be permitted to open and maintain not more than 5 DDAs. (vi) The balances held in the accounts shall be subject to Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) requirements. (vii) Exporter firms and companies maintaining foreign currency accounts, excluding EEFC accounts, with banks in India or abroad, are not eligible to open Diamond Dollar Accounts. Further, subject to specified credits and debits.
March	**9**	• In view of the growth in money changing activities and issuance of several instructions including AML Guidelines on money changing activities, the existing instructions pertaining to money changing activities were rationalised.
	13	• The date for completing the entire procedure for buyback of FCCBs was extended from March 31, 2009 to December 31, 2009.
	26	• As part of simplifying the procedures, it has been decided to make the GR Forms available on-line as well.
April	**20**	• As a measure of rationalisation of the existing procedure, AD Category – I banks have been allowed to convey 'no objection' from the Foreign Exchange Management Act (FEMA), 1999 angle for issue of corporate guarantee in favour of the overseas lessor, for operating lease in respect of import of aircraft / aircraft engine / helicopter.
	22	• In order to capture the details of investment received by way of transfer of the existing shares / compulsorily and mandatorily convertible preference shares (CMCPS) / debentures [hereinafter referred to as equity instruments], of an Indian company, by way of sale, in a more comprehensive manner, the form FC-TRS has been revised. Accordingly, the proforma for reporting of inflows / outflows on account of remittances received / made in connection with the transfer of equity instruments by way of sale, submitted by IBD / FED / nodal branch of the AD Category-I bank to the Reserve Bank has also been modified. Further, it has been decided that the form FC-TRS should be submitted to the AD Category I bank, within 60 days from the date of receipt of the amount of consideration

Date of Announce-ment		POLICY ANNOUNCEMENTS
2009		**V. EXTERNAL SECTOR POLICIES** *(Concld.)*
April	**28**	• As announced in Para 107 of the Annual Policy Statement 2009-10 and considering the continuing pressure on credit spreads in the international markets, the relaxation in all-in-cost ceilings has been extended up to December 31, 2009 under the approval route.
		• As announced in Para 110 of the Annual Policy Statement 2009-10 and keeping in view the benefits accruing to the Indian companies, the current policy has been reviewed and the total amount of permissible buyback of FCCBs, out of internal accruals, has been increased form US$ 50 million of the redemption value per company to US$ 100 million, under the approval route subject to conditions
		• As announced in Para 111 of the Annual Policy Statement 2009-10 , the existing cap of Rs. 20 lakh has been enhanced to Rs. 100 lakh on loans against security of funds held in NR (E) RA and FCNR (B) deposits either to the depositors or third parties.
June	**30**	• In June 2008, the period of realisation and repatriation to India of the amount representing the full export value of goods and software exported was enhanced from six months to twelve months subject to review after one year. On review the said relaxation has been extended up to June 30, 2010 subject to review.
		• On a review, the permission to corporates, engaged in the development of Integrated township permitted to avail of ECB, under the Approval route has been extended up to December 31, 2009.
		• The condition of direct lending portfolio of the lenders (multilateral / regional financial institutions and Government owned development financial institutions) vis-a vis their total ECB lending to NBFCs for financing of infrastructure sector, at any point of time, should not be less than 3:1 has been withdrawn with effect from July 1, 2009. The proposals will, however, continue to be examined by the Reserve Bank under the Approval route, as hitherto.
		• SEZ developers have been permitted to avail of ECB under the Approval route for providing infrastructure facilities, as defined in the ECB policy, within the SEZ. However, ECB shall not be permissible for development of integrated township and commercial real estate within the SEZ.
July	**22**	• In order to facilitate the eligible companies resident outside India to issue Indian Depository Receipts (IDRs) through a Domestic Depository and to permit persons resident in India and outside India to purchase, possess, transfer and redeem IDRs, the IDR Rules, notified by the Government of India, as amended from time to time, have been operationalised with effect from July 22, 2009
		• Accordingly, eligible companies resident outside India may issue Indian Depository Receipts (IDRs) through a Domestic Depository subject to compliance with the Companies (Issue of Depository Receipts) Rules, 2004 and subsequent amendments made thereto and the SEBI (DIP) Guidelines, 2000, as amended from time to time. In case of raising of funds through issuance of IDRs by financial / banking companies having presence in India, either through a branch or subsidiary, the approval of the sectoral regulator(s) should be obtained before the issuance of IDRs.

APPENDIX TABLE 1 : SELECT MACROECONOMIC AND FINANCIAL INDICATORS

Item	Average 1990-91 to 1999-2000 (10 years)	Average 2000-01 to 2008-09 (9 years)	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8
1. Real GDP (% change)	5.7	7.2	7.5	9.5	9.7	9.0 QE	6.7 RE
a) Agriculture (% change)	3.2	2.8	0.0	5.8	4.0	4.9	1.6
b) Industry (% change)	5.7	6.5	8.5	8.1	10.7	7.4	2.6
c) Services (% change)	7.1	9.0	9.9	11.2	11.3	10.8	9.4
2. Per Capita Income (% change)	3.6	5.4	5.6	7.9	8.2	7.6	4.9
3. Foodgrains Production (Million tonnes)	188.6	209.6	198.4	208.6	217.3	230.8	233.9
4. Gross Domestic Saving Rate (% of GDP)	23.0	30.3 ^	31.7	34.2	35.7	37.7	..
5. Gross Domestic Investment Rate (% of GDP)	24.4	30.4 ^	32.1	35.5	36.9	39.1	..
6. Central Government Finances (% of GDP)							
a) Total Revenue Receipts	9.2	9.9	9.7	9.7	10.5	11.5	10.6 RE
b) Total Expenditure	16.0	15.7	15.8	14.1	14.1	14.3 **	16.9 RE
c) Revenue Deficit	3.0	3.2	2.5	2.6	1.9	1.1	4.5 RE
d) Fiscal Deficit	5.9	4.7	4.0	4.1	3.4	2.7	6.1 RE
e) Net RBI Credit to Centre	0.7	-0.5	-1.9	0.8	-0.1	-2.5	3.3 RE
f) Interest Payments	4.2	4.2	4.0	3.7	3.6	3.6	3.6 RE
g) Domestic Debt	48.0	58.5	61.4	60.4	59.0	57.7	56.6 RE
7. Monetary Aggregates (% change)							
a) Broad Money (M_3)	17.2	17.0	11.8 @	16.9 #	21.7	21.4	18.6
b) Narrow Money (M_1)	15.6	14.9	12.3	20.7 #	17.1	19.4	8.4
c) Reserve Money	13.9	15.3	12.1	16.9	23.9	31.0	6.4
d) Bank Credit to Commercial Sector (% of GDP)	28.8	43.0	39.5 @	47.1	51.6	54.6	55.5
8. Scheduled Commercial Banks (% change)							
a) Aggregate Deposits	17.2	17.9	12.8 @	18.1 #	23.8	22.4	19.9
b) Bank Credit	15.9	21.1	27.0 @	30.8 #	28.1	22.3	17.5
c) Non-Food Credit	15.4	21.6	27.5 @	31.8 #	28.5	23.0	17.8
d) Investments in Government Securities	20.9	17.3	7.9 @	-2.7 #	10.7	23.5	20.6
9. Wholesale Price Index (% change)							
a) Point-to-Point	8.7	4.6	5.1	4.1	5.9	7.7	0.8
b) Average	8.1	5.4	6.4	4.4	5.4	4.7	8.3
10. Consumer Price Index - Industrial Workers (% change)							
a) Point-to-Point	9.4	5.2	4.2	4.9	6.7	7.9	8.0
b) Average	9.5	5.1	3.8	4.4	6.7	6.2	9.1
11. BSE Sensitive Index (% change)	37.0	14.1	16.1	73.7	15.9	19.7	-37.9
12. Trade and Balance of Payments							
a) Exports in US $ (% change)	8.6	19.1	28.5	23.4	22.6	28.9	5.4
b) Imports in US $ (% change)	9.7	21.3	48.6	32.1	21.4	35.2	14.3
c) Current Account (% of GDP)	-1.3	-0.4	-0.4	-1.2	-1.1	-1.5	-2.6
d) Capital Account (% of GDP)	2.2	3.4	4.0	3.1	4.9	9.2	0.8
13. Foreign Exchange Reserves* (US $ Billion)	..	..	141.5	151.6	199.1	309.7	252.0
14. External Debt* (US $ Billion)	92.7	146.0	133.0	138.1	171.3	224.6	229.9
a) Debt-GDP Ratio	29.0	19.6	18.5	17.2	18.1	19.0	22.0
b) Debt-Service Ratio	24.9	10.3	5.9 ##	10.1 ^^	4.7	4.8	4.6
15. Exchange Rate (Rupee / US $)							
a) High	–	–	43.36	43.3	43.14	39.26	52.09
b) Low	–	–	46.46	46.33	46.97	43.15	39.89

QE : Quick Estimates. RE : Revised Estimates. .. : Not available – : Not applicable.
* : As at the end of the period. @ : Adjusted for the mergers and conversions in the banking system.
# : Variation over April 1, 2005. ^ : Average for the period 2000-01 to 2007-08. **: Excludes acquisition cost of Reserve Bank's stake in SBI at Rs.35,531 crore.
: Works out to 5.7 per cent with the exclusion of pre-payment of external debt of US $ 381 million.
^^ : Works out to 6.3 per cent with the exclusion of India Millennium Deposits (IMDs) repayments of US $ 7.1 billion and prepayment of US $ 23.5 million.

APPENDIX TABLE 2 : GROWTH RATES AND SECTORAL COMPOSITION OF REAL GROSS DOMESTIC PRODUCT

(At 1999-2000 Prices)

(Per cent)

Sector	Growth Rate						Share in real GDP				
	Average 2000-01 to 2008-09	2004-05	2005-06	2006-07	2007-08*	2008-09#	2004-05	2005-06	2006-07	2007-08*	2008-09#
1	2	3	4	5	6	7	8	9	10	11	12
1. Agriculture and Allied Activities	**2.8**	**0.0**	**5.8**	**4.0**	**4.9**	**1.6**	**20.2**	**19.5**	**18.5**	**17.8**	**17.0**
of which :											
Agriculture	..	0.1	6.0	4.1	5.0	..	18.5	17.9	17.0	16.3	..
2. Industry	**6.5**	**8.5**	**8.1**	**10.7**	**7.4**	**2.6**	**19.6**	**19.4**	**19.5**	**19.2**	**18.5**
of which :											
a) Mining and quarrying	5.0	8.2	4.9	8.8	3.3	3.6	2.2	2.1	2.1	2.0	1.9
b) Manufacturing	7.1	8.7	9.1	11.8	8.2	2.4	15.1	15.1	15.3	15.2	14.6
c) Electricity, gas and water supply	4.5	7.9	5.1	5.3	5.3	3.4	2.3	2.2	2.1	2.0	2.0
3. Services	**9.0**	**9.9**	**11.2**	**11.3**	**10.8**	**9.4**	**60.2**	**61.1**	**62.0**	**63.0**	**64.5**
of which :											
a) Construction	10.2	16.1	16.2	11.8	10.1	7.2	6.6	7.0	7.2	7.2	7.3
b) Trade, hotels and restaurants	8.8	7.7	10.3	10.4	10.1(12.4) ^	9.0 ^	15.5	15.6	15.7	15.9	28.6 ^
c) Transport, storage and communications	13.9	15.6	14.9	16.3	15.5	..	10.2	10.7	11.4	12.1	..
d) Financing, insurance, real estate and business services	8.7	8.7	11.4	13.8	11.7	7.8	13.5	13.8	14.3	14.6	14.8
e) Community, social and personal services	6.4	6.8	7.1	5.7	6.8	13.1	14.2	13.9	13.4	13.1	13.9
4. Gross Domestic Product at factor cost	**7.2**	**7.5**	**9.5**	**9.7**	**9.0**	**6.7**	**100**	**100**	**100**	**100**	**100**

Memo (Rupees crore)

Sector	(at current market prices)				
Sector	2004-05	2005-06	2006-07	2007-08	2008-09
1. Agriculture and Allied Activities	5,52,422	6,25,636	6,86,044	7,82,597	8,61,753
2. Industry	5,98,271	6,79,781	7,94,127	8,98,627	9,85,297
3. Services	17,27,008	19,76,969	22,99,212	26,39,668	30,86,132
4. Gross Domestic Product at factor cost	28,77,701	32,82,386	37,79,384	43,20,892	49,33,183
	(at constant prices)				
Sector	2004-05	2005-06	2006-07	2007-08	2008-09
1. Agriculture and Allied Activities	4,82,910	5,11,114	5,31,315	5,57,122	5,66,045
2. Industry	4,68,451	5,06,519	5,60,775	6,02,032	6,17,882
3. Services	14,37,407	15,98,468	17,79,028	19,70,563	21,55,448
4. Gross Domestic Product at factor cost	23,88,768	26,16,101	28,71,118	31,29,717	33,39,375

\# : Revised Estimates * : Quick Estimates. .. : Not available.

^ : Corresponds to 'trade, hotels and restaurants' and 'transport, storage and communications'.

Source : Central Statistical Organisation.

APPENDIX TABLE 3: QUARTERLY GROWTH RATES AND COMPOSITION OF REAL GROSS DOMESTIC PRODUCT

(At 1999-2000 Prices)

(Per cent)

Sector	2005-06				2006-07				2007-08				2008-09			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Agriculture and Allied Activities	**3.7**	**4.4**	**8.2**	**5.9**	**2.8**	**3.3**	**4.1**	**5.3**	**4.3**	**3.9**	**8.1**	**2.2**	**3.0**	**2.7**	**-0.8**	**2.7**
	(19.7)	**(16.0)**	**(23.4)**	**(18.7)**	**(18.5)**	**(15.0)**	**(22.2)**	**(17.9)**	**(17.6)**	**(14.3)**	**(22.0)**	**(16.9)**	**(16.8)**	**(13.6)**	**(20.6)**	**(16.4)**
2. Industry	**9.9**	**6.7**	**7.3**	**8.7**	**10.1**	**10.7**	**10.4**	**11.6**	**8.5**	**7.5**	**7.6**	**5.9**	**5.1**	**4.8**	**1.6**	**-0.5**
	(19.8)	**(20.4)**	**(18.4)**	**(19.1)**	**(19.9)**	**(20.5)**	**(18.6)**	**(19.4)**	**(19.7)**	**(20.2)**	**(18.3)**	**(18.9)**	**(19.2)**	**(19.7)**	**(17.6)**	**(17.8)**
of which :																
a) Manufacturing	10.7	8.1	8.2	9.4	11.5	11.9	11.0	12.5	10.0	8.2	8.6	6.3	5.5	5.1	0.9	-1.4
	(15.2)	(15.9)	(14.3)	(14.9)	(15.5)	(16.2)	(14.6)	(15.2)	(15.6)	(16.1)	(14.5)	(14.9)	(15.2)	(15.7)	(13.8)	(13.9)
b) Mining and quarrying	7.5	1.8	3.9	6.3	7.2	7.0	9.2	11.4	0.1	3.8	4.2	4.7	4.6	3.7	4.9	1.6
	(2.2)	(2.1)	(2.0)	(2.2)	(2.1)	(2.0)	(2.0)	(2.2)	(2.0)	(1.9)	(1.9)	(2.1)	(1.9)	(1.9)	(1.9)	(2.0)
c) Electricity, gas and water Supply	7.2	2.4	4.8	5.9	3.6	5.9	6.9	4.7	6.9	5.9	3.8	4.6	2.7	3.8	3.5	3.6
	(2.4)	(2.4)	(2.1)	(2.1)	(2.2)	(2.3)	(2.0)	(2.0)	(2.2)	(2.2)	(1.9)	(1.9)	(2.1)	(2.1)	(1.9)	(1.8)
3. Services	**10.6**	**10.8**	**11.0**	**12.2**	**11.7**	**11.7**	**11.2**	**10.6**	**10.8**	**10.7**	**10.2**	**11.3**	**10.0**	**9.8**	**9.5**	**8.4**
	(60.5)	**(63.7)**	**(58.2)**	**(62.2)**	**(61.7)**	**(64.5)**	**(59.2)**	**(62.7)**	**(62.6)**	**(65.5)**	**(59.7)**	**(64.2)**	**(63.9)**	**(66.8)**	**(61.8)**	**(65.9)**
of which :																
a) Construction	14.5	13.1	18.9	18.1	12.9	11.7	10.5	12.1	11.0	13.4	9.7	6.9	8.4	9.6	4.2	6.8
	(7.1)	(7.2)	(6.8)	(7.0)	(7.3)	(7.3)	(6.9)	(7.1)	(7.4)	(7.6)	(6.9)	(7.0)	(7.5)	(7.8)	(6.8)	(7.1)
b) Trade, hotels, restaurants,	12.1	11.7	11.2	13.2	11.9	13.7	13.2	12.4	13.1	10.9	11.7	13.8	13.0	12.1	5.9	6.3
transport, storage and communication	(25.8)	(26.9)	(25.6)	(27.2)	(26.4)	(27.7)	(26.5)	(27.9)	(27.3)	(28.2)	(27.1)	(29.2)	(28.6)	(29.4)	(27.1)	(29.4)
c) Financing, insurance, real estate	10.0	11.8	10.2	13.4	13.4	13.7	14.6	13.4	12.6	12.4	11.9	10.3	6.9	6.4	8.3	9.5
and business services	(14.1)	(14.6)	(12.9)	(13.5)	(14.6)	(15.1)	(13.6)	(14.0)	(15.1)	(15.5)	(13.9)	(14.2)	(14.9)	(15.3)	(14.2)	(14.7)
d) Community, social and personal services	6.7	7.2	7.7	6.7	9.0	6.0	4.4	4.0	4.5	7.1	5.5	9.5	8.2	9.0	22.5	12.5
	(13.5)	(14.9)	(12.8)	(14.5)	(13.4)	(14.4)	(12.2)	(13.7)	(12.8)	(14.1)	(11.8)	(13.8)	(12.9)	(14.3)	(13.7)	(14.7)
4. Gross Domestic Product at factor cost	**9.1**	**8.9**	**9.7**	**10.3**	**9.7**	**10.2**	**9.4**	**9.8**	**9.2**	**9.0**	**9.3**	**8.6**	**7.8**	**7.7**	**5.8**	**5.8**
Memo																Amount in Rupees crore
	(at current prices)															
1. Agriculture and Allied Activities	1,41,884	1,17,101	2,02,932	1,63,719	1,53,032	1,25,906	2,22,728	1,84,378	1,78,185	1,45,044	2,56,696	2,02,672	1,97,001	1,62,432	2,80,039	2,22,281
2. Industry	1,58,829	1,63,145	1,73,278	1,84,529	1,82,724	1,89,898	2,02,333	2,19,171	2,10,092	2,12,319	2,24,047	2,52,170	2,39,325	2,48,081	2,46,798	2,51,094
3. Services	4,49,778	4,72,091	5,07,899	5,47,202	5,22,237	5,49,628	5,90,528	6,36,820	6,04,985	6,28,120	6,66,827	7,39,736	7,20,683	7,65,120	7,84,090	8,16,240
4. Gross Domestic Product at factor cost	7,50,489	7,52,338	8,84,109	8,95,451	8,57,994	8,65,432	10,15,589	10,40,369	9,93,263	9,85,482	11,47,569	11,94,578	11,57,009	11,75,632	13,10,925	12,89,616
	(at constant prices 1999-00)															
1. Agriculture and Allied Activities	1,19,345	95,527	1,62,491	1,33,751	1,22,735	98,683	1,69,107	1,40,790	1,27,960	1,02,496	1,82,738	1,43,926	1,31,849	1,05,214	1,81,197	1,47,783
2. Industry	1,19,934	1,21,854	1,28,153	1,36,577	1,32,040	1,34,926	1,41,435	1,52,375	1,43,312	1,45,097	1,52,202	1,61,421	1,50,627	1,52,066	1,54,632	1,60,556
3. Services	3,67,136	3,80,683	4,05,191	4,45,457	4,10,214	4,25,219	4,50,772	4,92,826	4,54,713	4,70,616	4,96,797	5,48,438	5,00,141	5,16,572	5,44,150	5,94,585
4. Gross Domestic Product at factor cost	6,06,416	5,98,065	6,95,835	7,15,786	6,64,989	6,58,827	7,61,313	7,85,991	7,25,985	7,18,209	8,31,737	8,53,785	7,82,618	7,73,852	8,79,980	9,02,924

Note : 1. Figures in parentheses are percentage share to GDP.
2. Quarters Q1, Q2 , Q3 and Q4 denote April-June, July-September, October-December and January-March, respectively.
3. Constituents may not add up to 100 due to rounding off.

Source : Central Statistical Organisation.

APPENDIX TABLE 4: AGRICULTURAL PRODUCTION

(Million Tonnes)

Crop	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09#
1	2	3	4	5	6	7	8	9
I. All Crops: Annual Growth Rate (per cent) $	**7.6**	**-13.2**	**21.0**	**-2.7**	**12.2**	**13.9**	**0.9**	**3.4**
A) Foodgrains	9.4	-14.9	22.6	-7.0	5.1	4.1	6.2	2.3
B) Non-foodgrains	5.4	-11.1	19.2	2.5	16.1	18.9	-1.5	4.0
A Foodgrains (a+b)	**212.9**	**174.8**	**213.2**	**198.4**	**208.6**	**217.3**	**230.8**	**233.9**
1. Rice	93.3	71.8	88.5	83.1	91.8	93.4	96.7	99.2
2. Wheat	72.8	65.8	72.2	68.6	69.4	75.8	78.6	80.6
3. Coarse Cereals *of which:*	33.4	26.1	37.6	33.5	34.1	33.9	40.8	39.5
i) Jowar	7.6	7.0	6.7	7.2	7.6	7.2	7.9	7.3
ii) Bajra	8.3	4.7	12.1	7.9	7.7	8.4	10.0	8.8
iii) Maize	13.2	11.2	15.0	14.2	14.7	15.1	19.0	19.3
4. Pulses *of which:*	13.4	11.1	14.9	13.1	13.4	14.2	14.8	14.7
i) Tur	2.3	2.2	2.4	2.4	2.7	2.3	3.1	2.3
ii) Gram	5.5	4.2	5.7	5.5	5.6	6.3	5.8	7.1
a) Kharif	**112.1**	**87.2**	**117.0**	**103.3**	**109.9**	**110.6**	**121.0**	**117.7**
1. Rice	80.5	63.1	78.6	72.2	78.3	80.2	82.7	84.6
2. Coarse Cereals *of which:*	26.7	20.0	32.2	26.4	26.7	25.6	31.9	28.3
i) Jowar	4.2	4.2	4.8	4.0	4.1	3.7	4.1	3.1
ii) Bajra	8.3	4.7	12.1	7.9	7.7	8.4	10.0	8.8
iii) Maize	11.3	9.3	12.7	11.5	12.2	11.6	15.1	13.9
3. Pulses of which:	4.8	4.2	6.2	4.7	4.9	4.8	6.4	4.8
i) Tur	2.3	2.2	2.4	2.4	2.7	2.3	3.1	2.3
b) Rabi	**100.8**	**87.6**	**96.2**	**95.1**	**98.7**	**106.7**	**109.8**	**116.2**
1. Rice	12.8	8.7	9.9	10.9	13.5	13.2	14.0	14.6
2. Wheat	72.8	65.8	72.2	68.6	69.4	75.8	78.6	80.6
3. Coarse Cereals of which:	6.7	6.1	5.4	7.1	7.3	8.3	8.9	11.1
i) Jowar	3.3	2.8	1.8	3.2	3.6	3.4	3.8	4.2
ii) Maize	1.9	1.9	2.3	2.7	2.6	3.5	3.9	5.4
4. Pulses of which:	8.5	7.0	8.7	8.4	8.5	9.4	8.4	9.9
i) Gram	5.5	4.2	5.7	5.5	5.6	6.3	5.8	7.1
B Non-foodgrains								
1. Oilseeds++ *of which:*	20.7	14.8	25.2	24.4	28.0	24.3	29.8	28.2
i) Groundnut	7.0	4.1	8.1	6.8	8.0	4.9	9.2	7.3
ii) Rapeseed & Mustard	5.1	3.9	6.3	7.6	8.1	7.4	5.8	7.4
iii) Sunflower	0.7	0.9	0.9	1.2	1.4	1.2	1.5	1.3
iv) Soyabean	6.0	4.7	7.8	6.9	8.3	8.9	11.0	9.9
2. Sugarcane	297.2	287.4	233.9	237.1	281.2	355.5	348.2	271.3
3. Cotton @	10.0	8.6	13.7	16.4	18.5	22.6	25.9	23.2
4. Jute and Mesta +	11.7	11.3	11.2	10.3	10.8	11.3	11.2	10.4
5. Tea*	853.9	838.5	878.1	893.0	946.0	981.8	944.7	980.8
6. Coffee*	300.6	275.3	270.5	275.5	274.0	280.0	262.0	277.0

: Fourth Advance Estimates as on July 21, 2009.
$: Growth rates are based on Index of Agricultural Production with base triennium ending 1993-94=100. Data for 2008-09 are averages for period 1994-95 to 2007-08.
++ : For nine oilseeds out of eleven in all.
@ : Million bales of 170 kg. each.
+ : Million bales of 180 kg. each.
* : Million kilograms.

Source: Ministry of Agriculture, Government of India.

APPENDIX TABLE 5 : PROCUREMENT, OFF-TAKE AND STOCKS OF FOODGRAINS

(Million tonnes)

Year	Procurement			Off-take			Stocks*		
	Rice	Wheat	Total	Rice	Wheat	Total	Rice	Wheat	Total #
1	2	3	4	5	6	7	8	9	10
1995-96	9.93	12.33	22.16	11.63	12.72	24.35	13.06	7.76	20.82
1996-97	11.88	8.16	20.04	12.31	13.32	25.63	13.17	3.24	16.41
1997-98	14.54	9.30	23.84	11.20	7.76	18.96	13.05	5.08	18.12
1998-99	11.55	12.65	24.20	11.83	8.90	20.73	12.16	9.66	21.82
1999-00	16.62	14.14	30.76	12.42	10.63	23.05	15.72	13.19	28.91
2000-01	18.93	16.36	35.29	10.42	7.79	18.21	23.19	21.50	44.98
2001-02	21.12	20.63	41.75	15.32	15.99	31.30	24.91	26.04	51.02
2002-03	19.00	19.03	38.03	24.85	24.99	49.84	17.16	15.65	32.81
2003-04	20.78	15.80	36.58	25.04	24.29	49.33	13.07	6.93	20.65
2004-05	24.04	16.80	40.83	23.20	18.27	41.47	13.34	4.07	17.97
2005-06	26.69	14.79	41.48	25.08	17.17	42.25	13.68	2.01	16.62
2006-07	26.31	9.23	35.53	25.06	11.71	36.77	13.17	4.70	17.93
2007-08	26.29	11.13	37.42	25.22	12.20	37.43	13.84	5.80	19.75
2008-09 P	32.84	22.69	55.53	24.62	14.88	39.50	21.60	13.43	35.58
2009-10$ P	6.46	25.29	31.75	4.01	3.35	7.36	18.80	31.60	51.00

* : Stocks as at end-March.
P : Provisional
: Includes coarse grains.
$: Procurement up to August 17, 2009, off-take upto May 31, 2009 and stock as on August 1, 2009.
Source : Ministry of Food, Consumer Affairs and Public Distribution, Government of India.

APPENDIX TABLE 6 : TRENDS IN INDEX OF INDUSTRIAL PRODUCTION

(Base : 1993-94=100)

Sector	Mining & Quarrying		Manufacturing		Electricity		General	
Weight	10.5		79.4		10.2		100.0	
Period	Index	Growth Rate (per cent)	Index	Growth Rate (per cent)	Index	Growth Rate (per cent)	Index	Growth Rate (per cent)
1	2	3	4	5	6	7	8	9
2004-05	153.4	4.4	214.6	9.1	181.5	5.2	204.8	8.4
		(4.3)		(90.4)		(5.7)		(100.0)
2005-06	154.9	1.0	234.2	9.1	190.9	5.2	221.5	8.2
		(1.0)		(93.1)		(5.7)		(100.0)
2006-07	163.2	5.3	263.5	12.5	204.7	7.3	247.1	11.5
		(3.4)		(90.8)		(5.5)		(100.0)
2007-08	171.6	5.1	287.2	9.0	217.7	6.3	268.0	8.5
		(4.2)		(90.0)		(6.3)		(100.0)
2008-09 P	176.0	2.6	295.1	2.7	223.7	2.8	275.4	2.7
		(6.3)		(85.3)		(8.3)		(100.0)
2007-08								
April-June	162.6	2.7	273.7	11.1	217.5	8.3	256.4	10.3
July-September	155.7	7.4	277.7	8.9	215.4	7.1	258.6	8.7
October-December	176.0	5.5	288.5	8.9	217.3	4.6	269.4	8.3
January-March	192.0	5.2	308.9	7.3	220.7	5.5	287.7	7.0
April-September	159.2	4.9	275.7	10.0	216.5	7.7	257.5	9.5
October-March	184.0	5.3	298.7	8.0	219.0	5.1	278.6	7.6
2008-09								
April-June	169.1	4.0	289.5	5.8	221.8	2.0	270.0	5.3
July-September	161.6	3.8	291.3	4.9	222.3	3.2	270.7	4.7
October-December	179.5	2.0	289.8	0.5	223.6	2.9	271.5	0.8
January-March	193.7	0.9	309.7	0.3	227.3	3.0	289.2	0.5
April-September	165.3	3.9	290.4	5.3	222.0	2.6	270.4	5.0
October-March	186.6	1.4	299.8	0.4	225.4	2.9	280.3	0.6
2009-10 P								
April-June	181.4	7.3	298.9	3.2	235.2	6.0	280.1	3.7

P : Provisional.

Note : Figures in parentheses are relative contributions, computed as the ratio (in percentage terms) of the change in the index of the respective industry group to the change in the overall index adjusted for the weight of the relevant industry group.

Source : Central Statistical Organisation.

APPENDIX TABLE 7 : GROWTH IN INDEX OF SEVENTEEN MAJOR INDUSTRY GROUPS OF MANUFACTURING SECTOR

(Base : 1993-94=100)

Industry Group	Weight	Index		Percentage Variation		Relative Contribution (Per cent)	
		2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
1	2	3	4	5	6	7	8
I. Acceleration	**4.92**						
1. Beverages,tobacco and related products	2.38	498.0	578.5	12.0	16.2	6.8	32.3
2. Textile products (including wearing apparel)	2.54	295.5	312.5	3.7	4.2	1.4	5.2
II. Deceleration	**44.61**						
3. Machinery and Equipment other than Transport Equipment	9.60	394.4	429.1	10.5	8.7	19.0	54.9
4. Chemicals and chemical products except Products of Petroleum & coal	14.00	313.4	326.3	10.6	4.1	22.4	30.4
5. Basic metal and alloy industries	7.50	312.7	325.1	12.1	4.0	13.4	15.5
6. Transport equipment and parts	4.00	378.4	387.9	2.9	2.1	2.3	5.4
7. Paper and Paper products and printing, Publishing and Allied Activities	2.70	255.3	260.0	2.7	1.7	0.9	2.0
8. Non-metallic mineral products	4.40	323.2	327.0	5.7	1.1	4.1	2.7
9. Other manufacturing industries	2.60	357.4	358.9	19.8	0.4	8.0	0.7
III. Negative	**29.83**						
10. Wool,silk and man-made fibre textiles	2.30	281.2	281.2	4.8	-0.2	1.5	-0.2
11. Rubber, plastic, petroleum and coal products	5.70	246.4	242.6	8.9	-1.5	6.1	-3.6
12. Cotton textiles	5.50	164.0	160.9	4.3	-2.1	2.0	-3.2
13. Metal products and parts (except machinery and Equipment)	2.80	172.9	165.9	-5.6	-4.1	-1.5	-3.3
14. Leather and Leather & fur products	1.10	167.8	156.3	11.7	-6.9	1.1	-2.2
15. Food products	9.10	198.2	178.9	7.0	-9.7	6.3	-29.3
16. Jute and other vegetable fibre textiles (except cotton)	0.60	120.7	108.6	33.0	-10.1	0.9	-1.2
17. Wood and wood products, furniture & fixtures	2.70	127.9	115.6	40.5	-10.3	5.3	-6.0
Manufacturing (Total)	**79.36**	**287.2**	**295.1**	**6.7**	**0.7**	**100.0**	**100.0**

Note : 1. The industry groups of manufacturing sector have been categorised according to their performance during 2008-09.

2. The relative contribution is computed as the ratio (in percentage terms) of the change in the index of the respective industry group to the change in the overall index adjusted for the weight of the relevant industry group.

Source : Central Statistical Organisation.

APPENDIX TABLE 8 : FREQUENCY DISTRIBUTION OF GROWTH RATES OF SEVENTEEN MAJOR INDUSTRY GROUPS OF MANUFACTURING SECTOR - 2004-05 to 2008-09

(Number of years)

Industry Group	Weight	Negative	0-5 %	5-10 %	10-15 %	15+ %	Above 5% (Col. 5+6+7)
1	2	3	4	5	6	7	8
1. Food products	9.08	2	1	2	0	0	2
2. Beverages, tobacco and related products	2.38	0	0	0	3	2	5
3. Cotton textiles	5.52	1	1	2	1	0	3
4. Wool, silk and man-made fibre textiles	2.26	1	4	1	0	0	1
5. Jute and other vegetable fibre textiles (except cotton)	0.59	2	2	0	0	1	1
6. Textile products (including wearing apparel)	2.54	0	1	1	1	2	4
7. Wood and wood products, furniture & fixtures	2.70	3	0	0	0	2	2
8. Paper and paper products and printing, publishing and allied activities	2.65	1	2	1	1	0	2
9. Leather and leather & fur products	1.14	2	1	1	1	0	2
10. Chemicals & chemical products (except products of petroleum & coal)	14.00	0	1	2	2	0	4
11. Rubber, plastic, petroleum and coal products	5.73	1	2	1	1	0	2
12. Non-metallic mineral products	4.40	0	2	1	2	0	3
13. Basic metal and alloy industries	7.45	0	1	1	1	2	4
14. Metal products and parts (except machinery and equipment)	2.81	3	0	1	1	0	2
15. Machinery and equipment other than transport equipment	9.57	0	0	1	3	1	5
16. Transport equipment and parts	3.98	0	3	0	1	1	2
17. Other manufacturing industries	2.56	0	1	1	0	3	4

Source : Based on data from the Central Statistical Organisation.

APPENDIX TABLE 9 : USE-BASED CLASSIFICATION OF INDUSTRIAL PRODUCTION

(Base : 1993-94=100)

Industry Group	Weight	Index			Growth Rate (Per cent)					
		2006-07	2007-08	2008-09	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8	9	10	11
1. Basic Goods	35.57	209.3	223.9	229.7	5.5 (25.0)	5.5 (20.9)	6.7 (25.3)	10.3 (27.1)	7.0 (24.8)	2.6 (28.4)
2. Capital Goods	9.26	314.2	370.8	397.9	13.6 (18.0)	13.9 (16.5)	15.7 (20.1)	18.2 (17.5)	18.0 (25.1)	7.0 (34.1)
3. Intermediate Goods	26.51	242.4	264.1	259.0	6.4 (25.4)	6.1 (20.3)	2.5 (8.4)	12.0 (26.9)	8.9 (27.5)	-1.9 -(18.4)
4. Consumer Goods (a+b)	28.66	276.8	293.6	307.5	7.2 (31.0)	11.7 (42.6)	12.0 (46.3)	10.1 (28.4)	6.1 (23.0)	4.7 (54.2)
a) Consumer Durables	5.36	382.0	378.0	395.0	11.6 (11.9)	14.3 (12.9)	15.3 (14.9)	9.2 (6.7)	-1.0 -(1.0)	4.5 (12.4)
b) Consumer Non-durables	23.30	252.6	274.2	287.3	5.8 (19.2)	10.8 (29.6)	10.9 (31.5)	10.4 (21.7)	8.5 (24.1)	4.8 (41.7)
IIP - General	**100.00**	**247.1**	**268.0**	**275.4**	**7.0** **100.0**	**8.4** **100.0**	**8.2** **100.0**	**11.5** **100.0**	**8.5** **100.0**	**2.7** **100.0**

Note : Figures in parentheses are relative contributions, computed as the ratios (in percentage terms) of the change in the index of the respective industry group to the change in the overall index adjusted for the weight of the relative industry group.

Source : Central Statistical Organisation.

APPENDIX TABLE 10 : GROWTH OF SIX INFRASTRUCTURE INDUSTRIES

(Base: 1993-94=100)

Industry	Weight	Index		Growth Rate (Per cent)				
		2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8	9
1. Electricity	10.17	217.7	223.7	5.2 (32.1)	5.2 (30.5)	7.3 (28.0)	6.3 (37.2)	2.8 (36.3)
2. Coal	3.22	183.6	197.9	6.2 (10.2)	6.6 (10.4)	5.9 (6.2)	6.3 (9.8)	7.8 (27.2)
3. Steel	5.13	350.7	353.4	8.4 (37.1)	10.8 (46.9)	13.1 (38.9)	6.2 (29.5)	0.8 (8.2)
4. Cement	1.99	304.1	326.9	6.6 (10.0)	12.4 (18.1)	9.1 (9.3)	8.1 (12.7)	7.5 (27.1)
5. Petroleum Crude	4.17	126.2	124.0	1.8 (3.3)	-5.2 -(8.8)	5.5 (5.5)	0.4 (0.5)	-1.8 -(5.7)
6. Petroleum Refinery Products	2.00	292.4	301.2	4.3 (7.0)	2.1 (3.3)	12.9 (12.4)	6.5 (10.0)	3.0 (10.4)
Composite Index of Infrastructure Industries #	**26.68**	**236.9**	**243.5**	**5.8 (100.0)**	**6.1 (100.0)**	**9.3 (100.0)**	**5.9 (100.0)**	**2.8 (100.0)**

: Estimate based on weighted industry-wise index.

Note : Figures in brackets are relative contributions. The relative contribution is computed as the ratio (in percentage terms) of the change in the index of the respective industry group to the change in the overall index adjusted for the weight of the relative industry group.

Source : Office of the Economic Adviser, Ministry of Industry, Government of India.

APPENDIX TABLE 11 : GROSS DOMESTIC SAVING AND INVESTMENT

Item	Per cent of GDP (at current market prices)				Amount in Rupees crore		
	Average 1999-2000 to 2007-08	2005-06	2006-07	2007-08*	2005-06	2006-07	2007-08*
1	2	3	4	5	6	7	8
1. Household Saving	**23.0**	**24.1**	**24.1**	**24.3**	**8,64,653**	**9,94,898**	**11,50,135**
of which :							
a) Financial Assets	11.0	11.7	11.7	11.7	4,20,974	4,82,822	5,53,289
b) Physical Assets	12.1	12.4	12.4	12.6	4,43,679	5,12,076	5,96,846
2. Private corporate sector	**5.8**	**7.7**	**8.3**	**8.8**	**2,76,550**	**3,42,284**	**4,16,936**
3. Public sector	**0.9**	**2.4**	**3.3**	**4.5**	**86,823**	**1,37,926**	**2,12,543**
4. Gross Domestic Saving	**29.7**	**34.2**	**35.7**	**37.7**	**12,28,026**	**14,75,108**	**17,79,614**
5. Net capital inflow	**0.2**	**1.2**	**1.1**	**1.4**	**44,604**	**46,698**	**65,899**
6. Gross Domestic Capital Formation	**29.9**	**35.5**	**36.9**	**39.1**	**12,72,630**	**15,21,806**	**18,45,513**
7. Errors and Omissions	**0.2**	**0.7**	**0.5**	**0.3**	**23,741**	**19,297**	**16,167**
8. Gross Capital Formation	**29.8**	**34.8**	**36.4**	**38.7**	**12,48,889**	**15,02,508**	**18,29,346**
of which :							
a) Public sector	7.2	7.6	8.0	9.1	2,71,835	3,29,679	4,29,014
b) Private corporate sector	9.5	13.7	14.8	15.9	4,91,983	6,11,044	7,49,894
c) Household sector	12.1	12.4	12.4	12.6	4,43,679	5,12,076	5,96,846
d) Valuables #	0.9	1.2	1.2	1.1	41,392	49,709	53,591
Memo:							
Total Consumption Expenditure(a+b)		67.9	66.1	65.1			
a) Private Final Consumption Expenditure		57.4	55.9	55.0			
b) Government Final Consumption Expenditure		10.5	10.2	10.1			
Saving-Investment Balance(4-6)		-1.3	-1.2	-1.4			
Public Sector Balance#		-5.2	-4.6	-4.6			
Private Sector Balance#		5.7	5.2	4.7			
a) Private Corporate Sector		-6.0	-6.5	-7.0			
b) Household Sector		11.7	11.7	11.7			
GDP at Market Prices (at current prices)		35,86,743	41,29,174	47,23,400			

* : Quick Estimates.

\# : Valuables cover the expenditures made on acquisition of valuables, excluding works of art and antiques.

Source : Central Statistical Organisation.

APPENDIX TABLE 12 : FINANCIAL SAVING OF THE HOUSEHOLD SECTOR (GROSS)

Item	Per cent to Total Financial Saving			Rupees crore		
	2006-07	2007-08 (P)	2008-09 #	2006-07	2007-08 (P)	2008-09 #
1	2	3	4	5	6	7
Financial Saving (Gross)	**100.0**	**100.0**	**100.0**	**6,50,412**	**7,15,994**	**7,46,865**
a) Currency	10.2	11.4	12.5	66,274	81,278	93,056
b) Deposits	49.1	52.2	58.5	3,19,385	3,74,088	4,36,710
i) With Banks	47.8	50.4	54.9	3,11,215	3,60,727	4,09,678
ii) With Non-banking Companies	0.2	0.5	1.8	1,516	3,751	13,453
iii) With Coperative Banks and Societies	0.0	0.0	0.0	131	266	133
iv) Trade Debt (Net)	1.0	1.3	1.8	6,523	9,345	13,446
c) Share and Debentures	9.0	12.4	2.6	58,598	89,134	19,349
i) Private Corporate Business	3.7	4.4	4.2	23,755	31,565	31,124
ii) Banking	0.0	0.1	0.1	206	766	995
iii) Units of Unit Trust of India	0.0	0.0	-0.4	-310	-324	-2,737
iv) Bonds of public Sector undertakings	0.0	0.0	0.1	237	328	446
v) Mutual Funds (Other than UTI)	5.3	7.9	-1.4	34,709	56,799	-10,478
d) Claims on Government	3.0	-4.0	-3.1	19,198	-28,315	-23,479
i) Investment in Government securities	0.3	-2.1	-4.5	1,654	-14,714	-33,879
ii) Investment in Small Savings,etc.	2.7	-1.9	1.4	17,544	-13,601	10,400
e) Insurance Funds	17.7	18.0	20.1	1,14,851	1,28,930	1,50,337
i) Life Insurance Funds	17.1	17.4	19.5	1,10,965	1,24,422	1,45,876
ii) Postal Insurance	0.3	0.4	0.3	2,200	2,729	2,594
iii) State Insurance	0.3	0.2	0.3	1,686	1,779	1,868
f) Provident and Pension Funds	11.1	9.9	9.5	72,106	70,878	70,891
Memo :						
GDP at Current Market Prices				41,29,173	47,23,400	53,21,753

P : Provisional . # : Preliminary Estimates.

Note : Components may not add up to the totals due to rounding off.

APPENDIX TABLE 13 : VARIATIONS IN RESERVE MONEY

(Amount in Rupees crore)

Item	Outstanding as on March 31, 2009	Variations							
		Financial year				April-June			
		2007-08		2008-09		2008-09		2009-10	
		Absolute	Per cent	Absolute	Per cent	Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8	9	10
Reserve Money (C.1+C.2+C.3 = S.1+S.2+S.3+S.4+S.5-S.6)	**9,88,001**	**2,19,412**	**31.0**	**59,698**	**6.4**	**3,416**	**0.4**	**-37,443**	**-3.8**
Components									
C.1. Currency in Circulation	6,91,153	86,702	17.2	1,00,352	17.0	36,859	6.2	29,595	4.3
C.2. Bankers' Deposits with the RBI	2,91,275	1,31,152	66.5	-37,172	-11.3	-29,333	-8.9	-72,664	-24.9
of which:									
Scheduled Commercial Banks	2,77,462	1,25,558	67.4	-34,417	-11.0	-30,480	-9.8	-72,470	-26.1
C.3. 'Other' Deposits with the RBI	5,573	1,558	20.8	-3,482	-38.5	-4,110	-45.4	5,626	101.0
Sources									
S.1. Net RBI Credit to Government (a+b)	61,580	-1,15,632		1,74,789		-13		-11,145	
a) Net RBI credit to Central Government (i-ii)	61,761	-1,16,772		1,76,397		1,430		-11,497	
i) Claims on Central Government	1,57,488	17,542		42,763		-39,240		-84,233	
ii) Deposits of Central Government	95,727	1,34,314		-1,33,635		-40,670		-72,736	
b) Net RBI credit to State Governments (i-ii)	-181	1,140		-1,609		-1,443		352	
i) Claims on State governments	1,678	1,140		209		-1,443		-1,466	
ii) Deposits of State governments	1,859	0		1,818		0		-1,818	
S.2. RBI's Claims on Commercial and Co-operative banks	10,357	-3,045		5,767		-2,978		-8,547	
of which:									
Loans and Advances to Scheduled Commercial Banks	10,164	-1,739		5,593		-2,959		-8,364	
S.3. RBI's Credit to Commercial Sector	13,820	251		12,032		-381		-1,075	
S.4. Net Foreign Exchange Assets of the RBI	**12,80,116**	**3,69,977**		**43,986**		**1,03,932**		**-16,750**	
S.5. Government's Currency Liabilities to the Public	10,054	1,063	13.0	831	9.0	225	2.4	157	1.6
S.6. Net Non-monetary Liabilities of the RBI	3,87,927	33,202	18.8	1,77,706	84.5	97,369	46.3	81	0.0
S.7. Net Domestic Assets of the RBI (S.1+S.2+S.3+S.5-S.6)	**-2,92,115**	**-1,50,565**	**95.7**	**15,712**	**-5.1**	**-1,00,516**	**32.7**	**-20,692**	**7.1**

Note : Data are Provisional.

APPENDIX TABLE 14 : RESERVE BANK OF INDIA (RBI) SURVEY

(Amount in Rupees crore)

Item	Outstanding as on March 31, 2009	Variations							
		Financial year				April-June			
		2006-07		2007-08		2008-09		2009-10	
		Absolute	Percent	Absolute	Percent	Absolute	Percent	Absolute	Percent
1	2	3	4	5	6	7	8	9	10
Components									
C.I Currency in Circulation	6,91,153	86,702	17.2	1,00,352	17.0	36,859	6.2	29,595	4.3
C.II Bankers' Deposits with the RBI	2,91,275	1,31,152	66.5	-37,172	-11.3	-29,333	-8.9	-72,664	-24.9
C.II.1 Scheduled Commercial Banks	2,77,462	1,25,558	67.4	-34,417	-11.0	-30,480	-9.8	-72,470	-26.1
C.III 'Other' Deposits with the RBI	5,573	1,558	20.8	-3,482	-38.5	-4,110	-45.4	5,626	101.0
Reserve Money (C.I+C.II+C.III = S.I + S.II + S.III - S.IV - S.V)	**9,88,001**	**2,19,412**	**31.0**	**59,698**	**6.4**	**3,416**	**0.4**	**-37,443**	**-3.8**
Sources									
S.I RBI's Domestic Credit (S.I.1+S.I.2+S.I.3)	85,757	-1,18,426		1,92,588		-3,372		-20,768	
S.I.1 Net RBI credit to the Government (S.I.1.1+S.I.1.2)	61,580	-1,15,632		1,74,789		-13		-11,145	
S.I.1.1 Net RBI credit to the Central Government (S.I.1.1.1+S.I.1.1.2+S.I.1.1.3+ S.I.1.1.4-S.I.1.1.5)	61,761	-1,16,772		1,76,397		1,430		-11,497	
S.I.1.1.1 Loans and Advances to the Central Government	0	0		0		0		0	
S.I.1.1.2 Investments in Treasury Bills	0	0		0		0		0	
S.I.1.1.3 Investments in dated Government Securities	1,57,389	17,421	17.9	42,796	37.3	-39,239	-34.2	-84,411	-53.6
S.I.1.1.3.1 Central Government Securities	1,56,343	17,421	18.1	42,796	37.7	-39,239	-34.6	-84,411	-54.0
S.I.1.1.4 Rupee Coins	99	121		-34		-1		177	
S.I.1.1.5 Deposits of the Central Government	95,727	1,34,314		-1,33,635		-40,670		-72,736	
S.I.1.2 Net RBI credit to State Governments	-181	1,140		-1,609		-1,443		352	
S.I.2 RBI's Claims on Banks	10,357	-3,045		5,767		-2,978		-8,547	
S.I.2.1 Loans and Advances to Scheduled Commercial Banks	10,164	-1,739		5,593		-2,959		-8,364	
S.I.3 RBI's Credit to Commercial Sector	13,820	251	16.3	12,032	672.8	-381	-21.3	-1,075	-7.8
S.I.3.1 Loans and Advances to Primary Dealers	750	252		345		-230		-470	
S.I.3.2 Loans and Advances to NABARD	0	0		0		0		0	
S.II Government's Currency Liabilities to the Public	10,054	1,063	13.0	831	9.0	225	2.4	157	1.6
S.III Net Foreign Exchange Assets of the RBI	12,80,116	3,69,977	42.7	43,986	3.6	1,03,932	8.4	-16,750	-1.3
S.III.1 Gold	48,793	10,551	35.7	8,669	21.6	-934	-2.3	-3,377	-6.9
S.III.2 Foreign Currency Assets	12,31,340	3,59,426	43.0	35,317	3.0	1,04,866	8.8	-13,373	-1.1
S.IV Capital Account	3,60,078	21,902	13.9	1,80,897	101.0	88,386	49.3	-10,442	-2.9
S.V Other Items (net)	27,849	11,300	57.2	-3,191	-10.3	8,983	28.9	10,524	37.8

Note : Data are provisional

APPENDIX TABLE 15 : VARIATIONS IN MONEY STOCK

(Amount in Rupees crore)

Item	Outstanding as on March 31, 2009	Variations							
		Financial Year				April-June			
		2007-08		2008-09		2008-09		2009-10	
		Absolute	Per cent	Absolute	Per cent	Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8	9	10
Broad Money (M_3) (C.1+C.2+C.3 = S.1+S.2+S.3+S.4-S.5)	**47,64,019**	**7,07,815**	**21.4**	**7,46,136**	**18.6**	**89,283**	**2.2**	**1,72,702**	**3.6**
Components									
C.1. Currency with the Public	6,66,364	85,556	17.7	97,953	17.2	35,772	6.3	24,449	3.7
C.2. Aggregate Deposits with Banks (a+b)	40,92,083	6,20,701	22.0	6,51,665	18.9	57,621	1.7	1,42,626	3.5
a) Demand Deposits	5,81,247	1,00,768	21.1	2,875	0.5	-79,325	-13.7	-33,948	-5.8
b) Time Deposits	35,10,835	5,19,933	22.2	6,48,790	22.7	1,36,946	4.8	1,76,574	5.0
C.3. 'Other' Deposits with the RBI	5,573	1,558	20.8	-3,482	-38.5	-4,110	-45.4	5,626	101.0
Narrow Money (M_1)[C.1+C.2(a)+C.3]	12,53,184	1,87,882	19.4	97,347	8.4	-47,664	-4.1	-3,872	-0.3
Sources									
S.1. Net Bank Credit to Government (A+B)	**12,77,199**	**71,891**	**8.7**	**3,77,681**	**42.0**	**36,124**	**4.0**	**1,12,756**	**8.8**
A. Net RBI Credit to Government (a+b)	61,580	-1,15,632	-	1,74,789	-	-13	-	-11,145	-
a. Net RBI Credit to Central Government	61,761	-1,16,772	-	1,76,397	-	1,430	-	-11,497	-
b. Net RBI Credit to State Governments	-181	1,140	-	-1,609	-	-1,443	-	352	-
B. Other Banks' Credit to Government	12,15,619	1,87,523	22.7	2,02,892	20.0	36,137	3.6	1,23,902	10.2
S.2. Bank Credit to Commercial Sector (a+b)	**30,13,337**	**4,50,127**	**21.1**	**4,34,347**	**16.8**	**30,811**	**1.2**	**1,640**	**0.1**
a) RBI's Credit to commercial sector	13,820	251	-	12,032	-	-381	-21.3	-1,075	-7.8
b) Other Banks' Credit to Commercial Sector	29,99,517	4,49,876	21.1	4,22,315	16.4	31,191	1.2	2,715	0.1
S.3. Net Foreign Exchange Assets of Banking Sector (a+b)	**13,52,184**	**3,81,952**	**41.8**	**57,053**	**4.4**	**66,858**	**5.2**	**-16,750**	**-1.2**
a) RBI's net Foreign Exchange Assets	12,80,116	3,69,977	42.7	43,986	3.6	1,03,932	8.4	-16,750	-1.3
b) Other Banks' net Foreign Exchange Assets	72,068	11,975	25.5	13,067	22.1	-37,074	-62.8	0	0.0
S.4. Government's Currency Liabilities to the Public	**10,054**	**1,063**	**13.0**	**831**	**9.0**	**225**	**2.4**	**157**	**1.6**
S.5. Banking Sector's Net Non-Monetary Liabilities (a+b)	**8,88,754**	**1,97,219**	**34.7**	**1,23,775**	**16.2**	**44,735**	**5.8**	**-74,899**	**-8.4**
a) Net Non-Monetary Liabilities of RBI	3,87,927	33,202	18.8	1,77,706	84.5	97,369	46.3	81	0.0
b) Net Non-Monetary Liabilities of other Banks (residual)	5,00,828	1,64,016	42.0	-53,931	-9.7	-52,634	-9.5	-74,980	-15.0

Note : Data are provisional.

APPENDIX TABLE 16 : NEW MONETARY AGGREGATES

(Amount in Rupees crore)

Item	Outstanding as on March 31, 2009	Variations							
		Financial year				April-June			
		2007-08		2008-09		2008-09		2009-10	
		Absolute	Per cent	Absolute	Per cent	Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8	9	10
Monetary Aggregates									
M_1 (C.I+C.II.1+C.III)	12,51,143	1,84,945	19.1	96,689	8.4	-47,857	-4.1	-4,146	-0.3
NM_2 (M_1+C.II.2.1)	27,88,457	4,15,978	20.9	3,81,661	15.9	12,267	0.5	71,677	2.6
NM_3 (NM_2+C.II.2.2+C.IV = S.I+S.II+S.III-S.IV-S.V)	**47,81,333**	**7,19,019**	**21.6**	**7,37,393**	**18.2**	**84,635**	**2.1**	**1,48,564**	**3.1**
Components									
C.I Currency with the Public	**6,66,383**	**85,542**	**17.7**	**97,982**	**17.2**	**35,778**	**6.3**	**24,450**	**3.7**
C.II Aggregate Deposits of Residents (C.II.1+C.II.2)	**39,95,441**	**6,11,250**	**22.2**	**6,35,461**	**18.9**	**54,083**	**1.6**	**1,34,272**	**3.4**
C.II.1 Demand Deposits	5,79,188	97,845	20.4	2,189	0.4	-79,524	-13.8	-34,223	-5.9
C.II.2 Time Deposits of Residents (C.II.2.1+C.II.2.2)	34,16,254	5,13,405	22.6	6,33,272	22.8	1,33,608	4.8	1,68,494	4.9
C.II.2.1 Short-term Time Deposits	15,37,314	2,31,032	22.6	2,84,972	22.8	60,123	4.8	75,822	4.9
C.II.2.1.1 Certificates of Deposits (CDs)	1,98,931	69,200	71.0	32,289	19.4	-2,527	-1.5	22,345	11.2
C.II.2.2 Long-term Time Deposits	18,78,940	2,82,373	22.6	3,48,300	22.8	73,484	4.8	92,672	4.9
C.III Other' Deposits with the RBI	**5,573**	**1,558**	**20.8**	**-3,482**	**-38.5**	**-4,110**	**-45.4**	**5,626**	**101.0**
C.IV Call/Term Funding from Financial Institutions	**1,13,936**	**20,668**	**24.1**	**7,432**	**7.0**	**-1,116**	**-1.0**	**-15,785**	**-13.9**
Sources									
S.I Domestic Credit (S.I.1+S.I.2)	**44,76,836**	**5,40,979**	**17.5**	**8,38,320**	**23.0**	**75,990**	**2.1**	**1,79,662**	**4.0**
S.I.1 Net Bank Credit to the Government (S.I.1.1+S.I.1.2)	12,68,805	69,225	8.4	3,73,810	41.8	35,373	4.0	1,10,983	8.7
S.I.1.1 Net RBI Credit to the Government	61,580	-1,15,632		1,74,789		-13		-11,145	
S.I.1.2 Credit to the Government by the Banking System	12,07,225	1,84,857		1,99,021		35,387		1,22,128	
S.I.2 Bank Credit to the Commercial Sector (S.I.2.1+S.I.2.2)	32,08,032	4,71,754	20.8	4,64,510	16.9	40,616	1.5	68,680	2.1
S.I.2.1 RBI Credit to the Commercial Sector	13,820	251	16.3	12,032	672.8	-381	-21.3	-1,075	-7.8
S.I.2.2 Credit to the Commercial Sector by the Banking System	31,94,212	4,71,503	20.8	4,52,479	16.5	40,997	1.5	69,755	2.2
S.I.2.2.1 Other Investments (Non-SLR Securities)	2,16,479	30,155	20.2	36,907	20.6	10,136	5.6	68,122	31.5
S.II Government's Currency Liabilities to the Public	**10,054**	**1,063**	**13.0**	**831**	**9.0**	**225**	**2.4**	**157**	**1.6**
S.III Net Foreign Exchange Assets of the Banking Sector (S.III.1+S.III.2)	**12,26,757**	**3,40,392**	**41.2**	**60,823**	**5.2**	**84,008**	**7.2**	**10,939**	**0.9**
S.III.1 Net Foreign Exchange Assets of the RBI	12,80,116	3,69,977	42.7	43,986	3.6	1,03,932	8.4	-16,750	-1.3
S.III.2 Net Foreign Currency Assets of the Banking System	-53,359	-29,585	72.8	16,837	-24.0	-19,924	28.4	27,689	-51.9
S.IV Capital Account	**7,16,693**	**91,723**	**23.9**	**2,40,719**	**50.6**	**1,36,004**	**28.6**	**26,484**	**3.7**
S.V Other items (net)	**2,15,622**	**71,693**	**32.3**	**-78,138**	**-26.6**	**-60,417**	**-20.6**	**15,711**	**7.3**

Note : Data are provisional.

APPENDIX TABLE 17 : LIQUIDITY AGGREGATES

(Amount in Rupees crore)

Month/Year	NM_3	Postal Deposits	L_1	Liabilities of Financial Institutions: Term Money Borrowings	CDs	Term Deposits	Total	L_2	Public Deposits with NBFCs	L_3
1	2	3	**4=(2+3)**	5	6	7	8=(5+6+7)	**9=(4+8)**	10	**11=(9+10)**
2007- 08										
April	33,28,404	1,15,589	**34,43,993**	2,656	31	245	2,932	**34,46,925**		
May	33,43,424	1,16,135	**34,59,559**	2,656	31	245	2,932	**34,62,491**		
June	33,96,545	1,16,573	**35,13,118**	2,656	31	245	2,932	**35,16,050**	24,215	**35,40,265**
July	34,63,324	1,16,874	**35,80,198**	2,656	31	245	2,932	**35,83,130**		
August	34,97,908	1,16,886	**36,14,794**	2,656	31	245	2,932	**36,17,726**		
September	35,97,030	1,16,882	**37,13,912**	2,656	31	245	2,932	**37,16,844**	24,663	**37,41,507**
October	36,22,614	1,16,886	**37,39,500**	2,656	31	245	2,932	**37,42,432**		
November	36,89,321	1,16,994	**38,06,315**	2,656	31	245	2,932	**38,09,247**		
December	37,23,960	1,16,901	**38,40,861**	2,656	31	245	2,932	**38,43,793**	24,670	**38,68,463**
January	38,22,313	1,15,871	**39,38,184**	2,656	31	245	2,932	**39,41,116**		
February	39,11,566	1,14,579	**40,26,145**	2,656	31	245	2,932	**40,29,077**		
March	40,43,940	1,14,851	**41,58,791**	2,656	31	245	2,932	**41,61,723**	24,852	**41,86,575**
2008 - 09										
April	40,60,194	1,14,497	**41,74,691**	2,656	31	245	2,932	**41,77,623**		
May	41,10,950	1,15,131	**42,26,081**	2,656	31	245	2,932	**42,29,013**		
June	41,28,575	1,15,471	**42,44,046**	2,656	31	245	2,932	**42,46,978**	24,647	**42,71,625**
July	41,65,104	1,15,714	**42,80,818**	2,656	31	245	2,932	**42,83,750**		
August	42,47,373	1,15,507	**43,62,880**	2,656	31	245	2,932	**43,65,812**		
September	43,02,978	1,15,451	**44,18,429**	2,656	31	245	2,932	**44,21,361**	24,647	**44,46,008**
October	43,78,543	1,15,441	**44,93,984**	2,656	31	245	2,932	**44,96,916**		
November	44,14,019	1,15,157	**45,29,176**	2,656	31	245	2,932	**45,32,108**		
December	44,63,079	1,14,988	**45,78,067**	2,656	31	245	2,932	**45,80,999**	24,647	**46,05,646**
January	45,86,827	1,13,965	**47,00,792**	2,656	31	245	2,932	**47,03,724**		
February	46,69,550	1,13,471	**47,83,021**	2,656	31	245	2,932	**47,85,953**		
March	47,81,333	1,14,021	**48,95,354**	2,656	31	245	2,932	**48,98,286**	24,647	**49,22,933**
2009-10										
April	48,81,688	1,14,021	**49,95,709**	2,656	31	245	2,932	**49,98,641**		
May	49,38,101	1,14,021	**50,52,122**	2,656	31	245	2,932	**50,55,054**		
June	49,29,897	1,14,021	**50,43,918**	2,656	31	245	2,932	**50,46,850**	24,647	**50,71,497**

CDs: Certificates of Deposit; L_1, L_2 and L_3: Liquidity Aggregates; NBFCs: Non-Banking Financial Companies

Notes :
1. Postal Deposits comprise post office savings bank deposits, post office time deposits, post office recurring deposits, other deposits and post office cumulative time deposits.
2. Financial Institutions (FIs), here, comprise IFCI, EXIM Bank, IIBI, SIDBI, NABARD, NHB, TFCI and IDFC. Since October 2004, data on FI's do not include that of IDBI reflecting its conversion into a banking entity.
3. Since July 2001, the term money borrowings of the FIs comprise borrowings from corporate and others.
4. Since August 2002,Term Deposits include CP and Others.
5. Estimates of public deposits are generated on the basis of returns received from all NBFCs with public deposits of Rs. 20 crore and more as had been recommended by the Working Group.
6. While L_1 and L_2 are compiled on a monthly basis, L_3 is compiled on a quarterly basis.
7. Data are provisional. Wherever data are not available, the estimates for the last available month have been repeated.

APPENDIX TABLE 18 : IMPORTANT BANKING INDICATORS - SCHEDULED COMMERCIAL BANKS

(Amount in Rupees crore)

Item	Outstanding as on March 27, 2009	Variations							
		Financial year				April-June			
		2007-08		2008-09		2008-09		2009-10 P	
		Absolute	Per cent	Absolute	Per cent	Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8	9	10
1. Gross Demand and Time Liabilites (2+3+4+6)	**43,55,682**	**6,71,405**	**22.2**	**6,55,729**	**17.7**	**44,239**	**1.2**	**1,13,385**	**2.6**
2. Aggregate Deposits (a+b)	**38,34,110**	**5,85,006**	**22.4**	**6,37,170**	**19.9**	**55,203**	**1.7**	**1,32,039**	**3.4**
a. Demand deposits	5,23,085	94,579	22.0	-1,225	-0.2	-77,630	-14.8	-32,461	-6.2
b. Time deposits	33,11,025	4,90,427	22.5	6,38,395	23.9	1,32,833	5.0	1,64,500	5.0
3. Other Borrowings #	1,13,936	20,668	24.1	7,432	7.0	-1,116	-1.0	-15,785	-13.9
4. Other Demand and Time Liabilities	3,07,520	56,122	23.2	9,165	3.1	-4,133	-1.4	6,665	2.2
5. Borrowings from the RBI	11,728	-2,245	-35.9	7,728	193.2	-2,388	-59.7	-9,928	-84.7
6. Inter-bank Liabilities	1,00,116	9,609	10.9	1,962	2.0	-5,715	-5.8	-9,533	-9.5
7. Bank Credit (a+b)	**27,75,549**	**4,30,724**	**22.3**	**4,13,636**	**17.5**	**31,325**	**1.3**	**-5,334**	**-0.2**
a. Food Credit	46,211	-2,121	-4.6	1,812	4.1	5,748	12.9	14,450	31.3
b. Non-food Credit	27,29,338	4,32,846	23.0	4,11,824	17.8	25,577	1.1	-19,784	-0.7
8. Investments (a+b)	**11,66,410**	**1,80,199**	**22.8**	**1,94,695**	**20.0**	**33,051**	**3.4**	**1,25,894**	**10.8**
a. Government securities	11,55,786	1,82,603	23.5	1,97,124	20.6	33,245	3.5	1,19,708	10.4
b. Other approved securities	10,624	-2,405	-15.6	-2,429	-18.6	-194	-1.5	6,186	58.2
9. Cash in hand	20,281	1,905	11.8	2,237	12.4	1,861	10.3	5,939	29.3
10. Balances with the RBI	2,38,195	76,900	42.7	-18,927	-7.4	24,277	9.4	-33,202	-13.9
11. Inter-Bank Assets	1,22,571	13,435	17.3	31,694	34.9	-1,797	-2.0	-11,072	-9.0
12. Credit-Deposit Ratio (%)	72.4		73.6		64.9		56.7		-4.0
13. Non-food Credit-Deposit Ratio (%)	71.2		74.0		64.6		46.3		-15.0
14. Investment-Deposit Ratio (%)	30.4		30.8		30.6		59.9		95.3

P : Provisional.

APPENDIX TABLE 19 : COMMERCIAL BANK SURVEY

(Amount in Rupees crore)

Item	Outstanding as on March 27, 2009	Variations							
		Financial year				April-June			
		2007-08		2008-09		2008-09		2009-10	
		Absolute	Percent	Absolute	Percent	Absolute	Percent	Absolute	Percent
1	2	3	4	5	6	7	8	9	10
Components									
C.I Aggregate Deposits of Residents (C.I.1+C.I.2)	**37,66,842**	**5,95,531**	**23.4**	**6,26,838**	**20.0**	**53,155**	**1.7**	**1,31,389**	**3.5**
C.I.1 Demand Deposits	5,23,085	94,579	22.0	-1,225	-0.2	-77,630	-14.8	-32,461	-6.2
C.I.2 Time Deposits of Residents (C.I.2.1+C.I.2.2)	32,43,757	5,00,952	23.7	6,28,063	24.0	1,30,785	5.0	1,63,850	5.1
C.I.2.1 Short-term Time Deposits	14,59,691	2,25,429	23.7	2,82,628	24.0	58,853	5.0	73,733	5.1
C.I.2.1.1 Certificates of Deposits (CDs)	1,98,931	69,200	71.0	32,289	19.4	-2,527	-1.5	22,345	11.2
C.I.2.2 Long-term Time Deposits	17,84,067	2,75,524	23.7	3,45,435	24.0	71,932	5.0	90,118	5.1
C.II Call/Term Funding from Financial Institutions	**1,13,936**	**20,668**	**24.1**	**7,432**	**7.0**	**-1,116**	**-1.0**	**-15,785**	**-13.9**
Sources									
S.I Domestic Credit (S.I.1+S.I.2)	**41,51,147**	**6,41,799**	**22.4**	**6,43,388**	**18.3**	**73,716**	**2.1**	**1,88,174**	**4.5**
S.I.1 Credit to the Government	11,55,786	1,82,603	23.5	1,97,124	20.6	33,245	3.5	1,19,708	10.4
S.I.2 Credit to the Commercial Sector (S.I.2.1+S.I.2.2+S.I.2.3+S.I.2.4)	29,95,361	4,59,196	22.0	4,46,264	17.5	40,471	1.6	68,466	2.3
S.I.2.1 Bank Credit	27,75,549	4,30,724	22.3	4,13,636	17.5	31,325	1.3	-5,334	-0.2
S.I.2.1.1 Non-food Credit	27,29,338	4,32,846	23.0	4,11,824	17.8	25,577	1.1	-19,784	-0.7
S.I.2.2 Net Credit to Primary Dealers	1,671	721	25.8	-1,850	-52.6	-797	-22.6	-508	-30.4
S.I.2.3 Investments in Other Approved Securities	10,624	-2,405	-15.6	-2,429	-18.6	-194	-1.5	6,186	58.2
S.I.2.4 Other Investments (in non-SLR Securities)	2,07,517	30,155	21.5	36,907	21.6	10,136	5.9	68,122	32.8
S.II Net Foreign Currency Assets of Commercial Banks (S.II.1-S.II.2-S.II.3)	**-53,359**	**-29,585**	**72.8**	**16,837**	**-24.0**	**-19,924**	**28.4**	**27,689**	**-51.9**
S.II.1 Foreign Currency Assets	55,312	-27,564	-46.9	24,123	77.3	-8,383	-26.9	18,155	32.8
S.II.2 Non-resident Foreign Currency Repatriable Fixed Deposits	67,268	-10,525	-15.6	10,332	18.1	2,048	3.6	650	1.0
S.II.3 Overseas Foreign Currency Borrowings	41,404	12,546	39.3	-3,047	-6.9	9,494	21.4	-10,185	-24.6
S.III Net Bank Reserves (S.III.1+S.III.2-S.III.3)	**2,46,748**	**81,050**	**42.6**	**-24,418**	**-9.0**	**28,526**	**10.5**	**-17,335**	**-7.0**
S.III.1 Balances with the RBI	2,38,195	76,900	42.7	-18,927	-7.4	24,277	9.4	-33,202	-13.9
S.III.2 Cash in Hand	20,281	1,905	11.8	2,237	12.4	1,861	10.3	5,939	29.3
S.III.3 Loans and Advances from the RBI	11,728	-2,245		7,728		-2,388		-9,928	
S.IV Capital Account	**3,32,444**	**69,821**	**34.4**	**59,822**	**21.9**	**47,618**	**17.5**	**36,927**	**11.1**
S.V. Other items (net) (S.I+S.II+S.III-S.IV-C.I-C.II)	**1,31,313**	**7,244**	**4.0**	**-58,285**	**-30.7**	**-17,339**	**-9.1**	**45,998**	**35.0**
S.V.1 Other Demand & Time Liabilities (net of S.II.3)	2,66,116	43,576	20.7	12,212	4.8	-13,626	-5.4	16,849	6.3
S.V.2 Net Inter-Bank Liabilities (other than to PDs)	-20,785	-3,105	-22.3	-31,582	-292.5	-4,715	-43.7	1,031	-5.0

Note : Data are provisional.

APPENDIX TABLE 20 : SECTORAL DEPLOYMENT OF GROSS BANK CREDIT

(Amount in Rupees crore)

Sector	Outstanding as on			Variations during			
	March 31, 2007	March 28, 2008	March 27, 2009	2007-08		2008-09	
				Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8
I Gross Bank Credit (II + III)	18,48,187	22,47,289	26,48,501	3,99,102	21.6	4,01,212	17.9
II Food Credit	46,947	44,399	46,211	-2548	-5.4	1,812	4.1
III Non-Food Gross Bank Credit (1 to 4)	18,01,240	22,02,890	26,02,290	4,01,650	22.3	3,99,400	18.1
1. Agriculture & Allied Activities	2,30,377	2,75,343	3,38,656	44,966	19.5	63,313	23.0
2. Industry	6,97,339	8,66,875	10,54,390	1,69,536	24.3	1,87,515	21.6
3. Services	4,20,766	5,53,185	6,46,765	1,32,419	31.5	93,580	16.9
of which							
3.1 Transport Operators	28,332	37,818	39,302	9,486	33.5	1,484	3.9
3.2 Professional and Other Services	23,932	27,133	45,373	3,201	13.4	18,240	67.2
3.3 Trade	1,06,662	1,23,721	1,44,377	17,059	16.0	20,656	16.7
3.4 Real Estate Loans	44,079	63,314	91,575	19,235	43.6	28,261	44.6
3.5 Non-Banking Financial Companies	48,924	79,018	98,853	30,094	61.5	19,835	25.1
4. Personal Loans	4,52,758	5,07,488	5,62,479	54,730	12.1	54,991	10.8
of which							
4.1 Consumer Durables	9,189	8,799	8,187	-390	-4.2	-612	-7.0
4.2 Housing @	2,30,990	2,57,792	2,76,957	26,802	11.6	19,165	7.4
4.3 Advances against Fixed Deposits (including FCNR(B), NRNR Deposits, etc.)	40,835	45,005	48,676	4,170	10.2	3,671	8.2
4.4 Credit Card Outstandings	18,299	26,393	28,000	8,094	44.2	1,607	6.1
4.5 Education	15,208	20,532	28,579	5,324	35.0	8,047	39.2
Memo:							
5. Priority Sector of which	6,35,966	7,47,380	9,15,886	1,11,414	17.5	1,68,506	22.5
Housing#	1,60,343	1,91,878	2,03,154	31,535	19.7	11,276	5.9

@ : Direct housing loans.

\# : Direct as well as indirect housing loans.

Note : 1. Data are provisional and relate to select banks. Data also include the effects of mergers of Bharat Overseas Bank with Indian Overseas Bank, American Express Bank with Standard Chartered Bank and State Bank of Suarashtra with State Bank of India.

2. Gross bank credit data include bills rediscounted with Reserve Bank, Exim Bank, other financial institutions and inter-bank participations.

APPENDIX TABLE 21 : INDUSTRY-WISE DEPLOYMENT OF GROSS BANK CREDIT

(Amount in Rupees crore)

Sector	Outstanding as on			Variations during			
	March 31, 2007	March 28, 2008	March 27, 2009	2007-08		2008-09	
				Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8
INDUSTRY	6,97,339	8,66,875	10,54,390	1,69,536	24.3	1,87,515	21.6
1. Mining and Quarrying (incl.Coal)	7,704	12,262	14,241	4,558	59.2	1,979	16.1
2. Food Processing	40,011	49,382	53,779	9,371	23.4	4,397	8.9
3. Beverage & Tobacco	4,774	6,297	8,405	1,523	31.9	2,108	33.5
4. Textiles	79,006	96,489	1,02,695	17,483	22.1	6,206	6.4
5. Leather & Leather Products	4,774	5,743	6,146	969	20.3	403	7.0
6. Wood and Wood Products	2,889	3,160	4,138	271	9.4	978	30.9
7. Paper & Paper Products	11,588	13,462	15,983	1,874	16.2	2,521	18.7
8. Petroleum,Coal Products and Nuclear Fuels	35,886	41,601	68,147	5,715	15.9	26,546	63.8
9. Chemicals and Chemical Products	55,900	62,460	75,555	6,560	11.7	13,095	21.0
10. Rubber, Plastic & their Products	9,250	11,148	13,587	1,898	20.5	2,439	21.9
11. Glass and Glassware	2,564	2,776	4,240	212	8.3	1,464	52.7
12. Cement and Cement Products	9,410	12,566	19,220	3,156	33.5	6,654	53.0
13. Basic Metals and Metal Products	83,737	1,07,501	1,28,763	23,764	28.4	21,262	19.8
14. Engineering	43,762	54,452	65,807	10,690	24.4	11,355	20.9
15. Vehicles, Vehicle Parts and Transport Equipments	20,855	29,221	34,642	8,366	40.1	5,421	18.6
16. Gems & Jewellery	23,850	25,083	28,537	1,233	5.2	3,454	13.8
17. Construction	19,997	27,949	38,505	7,952	39.8	10,556	37.8
18. Infrastructure	1,43,375	2,05,120	2,69,972	61,745	43.1	64,852	31.6
19. Other Industries	97,977	1,00,203	1,02,028	2,226	2.3	1,825	1.8

Note: 1. Data are provisional and relate to select banks. Data also include the effects of mergers of Bharat Overseas Bank with Indian Overseas Bank, American Express Bank with Standard Chartered Bank and State Bank of Suarashtra with State Bank of India.

2. Gross bank credit data include bills rediscounted with Reserve Bank, Exim Bank, other financial institutions and inter-bank participations.

APPENDIX TABLE 22 : RESERVE BANK'S ACCOMMODATION TO SCHEDULED COMMERCIAL BANKS

(Amount in Rupees crore)

Item	2007-08	2008-09				2009-10
	March	June	September	December	March	June
1	2	3	4	5	6	7
1. Export Credit Refinance						
A) Limit	9,103	9,052	9,434	35,992	34,952	33,196
B) Outstanding	2,825	1,132	4,481	5,331	3,107	1,800
Memo Items :						
1. Aggregate Export Credit	1,29,983	1,29,956	1,36,172	1,37,451	1,28,940	1,19,717
2. Export Credit Eligible for Refinance	60,690	60,347	62,895	71,984	69,903	66,354
3. Aggregate Export Credit as Percentage of Net Bank Credit	5.5	5.4	5.3	5.2	4.6	4.3

Notes : 1. Data pertain to the last Reporting Friday of the month.

2. Effective November 15, 2008, ECR facility is being provided to banks to the extent of 50 per cent of the outstanding export credit eligible for refinance as at the end of second preceding forthnight.

APPENDIX TABLE 23 : VARIATIONS IN INDEX NUMBERS OF WHOLESALE PRICES (Base : 1993-94 = 100)

(Per cent)

Major Group/Sub-group/ Commodity	Weight	Variations					
		Year-on-year		Average		Year-on-year	
		2007-08	2008-09	2007-08	2008-09	June 28, 2008	June 27, 2009 P
1	2	3	4	5	6	7	8
All Commodities	**100.0**	**7.7**	**0.8**	**4.7**	**8.3**	**12.0**	**-1.6**
I. Primary Articles	**22.0**	**9.7**	**5.2**	**7.7**	**10.0**	**11.0**	**4.8**
1. Food articles	15.4	6.5	7.0	5.6	8.0	5.9	8.5
a) Cereals	4.4	7.3	10.8	6.3	8.8	7.1	12.3
i) Rice	2.4	9.1	14.9	6.9	11.0	7.7	14.9
ii) Wheat	1.4	5.1	4.5	4.3	6.1	6.6	7.2
b) Pulses	0.6	-1.9	9.4	-4.2	6.8	-1.2	16.8
c) Fruits and vegetables	2.9	8.2	1.1	3.8	8.2	6.8	10.5
d) Milk	4.4	8.7	7.0	8.6	7.5	7.6	4.8
e) Eggs, fish and meat	2.2	2.4	3.2	5.2	4.6	-1.2	3.0
f) Condiments and spices	0.7	4.0	15.5	5.0	11.9	11.9	6.3
g) Other food articles	0.2	8.7	21.9	0.7	31.8	25.0	18.6
i) Tea	0.2	6.8	29.4	-5.8	42.7	29.5	30.1
ii) Coffee	0.1	11.2	13.1	10.1	18.2	18.7	1.1
2. Non-food articles	6.1	11.4	0.1	12.8	11.1	18.9	-3.8
a) Fibres	1.5	13.4	2.4	14.9	21.3	35.3	-9.4
Raw cotton	1.4	14.0	2.5	17.5	23.6	38.1	-10.6
b) Oilseeds	2.7	20.3	-1.6	24.3	12.6	21.6	-3.8
3. Minerals	0.5	49.9	7.2	13.6	34.5	44.3	4.4
II. Fuel, Power, Light and Lubricants	**14.2**	**6.8**	**-6.1**	**1.0**	**7.4**	**16.3**	**-12.4**
1. Coking coal	0.2	10.3	0.0	3.2	6.9	10.3	0.0
2. Minerals oil	7.0	9.3	-8.7	1.0	11.0	25.6	-18.3
3. Electricity	5.5	1.5	-2.6	0.5	1.0	1.4	-2.6
III. Manufactured Products	**63.7**	**7.3**	**1.7**	**5.0**	**8.0**	**10.9**	**0.2**
1. Sugar, *Khandsari* and *Gur*	3.9	-3.4	19.2	-13.7	8.6	0.1	34.3
a) Sugar	3.6	1.1	18.4	-13.5	12.3	4.7	34.7
b) *Khandsari*	0.2	-1.7	21.6	-16.9	17.9	12.6	36.5
c) *Gur*	0.1	2.9	36.7	-8.0	20.4	15.9	41.5
2. Edible oils	2.8	20.0	-7.6	13.5	7.2	18.2	-12.3
3. Cotton textiles	4.2	-6.8	16.2	-1.8	7.9	5.5	3.6
4. Chemicals and chemical products	11.9	6.0	2.0	5.6	7.2	9.9	2.3
5. Cement	1.7	5.1	2.2	10.3	2.6	3.5	4.2
6. Iron and steel	3.6	34.2	-18.4	10.1	20.2	33.5	-19.9
7. Machinery and machine tools	8.4	3.5	2.6	7.1	4.7	6.2	-2.3
8. Transport equipments and parts	4.3	3.9	3.1	2.8	5.2	5.6	0.7

P : Provisional.
Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

APPENDIX TABLE 24 : VARIATIONS IN WHOLESALE PRICES - WEIGHTED CONTRIBUTIONS (Base : 1993-94 = 100)

(Per cent)

Major Group/Sub-group/Commodity	Weight	weighted contribution to variation					
		Year-on-year		Average		Year-on-year	
		2007-08	2008-09	2007-08	2008-09	June 28, 2008	June 27, 2009 P
1	2	3	4	5	6	7	8
All Commodities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
I. Primary Articles	**22.0**	**28.2**	**141.4**	**36.4**	**27.5**	**21.0**	**70.2**
1. Food articles	15.4	13.2	128.9	18.5	15.1	7.8	82.4
a) Cereals	4.4	4.1	55.2	5.7	4.6	2.5	32.5
i) Rice	2.4	2.5	38.7	3.1	2.9	1.4	19.9
ii) Wheat	1.4	1.0	7.7	1.3	1.1	0.8	6.3
b) Pulses	0.6	-0.2	7.4	-0.7	0.6	-0.1	6.7
c) Fruits and vegetables	2.9	3.3	4.1	2.6	3.1	1.8	20.7
d) Milk	4.4	4.7	35.6	7.5	3.8	2.7	12.7
e) Eggs, fish and meat	2.2	0.8	8.9	2.7	1.4	-0.3	4.4
f) Condiments and spices	0.7	0.4	12.9	0.8	1.0	0.7	3.0
g) Other food articles	0.2	0.2	4.5	0.0	0.7	0.4	2.5
i) Tea	0.2	0.1	3.2	-0.1	0.5	0.3	2.4
ii) Coffee	0.1	0.1	1.2	0.2	0.2	0.1	0.1
2. Non-food articles	6.1	8.8	1.0	15.1	8.0	9.4	-15.6
a) Fibres	1.5	2.1	3.7	3.6	3.2	3.6	-8.9
Raw cotton	1.4	2.0	3.5	3.7	3.2	3.4	-9.1
b) Oilseeds	2.7	6.7	-5.6	11.6	4.1	4.8	-7.2
3. Minerals	0.5	6.2	11.6	2.8	4.4	3.8	3.8
II. Fuel, Power, Light and Lubricants	**14.2**	**18.9**	**-155.7**	**4.8**	**19.0**	**29.1**	**-178.8**
1. Coking coal	0.2	0.4	0.0	0.2	0.2	0.2	0.0
2. Minerals oil	7.0	15.1	-132.8	2.9	16.7	26.8	-166.8
3. Electricity	5.5	1.4	-21.1	0.8	0.9	0.8	-10.8
III. Manufactured Products	**63.7**	**52.8**	**114.1**	**58.8**	**53.4**	**50.1**	**8.6**
1. Sugar, *Khandsari* and *Gur*	3.9	-1.3	62.9	-9.9	2.9	0.0	56.8
a) Sugar	3.6	0.4	52.8	-8.2	3.5	0.9	50.1
b) *Khandsari*	0.2	0.0	3.5	-0.6	0.3	0.1	3.1
c) *Gur*	0.1	0.0	2.0	-0.1	0.1	0.1	1.3
2. Edible oils	2.8	5.5	-21.6	5.9	1.9	3.3	-18.4
3. Cotton textiles	4.2	-2.8	53.5	-1.2	2.9	1.4	6.9
4. Chemicals and chemical products	11.9	8.7	26.4	13.3	9.7	9.3	16.8
5. Cement	1.7	1.1	4.4	3.6	0.5	0.5	4.4
6. Iron and steel	3.6	20.1	-124.4	9.5	11.4	12.7	-70.1
7. Machinery and machine tools	8.4	2.9	18.9	9.4	3.7	3.3	-9.3
8. Transport equipments and parts	4.3	1.7	12.0	2.0	2.1	1.6	1.5

P : Provisional.

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

APPENDIX TABLE 25 : VARIATIONS IN PRICE INDICES (Year-on-year)

(Per cent)

Year/Month	Wholesale Price Index@	CPI for Industrial Workers#	CPI for Urban Non-manual Employees+	CPI for Agricultural Labourers*
1	2	3	4	5
2001-02	1.6	5.2	4.8	3.0
	(3.6)	(4.3)	(5.1)	(1.1)
2002-03	6.5	4.1	3.8	4.9
	(3.4)	(4.0)	(3.8)	(3.2)
2003-04	4.6	3.5	3.4	2.5
	(5.4)	(3.9)	(3.7)	(3.9)
2004-05	5.1	4.2	4.0	2.4
	(6.4)	(3.8)	(3.6)	(2.6)
2005-06	4.1	4.9	5.0	5.3
	(4.4)	(4.4)	(4.7)	(3.9)
2006-07	5.9	6.7	7.6	9.5
	(5.4)	(6.7)	(6.6)	(7.8)
2007-08	7.7	7.9	6.0	7.9
	(4.7)	(6.2)	(5.9)	(7.5)
2008-09	0.8	8.0	9.3	9.5
	(8.3)	(9.1)	(8.9)	(10.2)
2007-08				
April	6.0	6.7	7.7	9.4
May	5.2	6.6	6.8	8.2
June	4.4	5.7	6.1	7.8
July	4.7	6.5	6.9	8.6
August	3.9	7.3	6.4	8.8
September	3.4	6.4	5.7	7.9
October	3.1	5.5	5.5	7.0
November	3.1	5.5	5.1	6.2
December	3.8	5.5	5.1	5.9
January	4.8	5.5	4.8	5.6
February	5.7	5.5	5.2	6.4
March	7.7	7.9	6.0	7.9
2008-09				
April	8.3	7.8	7.0	8.9
May	9.3	7.8	6.8	9.1
June	12.0	7.7	7.3	8.8
July	12.5	8.3	7.4	9.4
August	12.4	9.0	8.5	10.3
September	12.1	9.8	9.5	11.0
October	10.7	10.4	10.4	11.1
November	7.9	10.4	10.8	11.1
December	5.9	9.7	9.8	11.1
January	4.0	10.4	10.4	11.6
February	2.5	9.6	9.9	10.8
March	0.8	8.0	9.3	9.5
2009-10				
April	1.7	8.7	8.8	9.1
May	0.9	8.6	9.7	10.2
June	-1.6 p	9.3	9.6	11.5

P : Provisional. @ : End of the period, Base : 1993-94=100.

: Base : 1982=100 up to December 2005 and Base : 2001=100 from January 2006.

+ : Base : 1984-85=100. * : Base : 1986-87=100.

Note : Figures in parentheses are on an average basis.

Source : 1. Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.
2. Labour Bureau, Ministry of Labour and Employment, Government of India.
3. Central Statistical Organisation, Ministry of Statistics and Programme Implementation, Government of India.

APPENDIX TABLE 26 : MEASURES OF DEFICIT OF THE CENTRAL GOVERNMENT

(Rupees crore)

Year	Fiscal Deficit		Primary Deficit		Net RBI Credit+	Revenue Deficit
	Gross	Net	Gross	Net		
1	2	3	4	5	6	7
1998-99	1,13,348 (89,560)	79,944	35,466 (11,678)	32,138	11,800	66,976
1999-2000	1,04,716	89,910	14,467	33,539	-5,588	67,596
2000-01	1,18,816	1,07,854	19,502	41,351	6,705	85,234
2001-02	1,40,955	1,23,074	33,495	51,152	-5,150	1,00,162
2002-03	1,45,072	1,33,829	27,268	53,647	-28,399	1,07,879
2003-04	1,23,273	1,15,558	-815	30,008	-76,065	98,261
2004-05	1,25,794	1,26,252	-1140	31,705	-60,177	78,338
2005-06	1,46,435	1,45,743	13,805	35,145	28,417	92,300
2006-07	1,42,573	1,51,245	-7,699	23,497	-3,024	80,222
2007-08	1,26,912	1,20,714	-44,118	-29,256	-1,16,772	52,569
2007-08 #	1,25,690 #	1,19,492 #	-45,340 #	-30,478 #	..	..
2008-09 BE	1,33,287	1,29,542	-57,520	-42,130	..	55184
2008-09 RE	3,26,515	3,22,011	1,33,821	1,48,353	1,76,397	2,41,273
2009-10 BE	4,00,996	3,92,882	1,75,485	1,86,545	..	2,82,735
As Percentage to GDP at current Market Prices						
1998-99	6.47 (5.11)	4.57	2.03 (0.67)	1.84	0.67	3.82
1999-2000	5.36	4.61	0.74	1.72	-0.29	3.46
2000-01	5.65	5.13	0.93	1.97	0.32	4.05
2001-02	6.19	5.40	1.47	2.24	-0.23	4.40
2002-03	5.91	5.45	1.11	2.19	-1.16	4.40
2003-04	4.48	4.20	-0.03	1.09	-2.76	3.57
2004-05	3.99	4.01	-0.04	1.01	-1.91	2.49
2005-06	4.08	4.06	0.38	0.98	0.79	2.57
2006-07	3.45	3.66	-0.19	0.57	-0.07	1.94
2007-08	2.69	2.56	-0.93	-0.62	-2.47	1.11
2007-08 #	2.66 #	2.53 #	-0.96 #	-0.65 #	..	..
2008-09 BE	2.50	2.43	-1.08	-0.79	..	1.04
2008-09 RE	6.14	6.05	2.51	2.79	3.31	4.53
2009-10 BE	6.85	6.71	3.00	3.19	..	4.83
Average 1998-99 to 2007-08	4.69 *	4.36	0.41 *	1.30	-0.71	3.18

RE : Revised Estimates. BE : Budget Estimates. .. Not Available.

\+ : As per RBI records before closure of Government accounts.

* : Net of States' share in small savings.

\# : Net of transfer of surplus from Reserve Bank to the Central Government amounting to Rs.34,309 crore and acquisition cost of Reserve Bank's stake in State Bank of India to the Central Government at Rs.35,531 crore.

Note: 1. Revenue deficit is the excess of revenue expenditure over revenue receipts. The net RBI credit to the Central Government is the sum of increase in the Reserve Bank's holdings of i) Treasury Bills, ii) Government of India dated securities, iii) rupee coins and iv) Loans and Advances from the Reserve Bank to Centre since April 1, 1997 adjusted for changes in Centre's cash balanceswith the Reserve Bank. The gross fiscal deficit is the excess of total expenditure including loans, net of recoveries over revenue receipts (including external grants) and non-debt capital receipts.The net fiscal deficit is the difference between gross fiscal deficit and net lending.The gross primary deficit is the difference between the gross fiscal deficit and interest payments. The net primary deficit denotes net fiscal deficit minus net interest payments Since April 1, 2006, the Reserve Bank is prohibited from subscribing to primary issuance of Government Securities.

2. Figures in parentheses are excluding States' share in small savings as per the system of accounting followed since 1999-2000.

3. Negative sign indicates surplus.

Source : Central Government Budget Documents and Reserve Bank Records.

APPENDIX TABLE 27 : MAJOR ITEMS OF RECEIPTS AND EXPENDITURES OF THE CENTRAL GOVERNMENT

(Rupees crore)

Item	Average 1998-99 to 2007-08	2004-05	2005-06	2006-07	2007-08	2008-09 (BE)	2008-09 (RE)	2009-10 (BE)
1	2	3	4	5	6	7	8	9
1. Total Receipts (2+5)		5,06,382	5,26,626	5,78,869	6,78,362 @	7,50,884	9,00,953	10,20,838
	(15.58)	(16.08)	(14.68)	(14.02)	(14.36)	(14.11)	(16.93)	(17.43)
2. Revenue Receipts (3+4)		3,05,991	3,47,077	4,34,387	5,41,864	6,02,935	5,62,173	6,14,497
	(9.62)	(9.72)	(9.68)	(10.52)	(11.47)	(11.33)	(10.56)	(10.49)
3. Tax Revenue (Net to Centre)		2,24,798	2,70,264	3,51,182	4,39,547	5,07,150	4,65,970	4,74,218
	(7.06)	(7.14)	(7.54)	(8.50)	(9.31)	(9.53)	(8.76)	(8.10)
4. Non-tax Revenue		81,193	76,813	83,205	1,02,317	95,785	96,203	1,40,279
of which :	(2.56)	(2.58)	(2.14)	(2.02)	(2.17)	(1.80)	(1.81)	(2.40)
i) Interest Receipts		32,387	22,032	22,524	21,060	19,135	19,036	19,174
	(1.21)	(1.03)	(0.61)	(0.55)	(0.45)	(0.36)	(0.36)	(0.33)
ii) Dividends and Profits		22,939	25,451	29,309	34,499	43,204	39,736	49,750
	(0.68)	(0.73)	(0.71)	(0.71)	(0.73)	(0.81)	(0.75)	(0.85)
5. Capital Receipts		2,00,391	1,79,549	1,44,482	1,36,498 @	1,47,949	3,38,780	4,06,341
	(5.97)	(6.36)	(5.01)	(3.50)	(2.89)	(2.78)	(6.37)	(9.94)
6. Total Expenditure (7+8)		4,98,252	5,05,738	5,83,387	6,77,140 #	7,50,884	9,00,953	10,20,838
	(15.49)	(15.82)	(14.10)	(14.13)	(14.34)	(14.11)	(16.93)	(17.43)
7. Revenue Expenditure		3,84,329	4,39,376	5,14,609	5,94,433	6,58,119	8,03,446	8,97,232
of which :	(12.80)	(12.20)	(12.25)	(12.46)	(12.58)	(12.37)	(15.10)	(15.32)
i) Interest Payments		1,26,934	1,32,630	1,50,272	171,030	1,90,807	1,92,694	2,25,511
	(4.28)	(4.03)	(3.70)	(3.64)	(3.62)	(3.59)	(3.62)	(3.85)
ii) Subsidies		45,957	47,522	57,125	70,926	71,431	1,29,243	1,11,276
	(1.43)	(1.46)	(1.32)	(1.38)	(1.50)	(1.34)	(2.43)	(1.90)
iii) Defence		43,862	48,211	51,682	54,219	57,593	73,600	86,879
	(1.53)	(1.39)	(1.34)	(1.25)	(1.15)	(1.08)	(1.38)	(1.48)
8. Capital Disbursements		1,13,923	66,362	68,778	82,707 #	92,765	97,507	1,23,606
of which :	(2.69)	(3.62)	(1.85)	(1.67)	(1.75)	(1.74)	(1.83)	(2.11)
Capital Outlay		52,338	55,025	60,254	71,409 #	84,522	83,305	1,11,267
	(1.32)	(1.66)	(1.53)	(1.46)	(1.51)	(1.59)	(1.57)	(1.90)
9. Developmental Expenditure*		2,14,955	2,29,060	2,55,718	3,25,670	3,60,027	4,82,508	5,19,695
of which :	(6.90)	(6.83)	(6.39)	(6.19)	(6.89)	(6.77)	(9.07)	(8.87)
Social Sector		66,697	78,458	1,02,363	1,14,472	1,17,620	1,72,594	2,00,723
	(2.08)	(2.12)	(2.19)	(2.48)	(2.42)	(2.21)	(3.24)	(3.43)
10. Non-Developmental Expenditure*		2,62,904	2,90,677	3,41,278	4,00,728	4,07,504	4,34517	5,18,945
	(8.85)	(8.35)	(8.10)	(8.27)	(8.48)	(7.66)	(8.16)	(8.86)
Memo Items:								(per cent)
1. Interest Payments /Revenue Receipts	45.07	41.48	38.21	34.59	31.56	31.65	34.28	36.70
2. Revenue Deficit / Gross Fiscal Deficit	64.35	62.27	63.03	56.27	41.42	41.40	73.89	70.51
3. Net RBI Credit to Centre/ Gross Fiscal Deficit	-19.68	-47.84	19.41	-2.12	-92.01	..	54.02	..

BE : Budget Estimates. RE : Revised Estimates. .. : Not Available.

: Excludes acquisition cost of Reserve Bank's stake in SBI at Rs. 35,531 crore.

@ : Adjusted for an amount of Rs. 34,309 crore which represents Reserve Bank's profit on account of transfer of its stake in SBI to the Central Government.

* : Data on developmental and non-developmental expenditures are inclusive of Commercial Departments.

Note : Figures in parentheses are percentages to GDP.

Source : Central Government Budget Documents and Reserve Bank records.

APPENDIX TABLE 28 : FINANCING OF GROSS FISCAL DEFICIT OF THE CENTRAL GOVERNMENT

(Rupees crore)

Year	Internal Finance				External Finance	Total Finance/ Gross Fiscal Deficit (5+6)
	Market Borrowings #	Other Borrowings @	Drawdown of cash balances *	Total (2+3+4)		
1	2	3	4	5	6	7
1990-91	8,001 (17.9)	22,103 (49.5)	11,347 (25.4)	41,451 (92.9)	3,181 (7.1)	44,632 (100.0)
1995-96	34,001 (56.4)	16,117 (26.8)	9,807 (16.3)	59,925 (99.5)	318 (0.5)	60,243 (100.0)
2002-03	1,04,126 (71.8)	50,997 (35.2)	1,883 (1.3)	1,57,006 (108.2)	-11,934 -(8.2)	1,45,072 (100.0)
2003-04	88,870 (72.1)	51,833 (42.0)	-3,942 -(3.2)	1,36,761 (110.9)	-13,488 -(10.9)	1,23,273 (100.0)
2004-05	50,939 (40.5)	68,232 (54.2)	-8,130 -(6.5)	1,11,041 (88.3)	14,753 (11.7)	1,25,794 (100.0)
2005-06	1,06,241 (72.6)	53,610 (36.6)	-20,888 -(14.3)	1,38,963 (94.9)	7,472 (5.1)	1,46,435 (100.0)
2006-07	1,14,801 (80.5)	14,782 (10.4)	4,518 (3.2)	1,34,101 (94.1)	8,472 (5.9)	1,42,573 (100.0)
2007-08	1,30,600 (102.9)	-39,597 -(31.2)	26,594 (21.0)	1,17,597 (92.7)	9,315 (7.3)	1,26,912 (100.0)
2008-09(BE)	99,000 (74.3)	16,073 (12.1)	7,225 (5.4)	1,22,298 (91.8)	10,989 (8.2)	1,33,287 (100.0)
2008-09(RE)	2,66,539 (81.6)	20,389 (6.2)	29,984 (9.2)	3,16,912 (97.1)	9,603 (2.9)	3,26,515 (100.0)
2009-10(BE)	3,97,957 (99.2)	-13,008 -(3.2)	(0.0) (0.0)	3,84,949 (96.0)	16,047 (4.0)	4,00,996 (100.0)

RE : Revised Estimates. BE : Budget Estimates.

: Comprised dated securities and 364-day Treasury Bills.

@ : Other borrowings comprise small savings, state provident funds, special deposits, reserve funds, Treasury Bills (excluding 364- day Treasury Bill). From 1999-2000 onwards, small savings and public provident funds are represented through NSSF's investment in Central government special securities.Also includes NSSF's investment of redemption proceeds in Central Government special securities since 2003-04.

* : Prior to 1997, represents variations in 91-day Treasury Bills issued net of changes in cash balances with the Reserve Bank.

Note : 1. Figures in parentheses represent percentages to total finance (gross fiscal deficit).

2. Since 1999-2000, gross fiscal deficit excludes the States' share in small savings.

3. Market Borrowings are exclusive of amount raised under Market Stabilisation Scheme (MSS) effective from 2004-05.

Source : Central Government Budget Documents and Reserve Bank records.

APPENDIX TABLE 29 : OUTSTANDING LIABILITIES OF THE CENTRAL GOVERNMENT

(Rupees crore)

Year	Internal Debt	Small Savings, Deposits, Provident Funds and Other Accounts	Reserve Fund and Deposits	Total Internal Liabilities (2+3+4)	External Liabilities *	Total Liabilities (5+6)
1	2	3	4	5	6	7
1990-91	1,54,004 (27.0)	1,07,107 (18.8)	21,922 (3.8)	2,83,033 (49.7)	31,525 (5.5)	3,14,558 (55.2)
1995-96	3,07,869 (25.8)	2,13,435 (17.9)	33,680 (2.8)	5,54,983 (46.6)	51,249 (4.3)	6,06,232 (50.9)
2002-03	10,20,689 (41.6)	3,98,774 (16.2)	80,126 (3.3)	14,99,589 (61.1)	59,612 (2.4)	15,59,201 (63.5)
2003-04	11,41,706 (41.4)	4,56,472 (16.6)	92,376 (3.4)	16,90,554 (61.4)	46,124 (1.7)	17,36,678 (63.0)
2004-05	12,75,971 (40.5)	5,64,584 (17.9)	92,989 (3.0)	19,33,544 (61.4)	60,878 (1.9)	19,94,422 (63.3)
2005-06	13,89,758 (38.7)	6,66,682 (18.6)	1,09,462 (3.1)	21,65,902 (60.4)	94,243 (2.6)	22,60,145 (63.0)
2006-07	15,44,975 (37.4)	7,59,610 (18.4)	1,31,295 (3.2)	24,35,880 (59.0)	1,02,716 (2.5)	25,38,596 (61.5)
2007-08	18,08,359 (38.3)	7,89,993 (16.7)	1,27,043 (2.7)	27,25,395 (57.7)	1,12,031 (2.4)	28,37,426 (60.1)
2008-09 (RE)	20,14,451 (37.9)	8,77,231 (16.5)	1,22,759 (2.3)	30,14,441 (56.6)	1,21,634 (2.3)	31,36,075 (58.9)
2009-10 (BE)	23,59,940 (40.3)	8,77,474 (15.0)	1,23,357 (2.1)	33,60,771 (57.4)	1,37,681 (2.4)	34,98,452 (59.7)

RE : Revised Estimates. BE : Budget Estimates.

* : At historical exchange rate.

Note : 1. Figures in parentheses represent percentages to GDP.

2. Begining 1999-2000 Centre's share in small saving collection has been converted into Central Government special securities and are part of Internal Debt.

3. Market borrowings includes amounts raised under Market Stabilisation Scheme (MSS) effective from 2004-05.

Source : Central Government Budget Documents.

APPENDIX TABLE 30 : BUDGETARY OPERATIONS OF THE STATE GOVERNMENTS

A : Measures of Deficit of State Governments

(Rupees crore)

Year	Fiscal Deficit		Primary Deficit		Net RBI Credit#	Conventional Deficit	Revenue Deficit
	Gross	Net	Gross	Net			
1	2	3	4	5	6	7	8
1990-91	18,786	14,531	10,131	8,280	420	-72	5,309
1995-96	30,869	26,845	9,030	10,791	16	-2,680	8,620
2000-01	87,922	85,576	36,936	45,550	-1092	-2,379	55,316
2007-08* P	68,572	62,552	-29,044	-22,421	1140	-15,685	-43,405
2008-09* (RE) P	1,43,924	1,38,950	39,283	50,860	602	16,293	-7,336
2009-10* (BE) P	1,97,186	1,88,370	82,488	86,660	..	31,716	37,058
As Percentage to GDP at Current Market Prices							
1990-91	3.30	2.55	1.78	1.45	0.07	-0.01	0.93
1995-96	2.59	2.25	0.76	0.91	0.00	-0.22	0.72
2000-01	4.18	4.07	1.76	2.17	-0.05	-0.11	2.63
2007-08* P	1.45	1.32	-0.61	-0.47	0.02	-0.33	-0.92
2008-09* (RE) P	2.70	2.61	0.74	0.96	0.01	0.31	-0.14
2009-10* (BE) P	3.37	3.22	1.41	1.48	..	0.54	0.63

B : Select Budgetary Variables of State Governments

(Per cent)

Item	1990-00 (Average)	2007-08 P	2008-09 P (RE)	2009-10 P (BE)
1	2	3	4	5
1. GFD / Total Expenditure (excluding recoveries)	22.4	9.6	16.0	19.5
2. Revenue Deficit / Revenue Expenditure	9.5	-7.7	-1.0	4.5
3. Conventional Deficit / Aggregate Disbursements	-0.04	2.1	-1.8	-3.1
4. Revenue Deficit / GFD	36.2	-63.3	-5.1	18.8
5. Non-Developmental Revenue Expenditure / Revenue Receipts	39.8	36.3	35.4	40.2
6. Interest Payments/Revenue Receipts	16.6	16.0	14.5	14.6
7. Developmental Expenditure / GDP	10.0	9.5	11.3	11.0
of which :				
Social Sector Expenditure / GDP	5.7	5.5	6.7	7.0
8. Non-Developmental Expenditure / GDP	4.6	4.8	4.9	5.5
9. States' Own Tax Revenue/GDP	5.2	6.0	6.2	6.2
10. States' Own Non Tax Revenue / GDP	1.7	1.6	1.5	1.4

RE : Revised Estimates. BE : Budget Estimates. .. : Not available.
GFD : Gross Fiscal Deficit. P : Provisional data.
* : Data from 2007-08 onwards pertain to 27 State Governments of which two are Vote on Accounts.
# : Data pertain to State Governments having accounts with the Reserve Bank of India.

Notes : 1. Negative sign (-) indicates surplus in deficit indicators.
2. The net RBI credit to State Governments refers to variations in loans and advances given to them by the Reserve Bank net of their increamental deposits with the Reserve Bank.

Source : Budget Documents of the State Governments and the Reserve Bank Records.

APPENDIX TABLE 31 : FINANCING OF GROSS FISCAL DEFICIT AND OUTSTANDING LIABILITIES OF STATE GOVERNMENTS

A. Financing of Gross Fiscal Deficit of State Governments (Rupees crore)

Year	Market Borrow-ings	Loans from Centre	Loans against Securities issued to NSSF	Loans from LIC, NABARD, NCDC, *etc.*	Provident Funds *etc.*	Reserve Funds	Deposits and Advances	Suspense and Miscell-aneous	Remitt-ances	Others #	Overall Surplus (-)/ Deficit (+)	Gross Fiscal Deficit (+) (2 to12)
1	2	3	4	5	6	7	8	9	10	11	12	13
1990-91	2,556	9,978	0	241	3,069	1,120	1,670	376	-154	4	-74	18,787
	(13.6)	(53.1)	-	(1.3)	(16.3)	(6.0)	(8.9)	(2.0)	-(0.8)	(0.0)	-(0.4)	(100.0)
1995-96	5,888	14,075	0	635	4,902	2,101	2,947	3,096	-338	245	-2,680	30,870
	(19.1)	(45.6)	-	(2.1)	(15.9)	(6.8)	(9.5)	(10.0)	-(1.1)	(0.8)	-(8.7)	(100.0)
2000-01	12,519	8,324	32,606	4,550	13,107	3,099	7,136	2,355	1,032	5,574	-2,379	87,922
	(14.2)	(9.5)	(37.1)	(5.2)	(14.9)	(3.5)	(8.1)	(2.7)	(1.2)	(6.3)	-(2.7)	(100.0)
2001-02	17,249	10,895	35,648	6,285	10,186	4,521	4,996	-2,452	-427	3,814	3,545	94,261
	(18.3)	(11.6)	(37.8)	(6.7)	(10.8)	(4.8)	(5.3)	-(2.6)	-(0.5)	(4.0)	(3.8)	(100.0)
2002-03	28,484	-372	48,966	4,858	9,863	4,799	711	1,212	93	5,403	-4,290	99,727
	(28.6)	-(0.4)	(49.1)	(4.9)	(9.9)	(4.8)	(0.7)	(1.2)	(0.1)	(5.4)	-(4.3)	(100.0)
2003-04	47,286	13,940	18,003	4,132	9,325	6,377	-374	-3,651	1,850	24,268	-526	1,20,631
	(39.2)	(11.6)	(14.9)	(3.4)	(7.7)	(5.3)	-(0.3)	-(3.0)	(1.5)	(20.1)	-(0.4)	(100.0)
2004-05	34,559	-9,781	64,192	26	8,883	7,127	8,074	-2,623	1,240	6,335	-10,232	1,07,800
	(32.1)	-(9.1)	(59.5)	(0.02)	(8.2)	(6.6)	(7.5)	-(2.4)	(1.1)	(5.9)	-(9.5)	(100.0)
2005-06	15,305	-44	73,815	4,055	10,463	5,228	7,262	7,911	51	-17	-33,947	90,084
	(17.0)	(0.0)	(81.9)	(4.50)	(11.6)	(5.8)	(8.1)	(8.8)	(0.1)	(0.0)	-(37.7)	(100.0)
2006-07	13,057	-9,478	56,500	805	10,370	7,634	12,796	4,765	-305	-2,557	-16,078	77,509
	(16.8)	-(12.2)	(72.9)	(1.04)	(13.4)	(9.8)	(16.5)	(6.1)	-(0.4)	-(3.3)	-(20.7)	(100.0)
2007-08* P	50,345	-1,309	5,205	3,700	11,731	-5,920	14,677	3,744	1,127	956	-15,685	68,572
	(73.4)	-(1.9)	(7.6)	(5.40)	(17.1)	-(8.6)	(21.4)	(5.5)	(1.6)	(1.4)	-(22.9)	(100.0)
2008-09* (RE) P	98,592	2,029	2,101	8,374	14,021	1,834	5,992	-3,385	130	-2,056	16,293	1,43,924
	(68.5)	(1.4)	(1.5)	(5.8)	(9.7)	(1.3)	(4.2)	-(2.4)	(0.1)	-(1.4)	(11.32)	(100.0)
2009-10* (BE) P	1,13,712	9,005	7,875	8,288	20,720	2,160	9,724	-4,177	3	-1,839	31,716	1,97,186
	(57.7)	(4.6)	(4.0)	(4.2)	(10.5)	(1.1)	(4.9)	-(2.1)	(0.0)	-(0.9)	(16.1)	(100.0)

B. Outstanding Liabilities of State Governments

Year	Market Loans	Power Bonds	Loans and Advances from Centre	NSSF	Loans from Banks and FIs	Provident Funds, *etc.*	Reserve Funds	Deposits and Advances	Others +	Total Out-standing Liabilities (2 to 9)	Total Outstanding Liabilities as Percentage to GDP
1	2	3	4	5	6	7	8	9	10	11	12
1990-91	15,652	-	73,521	-	2,513	16,861	4,734	12,769	2,105	1,28,155	22.5
1995-96	37,088	-	1,29,264	-	4,838	38,216	10,577	26,654	2,899	2,49,535	20.9
2000-01	86,767	-	2,38,655	56,352	29,213	93,629	22,868	59,328	7,335	5,94,147	28.3
2001-02	1,04,027	-	2,49,551	90,226	40,894	1,03,815	27,389	64,325	10,520	6,90,747	30.3
2002-03	1,33,066	-	2,49,179	1,39,193	51,198	1,13,678	32,188	65,036	2,892	7,86,430	32.0
2003-04	1,79,917	28,984	1,92,981	1,98,454	65,960	1,32,043	42,217	69,116	3,704	9,13,376	33.2
2004-05	2,13,480	29,883	1,60,045	2,82,200	67,921	1,45,936	52,311	75,290	2,108	10,29,174	32.7
2005-06	2,28,925	31,581	1,57,004	3,65,933	71,845	1,60,955	63,120	86,691	1,812	11,67,866	32.6
2006-07	2,41,982	26,051	1,47,526	4,22,433	72,650	1,71,325	70,754	99,487	-1,389	12,50,819	30.3
2007-08* P	2,89,585	21,871	1,43,268	4,27,373	72,841	1,78,998	63,699	1,13,477	3,243	13,14,355	27.8
2008-09* (RE) P	3,88,177	20,420	1,45,297	4,29,474	81,215	1,93,019	65,533	1,19,468	1,561	14,44,165	27.1
2009-10* (BE) P	5,01,889	17,518	1,54,301	4,37,350	89,503	2,13,739	67,693	1,29,192	1,192	16,12,377	27.5

RE : Revised Estimates. BE : Budget Estimates. P : Provisional. – : Not applicable.

* : Data from 2007-08 onwards pertain to 27 State Governments of which two are Vote on Accounts.

: Includes Compensation and Other Bonds, Loans from Other Institutions, Appropriation to Contingency Fund, Inter-state Settlement and Contingency Fund.

+ : Includes WMA from the Reserve Bank, Contingency Fund and Compensation and Other Bonds.

Note : Figures in parantheses are percentages to gross fiscal deficit.

Source : Budget Documents of State Governments and Combined Finance and Revenue Accounts of the Union and State Governments.

APPENDIX TABLE 32 : DIRECT AND INDIRECT TAX REVENUES OF THE CENTRAL AND THE STATE GOVERNMENTS

(Rupees crore)

Year		Centre (Gross)			States@			Centre and States Combined		
		Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
1		2	3	4	5	6	7	8	9	10
1995-96		33,563	77,661	1,11,224	8,040	55,587	63,627	41,603	1,33,248	1,74,851
	(a)	30.2	69.8	100.0	12.6	87.4	100.0	23.8	76.2	100.0
	(b)	2.8	6.5	9.3	0.7	4.7	5.3	3.5	11.2	14.7
2002-03		83,085	1,33,181	2,16,266	18,151	1,24,526	1,42,677	1,01,236	2,57,707	3,58,943
	(a)	38.4	61.6	100.0	12.7	87.3	100.0	28.2	71.8	100.0
	(b)	3.4	5.4	8.8	0.7	5.1	5.8	4.1	10.5	14.6
2003-04		1,05,090	1,49,258	2,54,348	20,531	1,40,703	1,61,234	1,25,621	2,89,961	4,15,582
	(a)	41.3	58.7	100.0	12.7	87.3	100.0	30.2	69.8	100.0
	(b)	3.8	5.4	9.2	0.7	5.1	5.9	4.6	10.5	15.1
2004-05		1,32,771	1,72,187	3,04,958	24,043	1,65,045	1,89,088	1,56,814	3,37,232	4,94,046
	(a)	43.5	56.5	100.0	12.7	87.3	100.0	31.7	68.3	100.0
	(b)	4.2	5.5	9.7	0.8	5.2	6.1	5.0	10.7	15.7
2005-06		1,65,201	2,00,949	3,66,150	30,211	1,90,658	2,20,869	1,95,412	3,91,607	5,87,019
	(a)	45.1	54.9	100.0	13.7	86.3	100.0	33.3	66.7	100.0
	(b)	4.6	5.6	10.2	0.8	5.3	6.2	5.4	10.9	16.4
2006-07		2,30,181	2,43,331	4,73,512	37,579	2,14,029	2,51,608	2,67,760	4,57,360	7,25,120
	(a)	48.6	51.4	100.0	14.9	85.1	100.0	36.9	63.1	100.0
	(b)	5.6	5.9	11.5	0.9	5.2	6.1	6.5	11.1	17.6
2007-08		3,12,198	2,80,949	5,93,157	1,24,383	3,09,849	4,34,232	4,36,581	5,90,798	10,27,379
	(a)	52.6	47.4	100.0	28.6	71.4	100.0	42.5	57.5	100.0
	(b)	6.6	5.9	12.6	2.6	6.6	9.2	9.2	12.5	21.8
2008-09		3,65,000	3,22,715	6,87,715	1,39,189	3,66,117	5,05,306	5,04,189	6,88,832	11,93,021
BE	(a)	53.1	46.9	100.0	27.5	72.5	100.0	42.3	57.7	100.0
	(b)	6.9	6.1	12.9	2.6	6.9	9.5	9.5	12.9	22.4
2008-09		3,45,000	2,82,949	6,27,949	1,38,157	3,60,975	4,99,132	4,83,157	6,43,924	11,27,081
RE	(a)	54.9	45.1	100.0	27.7	72.3	100.0	42.9	57.1	100.0
	(b)	6.5	5.3	11.8	2.6	6.8	9.4	9.1	12.1	21.2
2009-10		3,70,000	2,71,079	6,41,079	1,52,545	3,94,822	5,47,367	5,22,545	6,65,901	11,88,446
BE	(a)	57.7	42.3	100.0	27.9	72.1	100.0	44.0	56.0	100.0
	(b)	6.3	4.6	10.9	2.6	6.7	9.3	8.9	11.4	20.3
Memo Items:										
(Average)										
1998-99	(a)	40.9	59.1	100.0	14.0	86.0	100.0	30.6	69.4	100.0
to 2007-08	(b)	4.0	5.6	9.6	0.9	5.2	6.1	4.9	10.8	15.7

RE : Revised Estimates. BE : Budget Estimates.

@ : Excluding States' share in Central Taxes as reported in Central Government budget documents.

(a) : Represents percentages to total tax revenue.

(b) : Represents percentages to GDP.

Source : Budget Documents of the Central and the State Governments.

APPENDIX TABLE 33 : COMBINED RECEIPTS AND DISBURSEMENTS OF THE CENTRAL AND THE STATE GOVERNMENTS

(Rupees crore)

Item	2004-05	2005-06	2006-07	2007-08	2008-09 RE	2009-10 BE
1	2	3	4	5	6	7
I. Total Disbursements (A+B+C)	**8,69,757**	**9,59,855**	**11,09,174**	**12,95,903**	**16,59,109**	**18,70,955**
of which:						
A. Developmental (i +ii +iii)	**4,45,354**	**5,09,525**	**5,88,028**	**6,96,200**	**9,88,513**	**10,62,099**
i) Revenue	3,42,517	3,92,386	4,52,499	5,41,208	7,84,400	8,49,033
ii) Capital	78,936	96,825	1,16,613	1,37,119	1,81,745	1,93,322
iii) Loans	23,901	20,314	18,916	17,873	22,368	19,744
B. Non-Developmental (i+ii+iii)	**4,16,340**	**4,40,377**	**5,07,635**	**5,83,470**	**6,50,220**	**7,85,968**
i) Revenue	3,79,825	4,04,027	4,66,431	5,00,128	5,95,632	7,13,819
of which :						
Interest Payments	1,92,312	2,03,977	2,30,847	2,57,532	2,85,486	3,28,660
ii) Capital	34,368	35,760	40,703	82,734	53,161	71,474
iii) Loans	2,147	590	501	608	1,427	675
C. Others *	**8,063**	**9,953**	**13,511**	**16,233**	**20,376**	**22,888**
II. Total Receipts	**8,88,345**	**10,14,689**	**11,25,499**	**13,11,589**	**16,42,815**	**18,39,239**
of which :						
A. Revenue Receipts	**6,15,644**	**7,07,054**	**8,77,075**	**10,48,406**	**11,66,470**	**12,65,947**
i) Tax Receipts (a + b + c)	4,92,481	5,76,596	7,24,023	8,73,779	9,65,102	10,21,585
a) Taxes on commodities and services	3,35,448	3,80,869	4,54,652	5,16,526	5,70,452	5,89,555
b) Taxes on Income and Property	1,56,214	1,94,602	2,68,108	3,55,929	3,93,060	4,30,428
c) Taxes of Union Territories (Without Legislature)	819	1,125	1,263	1,324	1,590	1,602
ii) Non-Tax Receipts	1,23,163	1,30,458	1,53,052	1,74,627	2,01,368	2,44,362
of which :						
Interest Receipts	19,223	18,735	21,744	22,590	23,738	20,614
B. Non-debt Capital Receipts (i+ii)	**19,392**	**13,241**	**1,667**	**50,460**	**21,119**	**9,918**
i) Recovery of Loans & Advances	14,968	11,651	-773	4,710	13,238	6,582
ii) Disinvestment proceeds	4,424	1590 #	2440 #	45,750 #	7,881 #	3,336 #
III. Gross Fiscal Deficit [I - (IIA + IIB)]	**2,34,721**	**2,39,560**	**2,30,432**	**1,97,037**	**4,71,520**	**5,95,090**
Financed by :						
A. Institution-wise (i+ii)	**2,34,721**	**2,39,560**	**2,30,432**	**1,97 037**	**4,71,520**	**5,95,090**
i) Domestic Financing (a+b)	2,19,968	2,32,088	2,21,960	1,87,722	4,61,917	5,79,043
a) Net Bank Credit to Government # #	13,863	16,351	69,177	71,612	3,77,318	..
of which :						
Net RBI Credit to Government	-62,882	34,261	-4,176	-1,15,632	1,83,122	..
b) Non-Bank Credit to Government	2,06,105	2,15,737	1,52,783	1,16,110	84,599	..
ii) External Financing	14,753	7,472	8,472	9,315	9,603	16,047
B. Instrument-wise (i+ii)	**2,34,721**	**2,39,560**	**2,30,432**	**1,97,037**	**4,71,520**	**5,95,090**
i) Domestic Financing (a to g)	2,19,968	2,32,088	2,21,960	1,87,722	4,61,917	5,79,043
a) Market Borrowings (net) @	85,498	1,21,546	1,27,884	1,80,945	3,65,131	5,11,669
b) Small Savings (net) &	87,690	89,836	63,746	-4,474	4,450	24,999
c) State Provident Funds (net)	13,139	15,388	15,188	14,216	18,086	24,269
d) Reserve Funds	10,827	10,122	19,342	4,474	-14,974	-6,268
e) Deposits and Advances	4,529	18,888	22,982	-1,351	18,780	18,750
f) Cash Balances ^	-18,588	-54,834	-16,325	-15,686	16,294	31,716
g) Others **	36,873	31,143	-10,857	9,598	54,150	-26,092
ii) External Financing	14,753	7,472	8,472	9,315	9,603	16,047
IV. I as per cent of GDP	**27.6**	**26.8**	**26.9**	**27.4**	**31.2**	**31.9**
V. II as per cent of GDP	**28.2**	**28.3**	**27.3**	**27.8**	**30.9**	**31.4**
VI. IIA as per cent of GDP	**19.5**	**19.7**	**21.2**	**22.2**	**21.9**	**21.6**
VII. IIA (i) as per cent of GDP	**15.6**	**16.1**	**17.5**	**18.5**	**18.1**	**17.4**
VIII. III as per cent of GDP	**7.5**	**6.7**	**5.6**	**4.2**	**8.9**	**10.2**

* : Represent compensation and assignments by States to local bodies and *Panchayati Raj* institutions. .. : Not available.
# : Also includes sale of 'land and property' and debt relief. # # : As per RBI records. RE : Revised Estimates. BE : Budget Estimates.
@ : Borrowing through dated securities and 364-day Treasury Bills.
& : Represent net investment in Central and State Governments' special securities by the National Small Savings Fund (NSSF).
^ : Include Ways and Means Advances of the State governments.
** : Includes Treasury Bills (excluding 364-days Treasury Bills), loans from financial institutions, insurance and pension funds, remittances, cash balance investment account *etc.*
(-) : Indicates surplus / net outflow.

Notes: i) Total disbursements/receipts are net of repayments of the Central Government (including repayments to the NSSF) and State Governments.
ii) Total receipts are net of variation in cash balances of the Central and State Governments.
iii) Data pertaining to State Governments are provisional from the year 2007-08 onwards and relate to budgets of 27 State Governments of which 2 are *vote on account.*
iv) In case of Union Government finances for 2007-08 the figures for non-debt capital receipts includes Rs.34,309 crore and development capital outlay includes an amount of Rs.35,531 crore on account of transactions relating to transfer of Reserve Bank's stake in SBI to the Central Government.

Source : Budget Documents of Central and State Governments.

APPENDIX TABLE 34 : MARKET BORROWINGS OF THE CENTRAL AND STATE GOVERNMENTS

(Rupees crore)

Government/Authority	Gross			Repayments			Net		
	2007-08	2008-09	2009-10 (BE)	2007-08	2008-09	2009-10 (BE)	2007-08	2008-09	2009-10 (BE)
1	2	3	4	5	6	7	8	9	10
1 Central Government (a+b)	1,88,205	3,18,550	4,91,044 #	78,702	76,233	89,905	1,09,504	2,42,317	3,97,957
a) Dated Securities	1,56,000	2,73,000 *	4,51,093 #	45,329	44,028	53,136	1,10,671	2,28,972	3,97,957
b) 364-day Treasury Bills	32,205	45,550	39,951	33,373	32,205	36,769	-1,167	13,345	-
2 State Governments	67,779	1,18,138	1,56,238 (E)	11,555	14,371	16,238	56,224	1,03,766	1,40,000 (E)
Grand Total (1+2)	**2,55,984**	**4,36,688**	**6,47,282**	**90,257**	**90,604**	**1,06,143**	**1,65,728**	**3,46,083**	**5,37,957**

BE : Budget Estimates. E : Estimate (RBI)

* : Includes Rs 12,000 crore dequestered from the MSS cash account during 2008-09.

: Includes Rs 33,000 crore being the projected MSS dequestering for 2009-10.

Source : Reserve Bank records and Budget Documents of the Central Government.

APPENDIX TABLE 35 : REPO/REVERSE REPO AUCTIONS UNDER LIQUIDITY ADJUSTMENT FACILITY

(Amount in Rupees crore)

LAF Date	Repo/ Reverse Repo period (Day(s))	Repo (Injection)					Reverse Repo (Absorption)					Net Injections (+)/ absorption(-) of liquidity	Outstanding Amount@
		Bids received		Bids Accepted		Cut-Off Rate %	Bids Received		Bids Accepted		Cut-Off Rate %		
		Number	Amount	Number	Amount		Number	Amount	Number	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1-Aug-08	3	1	8,000	1	8,000	9.00	3	1,695	3	1,695	6.00	6,305	
$	3	2	5,000	2	5,000	9.00	14	3,105	14	3,105	6.00	1,895	–8,200
4-Aug-08	1	19	23,810	19	23,810	9.00	–	–	–	–	–	23,810	–23,810
5-Aug-08	1	23	22,790	23	22,790	9.00	–	–	–	–	–	22,790	–22,790
6-Aug-08	1	17	14,855	17	14,855	9.00	–	–	–	–	–	14,855	–14,855
7-Aug-08	1	24	18,640	24	18,640	9.00	–	–	–	–	–	18,640	–18,640
8-Aug-08	3	29	32,720	29	32,720	9.00	–	–	–	–	–	32,720	–32,720
11-Aug-08	1	25	23,705	25	23,705	9.00	–	–	–	–	–	23,705	–23,705
12-Aug-08	1	30	29,075	30	29,075	9.00	–	–	–	–	–	29,075	–29,075
13-Aug-08	1	33	35,025	33	35,025	9.00	–	–	–	–	–	35,025	–35,025
14-Aug-08	4	24	26,130	24	26,130	9.00	–	–	–	–	–	26,130	
$	4	7	5,505	7	5,505	9.00	5	1,300	5	1,300	6.00	4,205	–30,335
18-Aug-08	2	25	34,725	25	34,725	9.00	–	–	–	–	–	34,725	–34,725
20-Aug-08	1	28	38,910	28	38,910	9.00	–	–	–	–	–	38,910	–38,910
21-Aug-08	1	25	29,470	25	29,470	9.00	–	–	–	–	–	29,470	–29,470
22-Aug-08	3	27	32,675	27	32,675	9.00	–	–	–	–	–	32,675	–32,675
25-Aug-08	1	23	20,165	23	20,165	9.00	–	–	–	–	–	20,165	–20,165
26-Aug-08	1	10	5,500	10	5,500	9.00	–	–	–	–	–	5,500	–5,500
27-Aug-08	1	6	4,050	6	4,050	9.00	–	–	–	–	–	4,050	–4,050
28-Aug-08	1	–	–	–	–	–	1	1,000	1	1,000	6.00	-1,000	1,000
29-Aug-08	3	–	–	–	–	–	2	60	2	60	6.00	-60	
$	3	3	8,700	3	8,700	9.00	7	1,040	7	1,040	6.00	7,660	–7,600
1-Sep-08	1	20	22,055	20	22,055	9.00	-	-	-	-	-	22,055	-22,055
2-Sep-08	2	13	10,975	13	10,975	9.00	1	1,000	1	1,000	6.00	9,975	-9,975
4-Sep-08	1	11	7,845	11	7,845	9.00	-	-	-	-	-	7,845	-7,845
5-Sep-08	3	15	18,550	15	18,550	9.00	-	-	-	-	-	18,550	-18,550
8-Sep-08	1	1	1,025	1	1,025	9.00	-	-	-	-	-	1,025	-1,025
9-Sep-08	1	2	3,025	2	3,025	9.00	1	10	1	10	6.00	3,015	-3,015
10-Sep-08	1	12	12,985	12	12,985	9.00	-	-	-	-	-	12,985	-12,985
11-Sep-08	1	11	15,195	11	15,195	9.00	-	-	-	-	-	15,195	-15,195
12-Sep-08	3	1	200	1	200	9.00	-	-	-	-	-	200	
#	3	5	14,200	5	14,200	9.00	9	2,185	9	2,185	6.00	12,015	-12,215
15-Sep-08	1	41	51,815	41	51,815	9.00	-	-	-	-	-	51,815	-51,815
16-Sep-08	1	51	57,565	51	57,565	9.00	-	-	-	-	-	57,565	-57,565
17-Sep-08	1	24	29,815	24	29,815	9.00	-	-	-	-	-	29,815	
$	1	36	29,665	36	29,665	9.00	-	-	-	-	-	29,665	-59,480
18-Sep-08	1	39	48,950	39	48,950	9.00	-	-	-	-	-	48,950	
$	1	37	26,365	37	26,365	9.00	-	-	-	-	-	26,365	-75,315
19-Sep-08	3	47	59,135	47	59,135	9.00	-	-	-	-	-	59,135	
$	3	30	24,375	30	24,375	9.00	1	1,200	1	1,200	6.00	23,175	-82,310
22-Sep-08	1	49	63,595	49	63,595	9.00	-	-	-	-	-	63,595	
$	1	18	15,265	18	15,265	9.00	-	-	-	-	-	15,265	-78,860
23-Sep-08	1	44	52,145	44	52,145	9.00	-	-	-	-	-	52,145	
$	1	33	18,155	33	18,155	9.00	-	-	-	-	-	18,155	-70,300
24-Sep-08	1	37	54,430	37	54,430	9.00	-	-	-	-	-	54,430	
$	1	22	9,890	22	9,890	9.00	1	5	1	5	6.00	9,885	-64,315
25-Sep-08	1	25	38,545	25	38,545	9.00	-	-	-	-	-	38,545	
$	1	21	10,660	21	10,660	9.00	-	-	-	-	-	10,660	-49,205
26-Sep-08	3	28	43,505	28	43,505	9.00	-	-	-	-	-	43,505	
$	3	27	13,095	27	13,095	9.00	2	120	2	120	6.00	12,975	-56,480
29-Sep-08	2	36	53,940	36	53,940	9.00	-	-	-	-	-	53,940	
$	2	47	36,135	47	36,135	9.00	-	-	-	-	-	36,135	-90,075
1-Oct-08	2	51	70,295	51	70,295	9.00	-	-	-	-	-	70,295	
$	2	27	21,425	27	21,425	9.00	-	-	-	-	-	21,425	-91,720
3-Oct-08	3	49	65,095	49	65,095	9.00	-	-	-	-	-	65,095	
$	3	33	25,630	33	25,630	9.00	-	-	-	-	-	25,630	-90,725
6-Oct-08	1	38	49,460	38	49,460	9.00	-	-	-	-	-	49,460	
$	1	28	18,140	28	18,140	9.00	2	2,100	2	2,100	6.00	16,040	-65,500
7-Oct-08	1	40	42,165	40	42,165	9.00	-	-	-	-	-	42,165	
$	1	22	21,120	22	21,120	9.00	1	3,650	1	3,650	6.00	17,470	-59,635
8-Oct-08	2	40	42,690	40	42,690	9.00	-	-	-	-	-	42,690	
$	2	44	38,445	44	38,445	9.00	2	1,100	2	1,100	6.00	37,345	-80,035
10-Oct-08	3	42	50,270	42	50,270	9.00	-	-	-	-	-	50,270	
$	3	43	41,730	43	41,730	9.00	1	500	1	500	6.00	41,230	-91,500
13-Oct-08	1	33	35,600	33	35,600	9.00	-	-	-	-	-	35,600	
$	1	29	23,975	29	23,975	9.00	3	4,135	3	4,135	6.00	19,840	-55,440

APPENDIX TABLE 35 : REPO/REVERSE REPO AUCTIONS UNDER LIQUIDITY ADJUSTMENT FACILITY *(Contd.)*

(Amount in Rupees crore)

LAF Date	Repo/ Reverse Repo period (Day (s))	Repo (Injection)					Reverse Repo (Absorption)					Net Injec-tions (+)/ absorp-tion(-) of liquidity	Outstanding Amount@
		Bids received		Bids Accepted		Cut-Off Rate %	Bids Received		Bids Accepted		Cut-Off Rate %		
		Number	Amount	Number	Amount		Number	Amount	Number	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
14-Oct-08	1	43	45,005	43	45,005	9.00	-	-	-	-	-	45,005	
#	15	4	3,500	4	3,500	9.00						3,500	
$	1	24	17,800	24	17,800	9.00	-	-	-	-	-	17,800	-66,305
15-Oct-08	1	36	36,270	36	36,270	9.00	-	-	-	-	-	36,270	
#	14	1	200	1	200	9.00						200	
$	1	28	19,070	28	19,070	9.00	-	-	-	-	-	19,070	-59,040
16-Oct-08	1	1	2,500	1	2,500	9.00	-	-	-	-	-	2,500	
#	15	5	2,270	5	2,270	9.00						2,270	
$	1	6	7,900	6	7,900	9.00	11	6,270	11	6,270	6.00	1,630	-10,100
17-Oct-08	3	1	250	1	250	9.00	-	-	-	-	-	250	
#	14	4	1,035	4	1,035	9.00						1,035	
$	3	5	7,100	5	7,100	9.00	11	5,715	11	5,715	6.00	1,385	-8,640
20-Oct-08	2	-	-	-	-	-	-	-	-	-	-	-	
#	14	3	1,545	3	1,545	8.00						1,545	
$	2	5	2,800	5	2,800	8.00	30	27,695	30	27,695	6.00	-24,895	16,345
22-Oct-08	1	-	-	-	-	-	8	4,200	8	4,200	6.00	-4,200	
#	14											0	
$	1	5	4,800	5	4,800	8.00	28	36,895	28	36,895	6.00	-32,095	27,745
23-Oct-08	1	-	-	-	-	-	8	4,430	8	4,430	6.00	-4,430	
#	14	1	250	1	250	8.00						250	
$	1	5	5,000	5	5,000	8.00	31	39,220	31	39,220	6.00	-34,220	29,850
24-Oct-08	3	-	-	-	-	-	17	13,440	17	13,440	6.00	-13,440	
#	14											0	
$	3	5	3,950	5	3,950	8.00	24	10,115	24	10,115	6.00	-6,165	10,805
27-Oct-08	2	25	21,805	25	21,805	8.00	-	-	-	-	-	21,805	
#	14	1	150	1	150	8.00						150	
$	2	25	20,965	25	20,965	8.00	-	-	-	-	-	20,965	-51,720
29-Oct-08	2	35	27,125	35	27,125	8.00	-	-	-	-	-	27,125	
#	14	5	2,425	5	2,425	8.00						2,425	
$	2	33	28,970	33	28,970	8.00	2	10	2	10	6.00	28,960	-63,760
31-Oct-08	3	42	41,745	42	41,745	8.00	-	-	-	-	-	41,745	
#	14	10	3,625	10	3,625	8.00						3,625	
$	3	30	23,910	30	23,910	8.00	1	60	1	60	6.00	23,850	-73,590
3-Nov-08	1	2	550	2	550	7.50	-	-	-	-	-	550	
#	14	4	1,310	4	1,310	7.50						1,310	
$	1	21	13,155	21	13,155	7.50	5	565	5	565	6.00	12,590	-20,900
4-Nov-08	1	5	2,360	5	2,360	7.50	-	-	-	-	-	2,360	
#	14	4	1,465	4	1,465	7.50						1,465	
$	1	8	5,495	8	5,495	7.50	5	4,030	5	4,030	6.00	1,465	-13,050
5-Nov-08	1	3	1,850	3	1,850	7.50	1	800	1	800	6.00	1,050	
#	14	2	1,500	2	1,500	7.50						1,500	
$	1	2	850	2	850	7.50	27	29,070	27	29,070	6.00	-28,220	16,445
6-Nov-08	1	-	-	-	-	-	10	14,240	10	14,240	6.00	-14,240	
#	14	2	1,250	2	1,250	7.50						1,250	
$	1	1	1,200	1	1,200	7.50	13	17,590	13	17,590	6.00	-16,390	18,905
7-Nov-08	3	-	-	-	-	-	7	3,395	7	3,395	6.00	-3,395	
#	14	-	-	-	-	-						0	
$	3	6	7,300	6	7,300	7.50	23	23,255	23	23,255	6.00	-15,955	7,625
10-Nov-08	1	5	1,835	5	1,835	7.50	-	-	-	-	-	1,835	
#	14	-	-	-	-	-						0	
$	1	11	10,600	11	10,600	7.50	2	25	2	25	6.00	10,575	-23,985
11-Nov-08	1	5	2,750	5	2,750	7.50	-	-	-	-	-	2,750	
#	14	1	200	1	200	7.50						200	
$	1	8	5,835	8	5,835	7.50	1	15	1	15	6.00	5,820	-20,345
12-Nov-08	2	5	3,490	5	3,490	7.50	-	-	-	-	-	3,490	
#	14	3	895	3	895	7.50						895	
$	2	5	7,500	5	7,500	7.50	1	15	1	15	6.00	7,485	-21,220
14-Nov-08	3	1	2,000	1	2,000	7.50	-	-	-	-	-	2,000	
#	14	1	300	1	300	7.50						300	
$	3	6	6,840	6	6,840	7.50	1	40	1	40	6.00	6,800	-15,720
17-Nov-08	1	3	4,400	3	4,400	7.50	-	-	-	-	_	4,400	
#	14	2	600	2	600	7.50					-	600	
$	1	2	1,650	2	1,650	7.50	9	7,525	9	7,525	6.00	-5,875	-4,735
18-Nov-08	1	1	2,000	1	2,000	7.50	2	2,500	2	2,500	6.00	-500	
#	14	-	-	-	-	-					-	-	
$	1	3	2,700	3	2,700	7.50	11	13,600	11	13,600	6.00	-10,900	6,655

APPENDIX TABLE 35 : REPO/REVERSE REPO AUCTIONS UNDER LIQUIDITY ADJUSTMENT FACILITY *(Contd.)*

(Amount in Rupees crore)

LAF Date	Repo/ Reverse Repo period (Day (s))	Repo (Injection)					Reverse Repo (Absorption)					Net Injections (+)/ absorption(-) of liquidity	Outstanding Amount@
		Bids received		Bids Accepted		Cut-Off Rate %	Bids Received		Bids Accepted		Cut-Off Rate %		
		Number	Amount	Number	Amount		Number	Amount	Number	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
19-Nov-08	1	1	2,000	1	2,000	7.50	5	7,125	5	7,125	6.00	-5,125	
#	14	2	1,950	2	1,950	7.50					-	1,950	
$	1	2	1,950	2	1,950	7.50	11	17,310	11	17,310	6.00	-15,360	15,290
20-Nov-08	1	1	1,000	1	1,000	7.50	6	8,435	6	8,435	6.00	-7,435	
#	14	1	1,000	1	1,000	7.50					-	1,000	
$	1	3	1,600	3	1,600	7.50	11	19,110	11	19,110	6.00	-17,510	20,000
21-Nov-08	3	2	2,800	2	2,800	7.50	4	4,640	4	4,640	6.00	-1,840	
#	14	-	-	-	-	-					-	-	
$	3	5	4,000	5	4,000	7.50	27	11,375	27	11,375	6.00	-7,375	
##	90	1	250	1	250	7.50					-	250	4,020
24-Nov-08	1	1	2,400	1	2,400	7.50	1	80	1	80	6.00	2,320	
#	14	-	-	-	-	-						0	
$	1	4	2,825	4	2,825	7.50	8	6,635	8	6,635	6.00	-3,810	
##	88	1	790	1	790	7.50						790	-4,495
25-Nov-08	1	1	1,600	1	1,600	7.50	3	805	3	805	6.00	795	
#	15	-	-	-	-	-						0	
$	1	4	2,175	4	2,175	7.50	8	3,690	8	3,690	6.00	-1,515	-5,065
26-Nov-08	2	1	1,600	1	1,600	7.50	8	5,505	8	5,505	6.00	-3,905	
#	14	1	600	1	600	7.50						600	
$	2	2	1,500	2	1,500	7.50	9	6,475	9	6,475	6.00	-4,975	3,390
27-Nov-08	1	3	735	3	735	7.50	-	-	-	-	-	735	
#	14	1	150	1	150	7.50						150	
$	1	2	2,000	2	2,000	7.50	4	2,350	4	2,350	6.00	-350	2,855
28-Nov-08	3	4	10,000	4	10,000	7.50	-	-	-	-	-	10,000	
#	14	-	-	-	-	-						0	
$	3	3	2,250	3	2,250	7.50	17	7,710	17	7,710	6.00	-5,460	-9,880
1-Dec-08	1	1	500	1	500	7.50	12	21,885	12	21,885	6.00	-21,385	
#	14	1	400	1	400	7.50						400	
$	1	-	-	-	-	-	24	14,680	24	14,680	6.00	-14,680	30,925
2-Dec-08	1	-	-	-	-	-	13	28,625	13	28,625	6.00	-28,625	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	32	24,355	32	24,355	6.00	-24,355	47,840
3-Dec-08	1	-	-	-	-	-	17	28,020	17	28,020	6.00	-28,020	
#	14	2	1,950	2	1,950	7.50						1,950	
$	1	-	-	-	-	-	28	28,590	28	28,590	6.00	-28,590	51,470
4-Dec-08	1	-	-	-	-	-	19	27,655	19	27,655	6.00	-27,655	
#	14	1	1,000	1	1,000	7.50						1,000	
$	1	-	-	-	-	-	23	24,405	23	24,405	6.00	-24,405	46,920
5-Dec-08	3	-	-	-	-	-	9	13,120	9	13,120	6.00	-13,120	
#	14	2	835	2	835	7.50						835	
$	3	-	-	-	-	-	42	31,975	42	31,975	6.00	-31,975	39,120
8-Dec-08	2	-	-	-	-	-	8	1,070	8	1,070	5.00	-1,070	
#	14	-	-	-	-	-							
$	2	-	-	-	-	-	18	26,330	18	26,330	5.00	-26,330	21,425
10-Dec-08	1	-	-	-	-	-	13	11,970	13	11,970	5.00	-11,970	
#	14	1	600	1	600	6.50						600	
$	1	-	-	-	-	-	17	15,400	17	15,400	5.00	-15,400	21,395
11-Dec-08	1	-	-	-	-	-	13	17,835	13	17,835	5.00	-17,835	
#	15	-	-	-	-	-							
$	1	-	-	-	-	-	11	13,830	11	13,830	5.00	-13,830	25,840
12-Dec-08	3	-	-	-	-	-	3	6,590	3	6,590	5.00	-6,590	
#	14	-	-	-	-	-							
$	3	-	-	-	-	-	8	17,445	8	17,445	5.00	-17,445	18,210
15-Dec-08	1	-	-	-	-	-	6	16,600	6	16,600	5.00	-16,600	
#	14	1	400	1	400	6.50						400	
$	1	3	2,300	3	2,300	6.50	10	19,070	10	19,070	5.00	-16,770	27,545
16-Dec-08	1	-	-	-	-	-	5	3,245	5	3,245	5.00	-3,245	
#	14	1	35	1	35	6.50						35	
$	1	4	7,375	4	7,375	6.50	15	28,350	15	28,350	5.00	-20,975	18,360
17-Dec-08	1	2	3,000	2	3,000	6.50	7	6,230	7	6,230	5.00	-3,230	
#	14	3	1,760	3	1,760	6.50						1,760	
$	1	4	4,125	4	4,125	6.50	9	12,905	9	12,905	5.00	-8,780	6,340
18-Dec-08	1	2	3,000	2	3,000	6.50	1	70	1	70	5.00	2,930	
#	14	1	250	1	250	6.50						250	
$	1	3	2,470	3	2,470	6.50	15	19,430	15	19,430	5.00	-16,960	9,110

APPENDIX TABLE 35 : REPO/REVERSE REPO AUCTIONS UNDER LIQUIDITY ADJUSTMENT FACILITY *(Contd.)*

(Amount in Rupees crore)

LAF Date	Repo/ Reverse Repo period (Day (s))	Repo (Injection)					Reverse Repo (Absorption)					Net Injections (+)/ absorption(-) of liquidity	Outstanding Amount@
		Bids received		Bids Accepted		Cut-Off Rate %	Bids Received		Bids Accepted		Cut-Off Rate %		
		Number	Amount	Number	Amount		Number	Amount	Number	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
19-Dec-08	3	7	6,500	7	6,500	6.50	5	820	5	820	5.00	5,680	
#	14	1	785	1	785	6.50						785	
$	3	12	7,890	12	7,890	6.50	22	24,130	22	24,130	5.00	-16,240	5,690
22-Dec-08	1	2	2,050	2	2,050	6.50	3	5,000	3	5,000	5.00	-2,950	
#	14	1	550	1	550	6.50						550	
$	1	3	1,820	3	1,820	6.50	1	130	1	130	5.00	1,690	-4,160
23-Dec-08	1	2	2,000	2	2,000	6.50	1	125	1	125	5.00	1,875	
#	14	1	75	1	75	6.50						75	
$	1	1	100	1	100	6.50	6	7,460	6	7,460	5.00	-7,360	-10
24-Dec-08	2	-	-	-	-	-	2	325	2	325	5.00	-325	
#	14	2	1,180	2	1,180	6.50						1,180	
$	2	-	-	-	-	-	10	15,050	10	15,050	5.00	-15,050	9,300
26-Dec-08	3	-	-	-	-	-	3	505	3	505	5.00	-505	
#	14	-	-	-	-	-							
$	3	2	3,400	2	3,400	6.50	14	23,600	14	23,600	5.00	-20,200	14,630
29-Dec-08	1	-	-	-	-	-	6	2,265	6	2,265	5.00	-2,265	
#	14	-	-	-	-	-							
$	1	1	100	1	100	6.50	33	45,085	33	45,085	5.00	-44,985	41,575
30-Dec-08	1	-	-	-	-	-	6	2,115	6	2,115	5.00	-2,115	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	23	37,050	23	37,050	5.00	-37,050	33,525
31-Dec-08	1	-	-	-	-	-	5	1,695	5	1,695	5.00	-1,695	
#	14	2	760	2	760	6.50						760	
$	1	2	3,000	2	3,000	6.50	30	45,970	30	45,970	5.00	-42,970	40,025
1-Jan-09	1	-	-	-	-	-	5	1,500	5	1,500	5.00	-1,500	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	33	67,215	33	67,215	5.00	-67,215	64,325
2-Jan-09	3	2	1,010	2	1,010	6.50	12	6,705	12	6,705	5.00	-5,695	
#	14	-	-	-	-	-							
$	3	-	-	-	-	-	48	71,230	48	71,230	5.00	-71,230	73,320
5-Jan-09	1	-	-	-	-	-	10	14,530	10	14,530	4.00	-14,530	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	20	42,960	20	42,960	4.00	-42,960	54,435
6-Jan-09	1	-	-	-	-	-	9	5,375	9	5,375	4.00	-5,375	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	20	53,985	20	53,985	4.00	-53,985	56,380
7-Jan-09	2	-	-	-	-	-	6	2,680	6	2,680	4.00	-2,680	
#	14	-	-	-	-	-							
$	2	-	-	-	-	-	18	40,650	18	40,650	4.00	-40,650	41,530
9-Jan-09	3	-	-	-	-	-	11	11,880	11	11,880	4.00	-11,880	
#	14	1	90	1	90	5.50						90	
$	3	-	-	-	-	-	16	15,560	16	15,560	4.00	-15,560	25,550
12-Jan-09	1	-	-	-	-	-	9	6,635	9	6,635	4.00	-6,635	
#	15	-	-	-	-	-							
$	1	-	-	-	-	-	22	22,225	22	22,225	4.00	-22,225	26,970
13-Jan-09	1	-	-	-	-	-	8	6,725	8	6,725	4.00	-6,725	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	18	22,245	18	22,245	4.00	-22,245	27,080
14-Jan-09	1	-	-	-	-	-	7	6,880	7	6,880	4.00	-6,880	
#	14	1	550	1	550	5.50						550	
$	1	-	-	-	-	-	13	16,115	13	16,115	4.00	-16,115	21,315
15-Jan-09	1	-	-	-	-	-	5	5,625	5	5,625	4.00	-5,625	
#	14	1	280	1	280	5.50						280	
$	1	2	1,950	2	1,950	5.50	16	17,200	16	17,200	4.00	-15,250	18,915
16-Jan-09	3	1	1,300	1	1,300	5.50	5	6,105	5	6,105	4.00	-4,805	
#	14	-	-	-	-	-							
$	3	5	3,735	5	3,735	5.50	31	32,685	31	32,685	4.00	-28,950	31,795
19-Jan-09	1	-	-	-	-	-	10	12,910	10	12,910	4.00	-12,910	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	22	30,290	22	30,290	4.00	-30,290	41,240
20-Jan-09	1	-	-	-	-	-	12	19,140	12	19,140	4.00	-19,140	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	22	30,085	22	30,085	4.00	-30,085	47,265
21-Jan-09	1	-	-	-	-	-	11	19,835	11	19,835	4.00	-19,835	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	26	34,620	26	34,620	4.00	-34,620	52,495

APPENDIX TABLE 35 : REPO/REVERSE REPO AUCTIONS UNDER LIQUIDITY ADJUSTMENT FACILITY *(Contd.)*

(Amount in Rupees crore)

LAF Date	Repo/ Reverse Repo period (Day (s))	Repo (Injection)					Reverse Repo (Absorption)					Net Injec-tions (+)/ absorp-tion(-) of liquidity	Outstanding Amount@
		Bids received		Bids Accepted		Cut-Off Rate %	Bids Received		Bids Accepted		Cut-Off Rate %		
		Number	Amount	Number	Amount		Number	Amount	Number	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
22-Jan-09	1	-	-	-	-	-	13	21,035	13	21,035	4.00	-21,035	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	27	35,675	27	35,675	4.00	-35,675	54,750
23-Jan-09	4	-	-	-	-	-	10	19,325	10	19,325	4.00	-19,325	
#	14	1	90	1	90	5.50						90	
$	4	-	-	-	-	-	23	29,815	23	29,815	4.00	-29,815	47,180
27-Jan-09	1	-	-	-	-	-	16	27,250	16	27,250	4.00	-27,250	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	21	24,515	21	24,515	4.00	-24,515	49,805
28-Jan-09	1	-	-	-	-	-	14	24,055	14	24,055	4.00	-24,055	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	25	39,195	25	39,195	4.00	-39,195	61,840
29-Jan-09	1	-	-	-	-	-	13	23,540	13	23,540	4.00	-23,540	
#	14	2	480	2	480	5.50						480	
$	1	-	-	-	-	-	27	37,965	27	37,965	4.00	-37,965	59,895
30-Jan-09	3	-	-	-	-	-	12	23,420	12	23,420	4.00	-23,420	
#	14	-	-	-	-	-							
$	3	1	50	1	50	5.50	36	33,090	36	33,090	4.00	-33,040	
##	90	1	245	1	245	5.50						245	54,605
2-Feb-09	1	-	-	-	-	-	11	28,890	11	28,890	4.00	-28,890	
#	14												
$	1	-	-	-	-	-	18	19,130	18	19,130	4.00	-19,130	46,165
3-Feb-09	1	-	-	-	-	-	12	28,390	12	28,390	4.00	-28,390	
#	14												
$	1	-	-	-	-	-	23	30,380	23	30,380	4.00	-30,380	56,915
4-Feb-09	1	-	-	-	-	-	14	38,765	14	38,765	4.00	-38,765	
#	14												
$	1	-	-	-	-	-	24	28,495	24	28,495	4.00	-28,495	65,405
5-Feb-09	1	-	-	-	-	-	13	37,120	13	37,120	4.00	-37,120	
#	14	1	500	1	500	5.50						500	
$	1	2	1,125	2	1,125	5.50	23	32,785	23	32,785	4.00	-31,660	66,425
6-Feb-09	3	-	-	-	-	-	11	14,335	11	14,335	4.00	-14,335	
#	14												
$	3	-	-	-	-	-	24	45,895	24	45,895	4.00	-45,895	57,965
9-Feb-09	1	-	-	-	-	-	9	12,040	9	12,040	4.00	-12,040	
#	15												
$	1	-	-	-	-	-	22	33,195	22	33,195	4.00	-33,195	42,970
10-Feb-09	1	-	-	-	-	-	9	16,440	9	16,440	4.00	-16,440	
#	14												
$	1	-	-	-	-	-	22	29,425	22	29,425	4.00	-29,425	43,600
11-Feb-09	1	-	-	-	-	-	8	15,740	8	15,740	4.00	-15,740	
#	14												
$	1	-	-	-	-	-	23	30,105	23	30,105	4.00	-30,105	43,580
12-Feb-09	1	-	-	-	-	-	7	16,305	7	16,305	4.00	-16,305	
#	14	1	200	1	200	5.50						200	
$	1	-	-	-	-	-	23	38,105	23	38,105	4.00	-38,105	52,425
13-Feb-09	3	1	150	1	150	5.50	10	23,170	10	23,170	4.00	-23,020	
#	14	1	70	1	70	5.50						70	
$	3	1	750	1	750	5.50	36	28,410	36	28,410	4.00	-27,660	48,625
16-Feb-09	1	-	-	-	-	-	12	38,130	12	38,130	4.00	-38,130	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	11	10,680	11	10,680	4.00	-10,680	46,755
17-Feb-09	1	-	-	-	-	-	8	11,670	8	11,670	4.00	-11,670	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	18	29,255	18	29,255	4.00	-29,255	38,870
18-Feb-09	1	-	-	-	-	-	9	11,215	9	11,215	4.00	-11,215	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	23	29,170	23	29,170	4.00	-29,170	38,330
19-Feb-09	5	-	-	-	-	-	2	170	2	170	4.00	-170	
#	14	1	500	1	500	5.50						500	
$	5	-	-	-	-	-	17	28,925	17	28,925	4.00	-28,925	
##	90	1	785	1	785	5.50						785	
$$	2	-	-	-	-	-	9	9,020	9	9,020	4.00	-9,020	35,525
21-Feb-09 $$	3	-	-	-	-	-	14	6,855	14	6,855	4.00	-6,855	34,150
24-Feb-09	1	-	-	-	-	-	13	23,775	13	23,775	4.00	-23,775	
#	16	-	-	-	-	-							
$	1	-	-	-	-	-	39	53,680	39	53,680	4.00	-53,680	75,655

APPENDIX TABLE 35 : REPO/REVERSE REPO AUCTIONS UNDER LIQUIDITY ADJUSTMENT FACILITY *(Contd.)*

(Amount in Rupees crore)

LAF Date	Repo/ Reverse Repo period (Day (s))	Repo (Injection)					Reverse Repo (Absorption)					Net Injections (+)/ absorption(-) of liquidity	Outstanding Amount@
		Bids received		Bids Accepted		Cut-Off Rate %	Bids Received		Bids Accepted		Cut-Off Rate %		
		Number	Amount	Number	Amount		Number	Amount	Number	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
25-Feb-09	1	-	-	-	-	-	15	27,755	15	27,755	4.00	-27,755	
#	15	-	-	-	-	-							
$	1	-	-	-	-	-	29	39,840	29	39,840	4.00	-39,840	65,795
26-Feb-09	1	-	-	-	-	-	16	29,310	16	29,310	4.00	-29,310	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	34	40,055	34	40,055	4.00	-40,055	67,765
27-Feb-09	3	1	1,200	1	1,200	5.50	11	19,935	11	19,935	4.00	-18,735	
#	14	-	-	-	-	-							
$	3	-	-	-	-	-	42	42,615	42	42,615	4.00	-42,615	59,820
2-Mar-09	1	-	-	-	-	-	13	21,690	13	21,690	4.00	-21,690	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	18	20,810	18	20,810	4.00	-20,810	40,970
3-Mar-09	1	-	-	-	-	-	14	25,375	14	25,375	4.00	-25,375	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	24	35,520	24	35,520	4.00	-35,520	59,365
4-Mar-09	1	-	-	-	-	-	14	27,155	14	27,155	4.00	-27,155	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	25	40,750	25	40,750	4.00	-40,750	66,375
5-Mar-09	1	-	-	-	-	-	13	30,100	13	30,100	3.50	-30,100	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	25	37,725	25	37,725	3.50	-37,725	66,795
6-Mar-09	3	-	-	-	-	-	16	31,530	16	31,530	3.50	-31,530	
#	14	-	-	-	-	-							
$	3	-	-	-	-	-	25	35,250	25	35,250	3.50	-35,250	65,750
9-Mar-09	3	-	-	-	-	-	11	19,240	11	19,240	3.50	-19,240	
#	14	2	170	2	170	5.00						170	
$	3	-	-	-	-	-	32	23,460	32	23,460	3.50	-23,460	41,500
12-Mar-09	1	-	-	-	-	-	13	21,925	13	21,925	3.50	-21,925	
#	14	1	1,500	1	1,500	5.00						1,500	
$	1	1	950	1	950	5.00	29	30,570	29	30,570	3.50	-29,620	48,845
13-Mar-09	3	1	225	1	225	5.00	7	17,950	7	17,950	3.50	-17,725	
#	17	1	100	1	100	5.00						100	
$	3	1	75	1	75	5.00	28	32,515	28	32,515	3.50	-32,440	47,365
16-Mar-09	1	-	-	-	-	-	1	5,000	1	5,000	3.50	-5,000	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	8	17,755	8	17,755	3.50	-17,755	19,955
17-Mar-09	1	-	-	-	-	-	-	-	-	-	-	0	
#	14	1	30	1	30	5.00						30	
$	1	-	-	-	-	-	9	16,015	9	16,015	3.50	-16,015	13,185
18-Mar-09	1	-	-	-	-	-	-	-	-	-	-	0	
#	15	2	610	2	610	5.00						610	
$	1	-	-	-	-	-	4	20,190	4	20,190	3.50	-20,190	16,750
19-Mar-09	1	-	-	-	-	-	-	-	-	-	-	0	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	8	21,195	8	21,195	3.50	-21,195	17,755
20-Mar-09	3	-	-	-	-	-	-	-	-	-	-	0	
#	17	2	140	2	140	5.00						140	
$	3	-	-	-	-	-	5	11,065	5	11,065	3.50	-11,065	7,485
23-Mar-09	1	-	-	-	-	-	2	10,000	2	10,000	3.50	-10,000	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	23	21,840	23	21,840	3.50	-21,840	28,430
24-Mar-09	1	-	-	-	-	-	3	10,350	3	10,350	3.50	-10,350	
#	15	-	-	-	-	-							
$	1	-	-	-	-	-	14	16,095	14	16,095	3.50	-16,095	23,035
25-Mar-09	1	-	-	-	-	-	5	11,300	5	11,300	3.50	-11,300	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	25	33,135	25	33,135	3.50	-33,135	41,025
26-Mar-09	4	1	1,700	1	1,700	5.00	3	1,530	3	1,530	3.50	170	
#	14	5	4,000	5	4,000	5.00						4,000	
$	4	4	900	4	900	5.00	17	12,220	17	12,220	3.50	-11,320	5,240
30-Mar-09	1	1	1,200	1	1,200	5.00	3	5,700	3	5,700	3.50	-4,500	
#	14	-	-	-	-	-							
$	1	2	1,025	2	1,025	5.00	23	25,455	23	25,455	3.50	-24,430	23,120
31-Mar-09	2	4	3,175	4	3,175	5.00	1	1,000	1	1,000	3.50	2,175	
#	15	-	-	-	-	-							
$	2	11	6,405	11	6,405	5.00	15	15,845	15	15,845	3.50	-9,440	1,485

APPENDIX TABLE 35 : REPO/REVERSE REPO AUCTIONS UNDER LIQUIDITY ADJUSTMENT FACILITY *(Contd.)*

(Amount in Rupees crore)

LAF Date	Repo/ Reverse Repo period (Day (s))	Repo (Injection)					Reverse Repo (Absorption)					Net Injections (+)/ absorption(-) of liquidity	Outstanding Amount@
		Bids received		Bids Accepted		Cut-Off Rate %	Bids Received		Bids Accepted		Cut-Off Rate %		
		Number	Amount	Number	Amount		Number	Amount	Number	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
2-Apr-09	4	-	-	-	-	-	5	3,450	5	3,450	3.50	-3,450	
#	14	-	-	-	-	-							
$	4	-	-	-	-	-	46	66,535	46	66,535	3.50	-66,535	64,815
6-Apr-09	2	-	-	-	-	-	20	33,915	20	33,915	3.50	-33,915	
#	14	-	-	-	-	-							
$	2	-	-	-	-	-	55	87,995	55	87,995	3.50	-87,995	1,16,880
8-Apr-09	1	-	-	-	-	-	26	42,795	26	42,795	3.50	-42,795	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	53	89,670	53	89,670	3.50	-89,670	1,27,435
9-Apr-09	4	-	-	-	-	-	28	60,570	28	60,570	3.50	-60,570	
#	14	-	-	-	-	-							
$	4	-	-	-	-	-	46	70,270	46	70,270	3.50	-70,270	1,29,810
13-Apr-09	2	-	-	-	-	-	20	41,120	20	41,120	3.50	-41,120	
#	14	1	90	1	90	5.00						90	
$	2	-	-	-	-	-	35	59,175	35	59,175	3.50	-59,175	99,175
15-Apr-09	1	-	-	-	-	-	22	51,330	22	51,330	3.50	-51,330	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	32	61,680	32	61,680	3.50	-61,680	1,11,890
16-Apr-09	1	-	-	-	-	-	20	49,590	20	49,590	3.50	-49,590	
#	18	-	-	-	-	-							
$	1	-	-	-	-	-	38	61,900	38	61,900	3.50	-61,900	1,10,370
17-Apr-09	3	-	-	-	-	-	22	50,555	22	50,555	3.50	-50,555	
#	17	-	-	-	-	-							
$	3	-	-	-	-	-	36	57,945	36	57,945	3.50	-57,945	1,07,380
20-Apr-09	1	-	-	-	-	-	25	51,385	25	51,385	3.50	-51,385	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	35	66,885	35	66,885	3.50	-66,885	1,17,150
21-Apr-09	1	-	-	-	-	-	26	61,510	26	61,510	3.50	-61,510	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	31	35,105	31	35,105	3.25	-35,105	95,495
22-Apr-09	1	-	-	-	-	-	20	50,650	20	50,650	3.25	-50,650	
#	5	-	-	-	-	-							
$	1	-	-	-	-	-	35	47,590	35	47,590	3.25	-47,590	97,120
23-Apr-09	1	-	-	-	-	-	18	50,450	18	50,450	3.25	-50,450	
#	4	-	-	-	-	-							
$	1	-	-	-	-	-	28	41,000	28	41,000	3.25	-41,000	90,330
24-Apr-09	3	-	-	-	-	-	20	43,620	20	43,620	3.25	-43,620	
#	3	-	-	-	-	-							
$	3	-	-	-	-	-	38	65,930	38	65,930	3.25	-65,930	1,08,430
27-Apr-09	1	-	-	-	-	-	24	57,005	24	57,005	3.25	-57,005	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	36	75,225	36	75,225	3.25	-75,225	1,31,200
28-Apr-09	1	-	-	-	-	-	27	66,150	27	66,150	3.25	-66,150	
$	1	-	-	-	-	-	40	64,050	40	64,050	3.25	-64,050	1,29,170
29-Apr-09	5	-	-	-	-	-	21	40,710	21	40,710	3.25	-40,710	
$	5	-	-	-	-	-	27	48,640	27	48,640	3.25	-48,640	88,565
4-May-09	1	-	-	-	-	-	27	73,015	27	73,015	3.25	-73,015	
#	14	-	-	-	-	-							
$	1	-	-	-	-	-	42	77,650	42	71,896	3.25	-71,896	
##	88	1	245	1	245	4.75						245	1,43,881
5-May-09	1	-	-	-	-	-	41	1,18,930	41	1,18,930	3.25	-1,18,930	
$	1	-	-	-	-	-	36	33,245	36	25,987	3.25	-25,987	1,43,887
6-May-09	1	-	-	-	-	-	58	1,47,315	58	1,44,913	3.25	-1,44,913	1,43,883
7-May-09	1	-	-	-	-	-	49	1,48,585	49	1,44,912	3.25	-1,44,912	1,43,882
8-May-09	3	-	-	-	-	-	45	1,40,025	45	1,40,025	3.25	-1,40,025	
$	3	-	-	-	-	-	20	6,775	20	6,775	3.25	-6,775	1,45,770
11-May-09	1	-	-	-	-	-	36	1,23,550	36	1,23,550	3.25	-1,23,550	
#	14	-	-	-	-	-							1,22,520
12-May-09	1	-	-	-	-	-	45	1,17,825	45	1,17,825	3.25	-1,17,825	1,16,795
13-May-09	1	-	-	-	-	-	49	1,33,175	49	1,33,175	3.25	-1,33,175	1,32,145
14-May-09	1	-	-	-	-	-	47	1,33,785	47	1,33,785	3.25	-1,33,785	1,32,755
15-May-09	3	-	-	-	-	-	44	1,24,000	44	1,24,000	3.25	-1,24,000	1,22,970
18-May-09	1	-	-	-	-	-	44	1,26,985	44	1,26,985	3.25	-1,26,985	
#	14	-	-	-	-	-							1,25,955
19-May-09	1	-	-	-	-	-	41	1,15,700	41	1,15,700	3.25	-1,15,700	1,14,670
20-May-09	1	-	-	-	-	-	43	1,18,000	43	1,18,000	3.25	-1,18,000	
##	90	1	235	1	235	4.75						235	1,17,520

APPENDIX TABLE 35 : REPO/REVERSE REPO AUCTIONS UNDER LIQUIDITY ADJUSTMENTFACILITY *(Concld.)*

(Amount in Rupees crore)

LAF Date	Repo/ Reverse Repo period (Day (s))	Repo (Injection)					Reverse Repo (Absorption)					Net Injections (+)/ absorption(-) of liquidity	Outstanding Amount@
		Bids received		Bids Accepted		Cut-Off Rate %	Bids Received		Bids Accepted		Cut-Off Rate %		
		Number	Amount	Number	Amount		Number	Amount	Number	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
21-May-09	1	-	-	-	-	-	48	1,30,605	48	1,30,605	3.25	-1,30,605	1,30,125
22-May-09	3	-	-	-	-	-	37	1,12,740	37	1,12,740	3.25	-1,12,740	
$	3	-	-	-	-	-	34	22,580	34	22,580	3.25	-22,580	1,34,840
25-May-09	1	-	-	-	-	-	38	1,28,330	38	1,28,330	3.25	-1,28,330	
#	14	-	-	-	-	-							1,27,850
26-May-09	1	-	-	-	-	-	47	1,41,350	47	1,41,350	3.25	-1,41,350	1,40,870
27-May-09	1	-	-	-	-	-	42	1,20,350	42	1,20,350	3.25	-1,20,350	1,19,870
28-May-09	1	-	-	-	-	-	44	1,32,960	44	1,32,960	3.25	-1,32,960	1,32,480
29-May-09	3	-	-	-	-	-	43	1,11,165	43	1,11,165	3.25	-1,11,165	1,10,685
1-Jun-09	1	-	-	-	-	-	41	1,21,395	41	1,21,395	3.25	-1,21,395	
#	14	-	-	-	-	-							1,20,915
2-Jun-09	1	-	-	-	-	-	45	1,19,195	45	1,19,195	3.25	-1,19,195	1,18,715
3-Jun-09	1	-	-	-	-	-	44	1,19,135	44	1,19,135	3.25	-1,19,135	1,18,655
4-Jun-09	1	-	-	-	-	-	50	1,29,640	50	1,29,640	3.25	-1,29,640	1,29,160
5-Jun-09	3	-	-	-	-	-	41	1,04,680	41	1,04,680	3.25	-1,04,680	
$	3	-	-	-	-	-	36	26,610	36	26,610	3.25	-26,610	1,30,810
8-Jun-09	1	-	-	-	-	-	46	1,11,940	46	1,11,940	3.25	-1,11,940	
#	14	-	-	-	-	-							1,11,460
9-Jun-09	1	-	-	-	-	-	43	1,14,055	43	1,14,055	3.25	-1,14,055	1,13,575
10-Jun-09	1	-	-	-	-	-	40	1,16,035	40	1,16,035	3.25	-1,16,035	1,15,555
11-Jun-09	1	-	-	-	-	-	46	1,07,225	46	1,07,225	3.25	-1,07,225	1,06,745
12-Jun-09	3	-	-	-	-	-	50	1,32,325	50	1,32,325	3.25	-1,32,325	1,31,845
15-Jun-09	1	-	-	-	-	-	48	1,35,715	48	1,35,715	3.25	-1,35,715	
#	14	-	-	-	-	-							1,35,235
16-Jun-09	1	-	-	-	-	-	44	1,19,690	44	1,19,690	3.25	-1,19,690	1,19,210
17-Jun-09	1	-	-	-	-	-	46	1,27,435	46	1,27,435	3.25	-1,27,435	1,26,955
18-Jun-09	1	-	-	-	-	-	47	1,31,095	47	1,31,095	3.25	-1,31,095	1,30,615
19-Jun-09	3	1	500	1	500	4.75	39	1,02,580	39	1,02,580	3.25	-1,02,580	
$	3	-	-	-	-	-	39	32,685	39	32,685	3.25	-32,685	1,34,285
22-Jun-09	1	-	-	-	-	-	50	1,24,740	50	1,24,740	3.25	-1,24,740	
#	14	-	-	-	-	-							1,24,260
23-Jun-09	1	-	-	-	-	-	53	1,27,180	53	1,27,180	3.25	-1,27,180	1,26,700
24-Jun-09	1	-	-	-	-	-	52	1,17,965	52	1,17,965	3.25	-1,17,965	1,17,485
25-Jun-09	1	-	-	-	-	-	48	1,10,245	48	1,10,245	3.25	-1,10,245	1,09,765
26-Jun-09	3	-	-	-	-	-	54	1,31,985	54	1,31,985	3.25	-1,31,985	1,31,505
29-Jun-09	1	-	-	-	-	-	44	1,05,005	44	1,05,005	3.25	-1,05,005	
#	14	1	300	1	300	4.75	-					300	1,04,225
30-Jun-09	2	-	-	-	-	-	31	88,335	31	88,335	3.25	-88,335	
##	87	1	115	1	115	4.75	-					115	87,440
2-Jul-09	1	-	-	-	-	-	43	93,515	43	93,515	3.25	-93,515	92,620
3-Jul-09	3	-	-	-	-	-	43	1,00,510	43	1,00,510	3.25	-1,00,510	
$	3	-	-	-	-	-	49	57,040	49	57,040	3.25	-57,040	1,56,655
6-Jul-09	1	-	-	-	-	-	54	1,27,920	54	1,27,920	3.25	-1,27,920	
#	14	1	600	1	600	4.75						600	1,26,425
7-Jul-09	1	-	-	-	-	-	53	1,39,200	53	1,39,200	3.25	-1,39,200	1,37,705
8-Jul-09	1	-	-	-	-	-	53	1,47,375	53	1,47,375	3.25	-1,47,375	1,45,880
9-Jul-09	1	-	-	-	-	-	59	1,46,735	59	1,46,735	3.25	-1,46,735	1,45,240
10-Jul-09	3	-	-	-	-	-	57	1,47,590	57	1,47,590	3.25	-1,47,590	1,46,095
13-Jul-09	1	-	-	-	-	-	52	1,31,760	52	1,31,760	3.25	-1,31,760	
#	14	-	-	-	-	-							1,30,565
14-Jul-09	1	-	-	-	-	-	48	1,18,250	48	1,18,250	3.25	-1,18,250	1,17,055
15-Jul-09	1	-	-	-	-	-	48	1,20,085	48	1,20,085	3.25	-1,20,085	1,18,890
16-Jul-09	1	-	-	-	-	-	46	1,28,270	46	1,28,270	3.25	-1,28,270	1,27,075
17-Jul-09	3	-	-	-	-	-	44	1,09,545	44	1,09,545	3.25	-1,09,545	
$	3	-	-	-	-	-	39	32,310	39	32,310	3.25	-32,310	1,40,660
20-Jul-09	1	-	-	-	-	-	46	1,27,120	46	1,27,120	3.25	-1,27,120	
#	14	1	300	1	300	4.75						300	1,26,225
21-Jul-09	1	-	-	-	-	-	44	1,26,660	44	1,26,660	3.25	-1,26,660	1,25,765
22-Jul-09	1	-	-	-	-	-	46	1,30,630	46	1,30,630	3.25	-1,30,630	1,29,735
23-Jul-09	1	-	-	-	-	-	44	1,26,380	44	1,26,380	3.25	-1,26,380	1,25,485
24-Jul-09	3	-	-	-	-	-	51	1,29,675	51	1,29,675	3.25	-1,29,675	1,28,780

$: Second LAF. $$: Additional LAF. # : Special Fixed Rate Repo under LAF. ## : Under forex swap facility. @ : Net of Repo.

- : No bid was received in the auction

Note : 1. With effect from October 29, 2004, nomenclature of repo and reverse repo has been interchanged as per international usage. Till October 28, 2004, repo indicates absorption of liquidity whereas reverse repo indicates injection of liquidity by the Reserve Bank.

2. The Second LAF, conducted on a daily basis from September 17, 2008 to May 5, 2009, is being conducted only on reporting Fridays from May 8, 2009.

APPENDIX TABLE 36 : ISSUE OF CERTIFICATES OF DEPOSIT BY SCHEDULED COMMERCIAL BANKS

Fortnight ended	Outstanding (Rupees crore)	Rate of Discount (Per cent) @	Weighted Average Discount Rate (Per cent) @	Fortnight ended	Outstanding (Rupees crore)	Rate of Discount (Per cent) @	Weighted Average Discount Rate (Per cent) @
1	2	3	4	5	6	7	8
2007-08				June 6	1,59,696	8.60-10.20	9.15
April 13	93,808	9.50-11.50	10.15	20	1,63,143	8.62-9.79	9.16
27	95,980	9.40-11.50	10.75	July 4	1,64,557	8.30-10.60	9.68
May 11	97,292	7.00-10.82	10.65	18	1,64,892	8.92-10.95	10.23
25	99,175	10.05-11.50	9.87	August 1	1,63,546	8.92 - 11.05	10.40
June 8	99,287	6.13-10.95	9.31	15	1,66,996	8.92 - 11.11	10.64
22	98,337	7.00-10.20	9.37	29	1,71,966	10 - 11.57	10.98
July 6	1,02,992	6.25-9.69	8.26	September 12	1,78,280	8.92 - 12	11.09
20	1,05,317	5.50-10.82	7.86	26	1,75,522	8.92 - 12.35	11.56
August 3	1,03,750	6.05-10.75	7.40	October 10	1,74,975	8.92 - 21	12.57
17	1,06,350	6.87-8.91	7.82	24	1,58,562	8.8 - 12.9	10.00
31	1,09,224	6.87-10.75	8.67	November 7	1,54,172	8.92 - 11.5	10.33
September 14	1,13,892	6.87-10.00	8.64	21	1,51,493	8.8 - 11.75	10.36
28	1,18,481	6.87-10.00	8.57	December 5	1,50,779	8.5 - 11	9.71
October 12	1,22,142	6.87-10.00	8.28	19	1,51,214	7 - 11.5	8.85
26	1,24,232	6.85-10.00	7.91	January 2	1,52,901	7 - 11.5	8.75
November 9	1,25,653	6.87-9.00	8.30	16	1,62,883	6.1 - 11.5	7.94
23	1,27,142	6.87-9.03	8.48	30	1,64,979	5.25 - 11.5	7.33
December 7	1,25,326	8.05-9.25	8.60	February 13	1,74,088	5.4 - 11.5	7.03
21	1,23,466	8.05-10.00	8.81	27	1,75,057	5.4 - 11.5	6.73
January 4	1,27,154	6.87-9.82	8.73	March 13	1,67,320	5.45 - 11.5	6.73
18	1,29,123	7.90-9.21	8.82	27	1,92,867	6 - 11.5	7.53
February 1	1,32,395	7.90-9.85	8.89				
15	1,35,097	6.83-9.75	8.51	**2009-10**			
29	1,39,160	9.22-10.27	9.94	April 10	1,98,497	5.9 - 11.5	7.31
March 14	1,43,714	7.00-10.48	9.98	24	2,10,954	3.9 - 11.5	6.48
28	1,47,792	9.00-10.75	10.00	May 8	2,11,370	3.75 - 6.2	5.00
2008-09				22	2,18,437	3.65 - 7.6	6.20
April 11	1,49,986	8.00-9.72	9.07	June 5	2,18,079	3.90-6.60	5.22
25	1,50,865	7.70-9.06	8.49	19	2,21,491	3.60-8.00	4.90
May 9	1,53,410	7.75-10.20	8.92	July 3	2,28,638	3.34-8.25	4.92
23	1,56,780	8.00-10.20	8.95				

@: Effective discount rate per annum.

APPENDIX TABLE 37 : COMMERCIAL PAPER*

Fortnight ended		Outstanding (Rupees crore)	Amount Issued (Rupees crore)	Typical Effective Rates of Discount (Per cent)	Weighted Average Discount Rate (Per cent)	Fortnight ended		Outstanding (Rupees crore)	Amount Issued (Rupees crore)	Typical Effective Rates of Discount (Per cent)	Weighted Average Discount Rate (Per cent)
1		2	3	4	5	6		7	8	9	10
2007-08						June	15	45,983	6,680	8.25-11.60	9.26
April	15	19,013	1,952	10.00-14.00	10.46		30	46,847	5,245	9.00-12.25	10.03
	30	18,759	1,815	9.65-11.75	10.52	July	15	48,342	5,917	9.5 - 12.25	10.75
May	15	19,288	2,309	9.25-11.45	10.50		31	51,569	5,957	9.6 - 12	10.95
	31	22,024	4,016	8.71-12.00	9.87	August	15	52,831	5,418	9.54 - 12.5	10.83
June	15	25,500	5,238	7.00-10.80	9.13		31	55,036	6,418	10.2 - 14.75	11.48
	30	26,256	2,287	7.35-12.00	8.93	September	15	54,182	6,909	10.25 - 14.25	11.51
July	15	28,129	4,200	4.00-11.50	7.55		30	52,038	5,578	11.4 - 13.95	12.28
	31	30,631	6,346	2.25-11.50	7.05	October	15	49,359	3,039	11.9 - 17.75	13.17
August	15	31,784	3,823	6.25-13.50	7.59		31	48,442	1,940	11.55 - 16.9	14.17
	31	31,527	4,494	6.80-10.25	8.30	November	15	45,382	2,065	11.5 - 15.5	13.16
September	15	33,227	4,793	6.35-10.90	8.84		30	44,487	3,430	9 - 15.5	12.42
	30	33,614	3,515	7.70-12.00	8.95	December	15	40,270	3,248	10.4 - 16	12.35
October	15	38,495	6,977	7.00-13.00	7.99		31	40,391	6,070	8.25 - 14	10.70
	31	42,183	6,252	6.70-12.00	7.65	January	15	48,803	10,682	7.75 - 14	8.76
November	15	41,678	1,517	7.50-12.00	8.62		31	51,668	4,855	6.75 - 13	9.48
	30	41,308	3,403	8.05-11.50	9.45	February	15	53,615	4,164	5.25 - 12.5	8.1
December	15	40,914	3,180	8.22-11.50	9.17		29	52,560	1,885	5.8 - 11.75	8.93
	31	40,243	6,477	7.60-12.00	9.27	March	15	49,953	1,363	7.5 - 12.5	9.78
January	15	42,392	5,588	7.35-12.50	9.16		31	44,171	2,113	6.4 - 12.5	9.79
	31	50,062	10,330	7.55-16.00	11.83						
February	15	43,970	3,036	6.95-11.00	9.31	**2009-10**					
	29	40,642	3,509	7.40-11.00	9.73	April	15	46,551	2,918	6 - 12.5	7.96
March	15	37,283	1,928	9.50-11.00	10.44		30	52,881	7,675	3.3 - 10.25	6.29
	31	32,592	2,691	9.50-14.25	10.38	May	15	57,845	7,660	2.83 - 9.9	5.61
2008-09							31	60,740	4,655	3.32-9.00	5.75
April	15	35,794	6,283	7.74-10.25	8.58	June	15	67,239	8,755	3.50-9.15	5.11
	30	37,584	3,172	7.35-10.10	8.85		30	68,721	8,560	3.20-12.00	5.00
May	15	41,006	4,726	7.15-10.75	8.57						
	31	42,032	3,863	7.70-10.50	9.02						

* : Face value.

APPENDIX TABLE 38 : INDICES OF REAL EFFECTIVE EXCHANGE RATE (REER) AND NOMINAL EFFECTIVE EXCHANGE RATE (NEER) OF THE INDIAN RUPEE

Year/Month	36 - Currency Trade based weights (Base : 1993-94=100)		6 - Currency Trade based weights (Base : 1993-94 = 100)	
	REER	NEER	REER	NEER
1	2	3	4	5
1993-94	100.00	100.00	100.00	100.00
1994-95	104.32	98.91	105.82	96.96
1995-96	98.19	91.54	101.27	88.56
1996-97	96.83	89.27	101.11	86.85
1997-98	100.77	92.04	104.41	87.94
1998-99	93.04	89.05	96.14	77.49
1999-00	95.99	91.02	97.69	77.16
2000-01	100.09	92.12	102.82	77.43
2001-02	100.86	91.58	102.71	76.04
2002-03	98.18	89.12	97.68	71.27
2003-04	99.56	87.14	99.17	69.97
2004-05	100.09	87.31	101.78	69.58
2005-06	102.35	89.85	107.30	72.28
2006-07	98.48	85.89	105.57	69.49
2007-08	104.81	93.91	114.09	74.17
2008-09 (P)	94.45	86.15	104.65	64.54
2007-08				
April	102.60	91.80	111.63	72.74
May	106.01	94.69	115.73	75.19
June	105.92	94.97	115.22	75.37
July	105.99	94.84	115.10	75.15
August	105.34	94.38	114.10	74.44
September	105.90	94.65	115.03	74.64
October	106.09	95.29	115.79	75.45
November	104.63	94.27	113.90	74.34
December	104.94	94.68	114.52	74.65
January	104.85	94.29	114.23	74.31
February	103.51	93.11	113.06	73.41
March	101.94	90.01	110.87	70.38
2008-09 (P)				
April	101.70	93.26	112.16	70.63
May	97.57	89.04	108.23	67.48
June	97.60	87.65	108.20	66.38
July	97.23	87.04	107.94	65.83
August	99.45	88.60	111.30	67.22
September	95.76	85.42	106.96	64.46
October	92.12	83.23	102.36	62.08
November	92.43	84.69	102.82	63.06
December	90.30	83.91	100.18	62.12
January	89.89	83.61	99.64	62.28
February	90.92	85.21	99.79	62.80
March	88.39	82.13	96.04	60.18
2009-10 (P)				
April	89.46	82.67	98.08	61.30
May	91.73	83.41	100.65	62.07
June	91.67	83.73	101.00	62.14

P : Provisional.

Note : For detailed methodology of compilation of indices, see "Revision of Nominal Effective Exchange Rate (NEER) and Real Effective Exchange Rate (REER) Indices", Reserve Bank of India Bulletin, December 2005.

APPENDIX TABLE 39: INTER-BANK AND MERCHANT TRANSACTIONS IN THE FOREIGN EXCHANGE MARKET

(US $ million)

Month	Inter-bank							Merchant						
	Spot			Forward/Swap				Spot			Forward			
	Purchases	Sales	Net	Purchases	Sales	Net	Turnover	Purchases	Sales	Net	Purchases	Sales	Net	Turnover
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2006														
Jan	89,896	89,066	830	78,520	93,489	-14,969	3,50,971	26,492	26,748	-256	36,276	38,605	-2,329	1,28,121
Feb	78,270	78,265	6	70,983	88,434	-17,451	3,15,952	25,307	23,847	1,460	26,345	27,499	-1,154	1,02,999
Mar	92,257	99,494	-7,237	96,311	1,16,734	-20,423	4,04,797	37,540	31,770	5,771	35,401	36,521	-1,120	1,41,231
Apr	90,195	92,037	-1,842	79,144	92,858	-13,714	3,54,234	33,118	29,626	3,493	31,769	35,503	-3,734	1,30,016
May	1,17,461	1,15,715	1,745	92,639	97,847	-5,208	4,23,661	34,504	37,720	-3,216	48,534	46,523	2,011	1,67,282
June	96,853	95,418	1,435	70,160	74,384	-4,224	3,36,815	28,946	29,762	-817	32,977	34,351	-1,374	1,26,036
July	86,643	84,848	1,795	62,377	66,962	-4,585	3,00,829	25,411	25,781	-370	32,283	33,999	-1,716	1,17,474
Aug	1,03,226	1,00,723	2,503	72,900	73,703	-803	3,50,553	30,579	31,856	-1,277	34,939	37,702	-2,763	1,35,075
Sept	1,03,184	1,01,808	1,376	87,868	87,389	479	3,80,248	33,678	32,705	974	38,740	40,002	-1,262	1,45,125
Oct	96,569	95,552	1,017	82,395	80,881	1,514	3,55,398	37,130	35,842	1,288	40,253	42,451	-2,198	1,55,675
Nov	1,22,117	1,26,608	-4,491	1,00,542	1,01,182	-640	4,50,450	37,586	32,898	4,688	45,891	45,287	604	1,61,662
Dec	1,03,069	1,02,639	430	94,497	98,444	-3,947	3,98,649	36,385	36,677	-292	41,249	42,846	-1,596	1,57,157
2007														
Jan	1,21,321	1,23,163	-1,841	1,00,678	99,427	1,251	4,44,589	38,260	38,745	-485	44,962	44,205	757	1,66,173
Feb	1,11,310	1,13,771	-2,462	86,376	94,507	-8,130	4,05,964	34,717	32,203	2,514	34,113	32,024	2,089	1,33,057
Mar	1,40,564	1,39,745	819	1,43,524	1,47,993	-4,469	5,71,827	48,775	45,195	3,580	53,617	55,288	-1,671	2,02,875
Apr	1,59,985	1,60,120	-135	1,44,488	1,50,946	-6,458	6,15,539	56,231	54,878	1,352	54,676	53,542	1,134	2,19,327
May	1,52,110	1,55,983	-3,873	1,40,900	1,39,090	1,810	5,88,083	59,772	55,127	4,644	53,353	50,653	2,700	2,18,905
Jun	1,67,134	1,68,889	-1,755	1,53,138	1,52,135	1,003	6,41,296	67,512	59,664	7,848	64,720	66,962	-2,242	2,58,859
Jul	1,84,692	1,95,309	-10,617	1,68,511	1,68,385	126	7,16,897	71,909	59,357	12,552	67,580	72,368	-4,788	2,71,215
Aug	1,91,049	1,90,489	560	1,56,048	1,66,272	-10,224	7,03,858	63,149	62,173	976	95,318	98,013	-2,696	3,18,654
Sep	1,87,563	2,01,416	-13,852	1,73,019	1,73,355	-337	7,35,353	63,777	51,818	11,959	79,620	79,402	218	2,74,616
Oct	2,16,513	2,25,259	-8,746	2,13,474	2,17,749	-4,275	8,72,995	91,104	74,164	16,940	96,599	96,880	-281	3,58,748
Nov	1,72,802	1,77,637	-4,835	1,59,647	1,64,935	-5,288	6,75,022	70,978	71,976	-998	80,498	78,496	2,002	3,01,948
Dec	1,48,081	1,46,441	1,640	1,50,751	1,54,502	-3,751	5,99,774	81,103	72,078	9,026	71,512	77,958	-6,445	3,02,651
2008														
Jan	2,31,213	2,36,881	-5,668	2,06,778	2,14,665	-7,887	8,89,538	89,429	83,238	6,191	1,08,830	1,08,619	211	3,90,115
Feb	2,03,480	1,98,602	4,878	2,39,008	2,42,327	-3,319	8,83,418	70,346	71,543	-1,197	97,216	96,182	1,033	3,35,287
Mar	1,96,551	1,89,477	7,074	1,96,650	1,99,061	-2,411	7,81,739	64,052	60,172	3,880	83,146	87,392	-4,247	2,94,763
Apr	1,84,994	1,81,839	3,155	1,79,991	1,67,202	12,789	7,14,026	63,989	64,786	-797	83,587	79,020	4,567	2,91,382
May	1,85,695	1,80,894	4,801	1,70,095	1,73,636	-3,541	7,10,319	56,698	56,001	697	85,033	88,411	-3,379	2,86,143
Jun	1,95,523	1,82,495	13,028	2,14,479	2,12,441	2,038	8,04,939	55,657	57,676	-2,018	76,804	79,001	-2,197	2,69,137
Jul	2,17,752	2,06,286	11,465	2,15,086	2,15,849	-763	8,54,973	63,049	62,382	667	89,646	92,976	-3,330	3,08,053
Aug	1,93,158	1,88,674	4,484	1,89,557	1,96,369	-6,812	7,67,757	58,737	57,099	1,639	99,515	1,00,093	-578	3,15,444
Sep	2,52,887	2,40,806	12,081	2,39,875	2,49,831	-9,956	9,83,399	63,500	68,623	-5,123	1,26,489	1,32,999	-6,510	3,91,611
Oct	2,32,276	2,08,666	23,610	2,01,290	2,08,754	-7,463	8,50,986	46,879	56,162	-9,283	1,05,481	1,14,263	-8,782	3,22,786
Nov	1,46,556	1,39,344	7,211	1,68,368	1,72,169	-3,802	6,26,436	37,621	39,866	-2,245	71,120	70,630	490	2,19,237
Dec	1,54,681	1,50,147	4,534	2,12,784	2,14,745	-1,961	7,32,358	43,263	43,485	-221	77,576	76,808	769	2,41,132
2009														
Jan	1,35,388	1,33,217	2,171	1,54,120	1,63,074	-8,954	5,85,798	36,724	34,732	1,992	60,866	59,612	1,254	1,91,934
Feb	1,18,155	1,15,544	2,611	1,31,078	1,36,591	-5,513	5,01,369	31,585	32,962	-1,377	53,903	55,602	-1,699	1,74,053
Mar	1,58,858	1,50,373	8,484	2,06,674	2,12,867	-6,193	7,28,771	43,117	42,311	806	66,507	67,823	-1,316	2,19,758
Apr	1,25,385	1,22,126	3,258	1,67,902	1,68,294	-392	5,83,706	36,862	35,881	981	50,950	56,515	-5,565	1,80,208
May	1,64,631	1,60,770	3,862	1,73,704	1,77,655	-3,951	6,76,760	44,795	41,518	3,278	1,44,364	68,500	75,865	2,99,177
Jun	1,83,652	1,82,005	1,648	1,70,457	1,77,367	-6,910	7,13,482	46,929	45,869	1,060	70,903	71,144	-241	2,34,845

P : Provisional.

Note : 1. Merchant turnover includes cross-currency (i.e., foreign currency to foreign currency, both spot and forward) transactions and cancellation of forward contracts.

2. Inter-bank turnover includes cross-currency (i.e., foreign currency to foreign currency, both spot and forward) transactions.

APPENDIX TABLE 40: SECONDARY MARKET TRANSACTIONS IN GOVERNMENT SECURITIES

(Amount in Rupees crore)

Instruments	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
I. Outright Transaction															
1. Central Government Securities	99,855 (90.15)	1,36,086 (90.49)	1,02,523 (91.72)	84,840 (89.37)	1,16,215 (90.99)	1,56,275 (92.19)	1,33,939 (92.17)	1,75,979 (90.11)	3,54,991 (93.29)	2,96,606 (92.54)	1,65,641 (85.52)	1,64,984 (81.36)	2,39,953 (83.07)	2,26,067 (86.35)	2,18,629 (86.24)
2. State Government Securities	1,501 (1.36)	5,464 (3.63)	747 (0.67)	2,163 (2.28)	679 (0.53)	540 (0.32)	1,394 (0.96)	1,427 (0.73)	4,495 (1.18)	2,725 (0.85)	1,506 (0.78)	14,043 (6.93)	7,418 (2.57)	7,946 (3.04)	3,487 (1.38)
3. Treasury Bills	9,407 (8.49)	8,840 (5.88)	8,504 (7.61)	7,933 (8.36)	10,829 (8.48)	12,705 (7.49)	9,988 (6.87)	17,892 (9.16)	21,024 (5.53)	21,171 (6.61)	26,546 (13.71)	23,754 (11.71)	41,494 (14.36)	27,786 (10.61)	31,406 (12.39)
(a) 91 days	4,189 (44.53)	5,414 (61.25)	5,054 (59.43)	2,424 (30.56)	7,140 (65.94)	8,373 (65.90)	5,820 (58.28)	10,302 (57.58)	14,898 (70.86)	13,756 (64.97)	19,760 (74.44)	15,638 (65.83)	26,574 (64.04)	21,768 (78.34)	20,935 (66.66)
(b) 182 days	1,177 (12.51)	1,169 (13.23)	883 (10.39)	1,473 (18.57)	767 (7.09)	1,458 (11.48)	1,227 (12.29)	1,597 (8.92)	1,595 (7.59)	1,304 (6.16)	2,502 (9.42)	2,726 (11.48)	5,509 (13.28)	1,951 (7.02)	3,177 (1.25)
(c) 364 days	4,041 (42.96)	2,257 (25.53)	2,567 (30.18)	4,036 (50.87)	2,921 (26.97)	2,875 (22.62)	2,940 (29.44)	5,993 (33.50)	4,532 (21.56)	6,112 (28.87)	4,286 (16.14)	5,391 (22.69)	9,411 (22.68)	4,068 (14.64)	7,294 (2.88)
Total (1+2+3)	1,10,764 (100.00)	1,50,391 (100.00)	1,11,774 (100.00)	94,936 (100.00)	1,27,722 (100.00)	1,69,521 (100.00)	1,45,321 (100.00)	1,95,298 (100.00)	3,80,511 (100.00)	3,20,502 (100.00)	1,93,693 (100.00)	2,02,781 (100.00)	2,88,865 (100.00)	2,61,799 (100.00)	2,53,523 (100.00)
II. Repo Transaction															
1. Central Government Securities	3,05,363 (88.71)	3,42,048 (92.89)	2,60,102 (92.38)	2,08,496 (93.34)	2,22,810 (88.80)	2,37,241 (92.78)	1,89,432 (89.78)	3,00,006 (85.87)	3,50,987 (82.86)	3,76,498 (83.58)	3,33,301 (76.01)	3,04,940 (71.69)	2,53,190 (74.61)	2,14,318 (69.49)	1,60,121 (77.84)
2. State Government Securities	17,124 (4.97)	4,347 (1.18)	3,333 (1.18)	217 (0.10)	181 (0.07)	30 (0.01)	2,199 (1.04)	16 (0.00)	1,020 (0.24)	148 (0.03)	274 (0.06)	6,017 (1.41)	1,063 (0.31)	1,912 (0.62)	354 (0.17)
3. Treasury Bills	21,733 (6.31)	21,842 (5.93)	18,111 (6.43)	14,658 (6.56)	27,909 (11.12)	18,421 (7.20)	19,362 (9.18)	49,367 (14.13)	71,559 (16.89)	73,811 (16.39)	1,04,922 (23.93)	1,14,401 (26.90)	85,079 (25.07)	92,183 (29.89)	45,234 (21.99)
(a) 91 days	2,734 (12.58)	4,362 (19.97)	7,857 (43.38)	3,955 (26.98)	8,123 (29.11)	3,567 (19.36)	4,335 (22.39)	8,696 (17.62)	8,144 (11.38)	11,868 (16.08)	43,962 (41.90)	46,059 (40.26)	25,812 (30.34)	34,903 (37.86)	13,230 (29.25)
(b) 182 days	1,511 (6.95)	695 (3.18)	771 (4.25)	1,461 (9.97)	1,583 (5.67)	916 (4.97)	1,083 (5.59)	10,053 (20.36)	20,297 (28.36)	13,071 (17.71)	22,842 (21.77)	34,231 (29.92)	23,515 (27.64)	21,349 (23.16)	5,704 (12.61)
(c) 364 days	17,488 (80.47)	16,785 (76.85)	9,483 (52.36)	9,242 (63.05)	18,203 (65.22)	13,939 (75.67)	13,944 (72.02)	30,618 (62.02)	43,117 (60.25)	49,662 (67.28)	38,117 (36.33)	34,111 (29.82)	35,752 (42.02)	35,931 (38.98)	26,300 (1.00)
Total (1+2+3)	3,44,220 (100.00)	3,68,236 (100.00)	2,81,546 (100.00)	2,23,370 (100.00)	2,50,900 (100.00)	2,55,692 (100.00)	2,10,994 (100.00)	3,49,389 (100.00)	4,23,566 (100.00)	4,50,456 (101.07)	4,38,497 (100.00)	4,25,357 (100.00)	3,39,332 (100.00)	3,08,414 (100.00)	2,05,710 (100.00)
III. GRAND TOTAL (I+II)	**4,54,984**	**5,18,627**	**3,93,320**	**3,18,306**	**3,78,622**	**4,25,212**	**3,56,315**	**5,44,686**	**8,04,077**	**7,70,959**	**6,32,189**	**6,28,139**	**6,28,197**	**5,70,213**	**4,59,233**
Percentage of I to III	(24.34)	(29.00)	(28.42)	(29.83)	(33.73)	(39.87)	(40.78)	(35.86)	(47.32)	(41.57)	(30.64)	(32.28)	(45.98)	(45.91)	(55.21)
Percentage of II to III	(75.66)	(71.00)	(71.58)	(70.17)	(66.27)	(60.13)	(59.22)	(64.14)	(52.68)	(58.43)	(69.36)	(67.72)	(54.02)	(54.09)	(44.79)

Note : 1. Figures in parentheses indicate percentages to total outright/ repo transactions. Repos transactions exclude second leg of transactions.
2. 182-day Treasury Bills have been re-introduced from the year 2005-06.

APPENDIX TABLE 41: INTEREST RATE STRUCTURE OF SCHEDULED COMMERCIAL BANKS

(Per cent)

Item	31-Mar 2008	30-Apr 2008	31-May 2008	30-Jun 2008	31-Jul 2008	31-Aug 2008	30-Sep 2008	31-Oct 2008	30-Nov 2008	31-Dec 2008	31-Jan 2009	28-Feb 2009	31-Mar 2009	30-Apr 2009	31-May 2009	30-June 2009	31-July 2009
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A. Lending Rates																	
Size of Credit Limit																	
1. Up to Rs. 2 lakh	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR	≤ BPLR
2. Over Rs. 2 lakh:																	
BPLR*	12.25-12.75	12.25-12.75	12.25-12.75	12.50-12.75	12.75-13.25	13.25-14.00	13.75-14.00	13.75-14.00	13.00-13.50	12.50-13.25	12.00-12.50	11.50-12.50	11.50-12.50	11.50-12.25	11.00-12.25	11.00-12.00	11.00-12.00
B. Deposit Rates																	
Category of Account																	
1. Current	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2. Savings	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
3. Term Deposits *																	
a) Up to and including one year	3.00-7.50	3.00-7.50	3.00-7.50	3.00-8.00	3.00-8.25	3.00-8.50	3.00-8.50	3.00-8.75	3.00-8.75	3.25-9.25	3.25-8.00	3.25-8.00	3.25-8.00	3.00-7.00	2.50-7.00	2.50-7.00	2.50-6.50
b) 1-2 years	8.25-8.75	8.25-8.75	8.25-8.75	8.25-9.50	8.75-9.50	9.75-10.00	9.75-10.00	9.75-10.50	9.50-10.50	9.50-10.00	8.00-8.75	8.00-8.75	8.00-8.50	7.00-7.75	6.50-7.50	6.50-7.25	6.50-7.00
c) 2-3 years	8.25-8.75	8.25-8.75	8.25-8.75	8.50-9.50	9.00-9.50	9.50-9.75	9.50-9.75	9.50-10.50	9.25-10.50	9.00-10.00	8.25-9.00	8.00-9.00	8.00-8.75	7.25-8.25	7.00-8.25	6.75-7.50	6.75-7.25
d) > 3 years	7.50-9.00	7.50-9.00	8.00-8.75	8.00-9.00	8.75-9.50	8.75-9.75	8.75-9.75	8.75-9.75	8.50-9.75	8.50-9.75	8.25-8.50	7.75-8.50	7.75-8.50	7.25-8.50	7.00-8.25	6.75-8.00	6.75-7.75

* : Data relate to major public sector banks. BPLR : Benchmark Prime Lending Rate. ≤ : Not exceeding.

APPENDIX TABLE 42 : NEW CAPITAL ISSUES BY NON-GOVERNMENT PUBLIC LIMITED COMPANIES

(Amount in Rupees crore)

Security and Type of Issue	2006-07		2007-08		2008-09 P	
	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
1	2	3	4	5	6	7
1) Equity Shares (a+b)	**114** **(109)**	**29,756** **(19,733)**	**111** **(103)**	**56,848** **(54,732)**	**45** **(39)**	**14,671** **(13,022)**
a) Prospectus	81	27,175	85	47,477	25	2,674
	(81)	(17,640)	(83)	(46,139)	(24)	(1,967)
b) Rights	33 (28)	2,581 (2,093)	26 (20)	9,371 (8,594)	20 (15)	11,997 (11,055)
2) Preference Shares (a+b)	**-**	**-**	**1**	**5,481**	**-**	**-**
a) Prospectus	-	-	-	-	-	-
b) Rights	-	-	1	5,481	-	-
3) Debentures (a+b)	**3**	**847**	**2**	**809**	**-**	**-**
a) Prospectus	-	-	-	-	-	-
b) Rights	3	847	2	809	-	-
of which :						
i) Convertible (a+b)	-	-	1	206	-	-
a) Prospectus	-	-	-	-	-	-
b) Rights	-	-	1	206	-	-
ii) Non-Convertible (a+b)	3	847	1	603	-	-
a) Prospectus	-	-	-	-	-	-
b) Rights	3	847	1	603	-	-
4) Bonds (a+b)	**-**	**-**	**1**	**500**	**-**	**-**
a) Prospectus	-	-	1	500	-	-
b) Rights	-	-	-	-	-	-
5) Total (1+2+3+4)	**117**	**30,603**	**115**	**63,638**	**45**	**14,671**
a) Prospectus	81	27,175	86	47,977	25	2,674
b) Rights	36	3,428	29	15,661	20	11,997

- : Nil/Negligible. P : Provisional.

Note : 1. Data are provisional.
2. Data exclude bonus shares, offers for sale and private placements.
3. Figures in parentheses indicate data in respect of premium on capital issues. These are included in respective totals.
4. Preference shares include cumulative convertible preference shares and equi-preference shares.
5. Convertible debentures include partly convertible debentures.
6. Non-convertible debentures include secured premium notes and secured deep discount bonds.
7. Data are complied from prospectus/circulars/advertisements/issued by companies, replies given by the companies to the Reserve Banks's questionnaires, information received from SEBI, stock exchanges, press reports etc.

APPENDIX TABLE 43 : DOMESTIC STOCK INDICES

Year/Month	BSE Index (Base: 1978-79=100)				S&P CNX Nifty (Base: Nov 3, 1995 = 1000)			
	Average	High	Low	End of the Year/Month	Average	High	Low	End of the Year/Month
1	2	3	4	5	6	7	8	9
2004-05	**5,741 (27.8)**	**6,915**	**4,505**	**6,493 (16.1)**	**1,805 (26.5)**	**2,169**	**1,389**	**2,036 (14.9)**
2005-06	**8,280 (44.2)**	**11,307**	**6,135**	**11,280 (73.7)**	**2,513 (39.2)**	**3,419**	**1,903**	**3,403 (67.1)**
2006-07	**12,278 (48.3)**	**14,652**	**8,929**	**13,072 (15.9)**	**3,572 (42.1)**	**4,224**	**2,632**	**3,822 (12.3)**
2007-08	**16,569 (35.0)**	**20,873**	**12,455**	**15,644 (19.7)**	**4,897 (37.1)**	**6,288**	**3,634**	**4,735 (23.9)**
2008-09	**12,366 (-25.4)**	**17,600**	**8,160**	**9,709 (-37.9)**	**3,731 (-23.8)**	**12,455**	**2,524**	**3,021 (-36.2)**
2006-07								
April	11,742	12,043	11,237	12,043	3,494	3,574	3,346	3,558
May	11,599	12,612	10,399	10,399	3,437	3,754	3,071	3,071
June	9,935	10,609	8,929	10,609	2,915	3,128	2,633	3,128
July	10,557	10,930	10,007	10,744	3,092	3,197	2,933	3,143
August	11,305	11,724	10,752	11,699	3,306	3,430	3,148	3,414
September	12,036	12,454	11,551	12,455	3,492	3,588	3,366	3,588
October	12,637	13,024	12,204	12,962	3,648	3,769	3,515	3,744
November	13,416	13,774	13,033	13,696	3,869	3,969	3,767	3,955
December	13,628	13,972	12,995	13,787	3,910	4,016	3,717	3,966
January	13,984	14,283	13,362	14,091	4,037	4,148	3,850	4,083
February	14,143	14,652	12,938	12,938	4,084	4,224	3,745	3,745
March	12,858	13,308	12,415	13,072	3,731	3,876	3,577	3,822
2007-08								
April	13,478	14,229	12,455	13,872	3,947	4,178	3,634	4,088
May	14,156	14,544	13,765	14,544	4,184	4,296	4,067	4,296
June	14,334	14,651	14,003	14,651	4,222	4,318	4,113	4,318
July	15,253	15,795	14,664	15,551	4,474	4,621	4,314	4,529
August	14,779	15,319	13,989	15,319	4,301	4,464	4,075	4,464
September	16,046	17,291	15,422	17,291	4,660	5,021	4,475	5,021
October	18,500	19,978	17,329	19,838	5,457	5,906	5,069	5,901
November	19,260	19,976	18,526	19,363	5,749	5,938	5,519	5,763
December	19,827	20,376	19,080	20,287	5,964	6,159	5,742	6,139
January	19,326	20,873	16,730	17,649	5,756	6,288	4,899	5,137
February	17,728	18,663	16,608	17,579	5,202	5,484	4,838	5,224
March	15,838	16,678	14,809	15,644	4,769	4,953	4,503	4,735
2008-09								
April	16,291	17,378	15,343	17,287	4,902	5,196	4,647	5,166
May	16,946	17,600	16,276	16,416	5,029	5,228	4,835	4,870
June	14,997	16,063	13,462	13,462	4,464	4,740	4,041	4,041
July	13,717	14,942	12,576	14,356	4,125	4,477	3,817	4,333
August	14,722	15,504	14,048	14,565	4,417	4,620	4,214	4,360
September	13,943	15,050	12,596	12,860	4,207	4,504	3,850	3,921
October	10,550	13,056	8,510	9,788	3,210	3,951	2,524	2,886
November	9,454	10,631	8,451	9,093	2,835	3,148	2,553	2,755
December	9,514	10,100	8,739	9,647	2,896	3,078	2,656	2,959
January	9,350	10,336	8,674	9,424	2,854	3,121	2,679	2,875
February	9,188	9,647	8,822	8,892	2,819	2,948	2,734	2,764
March	8,995	10,048	8,160	9,709	2,802	3,109	2,573	3,021

Note : Figures in parentheses are percentage variations over the previous year.
Source : Bombay Stock Exchange Limited (BSE) and the National Stock Exchange of India Limited (NSE).

APPENDIX 44 : MAJOR INDICATORS OF DOMESTIC EQUITY MAKRETS

Year/Month	Bombay Stock Exchange Limited (BSE)					National Stock Exchange of India Ltd. (NSE)				
	Coefficient of Variation @	Dispersion (Range) @	Price/ Earning Ratio $	Market Capitalisation (Rupees crore)	Turnover (Rupees crore)	Coefficient of Variation @	Dispersion (Range) @	Price/ Earning Ratio #	Market Capitalisation (Rupees crore)	Turnover (Rupees crore)
1	2	3	4	5	6	7	8	9	10	11
2003-04	**23.0**	**3,270.08**	**16.19**	**12,01,207**	**5,02,618**	**23.3**	**1,057.85**	**15.24**	**11,20,976**	**10,99,535**
2004-05	**11.2**	**2,409.93**	**16.56**	**16,98,428**	**5,18,716**	**11.3**	**780.00**	**14.79**	**15,85,585**	**11,40,071**
2005-06	**16.7**	**5,172.18**	**16.98**	**30,22,191**	**8,16,074**	**15.6**	**1,516.45**	**15.69**	**28,13,201**	**15,69,556**
2006-07	**11.1**	**5,722.65**	**20.73**	**35,45,041**	**9,56,185**	**10.4**	**1,591.45**	**19.51**	**33,67,350**	**19,45,285**
2007-08	**13.7**	**8,417.96**	**22.65**	**51,38,015**	**15,78,856**	**14.4**	**2,654.25**	**19.12**	**48,58,122**	**35,51,038**
2008-09	**24.2**	**9,439.72**	**15.67**	**30,86,076**	**11,00,074**	**23.2**	**2,704.00**	**16.25**	**28,96,194**	**27,52,023**
2006-07										
April	1.9	805.33	21.35	32,55,565	87,487	1.8	228.00	20.59	29,90,200	1,77,372
May	6.8	2,213.77	20.41	28,42,050	95,820	7.0	683.20	19.53	26,12,639	2,01,409
June	4.3	1,679.81	17.90	27,21,678	72,013	4.3	495.40	16.65	25,24,659	1,51,051
July	2.5	922.75	19.02	27,12,144	54,698	2.6	264.35	17.95	25,14,261	1,18,698
August	2.7	972.26	19.59	29,93,780	63,084	2.8	282.55	18.55	27,77,401	1,30,796
September	2.0	903.73	20.73	31,85,680	71,629	1.7	222.25	20.09	29,94,132	1,44,339
October	1.9	820.25	21.56	33,70,676	69,627	2.0	253.75	20.92	31,38,319	1,38,382
November	1.8	740.55	22.07	35,77,308	1,01,840	1.7	201.85	20.72	33,73,652	1,89,863
December	2.0	977.01	22.41	36,24,357	85,512	2.2	299.05	20.95	34,26,236	1,70,105
January	1.8	920.56	22.63	37,79,742	87,605	1.9	297.45	21.24	35,71,487	1,75,147
February	3.1	1,714.00	21.56	34,89,214	88,844	3.1	478.95	19.64	32,96,931	1,80,170
March	2.0	892.99	19.74	35,45,041	78,028	2.2	299.40	17.95	33,67,350	1,67,954
2007-08										
April	3.9	1,773.51	20.75	38,28,337	78,693	4.1	544.25	19.28	36,50,368	1,68,567
May	1.9	779.00	20.84	40,74,552	98,821	1.8	229.00	19.74	38,98,078	2,07,585
June	1.4	647.48	20.67	41,68,272	95,268	1.4	205.25	20.08	39,78,381	1,93,648
July	2.2	1,130.66	21.78	45,29,772	1,25,054	2.1	307.00	21.30	43,17,571	2,67,227
August	2.6	1,329.49	19.95	45,38,006	1,06,042	2.7	389.10	19.47	42,96,994	2,31,241
September	4.0	1,869.05	21.69	52,02,955	1,23,144	4.3	546.60	21.05	48,86,561	2,66,050
October	4.1	2,649.05	24.86	63,32,093	1,99,089	4.6	836.95	24.59	57,22,227	4,55,589
November	2.1	1,449.91	25.44	63,85,475	1,70,623	2.2	418.55	25.15	58,76,742	4,14,420
December	2.1	1,296.23	26.94	71,69,985	1,63,516	2.2	417.00	26.55	65,43,272	3,66,385
January	7.3	4,143.39	25.53	57,96,079	1,85,642	8.5	1,388.55	25.33	52,95,387	4,47,138
February	3.0	2,055.15	22.23	58,87,847	1,21,975	3.1	645.65	22.19	54,19,942	2,80,176
March	3.5	1,868.39	20.18	51,38,015	1,10,991	2.9	449.90	20.58	48,58,122	2,53,012
2008-09										
April	3.8	2,035.34	20.71	57,94,293	1,15,454	3.4	548.50	21.27	54,42,780	2,71,227
May	2.5	1,324.53	20.66	54,28,879	1,21,670	2.3	392.90	21.46	50,98,873	2,77,923
June	4.7	2,601.58	18.26	43,75,022	1,13,605	4.3	699.05	18.99	41,03,651	2,64,428
July	4.4	2,366.48	17.06	47,32,544	1,23,916	4.4	660.10	17.56	44,32,427	2,95,816
August	2.6	1,455.58	18.25	47,78,865	99,924	2.4	406.40	18.63	44,72,461	2,34,251
September	5.2	2,454.11	17.36	41,65,388	1,08,090	4.6	653.95	17.98	39,00,185	2,62,261
October	11.8	4,546.11	13.19	29,97,261	78,227	12.7	1,426.55	13.77	28,20,388	2,16,198
November	7.0	2,180.11	11.88	28,18,965	63,694	6.2	595.10	12.42	26,53,281	1,73,123
December	4.4	1,360.67	12.16	31,44,768	80,866	4.6	421.05	12.69	29,16,768	2,12,956
January	5.0	1,661.58	12.21	29,97,261	70,510	4.6	442.90	12.73	27,98,707	1,91,184
February	3.1	825.41	12.82	28,62,873	54,330	2.5	214.45	13.38	26,75,622	1,49,857
March	6.7	1,888.09	12.68	30,86,076	69,790	6.2	535.50	13.30	28,96,194	2,02,799

@ : Based on BSE Sensex and S&P CNX Nifty, respectively.

\# : Based on scrips included in the BSE Sensex and the S&P CNX Nifty, respectively.

Source : Bombay Stock Exchange Limited (BSE) and the National Stock Exchange of India Limited. (NSE).

APPENDIX TABLE 45 : TURNOVER IN THE EQUITY DERIVATIVES MARKET

(Rupees crore)

Year/Month	The Bombay Stock Exchange Ltd. (BSE)				The National Stock Exchange of India Ltd. (NSE)				
	Index Futures	Index Options@	Stock Futures	Stock Options@	Index Futures	Index Options@	Stock Futures	Stock Options@	Interest Rate Futures
1	2	3	4	5	6	7	8	9	10
2003-04	**6,572**	**0**	**5,171**	**332**	**5,54,446**	**52,816**	**13,05,939**	**2,17,207**	**202**
2004-05	**13,600**	**2,297**	**213**	**3**	**7,72,147**	**1,21,943**	**14,84,056**	**1,68,836**	**0**
2005-06	**6**	**3**	**1**	**0**	**15,13,755**	**3,38,469**	**27,91,697**	**1,80,253**	**0**
2006-07	**55,490**	**0**	**3,515**	**0**	**25,39,574**	**7,91,906**	**38,30,967**	**1,93,795**	**0**
2007-08	**2,16,447**	**28**	**5,375**	**0**	**38,20,667**	**13,62,111**	**75,48,563**	**3,59,137**	**0**
2008-09	**12,249**	**9**	**30**	**0**	**35,70,111**	**37,31,502**	**34,79,642**	**2,29,227**	**0**
2006-07									
April	1	0	0	0	2,04,236	52,421	4,60,552	20,623	0
May	0	0	0	0	2,57,326	58,789	4,09,401	16,874	0
June	18	0	0	0	2,43,572	57,969	2,43,950	11,306	0
July	26	0	0	0	1,86,760	54,711	2,22,539	13,245	0
August	68	0	0	0	1,73,333	53,103	2,29,184	14,042	0
September	265	0	0	0	1,77,518	53,647	2,75,430	16,351	0
October	196	0	0	0	1,66,974	49,744	2,72,516	16,425	0
November	7,986	0	0	0	1,80,781	60,018	3,88,800	20,229	0
December	9,270	0	234	0	2,25,288	79,719	3,47,747	16,408	0
January	9,932	0	1,020	0	1,90,592	66,646	3,50,817	19,401	0
February	12,116	0	1,073	0	2,42,237	91,817	3,52,653	16,785	0
March	15,612	0	1,188	0	2,90,957	1,13,322	2,77,378	12,106	0
2007-08									
April	14,385	0	1,200	0	2,05,458	97,150	2,96,629	17,050	0
May	15,764	0	1,252	0	2,14,523	85,465	4,00,096	23,358	0
June	16,566	28	1,161	0	2,40,797	92,503	4,51,314	21,928	0
July	-	-	-	-	2,38,577	94,561	6,47,356	34,582	0
August	18,784	0	1,227	0	3,63,988	1,40,961	5,19,385	32,398	0
September	21,431	0	72	0	2,56,470	1,07,965	6,70,968	37,485	0
October	23,962	0	23	0	4,85,079	1,73,992	11,20,263	54,328	0
November	21,960	0	307	0	3,65,564	1,16,952	9,89,113	45,676	0
December	20,293	0	20	0	2,87,357	1,03,165	8,49,996	33,711	0
January	22,235	0	47	0	4,50,657	1,18,827	8,51,213	33,183	0
February	22,515	0	50	0	3,52,226	1,10,251	4,21,838	14,901	0
March	18,552	0	16	0	3,59,970	1,20,318	3,30,390	10,536	0
2008-09									
April	4,051	9	2	0	2,80,100	1,33,565	3,36,900	15,865	0
May	5,049	0	1	0	2,67,641	1,29,067	3,80,161	21,040	0
June	1,359	0	2	0	3,77,939	3,08,709	3,75,987	21,430	0
July	765	0	1	0	3,95,380	3,57,209	3,82,601	24,985	0
August	372	0	1	0	3,00,449	3,12,102	3,24,011	20,883	0
September	370	0	1	0	3,80,198	4,61,623	3,32,729	23,329	0
October	182	0	0	0	3,24,962	3,64,510	2,39,264	12,911	0
November	49	0	0	0	2,56,950	2,92,134	1,87,211	9,061	0
December	30	0	0	0	2,69,997	3,13,615	2,30,466	15,088	0
January	12	0	12	0	2,34,141	3,09,271	2,15,830	18,876	0
February	6	0	6	0	2,05,679	3,05,599	1,85,121	15,972	0
March	4	0	4	0	2,76,677	4,44,099	2,89,362	29,793	0

@ : Notional turnover for call and put options.

\- : Negligible/Not available.

Note : Index futures were introduced in June 2000, index options in June 2001, stock options in July 2001 and stock futures in November 2001 both on the BSE and NSE.

Source : Bombay Stock Exchange Limited (BSE) and the National Stock Exchange of India Limited (NSE).

APPENDIX TABLE 46 : ASSISTANCE SANCTIONED AND DISBURSED BY FINANCIAL INSTITUTIONS

(Rupees crore)

Institutions	2006-07		2007-08 P		2008-09 P	
	Sanctions	Disbursements	Sanctions	Disbursements	Sanctions	Disbursements
1	2	3	4	5	6	7
A. All India Term Lending Institutions (1 to 3)	**12,152**	**10,775**	**18,696**	**17,379**	**33,660**	**31,604**
1 IFCI	1,050	550	2,550	2,280	4,015	3,311
2 SIDBI	11,102	10,225	16,146	15,099	29,645	28,293
3 IIBI #	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
B. Specialised Financial Institutions (4 to 6)	**245**	**120**	**366**	**189**	**597**	**283**
4 IVCF	-	-	-	-	16	7
5 ICICI Venture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6 TFCI	245	120	366	189	581	276
C. Investment Institutions (7 to 8)	**18,862**	**27,757**	**39,670**	**28,460**	**65,731**	**57,086**
7 LIC	18,127	27,017	38,455	27,264	65,009	56,434
8 GIC $	735	740	1,215	1,196	722	652
D. Total Assistance by All-India Financial Institutions (A+B+C)	**31,259**	**38,652**	**58,732**	**46,028**	**99,988**	**88,973**
E. State-level Institutions (9 to 10)	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a**	**n.a.**
9 SFCs	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10 SIDCs	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
F. Total Assistance by All Financial Institutions (D+E)	**31,259**	**38,652**	**58,732**	**46,028**	**99,988**	**88,973**

P : Provisional. - : Nil/Negligible. n.a. : Not available.

$: Data include GIC and its erstwhile subsidiaries namely New India Assurance Co. Ltd., Oriental Insurance Co. Ltd. and United India Insurance Co. Ltd.

: IIBI is in the process of voluntary winding up.

Source : Respective Financial Institutions.

APPENDIX TABLE 47 : SELECT ECONOMIC INDICATORS – WORLD

Item	2001	2002	2003	2004	2005	2006	2007	2008	2009 P	2010 P
1	2	3	4	5	6	7	8	9	10	11
I. World Output (Per cent change)	**2.2**	**2.8**	**3.6**	**4.9**	**4.5**	**5.1**	**5.1**	**3.1**	**-1.4**	**2.5**
i) Advanced economies	1.2	1.6	1.9	3.2	2.6	3.0	2.7	0.8	-3.8	0.6
ii) Other emerging market and developing countries	3.8	4.8	6.3	7.5	7.1	8.0	8.3	6.0	1.5	4.7
a) Developing Asia	5.8	6.9	8.2	8.6	9.0	9.8	10.6	7.6	5.5	7.0
b) Africa	4.9	6.5	5.5	6.7	5.8	6.1	6.2	5.2	1.8	4.1
c) Middle East	2.6	3.8	7.0	6.0	5.8	5.7	6.3	5.2	2.0	3.7
d) Western Hemisphere	0.7	0.6	2.2	6.0	4.7	5.7	5.7	4.2	-2.6	2.3
II. Inflation-CPI (Per cent change)										
i) Advanced economies	2.2	1.5	1.8	2.0	2.3	2.4	2.2	3.4	0.1	0.9
ii) Other emerging market and developing countries	7.7	6.8	6.7	5.9	5.7	5.4	6.4	9.3	5.3	4.6
a) Developing Asia	2.8	2.1	2.6	4.1	3.8	4.2	5.4	7.4	2.8	2.4
III. Fiscal Balance #										
i) Advanced Economies	-0.9	-2.4	-3.0	-2.7	-2.1	-1.5	-1.0	-2.8	-7.1	-6.0
ii) Other emerging market and developing countries (Weighted Average)	-2.7	-3.1	-2.4	-1.1	-0.2	0.3	0.3	0.0	-4.0	-3.3
IV. Net Capital Flows* (US $ billion)										
Emerging market and developing countries**										
i) Net private capital flows (a+b+c)***	73.5	54.0	154.2	222.0	226.8	202.8	617.5	109.3	-190.3	-6.5
a) Net private direct investment	180.5	144.4	161.3	183.9	243.7	241.4	359.0	459.3	312.8	303.1
b) Net private portfolio investment	-76.9	-86.4	-3.8	10.0	-5.6	-100.7	39.5	-155.2	-234.5	-195.3
c) Net other private capital flows	-30.1	-4.1	-3.3	28.0	-11.3	62.2	219.2	-194.6	-268.5	-114.2
ii) Net official flows	2.3	14.8	-43.3	-64.9	-98.5	-154.1	-100.5	-60.0	57.6	-28.1
V. World Trade @										
Imports										
i) Advanced Economies	-0.4	2.7	4.2	9.3	6.4	7.6	4.7	0.4	-13.6	0.6
ii) Emerging and developing economies	3.1	6.2	10.2	16.0	12.2	13.2	13.8	9.4	-9.6	0.8
Exports										
i) Advanced economies	-0.4	2.4	3.4	9.1	6.2	8.5	6.2	2.0	-15.0	1.3
ii) Emerging and developing economies	2.4	7.0	10.5	14.2	10.8	10.9	9.5	4.1	-6.5	1.4
Terms of Trade										
i) Advanced economies	0.4	0.9	1.0	-0.1	-1.5	-1.1	0.4	-2.0	1.5	-0.2
ii) Emerging and developing economies	-2.3	0.4	1.2	3.1	5.9	4.1	1.2	4.4	-8.0	2.3
VI. Current Account Balance (US $ billion)										
i) Advanced economies	-207.7	-219.0	-220.1	-213.8	-394.0	-454.5	-389.6	-465.0	-371.3	-371.6
ii) Other emerging market and developing countries	46.6	83.2	151.3	226.1	447.8	630.6	633.4	714.4	262.4	384.2
a) Developing Asia	36.6	64.8	82.4	89.3	162.3	282.4	406.5	422.4	481.3	469.0

P : Projections.
: Central Government Balance as percentage of GDP.
* : Net capital flows comprise net direct investment, net portfolio investment, and other long-term and short term net investment flows, including official and private borrowings.
** : Emerging Market and Developing Countries include countries not classified as advanced countries.
*** : On account of data limitations, flows listed under 'net private capital flows' may include some official flows.
@ : Annual percentage change in world trade volume of goods and services.
Source : World Economic Outlook (WEO), April 2009 , WEO Update July 2009, IMF.

APPENDIX TABLE 48 : INDIA'S FOREIGN TRADE

Item	Rupees crore			US $ million			SDR million		
	2006-07	2007-08 R	2008-09 P	2006-07	2007-08 R	2008-09 P	2006-07	2007-08 R	2008-09 P
1	2	3	4	5	6	7	8	9	10
I. Exports	**5,71,779**	**6,55,864**	**7,66,935**	**1,26,414**	**1,63,132**	**1,68,704**	**84,996**	**1,04,603**	**1,07,645**
	(25.3)	**(14.7)**	**(16.9)**	**(22.6)**	**(29.0)**	**(3.4)**	**20.1**	**23.1**	**2.9**
a. POL @	84,520	1,14,192	..	18,635	26,904	25,407*	12,534	17,271	..
	(64.0)	(35.1)		(60.1)	(44.4)	(4.5)	(56.9)	(37.8)	
b. Non-oil	4,87,259	5,41,672	..	1,07,780	1,36,228	1,31,781*	72,462	87,332	..
	(20.3)	(11.2)		(17.9)	(26.4)	(8.4)	(15.4)	(20.5)	
II. Imports	**8,40,506**	**10,12,312**	**13,05,503**	**1,85,735**	**2,51,654**	**2,87,759**	**1,24,928**	**1,61,567**	**1,83,103**
	(27.3)	**(20.4)**	**(29.0)**	**(24.5)**	**(35.5)**	**(14.3)**	**(22.0)**	**(29.3)**	**(13.3)**
a. Oil and POL	2,58,572	3,20,655	4,17,472	56,945	79,715	93,176	38,317	51,063	58,418
	(32.8)	(24.0)	(30.2)	(29.5)	(40.0)	(16.9)	(27.0)	(33.3)	(14.4)
b. Non-oil	5,81,935	6,91,657	8,88,031	1,28,790	1,71,939	1,94,583	86,611	1,10,504	1,24,685
	(24.9)	(18.9)	(28.4)	(22.4)	(33.5)	(13.2)	(19.9)	(27.6)	(12.8)
III. Trade Balance (I-II)	**-2,68,727**	**-3,56,448**	**-5,38,568**	**-59,321**	**-88,522**	**-1,19,055**	**-39,932**	**-56,964**	**-75,458**
a. Oil Balance (I.a-II.a)	-1,74,052	-2,06,463	..	-38,311	-52,811	..	-25,783	-33,792	..
b. Non-oil Balance (I.b-II.b)	-94,675	-1,49,985	..	-21,010	-35,711	..	-14,149	-23,172	..

R: Revised. P: Provisional. @ : Petroleum Oil and Lubricants. * : Figures pertain to the period April-February.

.. : Not available.

Note : Figures in brackets relate to percentage variations over the previous year.

Source : DGCI & S.

APPENDIX TABLE 49 : INDIA'S EXPORTS OF PRINCIPAL COMMODITIES

Commodity Group	Rupees crore			Percentage Variation		US $ million			Percentage Variation	
	April-March		Apr-Feb	Apr-March		April-March		Apr-Feb	April-March	
	2006-07	2007-08 R	2008-09 P	2006-07	2007-08	2006-07	2007-08 R	2008-09 P	2006-07	2007-08
1	2	3	4	5	6	7	8	9	10	11
I. Primary Products	**89,078.0**	**1,10,811.2**	**1,05,649.5**	**22.9**	**24.4**	**19,686.0**	**27,523.4**	**23,210.8**	**20.2**	**39.8**
	(15.6)	**(16.9)**	**(14.9)**			**(15.6)**	**(16.9)**	**(14.8)**		
A. Agricultural & Allied Products	**57,392.0**	**74,094.3**	**72,684.1**	**26.9**	**29.1**	**12,683.5**	**18,403.6**	**15,968.5**	**24.2**	**45.1**
	(10.0)	**(11.3)**	**(10.3)**			**(10.0)**	**(11.3)**	**(10.2)**		
of which :										
1. Tea	1,969.5	2,034.2	2,376.4	13.8	3.3	435.3	505.3	522.1	11.3	16.1
2. Coffee	1,969.0	1,872.3	1,966.1	23.9	-4.9	435.1	465.0	431.9	21.3	6.9
3. Rice	7,035.9	11,750.9	9,831.8	13.1	67.0	1,554.9	2,918.7	2,160.0	10.7	87.7
4. Oil Meal	5,504.3	8,140.5	9,622.7	12.9	47.9	1,216.4	2,022.0	2,114.1	10.5	66.2
5. Marine Products	8,001.0	6,926.7	6,522.4	13.7	-13.4	1,768.2	1,720.5	1,433.0	11.3	-2.7
B. Ores & Minerals	**31,686.0**	**36,716.9**	**32,965.4**	**16.1**	**15.9**	**7,002.5**	**9,119.8**	**7,242.4**	**13.6**	**30.2**
	(5.5)	**(5.6)**	**(4.7)**			**(5.5)**	**(5.6)**	**4.6**		
II. Manufactured Goods	**3,84,261.4**	**4,14,457.7**	**4,59,311.2**	**19.6**	**7.9**	**84,920.6**	**1,02,943.5**	**1,00,909.1**	**17.0**	**21.2**
	(67.2)	**(63.2)**	**(64.9)**			**(67.2)**	**(63.1)**	**(64.2)**		
of which :										
A. Leather & Manufactures	**13,650.4**	**14,101.3**	**15,011.4**	**14.3**	**3.3**	**3,016.7**	**3,502.5**	**3,298.0**	**11.8**	**16.1**
B. Chemicals & Related Products	**78,442.1**	**85,258.7**	**93,458.9**	**20.0**	**8.7**	**17,335.5**	**21,176.7**	**20,532.6**	**17.4**	**22.2**
1. Basic Chemicals, Pharmaceuticals & Cosmetics	49,588.3	56,104.4	64,013.9	22.7	13.1	10,958.9	13,935.3	14,063.6	20.1	27.2
2. Plastic & Linoleum	14,718.0	13,763.4	12,447.4	17.9	-6.5	3,252.6	3,418.6	2,734.7	15.4	5.1
3. Rubber, Glass, Paints & Enamels, *etc.*	10,736.9	11,620.5	12,396.0	15.2	8.2	2,372.8	2,886.3	2,723.4	12.7	21.6
4. Residual Chemicals & Allied Products	3,399.0	3,770.5	4,601.6	6.9	10.9	751.2	936.5	1,011.0	4.6	24.7
C. Engineering Goods	**1,33,790.1**	**1,50,384.9**	**1,85,263.3**	**39.1**	**12.4**	**29,567.2**	**37,352.8**	**40,701.7**	**36.1**	**26.3**
D. Textiles and Textile Products	**78,612.9**	**78,186.6**	**80,517.7**	**8.3**	**-0.5**	**17,373.2**	**19,420.1**	**17,689.5**	**5.9**	**11.8**
of which :										
1. Cotton Yarn, Fabrics, Made-ups, *etc.*	19,089.4	18,720.6	17,625.7	9.3	-1.9	4,218.7	4,649.8	3,872.3	6.9	10.2
2. Natural Silk Yarn, Fabrics, Made-ups, etc.	1,999.7	1,553.1	1,534.0	4.4	-22.3	441.9	385.8	337.0	2.2	-12.7
3. Manmade Yarn, Fabrics, Made-ups, *etc.*	9,974.9	11,663.3	12,629.6	15.1	16.9	2,204.4	2,896.9	2,774.7	12.6	31.4
4. Readymade Garments	40,237.2	39,001.0	42,067.4	5.5	-3.1	8,892.3	9,687.1	9,242.1	3.2	8.9
5. Jute & Jute Manufactures	1,178.4	1,312.9	1,270.9	-10.2	11.4	260.4	326.1	279.2	-12.1	25.2
6. Coir & Coir Manufactures	660.3	644.9	609.1	11.8	-2.3	145.9	160.2	133.8	9.4	9.8
7. Carpets	4,199.1	3,795.5	3,301.5	11.2	-9.6	928.0	942.7	725.3	8.8	1.6
E. Gems and Jewellery	**72,295.2**	**79,227.7**	**78,260.4**	**5.2**	**9.6**	**15,977.0**	**19,678.7**	**17,193.5**	**2.9**	**23.2**
F. Handicrafts	**1,981.9**	**2,046.2**	**1,272.9**	**-3.1**	**3.2**	**438.0**	**508.2**	**279.7**	**-5.2**	**16.0**
III. Petroleum, Crude & Products	**84,520.1**	**1,14,191.7**	**1,13,270.2**	**64.0**	**35.1**	**18,634.6**	**26,903.8**	**25,407.2**	**60.1**	**44.4**
	(14.8)	**(17.4)**	**(16.0)**			**(14.7)**	**(16.5)**	**(16.2)**		
IV. Others	**13,919.7**	**16,402.9**	**29,707.2**	**25.2**	**17.8**	**3,172.9**	**5,761.4**	**7,660.6**	**26.4**	**81.6**
	(2.4)	**(2.5)**	**(4.2)**			**(2.5)**	**(3.5)**	**(4.9)**		
Total Exports (I+II+III+IV)	**5,71,779.3**	**6,55,863.5**	**7,07,938.0**	**25.3**	**14.7**	**1,26,414.1**	**1,63,132.1**	**1,57,187.8**	**22.6**	**29.0**

R : Revised. P : Provisional.

Note : 1. Figures in brackets represent percentage to total exports.

2. Leather & manufactures include finished leather, leather goods, leather garments, footwear of leather & its components and saddlery & harness.

3. Engineering goods comprise ferro alloys, aluminium other than products, non-ferrous metal, manufactures of metals, machine tools, machinery and equipments, transport equipments, residual engineering items, iron and steel bar/rod, *etc.*, primary and semi-finished iron and steel, electronic goods, computer software and project goods.

4. Textiles and Textile Products includes: (a) cotton yarn, fabrics, made-ups, etc., (b) natural silk yarn, fabrics made-ups, etc., (c) manmade yarn, fabrics, made-ups, etc., (d) manmade staple fibre, (e) woolen yarn, fabrics, made-ups, etc., (f) readymade garments, (g) jute & jute manufactures, (h) coir & coir manufactures and (i) carpets.

Source : DGCI& S.

APPENDIX TABLE 50 : INDIA'S IMPORTS OF PRINCIPAL COMMODITIES

Commodity Group	Rupees crore			Percentage Variation		US $ million			Percentage Variation	
	April-March		Apr-Feb	Apr-March		April-March		Apr-Feb	April-March	
	2006-07	2007-08 R	2008-09 P	2006-07	2007-08	2006-07	2007-08 R	2008-09 P	2006-07	2007-08
1	2	3	4	5	6	7	8	9	10	11
I. Bulk Imports	**3,82,060.4**	**4,53,933.4**	**5,76,772.3**	**41.3**	**18.8**	**84,235.9**	**1,12,819.0**	**1,30,041.4**	**37.9**	**33.9**
	(45.5)	**(44.8)**	**(47.1)**			**(45.4)**	**(44.8)**	**(47.8)**		
A. Petroleum, Petroleum Products & Related Material	**2,58,571.8**	**3,20,654.5**	**3,93,076.3**	**32.8**	**24.0**	**56,945.3**	**79,715.0**	**89,684.0**	**29.5**	**40.0**
	(30.8)	**(31.7)**	**(32.1)**			**(30.7)**	**(31.7)**	**(32.9)**		
B. Bulk Consumption Goods	**19,430.8**	**18,517.4**	**20,442.4**	**58.6**	**-4.7**	**4,294.2**	**4,599.4**	**4,491.1**	**55.2**	**7.1**
1. Cereals & Cereal Preparations	145.1	181.6	195.5	-9.2	25.2	32.1	45.1	43.0	-11.1	40.7
2. Edible Oil	9,539.9	10,301.1	14,446.4	6.5	8.0	2,108.3	2,558.6	3,173.8	4.2	21.4
3. Pulses	3,891.9	5,374.9	5,377.7	57.2	38.1	860.1	1,335.0	1,181.5	53.8	55.2
4. Sugar	3.5	2.2	422.8	-99.5	-35.9	0.8	0.6	92.9	-99.5	-27.9
C. Other Bulk Items	**1,04,057.8**	**1,14,761.6**	**6,49,013.7**	**63.7**	**10.3**	**22,996.5**	**28,504.6**	**35,866.3**	**60.2**	**24.0**
1. Fertilisers	14,226.9	21,764.8	60,521.7	51.1	53.0	3,144.1	5,406.0	13,296.4	47.8	71.9
a) Crude	1,634.1	1,881.6	4,567.0	16.2	15.1	361.1	467.3	1,003.3	13.6	29.4
b) Sulphur & unroasted iron pyrites	494.7	1,457.4	2,962.1	-17.8	194.6	109.3	362.0	650.8	-19.6	231.1
c) Manufactured	12,098.0	18,425.8	52,992.6	63.3	52.3	2,673.6	4,576.6	11,642.3	59.8	71.2
2. Non-ferrous Metals	11,787.1	14,115.6	13,445.9	44.4	19.8	2,604.9	3,506.0	2,954.0	41.2	34.6
3. Paper, Paperboard & mgfd. incl. Newsprint	5,460.9	5,743.8	7,667.8	30.7	5.2	1,206.8	1,426.6	1,684.6	27.8	18.2
4. Crude Rubber, incl. Synthetic & Reclaimed	2,854.4	3,163.3	3,799.2	55.7	10.8	630.8	785.7	834.7	52.3	24.6
5. Pulp & Waste Paper	2,892.7	3,132.5	3,451.1	14.0	8.3	639.3	778.0	758.2	11.6	21.7
6. Metalliferrous Ores & Metal Scrap	37,764.5	31,854.4	34,244.5	119.7	-15.6	8,345.8	7,912.0	7,523.4	115.0	-5.2
7. Iron & Steel	29,071.4	34,987.3	40,123.3	43.6	20.3	6,424.7	8,690.2	8,815.0	40.5	35.3
II. Non-Bulk Imports	**4,58,445.9**	**5,58,378.3**	**6,49,013.7**	**17.6**	**21.8**	**1,01,499.3**	**1,38,835.0**	**1,42,157.0**	**15.2**	**36.8**
	(54.5)	**(55.2)**	**(52.9)**			**(54.6)**	**(55.2)**	**(52.2)**		
A. Capital Goods	**2,12,985.9**	**2,85,209.3**	**2,64,170.3**	**27.7**	**33.9**	**47,069.2**	**70,840.6**	**58,037.3**	**25.0**	**50.5**
1. Manufactures of Metals	7,256.3	10,720.9	13,458.3	35.3	47.7	1,603.6	2,662.9	2,956.7	32.4	66.1
2. Machine Tools	6,702.8	8,890.2	9,695.7	40.7	32.6	1,481.3	2,208.2	2,130.1	37.6	49.1
3. Machinery except Electrical & Electronics	62,672.4	79,910.9	86,926.2	41.4	27.5	13,850.4	19,848.4	19,097.4	38.4	43.3
4. Electrical Machinery except Electronics	8,868.0	12,095.6	13,410.6	33.1	36.4	1,959.8	3,004.3	2,946.3	30.3	53.3
5. Electronic Goods incl. Computer Software	76,650.7	87,402.7	93,878.4	22.4	14.0	16,939.6	21,709.2	20,624.8	19.8	28.2
6. Transport Equipments	42,709.3	80,981.1	33,916.3	9.1	89.6	9,438.6	20,114.2	7,451.3	6.8	113.1
7. Project Goods	8,126.5	5,207.9	12,885.0	107.9	-35.9	1,795.9	1,293.5	2,830.8	103.5	-28.0
B. Mainly Export Related Items	**80,868.7**	**83,675.9**	**1,22,855.1**	**-2.0**	**3.5**	**17,871.7**	**20,783.5**	**26,990.9**	**-4.1**	**16.3**
1. Pearls, Precious & Semi-precious Stones	33,880.7	32,114.2	58,237.0	-16.2	-5.2	7,487.5	7,976.6	12,794.5	-18.0	6.5
2. Chemicals, Organic & Inorganic	35,433.4	39,882.6	51,705.3	14.6	12.6	7,830.7	9,906.1	11,359.5	12.1	26.5
3. Textile Yarn, Fabrics, *etc.*	9,733.9	9,964.3	10,328.9	7.2	2.4	2,151.2	2,475.0	2,269.2	4.9	15.1
4. Cashew Nuts, Raw	1,820.7	1,714.7	2,583.8	-12.9	-5.8	402.4	425.9	567.6	-14.7	5.8
C. Others	**1,64,591.3**	**1,89,493.0**	**2,61,988.3**	**17.0**	**15.1**	**36,558.3**	**47,210.9**	**57,128.8**	**15.1**	**29.1**
of which :										
1. Gold and Silver	66,272.3	71,933.5	82,060.2	32.3	8.5	14,646.0	17,866.9	18,028.3	29.4	22.0
2. Artificial Resins & Plastic Materials	11,696.2	14,839.3	15,736.2	16.5	26.9	2,584.8	3,685.8	3,457.2	14.0	42.6
3. Professional, Scientific & Optical Goods	10,593.1	12,349.2	16,851.8	21.3	16.6	2,341.0	3,067.3	3,702.3	18.7	31.0
4. Coal, Coke & Briquittes *etc.*	20,709.7	25,862.2	42,691.5	20.9	24.9	4,576.8	6,423.7	9,379.2	18.3	40.4
5. Medicinal & Pharmaceutical Products	5,866.4	6,734.3	7,587.9	28.9	14.8	1,296.5	1,672.7	1,667.0	26.1	29.0
6. Chemical Materials & Products	5,980.1	6,544.3	8,215.5	28.3	9.4	1,321.6	1,625.5	1,804.9	25.6	23.0
7. Non-Metallic Mineral Manufactures	3,529.5	4,217.4	4,917.3	28.2	19.5	780.0	1,047.5	1,080.3	25.4	34.3
III. Total Imports (I+II)	**8,40,506.3**	**10,12,311.7**	**12,25,786.0**	**27.3**	**20.4**	**1,85,735.2**	**2,51,654.0**	**2,72,198.4**	**24.5**	**35.5**

R : Revised. P : Provisional.

Note : Figures in brackets represent percentage to total imports.

Source : DGCI & S.

APPENDIX TABLE 51 : INDIA'S OVERALL BALANCE OF PAYMENTS

Item	Rupees crore			US $ million		
	2006-07	2007-08 PR	2008-09 P	2006-07	2007-08 PR	2008-09 P
1	2	3	4	5	6	7
A. CURRENT ACCOUNT						
1. Exports, f.o.b.	5,82,871	6,67,757	7,98,956	1,28,888	1,66,163	1,75,184
2. Imports, c.i.f.	8,62,833	10,36,289	13,41,069	1,90,670	2,57,789	2,94,587
3. Trade Balance	**-2,79,962**	**-3,68,532**	**-5,42,113**	**-61,782**	**-91,626**	**-1,19,403**
4. Invisibles, Net	2,35,579	2,99,618	4,09,842	52,217	74,592	89,586
a) 'Non-Factor' Services	1,33,064	1,51,059	2,28,778	29,469	37,565	49,818
of which: Software Services	1,41,356	1,62,020	2,15,588	31,300	40,300	47,000
b) Income	-33,234	-19,888	-21,116	-7,331	-4,917	-4,511
c) Private Transfers	1,34,608	1,67,495	2,01,050	29,825	41,705	44,047
d) Official Transfers	1,141	952	1,130	254	239	232
5. Current Account Balance	**-44,383**	**-68,914**	**-1,32,271**	**-9,565**	**-17,034**	**-29,817**
B. CAPITAL ACCOUNT						
1. Foreign Investment, Net (a+b)	**66,791**	**1,80,788**	**11,760**	**14,753**	**44,957**	**3,462**
a) Direct Investment *of which:*	**34,910**	**61,793**	**76,822**	**7,693**	**15,401**	**17,496**
i) In India	**1,02,652**	**1,37,434**	**1,58,579**	**22,739**	**34,236**	**34,982**
Equity	73,969	1,07,320	1,25,362	16,394	26,758	27,809
Re-invested Earnings	26,371	28,859	29,705	5,828	7,168	6,426
Other Capital	2,312	1,255	3,512	517	310	747
ii) Abroad	**-67,742**	**-75,641**	**-81,757**	**-15,046**	**-18,835**	**-17,486**
Equity	-56,711	**-57,936**	**-63,478**	-12,604	-14,421	-13,558
Re-invested Earnings	-4,868	-4,363	-4,985	-1,076	-1,084	-1,084
Other Capital	-6,163	-13,342	-13,294	-1,366	-3,330	-2,844
b) Portfolio Investment	**31,881**	**1,18,995**	**-65,062**	**7,060**	**29,556**	**-14,034**
In India	31,630	1,18,348	-64,206	7,004	29,394	-13,855
Abroad	251	647	-856	56	162	-179
2. External Assistance, Net	**7,973**	**8,465**	**12,435**	**1,775**	**2,114**	**2,638**
Disbursements	16,978	17,022	23,535	3,767	4,241	5,042
Amortisation	-9,005	-8,557	-11,100	-1,992	-2,127	-2,404
3. Commercial Borrowings, Net	**72,365**	**91,180**	**38,009**	**16,103**	**22,633**	**8,158**
Disbursements	93,932	1,22,270	71,626	20,883	30,376	15,382
Amortisation	-21,567	-31,090	-33,617	-4,780	-7,743	-7,224
4. Short Term Credit, Net	30,096	68,878	-31,160	6,612	17,183	-5,795
5. Banking Capital *of which:*	8,477	47,148	-19,868	1,913	11,757	-3,397
NRI Deposits, Net	*19,574*	*706*	*20,431*	*4,321*	*179*	*4,290*
6. Rupee Debt Service	-725	-488	-476	-162	-121	-101
7. Other Capital, Net @	18,696	37,802	21,681	4,209	9,470	4,181
8. Total Capital Account	**2,03,673**	**4,33,773**	**32,381**	**45,203**	**1,07,993**	**9,146**
C. Errors & Omissions	**4,344**	**4,830**	**2,775**	**968**	**1,205**	**591**
D. Overall Balance [A(5)+B(8)+C]	**1,63,634**	**3,69,689**	**-97,115**	**36,606**	**92,164**	**-20,080**
E. Monetary Movements (F+G)	**-1,63,634**	**-3,69,689**	**97,115**	**-36,606**	**-92,164**	**20,080**
F. IMF, Net	**0**	**0**	**0**	**0**	**0**	**0**
G. Reserves and Monetary Gold (Increase -, Decrease +)	**-1,63,634**	**-3,69,689**	**97,115**	**-36,606**	**-92,164**	**20,080**

P : Provisional. PR : Partially Revised.

@ : Includes delayed export receipts, advance payments against imports, net funds held abroad and advances received pending issue of shares under FDI.

Note : 1. Gold and silver brought by returning Indians have been included under imports, with a contra entry in private transfer receipts.

2. Data on exports and imports differ from those given by DGCI&S on account of differences in coverage, valuation and timing.

APPENDIX TABLE 52 : INVISIBLES BY CATEGORY OF TRANSACTIONS

Item	Rupees crore			US $ million		
	2006-07	2007-08 PR	2008-09 P	2006-07	2007-08 PR	2008-09 P
1	2	3	4	5	6	7
I. Non Factor Services, net	**1,33,064**	**1,51,059**	**2,28,778**	**29,469**	**37,565**	**49,818**
Receipts	3,33,093	3,61,932	4,65,795	73,780	90,077	1,01,224
Payments	2,00,029	2,10,873	2,37,017	44,311	52,512	51,406
Travel, net	10,878	8,351	6,855	2,439	2,095	1,462
Receipts	41,127	45,524	50,226	9,123	11,349	10,894
Payments	30,249	37,173	43,371	6,684	9,254	9,432
Transportation, net	-455	-6,077	-7,403	-94	-1,500	-1,711
Receipts	36,049	40,200	50,923	7,974	10,014	11,066
Payments	36,504	46,277	58,326	8,068	11,514	12,777
Insurance, net	2,500	2,393	1,239	553	595	278
Receipts	5,403	6,587	6,474	1,195	1,639	1,409
Payments	2,903	4,194	5,235	642	1,044	1,131
G.N.I.E., net	-682	-190	-1,994	-150	-46	-402
Receipts	1,143	1,330	1,773	253	330	389
Payments	1,825	1,520	3,767	403	376	791
Miscellaneous, net	1,20,823	1,46,582	2,30,081	26,721	36,421	50,191
Receipts	2,49,371	2,68,291	3,56,399	55,235	66,745	77,466
Payments	128,548	1,21,709	1,26,318	28,514	30,324	27,275
II. Income, net	**-33,234**	**-19,888**	**-21,116**	**-7,331**	**-4,917**	**-4,511**
Receipts	42,016	57,285	65,505	9,308	14,268	14,307
Payments	75,250	77,173	86,621	16,639	19,185	18,818
III. Private Transfers, net	**1,34,608**	**1,67,495**	**2,01,050**	**29,825**	**41,705**	**44,047**
Receipts	1,39,173	1,74,712	2,11,705	30,835	43,506	46,380
Payments	4,565	7,217	10,655	1,010	1,801	2,333
IV. Official Transfers, net	**1,141**	**952**	**1,130**	**254**	**239**	**232**
Receipts	2,864	3,025	3,031	635	753	645
Payments	1,723	2,073	1,901	381	514	413
V. Invisibles, net (I to IV)	**2,35,579**	**2,99,618**	**4,09,842**	**52,217**	**74,592**	**89,586**
Receipts	5,17,146	5,96,954	7,46,036	1,14,558	1,48,604	1,62,556
Payments	2,81,567	2,97,336	3,36,194	62,341	74,012	72,970

PR : Partially Revised. P : Provisional.

GNIE : Government Not Included Elsewhere.

APPENDIX TABLE 53 : COMPOSITION OF CAPITAL FLOWS (NET)

Item	1990-91	1995-96	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08PR	2008-09P
1	2	3	4	5	6	7	8	9	10	11
Total Capital Flows (Net) (US $ mn)	**7,056**	**4,089**	**8,551**	**10,840**	**16,736**	**28,022**	**25,470**	**45,203**	**107,993**	**9,146**
Percentage share in total net flows										
1. Non- Debt Creating Inflows	**1.5**	**117.5**	**95.2**	**55.5**	**93.7**	**54.6**	**84.0**	**65.8**	**58.9**	**231.0**
a) Foreign Direct Investment **	1.4	52.4	71.6	46.5	25.8	21.4	34.9	50.3	31.7	382.5
b) Portfolio Investment	0.1	65.1	23.6	9.0	67.9	33.2	49.1	15.5	27.2	-151.5
2. Debt Creating Inflows	**83.3**	**57.7**	**12.4**	**-12.3**	**-6.0**	**35.2**	**41.0**	**64.2**	**38.9**	**87.2**
a) External Assistance	31.3	21.6	14.1	-28.6	-16.5	7.2	6.9	4.0	1.9	28.9
b) External Commercial Borrowings #	31.9	31.2	-18.6	-15.7	-17.5	19.4	10.8	36.4	21.0	75.9
c) Short term Credits	15.2	1.2	-9.3	8.9	8.5	13.5	14.5	14.6	15.9	-63.4
d) NRI Deposits $	21.8	27.0	32.2	27.5	21.8	-3.4	11.0	9.6	0.2	46.9
e) Rupee Debt Service	-16.9	-23.3	-6.1	-4.4	-2.2	-1.5	-2.2	-0.4	-0.1	-1.1
3. Other Capital @	**15.2**	**-75.2**	**-7.6**	**56.8**	**12.3**	**10.2**	**-25.0**	**-30.0**	**2.2**	**-218.2**
4. Total (1 To3)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Memo:										
Stable flows +	**84.7**	**33.7**	**85.6**	**82.0**	**23.7**	**53.2**	**36.4**	**69.9**	**56.9**	**314.8**

PR : Partially Revised. P : Preliminary.

** Data on FDI have been revised since 2000-01 with expanded coverage to approach international best practices. FDI data for previous years would not be comparable with those figures.

\# Refers to medium and long-term Borrowings

$ Including NR (NR) Rupee Deposits

@ Includes leads and lags in exports (difference between the custom and the Banking channel data), Banking Capital (assets and liabilities of Banks excluding NRI deposits), and investments and loans by indian residents abroad. India's subscription to International Institutions and quota payments to IMF.

\+ Stable Flows are defined to represent all capital flows excluding portfolio flows and short-term trade credits.

APPENDIX TABLE 54 : EXTERNAL ASSISTANCE

Item	Rupees crore			US $ million		
	2006-07	2007-08	2008-09 P	2006-07	2007-08	2008-09 P
1	2	3	4	5	6	7
1. Loans	16,803	17,178	23,687	3,691	4,281	4,690
2. Grants	2,485	2,674	2,786	546	666	551
3. Gross Utilisation (1+2)	19,288	19,852	26,473	4,237	4,947	5,241
4. Repayments	8,980	8,593	11,067	1,970	2,139	2,188
5. Interest Payments	4,453	4,627	4,829	977	1,152	955
6. Net (3-4-5)	5,855	6,632	10,577	1,290	1,656	2,098

P : Provisional.

Note : 1. Loans are inclusive of non-government loans but exclusive of suppliers' credit and commercial borrowings.
2. Grants are exclusive of PL 480-II grants.
3. Repayments include amortisation of civillian debt owed to Russia and hence do not tally with the data given in Appendix Table 51.

Source : Controller of Aid,Accounts and Audit,Government of India.

APPENDIX TABLE 55 : INDIA'S EXTERNAL DEBT
(As at end-March)

Item	Rupees crore			US $ million		
	2007 R	2008 P	2009 P	2007 R	2008 P	2009 P
1	2	3	4	5	6	7
I. Multilateral	**1,54,053**	**1,57,900**	**2,01,565**	**35,337**	**39,490**	**39,566**
A. Government borrowing	1,41,746	1,44,626	1,81,997	32,514	36,171	35,725
i) Concessional	1,08,448	1,07,395	1,27,771	24,876	26,859	25,081
a) IDA	1,07,019	1,05,947	1,26,127	24,548	26,497	24,758
b) Others #	1,429	1,448	1,644	328	362	323
ii) Non-concessional	33,298	37,231	54,226	7,638	9,312	10,644
a) IBRD	21,864	22,630	29,948	5,015	5,660	5,878
b) Others ##	11,434	14,601	24,278	2,623	3,652	4,766
B. Non-Government borrowing	12,307	13,274	19,568	2,823	3,319	3,841
i) Concessional	0	0	0	0	0	0
ii) Non-concessional	12,307	13,274	19,568	2,823	3,319	3,841
a) Public sector	9,315	10,352	14,299	2,136	2,589	2,807
IBRD	4,550	4,690	7,106	1,043	1,173	1,395
Others ##	4,765	5,662	7,193	1,093	1,416	1,412
b) Financial institutions	2,414	2,350	3,721	554	587	730
IBRD	655	593	744	150	148	146
Others ##	1,759	1,757	2,977	404	439	584
c) Private sector	578	572	1,548	133	143	304
IBRD	0	0	0	0	0	0
Others	578	572	1,548	133	143	304
II. Bilateral	**70,034**	**78,776**	**1,04,882**	**16,065**	**19,701**	**20,587**
A. Government borrowing	53,810	59,391	74,662	12,344	14,853	14,655
i) Concessional	53,810	59,391	74,662	12,344	14,853	14,655
ii) Non-concessional	0	0	0	0	0	0
B. Non-Government borrowing	16,224	19,385	30,220	3,721	4,848	5,932
i) Concessional	1,727	1,737	3,262	396	435	640
a) Public sector	1,241	1,226	1,156	285	307	227
b) Financial institutions	486	511	2,106	111	128	413
c) Private sector	0	0	0	0	0	0
ii) Non-concessional	14,497	17,648	26,958	3,325	4,413	5,292
a) Public sector	7,420	10,097	14,900	1,702	2,525	2,925
b) Financial institutions	3,828	3,735	4,281	878	934	840
c) Private sector	3,249	3,816	7,777	745	954	1,527
III. International Monetary Fund	**0**	**0**	**0**	**0**	**0**	**0**
IV. Trade Credit	**31,237**	**41,413**	**74,400**	**7,165**	**10,358**	**14,604**
a) Buyers' credit	23,617	33,115	64,265	5,417	8,282	12,615
b) Suppliers' credit	2,941	3,134	3,643	675	784	715
c) Export credit component of bilateral credit	4,679	5,164	6,492	1,073	1,292	1,274
d) Export credit for defence purposes	0	0	0	0	0	0
V. COMMERCIAL BORROWING	**1,80,669**	**2,49,255**	**3,19,302**	**41,443**	**62,337**	**62,676**
a) Commercial bank loans	1,07,145	1,60,844	2,20,641	24,577	40,226	43,310
b) Securitized borrowings $ (including FCCBs)	68,020	82,376	91,603	15,603	20,602	17,981
c) Loans/securitized borrowings, etc. with multilateral/bilateral guarantee and IFC(W)	5,504	6,035	7,058	1,263	1,509	1,385
d) Self Liquidating Loans	0	0	0	0	0	0

(Continued)

APPENDIX TABLE 55 : INDIA'S EXTERNAL DEBT *(Concld.)*
(As at end-March)

Item	Rupees crore			US $ million		
	2007 R	2008 P	2009 P	2007 R	2008 P	2009 P
1	2	3	4	5	6	7
VI. NRI & FC(B&O) Deposits (above one-year maturity)	**1,79,786**	**1,74,623**	**2,10,118**	**41,240**	**43,672**	**41,554**
a) FCNR(B)	65,955	56,651	66,803	15,129	14,168	13,211
b) NR(E)RA	1,06,786	1,06,824	1,19,181	24,495	26,716	23,570
c) NRO	7,045	11,148	24,134	1,616	2,788	4,773
VII. Rupee Debt *	**8,508**	**8,063**	**7,779**	**1,951**	**2,016**	**1,527**
a) Defence	7,533	7,170	6,954	1,728	1,793	1,365
b) Civilian +	975	893	825	223	223	162
VIII. Total Long-term Debt (I to VII)	**6,24,287**	**7,10,030**	**9,18,046**	**1,43,201**	**1,77,574**	**1,80,514**
IX. Short-term Debt	**1,22,631**	**1,87,924**	**2,51,529**	**28,130**	**46,999**	**49,373**
a) Trade Related Credits	1,13,256	1,72,583	2,34,219	25,979	43,162	45,975
Above 180 days	52,188	91,502	1,18,936	11,971	22,884	23,346
Upto 180 days	61,068	81,081	1,15,283	14,008	20,278	22,629
b) FII Investment in Govt. Treasury Bills and other instruments	1,732	2,603	10,522	397	651	2,065
c) Investment in Treasury Bills by foreign central banks and international institutions etc.	712	620	534	164	155	105
d) External Debt Liabilities	6,931	12,118	6,254	1,590	3,031	1,228
1) Central Bank	4,746	4,458	3,892	501	1,115	764
2) Commercial Banks	2,185	7,660	2,362	1,089	1,916	464
X. GROSS TOTAL	**7,46,918**	**8,97,954**	**11,69,575**	**1,71,331**	**2,24,573**	**2,29,887**
Concessional Debt	1,72,493	1,76,586	2,13,474	39,567	44,163	41,903
As percentage of Total Debt	23.1	19.7	18.2	23.1	19.7	18.2
Short Term Debt						
As percentage of Total Debt	16.4	20.9	21.5	16.4	20.9	21.5
Memo Items:						
Debt Indicators :						
1. Debt Stock - GDP Ratio (in per cent)	18.1	19.0	22.0	18.1	19.0	22.0
2. Debt Service Ratio (per cent) (for fiscal year) (including debt-servicing on non-civilian credits)	4.7	4.8	4.6	4.7	4.8	4.6

P : Provisional. R : Revised.

: Refers to Debt outstanding to Institutions like IFAD, OPEC & EEC(SAC)

: Refers to debt outstanding against loans from ADB

$: Includes net investment by 100 per cent FII debt funds.

* : Debt owed to Russia denominated in Rupees and converted at current exchange rates, payable in exports.

+ : Includes Rupee suppliers' credit from end-March 1990 onwards.

Note : Multilateral loans do not include revaluation of IBRD pooled loans and exchange rate adjustment under IDA loans for Pre-1971 credits.

APPENDIX TABLE 56 : INDIA'S FOREIGN EXCHANGE RESERVES

End of Month	Foreign Exchange Reserves (Rupees crore)					Foreign Exchange Reserves (US $ million)					Total Foreign Exchange Reserves (in SDR million)	Movement in Foreign Exchange Reserves (in SDR million)*
	SDRs	Gold #	Foreign Currency Assets	Reserve Tranche Position in IMF	Total (2+3+4+5)	SDRs	Gold #	Foreign Currency Assets	Reserve Tranche Position in IMF	Total (7+8+9+10)		
1	2	3	4	5	6	7	8	9	10	11	12	13
Mar-94	339	12,794	47,287	938	61,358	108	4,078	15,068	299	19,553	13,841	6,595
Mar-95	23	13,752	66,005	1,050	80,830	7	4,370	20,809	331	25,517	16,352	2,511
Mar-96	280	15,658	58,446	1,063	75,447	82	4,561	17,044	310	21,997	15,054	-1,298
Mar-97	7	14,557	80,368	1,046	95,978	2	4,054	22,367	291	26,714	19,272	4,218
Mar-98	4	13,394	1,02,507	1,117	1,17,022	1	3,391	25,975	283	29,650	22,200	2,929
Mar-99	34	12,559	1,25,412	2,816	1,40,821	8	2,960	29,522	663	33,153	24,413	2,213
Mar-00	16	12,973	1,52,924	2,870	1,68,783	4	2,974	35,058	658	38,694	28,728	4,315
Mar-01	11	12,711	1,84,482	2,873	2,00,077	2	2,725	39,554	616	42,897	34,034	5,306
Mar-02	50	14,868	2,49,118	2,977	2,67,013	10	3,047	51,049	610	54,716	43,876	9,842
Mar-03	19	16,785	3,41,476	3,190	3,61,470	4	3,534	71,890	672	76,100	55,394	11,518
Mar-04	10	18,216	4,66,215	5,688	4,90,129	2	4,198	1,07,448	1,311	1,12,959	76,298	20,904
Mar-05	20	19,686	5,93,121	6,289	6,19,116	5	4,500	1,35,571	1,438	1,41,514	93,666	17,368
Mar-06	12	25,674	6,47,327	3,374	6,76,387	3	5,755	1,45,108	756	1,51,622	1,05,231	11,565
Jun-06	2	28,479	7,18,701	3,518	7,50,700	–	6,180	1,55,968	764	1,62,912	1,10,123	4,892
Sep-06	6	28,506	7,27,733	3,502	7,59,747	1	6,202	1,58,340	762	1,65,305	1,11,967	6,736
Dec-06	4	28,824	7,52,738	2,416	7,83,982	1	6,517	1,70,187	546	1,77,251	1,17,822	12,591
Mar-07	8	29,573	8,36,597	2,044	8,68,222	2	6,784	1,91,924	469	1,99,179	1,31,890	26,659
Jun-07	6	27,655	8,39,913	1,875	8,69,449	1	6,787	2,06,114	460	2,13,362	1,40,780	8,890
Sep-07	8	29,275	953,581	1,740	9,84,604	2	7,367	2,39,955	438	2,47,762	1,59,164	27,274
Dec-07	13	32,819	10,50,485	1,703	10,85,020	3	8,328	2,66,553	432	2,75,316	1,74,223	42,333
Mar-08	74	40,124	11,96,023	1,744	12,37,965	18	10,039	2,99,230	436	3,09,723	1,88,339	56,449
Jun-08	48	39,548	12,98,552	2,269	13,40,417	11	9,208	3,02,340	528	3,12,087	1,91,040	2,701
Sep-08	17	40,205	13,01,645	2,194	13,44,061	4	8,565	2,77,300	467	2,86,336	1,83,876	-4,463
Dec-08	13	41,110	11,94,790	4,248	12,40,161	3	8,485	2,46,603	877	2,55,968	1,66,184	-22,155
Mar-09	6	48,793	12,30,066	5,000	12,83,865	1	9,577	2,41,426	981	2,51,985	1,68,544	-19,795
Jun-09	2	46,914	12,16,345	5,974	12,69,235	1	9,800	2,54,093	1,248	2,65,142	1,70,814	2,270

– : Negligible.

: Gold has been valued close to international market price.

* : Variations over the previous March.

Note : 1. Gold holdings include acquisition of gold worth US $ 191million from the Government during 1991-92, US $ 29.4 million during 1992-93, US $ 139.3 million during 1993-94, US $ 315.0 million during 1994-95 and US $ 17.9 million during 1995-96. On the other hand, 1.27 tonnes of gold amounting to Rs 43.55 crore (US $11.97 million), 38.9 tonnes of gold amounting to Rs 1,485.22 crore (US $ 376.0 million) and 0.06 tonnes of gold amounting to Rs. 2.13 crore (US $ 0.5 million) were repurchased by the Central Government on November 13, 1997, April 1, 1998 and October 5, 1998 respectively for meeting its redemption obligation under the Gold Bond Scheme.

2. Conversion of foreign currency assets into US dollar was done at exchange rates supplied by the IMF up to March 1999. Effective April 1, 1999, the conversion is at New York closing exchange rate.

3. Foreign currency assets excludes US $ 250.00 million (as also its equivalent in Indian Rupee) invested in foreign currency denominated bonds issued by IIFC (UK) since March 20, 2009.

APPENDIX TABLE 57 : INTEREST RATES ON EXPORT CREDIT

(Per cent per annum)

Export Credit	Rates Effective											
	January 01, 1998	April 30, 1998	August 06, 1998	April 01, 1999	October 29, 1999	May 26, 2000	January 06, 2001	May 05, 2001#	September 26, 2001#	May 18, 2004 #	May 01, 2006 #	Nov. 2008 #
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Pre-shipment Credit*												
i) Up to 180 days	12.00	11.00	9.00	10.00	10.00	10.00	10.00	≤ PLR-1.5 PP	≤ PLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP
ii) Beyond 180 days and up to 270 days	14.00	14.00	12.00	13.00	13.00	13.00	13.00	≤ PLR+1.5 PP	≤ PLR+0.5 PP	Free	Free	≤ BPLR-2.5 PP **
iii) Against incentives receivable from Government covered by ECGC Guarantee up to 90 days	12.00	11.00	9.00	10.00	10.00	10.00	10.00	≤ PLR-1.5 PP	≤ PLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP
2. Post-shipment Credit*												
i) Demand Bills for transit period (as specified by FEDAI)	≤ 11.00	≤ 11.00	9.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ PLR-1.5 PP	≤ PLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP
ii) Usance Bills (for total period comprising usance period of export bills, transit period as specified by FEDAI and grace period wherever applicable)												
a) Up to 90 days	≤ 11.00	≤ 11.00	9.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ PLR-1.5 PP	≤ PLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP
b) Beyond 90 days and up to six months from the date of shipment	13.00	13.00	11.00	12.00	12.00	12.00	12.00	≤ PLR+1.5 PP	≤ PLR+0.5 PP	Free	Free	≤ BPLR-2.5 PP **
c) Beyond six months from the date of shipment	20.00 $ (Min.)											
d) Upto 365 days for exporters nder the Gold Card Scheme										≤ BPLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP
iii) Against incentives receivable from Government covered by ECGC Guarantee (up to 90 days)	≤ 11.00	≤ 11.00	9.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ PLR-1.5 PP	≤ PLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP
iv) Against undrawn balance (up to 90 days)	≤ 11.00	≤ 11.00	9.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ PLR-1.5 PP	≤ PLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP
v) Against retention money (for supplies portion only) payable within one year from the date of shipment (up to 90 days)	≤11.00	≤11.00	9.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ 10.00	≤ PLR-1.5 PP	≤ PLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP	≤ BPLR-2.5 PP
3. Deferred Credit												
Deferred credit for the period beyond 180 days	Free (FDA)	Free (FDA)	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
4. Export Credit, not otherwise specified												
a) Pre-shipment credit		Free	Free	Free	Free	Free	Free	Free	Free	Free	@	@
b Post-shipment credit (Min.)	20.00 (Min.)	20.00 (Min.)	20.00 (Min.)	20.00 (Min.)	Free	25.00 (Min.)	Free	Free	Free	Free	@	@

FDA : From the date of advance. Min. : Minimum. PLR : Prime Lending Rate. BPLR : Benchmark Prime Lending Rate. ≤ : Not Exceeding. — : Not Applicable.

PP : Percentage Points. $: Chronic cases, *i.e.*, overdues as on July 1, 1997 are exempted. # : These are ceiling rates, banks would be free to charge any rate below the ceiling rate.

* : Interest rates for the above-mentioned categories beyond the tenors as prescribed above are free effective May 1, 2006. @ : Banks are free to set own interest rates.

** : Rate of interest for packing credit effective from Nov 15, 2008 and for post-shipment credit effective from Nov 28, 2008

Note :
1. 'Free' means banks are free to charge interest rates keeping in view the BPLR and spread guidelines.
2. The Government of India introduced interest rate subvention of 2 / 4 percentage points with effect from April 1, 2007 till Sepember 30, 2008, on pre- and post- shipment rupee export credit, for certain employment oriented export sectors as under: (i) textiles (including Handloom); (ii) readymade (iii) leather (iv) handicrafts; (v) engineering; (vi) processed agriculture; (vii) marine; (viii) sports (ix) toys, and (x) solvent extracted de oiled cake (xi) Plastics and linoleum (xii) Small & Medium enterprises. Under this dispensation, banks were allowed to charge interest rates not exceeding BPLR minus 4.5 / 6.5 percentage points on pre-shipment credit upto 180 days and post-shipment credit up to 90 days on the outstanding amount for the period July 1, 2007 to September 30, 2008 to the above-mentioned sectors. However, the total subvention will be subject to the condition that the interest rate, after subvention, will not fall below 7 per cent which is the rate applicable to the agriculture sector under priority sector lending. **This scheme was brought to a close on September 30, 2008**
3. The Government of India introduced a fresh scheme of interest rate subvention of 2 percentage points with effect from December 1, 2008 till March 31, 2009 on pre- and post- shipment rupee export credit, for certain employment oriented export sectors as under: (i) textiles (including Handloom); (ii) handicrafts; (iii) carpets; (iv) leather; (v) gems and jewellery; (vi) marine products, and (vii) small & medium enterprises. Under this dispensation, banks were allowed to charge interest rates not exceeding BPLR minus 4.5 percentage points on pre-shipment credit up to 270 days and post-shipment credit up to 180 days on the outstanding amount for the period December 1, 2008 to March 31, 2009 to the above-mentioned sectors. However, the total subvention will be subject to the condition that the interest rate, after subvention, will not fall below 7 per cent which is the rate applicable to the agriculture sector under priority sector lending.
4. The Government of India, has further extended the interest rate subvention from April 1, 2009 up to March 31, 2010.

APPENDIX TABLE 58 : PROFILE OF CENTRAL GOVERNMENT DATED SECURITIES

(Amount in Rupees crore)

Item	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5
1. Gross Borrowing	1,31,000	1,46,000	1,56,000	2,73,000*
2. Repayments	35,630	39,084	45,329	44,028
3. Net Borrowing	95,370	1,06,916	1,10,671	2,28,972
4. Weighted Average Maturity (in years)	16.9	14.72	14.90	13.81
5. Weighted Average Yield (per cent)	7.34	7.89	8.12	7.69
6. A. Maturity Distribution- Amount				
(a) Up to 5 years	0	10,000	0	15,000
(b) Above 5 and up to 10 years	34,000	69,000	89,000	1,43,000
(c) Above 10 years	97,000	67,000	67,000	1,03,000
Total	1,31,000	1,46,000	1,56,000	2,61,000
B. Maturity Distribution (per cent)				
(a) Up to 5 years	0	7	0	6
(b) Above 5 and up to 10 years	26	47	57	55
(c) Above 10 years	74	46	43	39
Total	100	100	100	100
7. Price Based Auctions - Amount	1,25,000	1,32,000	1,50,000	2,42,000
8. Yield - Per cent				
(a) Minimum	6.69	7.06	7.55	5.44
	(5 years, 6 months)	(6 years, 1 month)	(9 years, 6 months)	(9 years, 3 months)
(b) Maximum	7.98	8.75	8.64	10.03
	(29 years, 3 months)	(28 years, 1 month)	(29 years)	(23 years, 7 months)
9. Yield-Maturity Distribution - wise				
(a) Less than 10 years				
Minimum	6.69	7.06	7.55	5.44
	(5 years, 6 months)	(6 years, 1 month)	(9 years, 6 months)	(9 years , 3 months)
Maximum	7.06	8.29	8.44	9.14
(8 years, 2 months)	(9 years, 9 months)	(9 years, 10 months)	(9 years , 8 months)	(9 years , 8 months)
(b) 10 Years				
Minimum	nil	7.59	7.99	6.05
Maximum	nil	7.59	7.99	8.24
(c) Above 10 Years				
Minimum	6.91	7.43	7.62	6.52
	(10 years, 10 months)	(10 years, 1 month)	(14 years)	(26 years , 8 months)
Maximum	7.98	8.75	8.64	10.03
	(29 years, 3 months)	(28 years, 1 month)	(29 years)	(23 years, 7 months)

Note : Figures in parentheses represent residual maturity.

* Includes the amount dequestered from MSS cash account.

APPENDIX TABLE 59 : ISSUANCES OF CENTRAL GOVERNMENT DATED SECURITIES

(Amount in Rupees crore)

Auction Particulars					Bids/Application Received				Bids / Application Accepted						Gross Amount Raised (14+15)	Cut-off Price (Rs.) / Yield (%)	Nomenclature of Loan
Date of Auction	Date of Issue	Tenor (Years)	Re-sidual Matu-rity (years)	Notified Amount	Competitive		Non-Competitive		Competitive		Non-Competitive		Total (11+13)	Allocation to PDs (Devolvement)			
					No. +	Face Value	No. +	Face Value	No. +	Face Value	No. +	Face Value					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
2008-09																	
11-Apr-08	15-Apr-08	13	7.38	6000	222	11114.02	13	14.95	156	5985.05	13	14.95	6000	-	6000	95.83/8.1401	7.38 % G S, 2015
11-Apr-08	15-Apr-08	30	24.37	4000	241	11994.66	13	18.75	36	3981.25	13	18.75	4000	-	4000	92.63 / 8.6734	7.95 % G S, 2032
21-Apr-08	22-Apr-08	10	10.00	6000	354	20964.00	12	14.80	109	5985.20	12	14.80	6000	-	6000	8.24	8.24 % G S, 2018 #
21-Apr-08	22-Apr-08	30	28.13	4000	254	12741.00	8	9.55	61	3990.45	8	9.55	4000	-	4000	95.44/8.7675	8.33 % G S, 2036
9-May-08	12-May-08	10	7.92	6000	345	15406.01	21	25.90	134	5974.10	21	25.90	6000	-	6000	97.85/7.9595	7.59 % G S, 2016
9-May-08	12-May-08	30	24.29	4000	216	10934.60	14	21.66	13	3978.34	14	21.66	4000	-	4000	95.76/8.3520	7.95 % G S, 2032
23-May-08	26-May-08	10	9.91	6000	409	18970.02	10	14.60	125	5985.40	10	14.60	6000	-	6000	101.15/8.0673	8.24 % G S, 2018
23-May-08	26-May-08	25	23.72	4000	142	11761.00	1	2.00	26	3998.00	1	2.00	4000	-	4000	97.56/8.5191	8.28 % G S, 2032
6-Jun-08	9-Jun-08	10	9.87	6000	378	18782.02	18	22.45	83	5977.55	18	22.45	6000	-	6000	99.88/8.2556	8.24 % G S, 2018
6-Jun-08	9-Jun-08	30	24.22	4000	152	8571.00	4	8.00	90	3992.00	4	8.00	4000	-	4000	92.18/8.7220	7.95 % G S, 2032
20-Jun-08	23-Jun-08	20	18.64	6000	156	10311.61	9	11.76	56	5209.61	9	11.76	5221	779	6000	91.08/9.2506	8.24 % G S, 2027
4-Jul-08	7-Jul-08	10	9.79	6000	292	12154.50	9	10.40	192	5989.60	9	10.40	6000	-	6000	94.28/9.1327	8.24 % G S, 2018
4-Jul-08	7-Jul-08	25	23.61	4000	156	6501.70	2	4.00	106	3996.00	2	4.00	4000	-	4000	84.30/10.0258	8.28 % G S, 2032
24-Jul-08	25-Jul-08	10	9.74	6000	214	12428.50	17	16.10	115	5983.90	17	16.10	6000	-	6000	94.63/9.0785	8.24 % G S, 2018 U
8-Aug-08	11-Aug-08	10	9.70	6000	236	15021.30	13	16.35	49	5983.65	13	16.35	6000	-	6000	94.27/9.1400	8.24 % G S, 2018 U
8-Aug-08	11-Aug-08	30	24.05	4000	166	8288.20	3	4.50	94	3995.50	3	4.50	4000	-	4000	82.30/9.8813	7.95 % G S, 2032 U
22-Aug-08	25-Aug-08	20	18.47	6000	199	12551.00	5	6.60	96	5993.40	5	6.60	6000	-	6000	86.35/9.8589	8.24 % G S, 2027 U
12-Sep-08	15-Sep-08	10	9.60	5000	225	10551.00	16	23.08	106	4976.92	16	23.08	5000	-	5000	99.58 / 8.3022	8.24 % G S, 2018
12-Sep-08	15-Sep-08	30	23.95	3000	166	8530.42	6	7.06	65	2992.94	6	7.06	3000	-	3000	92.50 / 8.6993	7.95 % G S, 2032
26-Sep-08	29-Sep-08	15	12.65	6000	188	8492.50	4	6.50	124	4352.50	4	6.50	4359	1641	6000	91.81 / 9.0369	7.94 % G S, 2021
26-Sep-08	29-Sep-08	25	23.38	4000	158	8572.00	3	3.50	66	3996.50	3	3.50	4000	-	4000	90.65 / 9.2628	8.28 % G S, 2032
31-Oct-08	3-Nov-08	6	6.00	6000	281	21446.50	7	13.00	127	5987.00	7	13.00	6000	-	6000	7.56	7.56 % G.S. 2014 #
31-Oct-08	3-Nov-08	30	23.82	4000	228	7511.00	5	8.00	156	3992.00	5	8.00	4000	-	4000	98.62 / 8.0797	7.95 % G S, 2032
7-Nov-08	10-Nov-08	10	9.45	6000	349	15696.59	13	14.55	138	5985.45	13	14.55	6000	-	6000	103.39/7.7269	8.24 % G S, 2018
7-Nov-08	10-Nov-08	25	23.26	4000	236	8789.85	5	7.00	71	2765.00	5	7.00	2772	1228	4000	98.33/8.4430	8.28 % G S, 2032
14-Nov-08	17-Nov-08	6	5.96	6000	288	18418.00	2	4.00	96	5996.00	2	4.00	6000	-	6000	100.86 / 7.3781	7.56 % G.S. 2014
14-Nov-08	17-Nov-08	30	23.78	4000	298	11797.00	4	6.50	35	3993.50	4	6.50	4000	-	4000	97.21 / 8.2170	7.95 % G S, 2032
21-Nov-08	24-Nov-08	6	5.94	6000	204	10523.50	6	9.50	161	5990.50	6	9.50	6000	-	6000	101.90 / 7.1604	7.56 % G.S. 2014
21-Nov-08	24-Nov-08	15	12.50	3000	218	7865.00	7	11.60	58	2988.40	7	11.60	3000	-	3000	104.20 / 7.4187	7.94 % G S, 2021
12-Dec-08	15-Dec-08	11	4.72	6000	251	18107.00	6	8.00	119	5992.00	6	8.00	6000	-	6000	104.12 / 6.2447	7.27 % G.S. 2013
12-Dec-08	15-Dec-08	30	25.65	4000	236	12217.50	7	11.75	44	3988.25	7	11.75	4000	-	4000	106.06 / 6.9876	7.50 % G S, 2034
2-Jan-09	5-Jan-09	15	8.65	6000	275	16751.00	18	26.08	128	5973.92	18	26.08	6000	-	6000	111.65 / 5.7310	7.46 % G.S. 2017
2-Jan-09	5-Jan-09	30	26.68	4000	201	7715.50	12	18.05	130	3981.95	12	18.05	4000	-	4000	110.92 / 6.5293	7.40 % G S, 2035
9-Jan-09	12-Jan-09	10	7.25	7000	231	12825.90	9	9.26	170	6990.74	9	9.26	7000	-	7000	105.03/6.7000	7.59 % G.S. 2016
9-Jan-09	12-Jan-09	20	14.24	4000	107	5910.50	4	5.00	72	3304.50	4	5.00	3309	691	4000	90.81 / 7.3501	6.30 % G S, 2023
9-Jan-09	12-Jan-09	30	25.58	4000	168	4884.00	7	12.50	143	3562.00	7	12.50	3574	426	4000	98.87 / 7.6000	7.50 % G S, 2034
16-Jan-09	19-Jan-09	6	5.79	4000	201	9101.00	3	4.50	95	3995.50	3	4.50	4000	-	4000	110.08 / 5.5006	7.56 % G.S. 2014
16-Jan-09	19-Jan-09	10	9.26	3000	211	6888.00	9	12.95	104	2987.05	9	12.95	3000	-	3000	120.10 / 5.4452	8.24 % G S, 2018
16-Jan-09	19-Jan-09	30	30.00	3000	315	11809.50	14	21.75	76	2978.25	14	21.75	3000	-	3000	6.8300	6.83 % G.S. 2039 #
30-Jan-09	2-Feb-09	6	5.75	3000	180	8895.50	7	10.20	52	2989.80	7	10.20	3000	-	3000	107.40 / 6.0163	7.56 % G.S. 2014
30-Jan-09	2-Feb-09	30	29.96	3000	165	6742.00	1	0.50	140	2999.50	1	0.50	3000	-	3000	93.75 / 7.3487	6.83 % G S, 2039
30-Jan-09	2-Feb-09	10	10.00	4000	434	18020.25	11	12.15	143	3987.85	11	12.15	4000	-	4000	6.0500	6.05 % G.S. 2019 #
6-Feb-09	9-Feb-09	20	14.17	2000	234	6665.50	3	2.75	85	1997.25	3	2.75	2000	-	2000	92.50 / 7.1493	6.30 % G S, 2023
6-Feb-09	9-Feb-09	15	8.55	5000	375	15586.50	6	6.44	140	4993.56	6	6.44	5000	-	5000	104.03 / 6.8292	7.46 % G.S. 2017
13-Feb-09	16-Feb-09	10	9.96	6000	482	20857.19	8	9.50	138	5990.50	8	9.50	6000	-	6000	100.81 / 5.9407	6.05 % G.S. 2019
13-Feb-09	16-Feb-09	30	29.93	2000	256	8576.00	6	4.15	39	1995.85	6	4.15	2000	-	2000	93.51 / 7.3696	6.83 % G.S. 2039
24-Feb-09	25-Feb-09	15	8.51	7000	359	19454.50	13	17.00	84	6983.00	13	17.00	7000	-	7000	103.04 / 6.98	7.46 % G.S. 2017
24-Feb-09	25-Feb-09	20	13.22	3000	152	5710.17	13	12.94	92	2427.17	13	12.94	2440	560	3000	107.00 / 7.5037	8.35 % G S, 2022
24-Feb-09	25-Feb-09	30	25.46	2000	126	3471.00	5	4.90	41	1060.00	5	4.90	1065	935	2000	97.19 / 7.7541	7.50 % G.S. 2034
6-Mar-09	9-Mar-09	10	9.90	8000	356	13732.50	13	18.50	268	7766.00	13	18.50	7784	216	8000	96.75 / 6.4993	6.05 % G.S. 2019
6-Mar-09	9-Mar-09	20	17.93	2000	116	3000.00	13	18.55	33	1075.00	13	18.55	1094	906	2000	104.70 / 7.7497	8.24 % G S, 2027
6-Mar-09	9-Mar-09	30	29.86	2000	130	2991.00	4	4.70	63	1557.00	4	4.70	1562	438	2000	87.78 / 7.9002	6.83 % G.S. 2039
20-Mar-09	23-Mar-09	11	4.92	4000	222	11004.82	6	5.48	38	2360.00	6	5.48	2365	1635	4000	100.48 / 6.6024	6.72 % G S, 2014
20-Mar-09	23-Mar-09	30	9.86	6000	431	14187.00	6	7.25	163	5992.75	6	7.25	6000	-	6000	96.11 / 6.5914	6.05 % G.S. 2019
26-Mar-09	30-Mar-09	11	4.43	5000	181	10968.00	10	16.90	35	4983.10	10	16.90	5000	-	5000	101.88 / 6.7692	7.27 % GS 2013 U
26-Mar-09	30-Mar-09	10	9.84	7000	238	12537.00	15	18.44	101	5661.50	15	18.44	5680	1320	7000	93.52 / 6.9694	6.05 % GS 2019 U

APPENDIX TABLE 59 : ISSUANCES OF CENTRAL GOVERNMENT DATED SECURITIES *(Concld.)*

(Amount in Rupees crore)

Auction Particulars: Date of Auction	Auction Particulars: Date of Issue	Auction Particulars: Tenor (Years)	Auction Particulars: Re-sidual Matu-rity (years)	Notified Amount	Bids/Application Received: Competitive No. +	Bids/Application Received: Competitive Face Value	Bids/Application Received: Non-Competitive No. +	Bids/Application Received: Non-Competitive Face Value	Bids / Application Accepted: Competitive No. +	Bids / Application Accepted: Competitive Face Value	Bids / Application Accepted: Non-Competitive No. +	Bids / Application Accepted: Non-Competitive Face Value	Total (11+13)	Allocation to PDs (Devolvement)	Gross Amount Raised (14+15)	Cut-off Price (Rs.) / Yield (%)	Nomenclature of Loan
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
2009-10																	
2-Apr-09	6-Apr-09	6	5.58	8000	233	17360.50	2	4.000	84	7996.00	2	4.000	8000	0	8000.00	103.47/6.801	7.56 % GS 2014 U
2-Apr-09	6-Apr-09	15	12.13	4000	161	7756.75	4	5.500	59	3427.50	4	5.500	3433	567	4000.00	102.50/7.6188	7.94 % GS 2021 U
9-Apr-09	13-Apr-09	10	9.80	8000	311	21640.94	6	10.000	73	7990.00	6	10.000	8000	0	8000.00	95.05/6.7467	6.05 % GS 2019 U
9-Apr-09	13-Apr-09	30	25.33	4000	158	10913.91	4	5.500	90	3994.50	4	5.500	4000	0	4000.00	97.35/7.7387	7.50 % GS 2034 U
17-Apr-09	20-Apr-09	6	5.54	8000	228	26848.50	6	10.500	52	7989.50	6	10.500	8000	0	8000.00	106.75/6.104	7.56 % GS 2014 U
17-Apr-09	20-Apr-09	20	17.82	4000	158	12691.40	6	9.500	50	3990.50	6	9.500	4000	0	4000.00	107.82/7.439	8.24 % GS 2027 U
24-Apr-09	27-Apr-09	10	9.76	8000	213	16833.00	12	15.10	93	7984.90	12	15.10	8000	0	8000.00	99.38/6.1338	6.05 % GS 2019 U
24-Apr-09	27-Apr-09	30	25.29	4000	133	12453.50	9	9.85	8	3990.15	9	9.85	4000	0	4000.00	103.04/7.2349	7.50 % GS 2034 U
8-May-09	11-May-09	10	9.73	6000	210	12593.00	9	10.37	109	5989.63	9	10.37	6000	0	6000.00	98.00/6.3269	6.05% GS 2019 U
8-May-09	11-May-09	20	17.76	3000	119	7509.70	8	8.21	36	2991.79	8	8.21	3000	0	3000.00	108.74/7.3491	8.24% GS 2027 U
8-May-09	11-May-09	30	29.69	3000	102	5772.13	1	1	75	2999.00	1	1	3000	0	3000.00	92.06/7.4996	6.83% GS 2039 U
14-May-09	15-May-09	5	5.00	8000	254	23556.00	8	11.72	37	7988.28	8	11.72	8000	0	8000.00	6.07	6.07% GS 2014 U#
14-May-09	15-May-09	15	12.75	4000	162	10265.00	9	15	100	3985.00	9	15	4000	0	4000.00	106.96/7.3475	8.20% GS 2022 U
22-May-09	25-May-09	5	4.97	6000	153	13191.00	3	6	73	5994.00	3	6	6000	0	6000.00	99.90/6.0931	6.07% GS 2014 U
22-May-09	25-May-09	17	10.60	5000	196	12360.00	1	2	57	4998.00	1	2	5000	0	5000.00	96.27/6.8494	6.35% GS 2020 U
22-May-09	25-May-09	20	17.72	2000	115	6923.95	1	1.5	38	1998.50	1	1.5	2000	0	2000.00	107.28/7.4894	8.24% GS 2027 U
22-May-09	25-May-09	30	25.21	2000	97	5753.81	2	3.25	30	1996.75	2	3.25	2000	0	2000.00	99.30/7.561	7.50% GS 2034 U
28-May-09	29-May-09	10	6.87	6000	158	17014.91	4	7	16	5993.00	4	7	6000	0	6000.00	103.44/6.9494	7.59% GS 2016 U
28-May-09	29-May-09	15	11.99	3000	102	6743.00	2	2.75	41	2997.25	2	2.75	3000	0	3000.00	104.73/7.3397	7.94% GS 2021 U
28-May-09	29-May-09	20	17.71	3000	102	6245.09	2	2.5	57	2997.50	2	2.5	3000	0	3000.00	105.15/7.7004	8.24% GS 2027 U
28-May-09	29-May-09	30	26.28	3000	85	5520.42	0	0	43	2629.42	0	0	2629.42	370.58	3000.00	95.66/7.7889	7.40% GS 2035 U
5-Jun-09	8-Jun-09	6	6.00	8000	256	17766.00	3	7	97	7993.00	3	7	8000	0	8000.00	6.49	6.49 % GS 2015 U#
5-Jun-09	8-Jun-09	15	12.69	5000	171	10962.10	6	14	90	4986.00	6	14	5000	0	5000.00	106.07/7.4499	8.20 % GS 2022 U
5-Jun-09	8-Jun-09	30	25.17	2000	101	5737.55	4	7.8	45	1992.20	4	7.8	2000	0	2000.00	97.25/7.7485	7.50 % GS 2034 U
11-Jun-09	15-Jun-09	5	4.92	8000	115	12198.50	2	6	94	7994.00	2	6	8000	0	8000.00	97.25/6.7346	6.07% GS 2014 U
11-Jun-09	15-Jun-09	15	11.94	3000	143	8679.00	3	5	44	2995.00	3	5	3000	0	3000.00	103.74/7.4605	7.94% GS 2021 U
11-Jun-09	15-Jun-09	20	18.67	2000	79	4613.00	2	1.27	35	1998.73	2	1.27	2000	0	2000.00	104.46/7.7698	8.24% GS 2027 U
11-Jun-09	15-Jun-09	30	26.23	2000	88	5412.95	2	4.5	32	1995.00	2	4.5	2000	0	2000.00	95.22/7.8303	7.40% GS 2035 U
19-Jun-09	22-Jun-09	6	5.96	5000	137	9580.50	3	6.5	84	4993.50	3	6.5	5000	0	5000.00	99.22/6.6498	6.49 % GS 2015 U
19-Jun-09	22-Jun-09	17	10.53	5000	136	9372.20	2	3.5	94	4996.50	2	3.5	5000	0	5000.00	96.11/6.8749	6.35 % GS 2020 U
19-Jun-09	22-Jun-09	30	25.13	2000	82	4931.55	5	14.7	48	1985.30	5	14.7	2000	0	2000.00	96.68/7.8021	7.50 % GS 2034 U
19-Jun-09	22-Jun-09	15	15.00	3000	180	10539.25	4	6.84	40	2993.16	4	6.84	3000	0	3000.00	7.35	7.35 % GS 2024 U#
26-Jun-09	29-Jun-09	5	4.85	6000	159	16880.00	3	5.5	64	5994.50	3	5.5	6000	0	6000.00	98.18/6.51	6.07% GS 2014 U
26-Jun-09	29-Jun-09	15	11.90	4000	141	10273.00	1	2	54	3998.00	1	2	4000	0	4000.00	104.70/7.34	7.94% GS 2021 U
26-Jun-09	29-Jul-09	20	17.63	3000	81	4803.00	3	3.65	57	2413.20	3	3.65	2416.85	583.15	3000.00	104.06/7.81	8.24% GS 2027 U
26-Jun-09	29-Jul-09	30	26.19	2000	70	3527.80	1	3.5	33	1643.80	1	3.5	1647.30	352.70	2000.00	94.49/7.9	7.40 % GS 2035 U
10-Jul-09	13-Jul-09	6	5.90	5000	157	11095.00	2	4.5	98	4995.00	2	4.5	5000	0	5000.00	99.70/6.55	6.49% GS 2015 U
10-Jul-09	13-Jul-09	15	14.94	2000	104	5021.00	8	13.8	28	1986.19	8	13.8	2000	0	2000.00	99.10/7.45	7.35% GS 2024 U
10-Jul-09	13-Jul-09	30	25.08	2000	90	3946.95	6	13.95	34	1673.95	6	13.95	1687.90	312.1	2000.00	94.83/7.98	7.50% GS 2034 U
10-Jul-09	13-Jul-09	10	10.00	6000	266	14794.00	6	16.5	102	5983.50	6	16.5	6000	0	6000.00	6.90	6.90 % GS 2019 U#
17-Jul-09	20-Jul-09	5	4.79	6000	157	18413.87	7	11.5	67	5988.50	7	11.5	6000	0	6000.00	98.27/6.49	6.07 % GS 2014 U
17-Jul-09	20-Jul-09	15	11.84	4000	155	8238.00	6	11.35	68	3988.65	6	11.35	4000	0	4000.00	106.06/7.17	7.94% GS 2021 U
17-Jul-09	20-Jul-09	30	26.14	2000	131	7108.00	6	23.25	31	1976.75	6	23.25	2000	0	2000.00	96.25/7.73	7.40% GS 2035 U
24-Jul-09	27-Jul-09	6	5.86	6000	169	14859.00	6	24.55	77	5975.45	6	24.55	6000.00	0	6000.00	98.86/6.7263	6.49% GS 2015 U
24-Jul-09	27-Jul-09	10	9.96	6000	194	12600.00	7	27.4	103	5972.60	7	27.4	6000.00	0	6000.00	99.86/6.9191	6.90% GS 2019 U
31-Jul-09	3-Aug-09	5	4.78	6000	153	15894.00	4	4.6	97	5995.40	4	4.6	6000.00	0	6000.00	97.33/6.729	6.07% GS 2014 U
31-Jul-09	3-Aug-09	15	11.81	4000	138	6688.00	7	11.03	99	3711.00	7	11.03	3722.03	277.97	4000.00	104.75/7.3298	7.94% GS 2021 U
31-Jul-09	3-Aug-09	20	17.53	2000	119	5201.00	6	15.35	42	1984.65	6	15.35	2000.00	0	2000.00	104.46/7.7695	8.24% GS 2027 U

+ Number of Bids/Applications # Yield Based Auction U Uniform Price

Note : 1. Allotment to non-competitive bidders were at weighted average yield/price of competitive bids.
2. All auctions were re-issues barring those indicated by #.

APPENDIX TABLE 60 : ADDITIONAL ISSUANCE OF TREASURY BILLS DURING 2008-09#

(Amount in Rupees crore)

Date of Auction	91-day	182-day	364-day	Total
1	2	3	4	5
April 9, 2008	2,500	-	-	2,500
April 30, 2008	2,500	500	-	3,000
May 7, 2008	2,500	-	-	2,500
May 14, 2008	2,500	500	-	3,000
May 21, 2008	2,500	-	-	2,500
June 4, 2008	2,500	-	-	2,500
June 11, 2008	2,500	-	-	2,500
June 18, 2008	1,500	-	-	1,500
July 30, 2008	2,500	-	-	2,500
August 8, 2008	2,500	-	-	2,500
August 13, 2008	2,500	-	-	2,500
August 20, 2008	2,500	-	-	2,500
September 2, 2008	2,500	-	-	2,500
September 10, 2008	4,500	-	3,000	7,500
September 17, 2008	4,500	1,500	-	6,000
October 8, 2008	4,500	-	1,000	5,500
October 15, 2008	4,500	1,500	-	6,000
October 22, 2008	4,500	-	1,000	5,500
October 29, 2008	4,500	1,500	-	6,000
November 5, 2008	4,500	-	1,000	5,500
November 12, 2008	4,500	1,500		6,000
November 19, 2008	4,500	-	1,000	5,500
November 26, 2008	4,500	1,500	-	6,000
December 3, 2008	2,500	-	-	2,500
December 10, 2008	4,500	-	-	4,500
December 17, 2008	4,500	-	-	4,500
January 7, 2009	7,500	1,000	-	8,500
January 14, 2009	7,500			7,500
January 21, 2009	7,500	1,000		8,500
January 28, 2009	7,500			7,500
February 4, 2009	7,500	1,000	-	8,500
February 11, 2009	4,500	-	2,000	6,500
February 18, 2009	4,500	1,000	-	5,500
February 25, 2009	4,500	-	2,000	6,500
March 4, 2009	4,000	1,000		5,000
March 12, 2009	4,500		2,000	6,500
March 18, 2009	4,500	2,500		7,000
March 25, 2009	4,500	-	2,000	6,500
1. Total	1,56,500	16,000	15,000	1,87,500
2. Amount matured	88,000	2,500	0	90,500
3. Net issuance (1-2)	68,500	13,500	15,000	97,000

Over and above indicative calendar.

APPENDIX TABLE 61 : PROFILE OF TREASURY BILLS

(Amount in Rupees crore)

	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6
1. Implicit Yield at cut-off Price (Per cent)					
91-day Treasury Bills					
Minimum	4.37	5.12	5.41	4.46	4.58
Maximum	5.61	6.69	8.1	7.94	9.36
Weighted Average	4.89	5.51	6.8	7.11	6.96
182-day Treasury Bills					
Minimum	..	5.29	5.61	5.82	4.55
Maximum	..	6.74	8.2	7.99	9.34
Weighted Average	..	5.65	6.87	7.38	7.41
364-day Treasury Bills					
Minimum	4.43	5.58	5.9	6.58	4.51
Maximum	5.77	6.81	7.98	7.8	9.56
Weighted Average	5.15	5.87	7.07	7.5	7.19
2. Gross Issues					
91-day Treasury Bills	1,00,592	1,03,424	1,31,577	2,10,365	2,65,555
Issuances under MSS	67,955	52,057	48,222	64,841	16,500
182-day Treasury Bills	..	26,828	36,912	46,926	44,303
Issuances under MSS	..	13,078	16,125	20,605	7,000
364-day Treasury Bills	47,132	45,018	53,813	57,205	54,550
Issuances under MSS	20,981	16,000	20,440	25,000	9,000
Total (Excluding MSS Issuances)	58,788	67,307	1,00,603	1,57,124	2,87,605
3. Net Issues					
91-day Treasury Bills	20,653	-11,474	28,911	-5,272	35,592
Issuances under MSS	19,500	-19,500	14,473	-4,841	-9,632
182-day Treasury Bills	..	9,771	7,435	-421	3,390
Issuances under MSS	..	3,000	4,950	345	-7,605
364-day Treasury Bills	20,997	-2,114	8,795	3,392	-2,656
Issuances under MSS	20,981	4,981	4,440	4,560	-16,000
Total (Excluding MSS Issuances)	1,169	7,702	21,278	-2,365	69,563
4. Outstanding at Year End					
91-day Treasury Bills	27,792	16,318	45,229	39,957	75,549
Issuances under MSS	19,500	0	14,473	9,632	0
182-day Treasury Bills	..	9,771	17,206	16,785	20,175
Issuances under MSS	..	3,000	7,950	7,605	0
364-day Treasury Bills	47,132	45,018	53,813	57,205	54,550
Issuances under MSS	20,981	16,000	20,440	25,000	9,000

.. : Not applicable.

Note: 1. Issuances include MSS.

2. Auctions of 182-day Treasury Bills were re-introduced on April 6, 2005.

APPENDIX TABLE 62 : MARKET BORROWINGS PROGRAMME OF THE STATE GOVERNMENTS / UNION TERRITORIES : 2008-09

(Amount in Rupees crore)

Sr. No.	Name of the State	Gross Allocations (=3+4+5+6)	Repayment	Net Allocations	Additional Allocations	Additional Allocations to cover shorfall in NSSF collections and under 2nd stimulus package	Gross Borrowings	Net Borro-wings (=7-3)
1	2	3	4	5	6	7	8	9
1	Andhra Pradesh	12,007	1,783	6,558	1,074	2,592	10,934	9,151
2	Arunachal Pradesh	182	10	62	85	26	26	17
3	Assam	2,563	405	383	208	1,566	2,506	2,100
4	Bihar	4,279	733	748	1,906	892	3,397	2,664
5	Chhattisgarh #	1,375	153	242	485	494	0	-153
6	Goa	725	96	505	-	123	500	404
7	Gujarat	9,068	677	6,198	-	2,194	8,534	7,857
8	Haryana	3,985	290	1,005	263	2,427	2,795	2,505
9	Himachal Pradesh	2,510	160	2,001	13	336	1,912	1,752
10	Jammu & Kashmir	1,680	128	924	12	617	1,757	1,629
11	Jharkhand	1,490	248	595	-	646	1,486	1,238
12	Karnataka	7,417	833	4,226	278	2,080	7,417	6,584
13	Kerala	7,183	734	780	3,233	2,436	5,516	4,782
14	Madhya Pradesh	5,034	538	1,230	2,029	1,237	4,495	3,957
15	Maharashtra	17,762	795	3,318	1,182	12,467	17,762	16,967
16	Manipur	383	39	147	117	79	303	264
17	Meghalaya	378	73	172	52	82	259	186
18	Mizoram	156	30	52	60	15	156	126
19	Nagaland	467	94	216	77	80	467	373
20	Orissa #	1,132	670	48	-	414	0	-670
21	Punjab	5,711	416	2,786	1,021	1,488	5,061	4,645
22	Rajasthan	6,556	1,160	1,256	990	3,149	6,356	5,196
23	Sikkim	314	45	240	13	16	293	248
24	Tamil Nadu	8,792	806	3,909	205	3,872	9,598	8,792
25	Tripura	628	78	66	-	484	156	78
26	Uttar Pradesh	14,006	2,397	4,703	-	6,907	12,693	10,297
27	Uttarakhand	1,051	127	764	-	160	1,011	884
28	West Bengal	11,898	854	8,387	1,000	1,657	12,397	11,544
29	Union Territory of Puducherry	350	0	200	22	128	350	350
	Total	**1,29,081**	**14,371**	**51,719**	**14,326**	**48,664**	**1,18,138**	**1,03,766**

: States did not participate in the Market Borrowing Programme during 2008-09.

APPENDIX TABLE 63 : WEIGHTED AVERAGE YIELDS AND SPREADS IN AUCTIONS OF SDLS DURING 2008-09

State/UT		Weighted average yield (per cent)	Weighted average spread (basis points)
1		2	3
Special Category States			
1	Assam	8.78	221
2	Arunachal Pradesh	8.47	175
3	Himachal Pradesh	7.81	121
4	Jammu & Kashmir	8.42	119
5	Manipur	7.03	71
6	Meghalaya	7.99	111
7	Mizoram	8.64	107
8	Nagaland	8.25	125
9	Sikkim	7.00	48
10	Tripura	7.77	175
11	Uttarakhand	7.90	78
Non-Special Category States / U.T.			
1	Andhra Pradesh	7.86	103
2	Bihar	7.83	158
3	Goa	7.80	102
4	Gujarat	7.24	108
5	Haryana	7.55	159
6	Jharkhand	7.62	153
7	Karnataka	7.83	169
8	Kerala	7.70	87
9	Madhya Pradesh	7.48	129
10	Maharashtra	7.78	147
11	Puducherry	8.62	149
12	Punjab	8.04	74
13	Rajasthan	7.67	112
14	Tamil Nadu	7.40	121
15	Uttar Pradesh	8.43	129
16	West Bengal	8.35	83

APPENDIX TABLE 64: MARKET BORROWINGS OF THE STATE GOVERNMENTS/ U.T. RAISED THROUGH AUCTIONS

(Amount in Rupees crore)

Sr. No.	Date of Auction	State/U.T.	Notified Amount	Amount Accepted	Market Rate(%)*	No. of Bids Received	Amount Offered	Weighted Average Rate (%)	Cut Off Rate(%)	Spread (Percentage Points)
1	2	3	4	5	6	7	8	9	10	11 (=10-6)
	2008-09									
1	22-Apr-2008	Kerala	385	385	8.15	112	2,499	8.45	8.5	0.35
2	22-Apr-2008	Nagaland	160	160	8.15	17	570	8.49	8.58	0.43
3	22-Apr-2008	Uttarakhand	250	250	8.15	60	1,567	8.45	8.5	0.35
4	22-Apr-2008	West Bengal	1,853	1,853	8.15	182	8,393	8.53	8.6	0.45
5	27-May-2008	Jammu & Kashmir	564	564	8.09	52	960	8.64	8.68	0.59
6	27-May-2008	Kerala	500	500	8.09	90	1,809	8.46	8.5	0.41
7	27-May-2008	Uttar Pradesh	1,000	1,000	8.09	96	3,568	8.49	8.51	0.42
8	27-May-2008	Uttarakhand	200	200	8.09	45	1,097	8.39	8.39	0.30
9	27-May-2008	West Bengal	1,000	1,000	8.09	132	4,192	8.49	8.52	0.43
10	27-Jun-2008	Andhra Pradesh	500	500	8.61	81	1,246	9.28	9.4	0.79
11	27-Jun-2008	Uttar Pradesh	1,000	1,000	8.61	76	1,822	9.47	9.59	0.98
12	27-Jun-2008	West Bengal	800	800	8.61	120	2,411	9.21	9.38	0.77
13	10-Jul-2008	Punjab	500	500	9.32	82	1,422	9.73	9.81	0.49
14	31-Jul-2008	Andhra Pradesh	1,000	1,000	9.38	134	3,163	9.85	9.89	0.51
15	31-Jul-2008	Kerala	300	300	9.38	66	1,532	9.84	9.86	0.48
16	31-Jul-2008	West Bengal	800	800	9.38	123	3,452	9.87	9.9	0.52
17	26-Aug-2008	Mizoram	60	60	8.96	8	312	9.30	9.44	0.48
18	26-Aug-2008	Punjab	1,000	1,000	8.96	108	4,465	9.30	9.30	0.34
19	26-Aug-2008	Uttar Pradesh	1,000	1,000	8.96	73	3,341	9.30	9.30	0.34
20	9-Sep-2008	West Bengal	1,800	1,800	8.46	125	6,215	8.77	8.80	0.34
21	25-Sep-2008	Himachal Pradesh	112	112	8.60	8	361	8.82	8.82	0.22
22	25-Sep-2008	Puducherry	100	100	8.60	7	316	8.81	8.81	0.21
23	25-Sep-2008	Punjab	500	500	8.60	35	1,462	8.83	8.83	0.23
24	25-Sep-2008	Rajasthan	1,000	500	8.60	57	2,203	8.86	8.88	0.28
25	7-Oct-2008	Jammu & Kashmir	212	212	8.04	18	587	8.52	8.55	0.51
26	7-Oct-2008	Kerala	800	800	8.04	68	1,934	8.45	8.50	0.46
27	7-Oct-2008	Uttar Pradesh	1,000	1,000	8.04	40	1,280	8.64	8.89	0.85
28	22-Oct-2008	Andhra Pradesh	1,000	1,000	7.56	108	3,016	8.07	8.11	0.55
29	22-Oct-2008	Himachal Pradesh	200	200	7.56	26	895	7.97	7.97	0.41
30	22-Oct-2008	Maharashtra	2,000	2,000	7.56	124	6,713	8.01	8.07	0.51
31	22-Oct-2008	Punjab	500	500	7.56	39	1,317	8.01	8.07	0.51
32	22-Oct-2008	West Bengal	600	600	7.56	58	2,237	8.01	8.07	0.51
33	11-Nov-2008	Andhra Pradesh	1,000	1,000	7.70	129	2,825	8.20	8.25	0.55
34	11-Nov-2008	Goa	200	200	7.70	30	845	8.19	8.23	0.53
35	11-Nov-2008	Himachal Pradesh	200	200	7.70	31	930	8.17	8.21	0.51
36	11-Nov-2008	Jammu & Kashmir	200	200	7.70	30	704	8.39	8.54	0.84
37	11-Nov-2008	Madhya Pradesh	500	625	7.70	59	2,006	8.24	8.30	0.60
38	11-Nov-2008	Meghalaya	120	120	7.70	18	388	8.21	8.25	0.55
39	11-Nov-2008	Rajasthan	500	500	7.70	62	1,784	8.21	8.26	0.56
40	11-Nov-2008	Tamil Nadu	600	750	7.70	95	2,337	8.19	8.23	0.53
41	20-Nov-2008	Gujarat	1,000	1,000	7.25	83	4,063	7.73	7.80	0.55
42	20-Nov-2008	Kerala	350	350	7.25	49	2,207	7.69	7.77	0.52
43	20-Nov-2008	Rajasthan	1,000	1,000	7.25	94	4,119	7.74	7.80	0.55

APPENDIX TABLE 64: MARKET BORROWINGS OF THE STATE GOVERNMENTS/ U.T. RAISED THROUGH AUCTIONS *(Contd.)*

(Amount in Rupees crore)

Sr. No.	Date of Auction	State/U.T.	Notified Amount	Amount Accepted	Market Rate(%)*	No. of Bids Received	Amount Offered	Weighted Average Rate (%)	Cut Off Rate(%)	Spread (Percentage Points)
1	2	3	4	5	6	7	8	9	10	11 (=10-6)
44	20-Nov-2008	Uttar Pradesh	1,000	1,000	7.25	72	3,056	7.79	7.85	0.60
45	20-Nov-2008	West Bengal	1,500	1,500	7.25	77	4,119	7.79	7.86	0.61
46	11-Dec-2008	Andhra Pradesh	1,500	1,500	6.52	79	2,493	7.04	7.10	0.58
47	11-Dec-2008	Gujarat	1,000	1,250	6.52	84	3,308	6.98	7.03	0.51
48	11-Dec-2008	Manipur	200	200	6.52	10	900	7.00	7.00	0.48
49	11-Dec-2008	Punjab	702	702	6.52	36	1,707	7.00	7.02	0.50
50	11-Dec-2008	Sikkim	293	293	6.52	9	886	7.00	7.00	0.48
51	11-Dec-2008	Tamil Nadu	600	750	6.52	61	2,615	6.92	6.95	0.43
52	11-Dec-2008	Uttar Pradesh	1,000	1,000	6.52	51	3,245	7.01	7.03	0.51
53	11-Dec-2008	Uttarakhand	215	215	6.52	16	855	6.99	7.00	0.48
54	23-Dec-2008	Bihar	750	750	5.65	23	1,210	6.40	6.45	0.80
55	23-Dec-2008	Jharkhand	195	195	5.65	20	876	6.34	6.34	0.69
56	23-Dec-2008	Kerala	800	800	5.65	55	1,666	6.29	6.38	0.73
57	23-Dec-2008	Rajasthan	1,162	1,162	5.65	69	2,186	6.34	6.41	0.76
58	23-Dec-2008	Tamil Nadu	800	1,000	5.65	79	1,963	6.32	6.40	0.75
59	23-Dec-2008	West Bengal	888	888	5.65	43	1,686	6.36	6.43	0.78
60	6-Jan-2009	Andhra Pradesh	1,000	1,000	5.22	67	2,269	5.80	5.80	0.58
61	6-Jan-2009	Gujarat	1,500	1,875	5.22	68	3,774	5.88	6.05	0.83
62	6-Jan-2009	Himachal Pradesh	200	200	5.22	20	396	6.00	6.10	0.88
63	6-Jan-2009	Jharkhand	248	248	5.22	13	423	6.06	6.10	0.88
64	6-Jan-2009	Kerala	812	812	5.22	40	1,372	6.01	6.10	0.88
65	6-Jan-2009	Madhya Pradesh	750	900	5.22	32	2,510	5.83	6.00	0.78
66	6-Jan-2009	Punjab	667	667	5.22	37	1,201	5.99	6.10	0.88
67	13-Jan-2009	Karnataka	1,500	1,500	5.63	79	2,131	6.58	6.70	1.07
68	13-Jan-2009	Maharashtra	3,295	3,295	5.63	136	5,261	6.62	6.73	1.10
69	13-Jan-2009	Tamil Nadu	800	1,000	5.63	68	1,505	6.55	6.65	1.02
70	22-Jan-2009	Andhra Pradesh	1,633	1,633	5.93	98	2,002	7.01	7.13	1.20
71	22-Jan-2009	Bihar	731	731	5.93	20	1,921	6.95	7.10	1.17
72	22-Jan-2009	Gujarat	1,000	1250	5.93	95	3,130	6.96	7.00	1.07
73	22-Jan-2009	Himachal Pradesh	300	300	5.93	15	431	7.06	7.09	1.16
74	22-Jan-2009	Madhya Pradesh	885	885	5.93	48	2,571	6.93	7.00	1.07
75	22-Jan-2009	Manipur	103	103	5.93	3	163	7.09	7.09	1.16
76	22-Jan-2009	Tamil Nadu	800	1,000	5.93	79	2,486	6.97	7.00	1.07
77	22-Jan-2009	Uttar Pradesh	1,099	1,099	5.93	47	2,969	6.95	7.10	1.17
78	5-Feb-2009	Goa	200	200	5.89	20	779	7.24	7.24	1.35
79	5-Feb-2009	Haryana	1,295	1,295	5.89	88	4,054	7.21	7.27	1.38
80	5-Feb-2009	Himachal Pradesh	100	100	5.89	19	476	7.24	7.24	1.35
81	5-Feb-2009	Punjab	354	354	5.89	39	1,090	7.20	7.24	1.35
82	5-Feb-2009	Rajasthan	800	1,000	5.89	81	2,383	7.24	7.29	1.40
83	5-Feb-2009	Tamil Nadu	1,000	1,200	5.89	115	3,329	7.22	7.26	1.37
84	5-Feb-2009	West Bengal	1,000	1,000	5.89	97	3,665	7.24	7.27	1.38
85	17-Feb-2009	Andhra Pradesh	1,212	1,212	6.08	102	2,390	7.43	7.45	1.37
86	17-Feb-2009	Gujarat	1,499	1,499	6.08	138	3,466	7.42	7.45	1.37
87	17-Feb-2009	Himachal Pradesh	100	100	6.08	15	471	7.40	7.40	1.32

APPENDIX TABLE 64: MARKET BORROWINGS OF THE STATE GOVERNMENTS/ U.T. RAISED THROUGH AUCTIONS *(Contd.)*

(Amount in Rupees crore)

Sr. No.	Date of Auction	State/U.T.	Notified Amount	Amount Accepted	Market Rate(%)*	No. of Bids Received	Amount Offered	Weighted Average Rate (%)	Cut Off Rate(%)	Spread (Percentage Points)
1	2	3	4	5	6	7	8	9	10	11 (=10-6)
88	17-Feb-2009	Jharkhand	400	400	6.08	17	1,260	7.43	7.44	1.36
89	17-Feb-2009	Kerala	800	800	6.08	71	1,875	7.41	7.45	1.37
90	17-Feb-2009	Maharashtra	3,000	3,000	6.08	153	6,049	7.48	7.50	1.42
91	17-Feb-2009	Nagaland	100	100	6.08	6	400	7.40	7.40	1.32
92	17-Feb-2009	Tamil Nadu	1,000	1,000	6.08	114	2,404	7.42	7.45	1.37
93	17-Feb-2009	Uttarakhand	252	252	6.08	19	887	7.43	7.45	1.37
94	27-Feb-2009	Haryana	1,500	1,500	6.02	69	2,051	7.69	7.80	1.78
95	27-Feb-2009	Jammu & Kashmir	445	445	6.02	18	699	7.93	7.98	1.96
96	27-Feb-2009	Karnataka	3,000	3,000	6.02	183	4,451	7.62	7.76	1.74
97	27-Feb-2009	Madhya Pradesh	860	1,075	6.02	61	1,661	7.63	7.77	1.75
98	27-Feb-2009	Maharashtra	4,000	4,000	6.02	206	5,851	7.66	7.83	1.81
99	27-Feb-2009	Meghalaya	104	104	6.02	8	314	7.57	7.59	1.57
100	27-Feb-2009	Punjab	695	695	6.02	74	1,246	7.55	7.68	1.66
101	27-Feb-2009	Rajasthan	1,000	1,250	6.02	85	1,826	7.65	7.77	1.75
102	27-Feb-2009	Tamil Nadu	1,000	1,200	6.02	135	2,709	7.55	7.65	1.63
103	27-Feb-2009	Tripura	156	156	6.02	12	386	7.63	7.77	1.75
104	9-Mar-2009	Assam	2,506	1,910	6.53	48	1,910	8.35	8.89	2.36
105	9-Mar-2009	Bihar	1,438	1,135	6.53	21	1,135	8.41	8.78	2.25
106	9-Mar-2009	Himachal Pradesh	200	200	6.53	21	536	8.30	8.40	1.87
107	9-Mar-2009	Jammu & Kashmir	207	207	6.53	30	737	8.31	8.47	1.94
108	9-Mar-2009	Jharkhand	539	535	6.53	17	535	8.40	8.75	2.22
109	9-Mar-2009	Maharashtra	3,899	3,899	6.53	201	4,756	8.23	8.46	1.93
110	9-Mar-2009	Meghalaya	26	26	6.53	3	61	8.10	8.16	1.63
111	9-Mar-2009	Tamil Nadu	1,217	1,217	6.53	109	1,553	8.21	8.48	1.95
112	9-Mar-2009	Uttar Pradesh	3,000	3,000	6.53	90	3,182	8.31	8.57	2.04
113	9-Mar-2009	West Bengal	1,967	1,967	6.53	102	2,600	8.21	8.43	1.90
114	17-Mar-2009	Andhra Pradesh	1,915	1,915	6.54	218	2,803	8.39	8.59	2.05
115	17-Mar-2009	Gujarat	1,660	1,660	6.54	212	4,165	8.33	8.40	1.86
116	17-Mar-2009	Himachal Pradesh	400	500	6.54	74	1,085	8.36	8.43	1.89
117	17-Mar-2009	Karnataka	2,917	2,917	6.54	250	5,869	8.36	8.49	1.95
118	17-Mar-2009	Kerala	500	500	6.54	78	1,019	8.36	8.45	1.91
119	17-Mar-2009	Madhya Pradesh	1,010	1,010	6.54	86	1,944	8.37	8.40	1.86
120	17-Mar-2009	Nagaland	185	185	6.54	7	340	8.40	8.40	1.86
121	17-Mar-2009	Rajasthan	593	593	6.54	112	1,213	8.39	8.46	1.92
122	17-Mar-2009	Uttar Pradesh	2,594	2,594	6.54	146	3,935	8.48	8.59	2.05
123	17-Mar-2009	Uttarakhand	94	94	6.54	6	278	8.54	8.55	2.01
124	17-Mar-2009	Puducherry	247	247	6.54	12	472	8.53	8.55	2.01
125	24-Mar-2009	Andhra Pradesh	174	174	6.72	99	1,437	8.09	8.09	1.37
126	24-Mar-2009	Arunachal Pradesh	26	26	6.72	3	54	8.47	8.47	1.75
127	24-Mar-2009	Assam	596	596	6.72	92	2,102	8.33	8.43	1.71
128	24-Mar-2009	Bihar	781	781	6.72	79	1,745	8.35	8.45	1.73
129	24-Mar-2009	Goa	100	100	6.72	22	446	8.08	8.08	1.36
130	24-Mar-2009	Jammu & Kashmir	129	129	6.72	34	589	8.28	8.34	1.62
131	24-Mar-2009	Jharkhand	107	107	6.72	19	360	8.29	8.47	1.75

APPENDIX TABLE 64: MARKET BORROWINGS OF THE STATE GOVERNMENTS/ U.T. RAISED THROUGH AUCTIONS *(Concld.)*

(Amount in Rupees crore)

Sr. No.	Date of Auction	State/U.T.	Notified Amount	Amount Accepted	Market Rate(%)*	No. of Bids Received	Amount Offered	Weighted Average Rate (%)	Cut Off Rate(%)	Spread (Percentage Points)
1	2	3	4	5	6	7	8	9	10	11 (=10-6)
132	24-Mar-2009	Kerala	269	269	6.72	102	1,509	8.23	8.27	1.55
133	24-Mar-2009	Maharashtra	1,568	1,568	6.72	314	7,289	8.25	8.30	1.58
134	24-Mar-2009	Meghalaya	10	10	6.72	2	10	8.44	8.47	1.75
135	24-Mar-2009	Mizoram	97	97	6.72	4	291	8.15	8.15	1.43
136	24-Mar-2009	Nagaland	22	22	6.72	3	47	8.46	8.47	1.75
137	24-Mar-2009	Punjab	143	143	6.72	79	1,227	8.12	8.13	1.41
138	24-Mar-2009	Rajasthan	351	351	6.72	123	2,299	8.21	8.28	1.56
139	24-Mar-2009	Tamil Nadu	481	481	6.72	205	3,498	8.19	8.24	1.52
140	24-Mar-2009	West Bengal	190	190	6.72	71	1,394	8.19	8.25	1.53
141	24-Mar-2009	Puducherry	3	3	6.72	1	3	8.48	8.48	1.76
	2009-10									
1	8-Apr-2009	Punjab	600	600	6.94	135	5,152	7.71	7.77	0.83
2	8-Apr-2009	Uttarakhand	300	300	6.94	72	2,725	7.73	7.77	0.83
3	16-Apr-2009	Andhra Pradesh	800	1,000	6.50	156	5,294	7.47	7.50	1.00
4	16-Apr-2009	Jharkhand	517	517	6.50	53	3,552	7.51	7.54	1.04
5	16-Apr-2009	Nagaland	260	260	6.50	23	1,255	7.55	7.58	1.08
6	16-Apr-2009	West Bengal	2,000	2,000	6.50	219	9,883	7.52	7.55	1.05
7	28-Apr-2009	Andhra Pradesh	1,600	1,600	6.15	153	5,231	7.07	7.11	0.96
8	28-Apr-2009	Jammu & Kashmir	539	539	6.15	46	2,189	7.21	7.30	1.15
9	28-Apr-2009	Punjab	500	500	6.15	88	3,317	7.03	7.04	0.89
10	4-May-2009	West Bengal	2,500	2,500	6.33	183	10,293	7.06	7.10	0.77
11	26-May-2009	Andhra Pradesh	1,000	1,000	6.53	147	3,334	7.40	7.45	0.92
12	26-May-2009	Rajasthan	500	500	6.53	73	2,078	7.37	7.44	0.91
13	26-May-2009	Uttar Pradesh	1,500	1,500	6.53	126	4,711	7.44	7.53	1.00
14	26-May-2009	West Bengal	1500	1,500	6.53	157	5,594	7.42	7.5	0.97
15	23-Jun-2009	Andhra Pradesh	1,000	1,000	6.99	150	2,751	7.81	7.83	0.84
16	23-Jun-2009	Bihar	1,000	1,000	6.99	80	2,900	7.86	7.89	0.90
17	23-Jun-2009	Goa	100	100	6.99	11	290	7.81	7.83	0.84
18	23-Jun-2009	Gujarat	1,000	1,000	6.99	141	3,698	7.79	7.83	0.84
19	23-Jun-2009	Haryana	700	700	6.99	67	2,100	7.81	7.83	0.84
20	23-Jun-2009	Kerala	600	600	6.99	83	1,966	7.80	7.83	0.84
21	23-Jun-2009	Meghalaya	50	50	6.99	8	215	7.80	7.8	0.81
22	23-Jun-2009	Punjab	500	500	6.99	71	1,730	7.80	7.82	0.83
23	23-Jun-2009	Rajasthan	500	500	6.99	66	1,640	7.79	7.83	0.84
24	23-Jun-2009	Uttar Pradesh	500	500	6.99	60	1,759	7.81	7.84	0.85
25	7-Jul-2009	Andhra Pradesh	1,000	1,000	7.08	154	2,767	7.89	7.93	0.85
26	7-Jul-2009	Uttar Pradesh	1,000	1,000	7.08	91	2,390	7.92	7.97	0.89
27	7-Jul-2009	West Bengal	2,000	2,000	7.08	178	4,700	7.93	7.96	0.88
28	21-Jul-2009	Andhra Pradesh	1,000	1,000	6.89	152	3,356	7.83	7.85	0.96
29	21-Jul-2009	Gujarat	1,500	1,500	6.89	158	5,101	7.81	7.85	0.96
30	21-Jul-2009	Maharashtra	3,000	3,000	6.89	266	9,534	7.82	7.85	0.96
31	21-Jul-2009	Uttar Pradesh	500	500	6.89	43	1,295	7.80	7.80	0.91
32	21-Jul-2009	Uttarakhand	300	300	6.89	22	750	7.80	7.80	0.91

* : Secondary market yield of Central Govt. Securities of similar maturity.

APPENDIX TABLE 65 : MATURITY PROFILE OF OUTSTANDING SECURITIES OF STATE GOVERNMENTS / U. T.

Sr. No	State/UT	Percentage to Total Amount Outstanding		Total Amount Outstanding (Rs. Crore)
		0-5 years	6-10 years	
1	2	3	4	5
1	Andhra Pradesh	32	68	38,336
2	Arunachal Pradesh	20.2	79.8	615
3	Assam	30.4	69.6	9,255
4	Bihar	41.5	58.5	13,817
5	Chhattisgarh	52.2	47.8	1,837
6	Goa	28.4	71.6	1,881
7	Gujarat	29.4	70.6	26,879
8	Haryana	35.2	64.8	7,246
9	Himachal Pradesh	28.9	71.1	7,658
10	Jammu & Kashmir	23.3	76.7	7,275
11	Jharkhand	24.7	75.3	5,525
12	Karnataka	35	65	18,572
13	Kerala	24.9	75.1	21,263
14	Madhya Pradesh	31.1	68.9	17,061
15	Maharashtra	19.6	80.4	44,678
16	Manipur	19.3	80.7	1,342
17	Meghalaya	27.1	72.9	1,454
18	Mizoram	27.2	72.8	964
19	Nagaland	30.1	69.9	2,371
20	Orissa	60.3	39.7	7,354
21	Punjab	24.4	75.6	17,874
22	Rajasthan	33.2	66.8	24,499
23	Sikkim	13.7	86.3	990
24	Tamil Nadu	27.1	72.9	29,294
25	Tripura	38.7	61.3	1,192
26	Uttar Pradesh	31.8	68.2	43,941
27	Uttarakhand	34.5	65.5	5,630
28	West Bengal	22.2	77.8	43,123
29	Puducherry	0	100	687
	Total	**29**	**71**	**4,02,611**

APPENDIX TABLE 66: NORMAL WMA LIMITS OF STATES/UT

State / Union Territory	2005-06 (effective April 1, 2005)	2006-07 (effective April 1, 2006)	2007-08 (effective April 1, 2007)	2008-09 (effective April 1, 2008)	2009-10 (effective April 1, 2009)
1	2	3	4	5	6
Non-Special Category States/U.T.					
Andhra Pradesh	770	880	880	880	880
Bihar	380	425	425	425	425
Chhattisgarh	175	190	190	190	190
Goa	65	65	65	65	65
Gujarat	575	630	630	630	630
Jharkhand	225	280	280	280	280
Haryana	280	295	295	295	295
Karnataka	570	625	625	625	625
Kerala	345	350	350	350	350
Madhya Pradesh	420	460	460	460	460
Maharashtra	1,050	1,160	1,160	1,160	1,160
Orissa	270	300	300	300	300
Punjab	360	360	360	360	360
Rajasthan	440	505	505	505	505
Tamil Nadu	670	730	730	730	730
Uttar Pradesh	920	1,020	1,020	1,020	1,020
West Bengal	495	545	545	545	545
Puducherry	NA	NA	50#	50	50
Sub Total	**8,010**	**8,820**	**8,870**	**8,870**	**8,870**
Special Category States					
Arunachal Pradesh	50	65	65	65	65
Assam	295	300	300	300	300
Himachal Pradesh	145	190	190	190	190
Manipur	55	60	60	60	60
Meghalaya	55	60	60	60	60
Mizoram	50	55	55	55	55
Nagaland	65	80	80	80	80
Tripura	80	100	100	100	100
Uttarakhand	130	145	145	145	145
Sub Total	**925**	**1,055**	**1,055**	**1,055**	**1,055**
Total	**8,935**	**9,875**	**9,925**	**9,925**	**9,925**

: Effective December 17, 2007. N. A. : Not Applicable.