

# **KOREA'S EXPERIENCE WITH GLOBAL FINANCIAL CRISIS**

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## **SOUTH KOREA'S EXPERIENCE WITH GLOBAL FINANCIAL CRISIS**

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### **INTRODUCTION**

The belief that deregulated financial markets will benefit everybody, the rich and the poor as well as the developed and the developing world, has reshaped the global economy, starting in the early 1980s. However, unfettered capital flows do not work as advertised. Over the past three decades, the world has endured recurrent financial crises, which have incurred long-lasting damage. More disturbingly, market failures caused by the unfettered nature of finance have almost always led to state rescues which have had to use taxpayers' money. Indeed, free financial markets would have disappeared long ago if not for the state's helping hands.

In South Korea (henceforth Korea), as in many other emerging market economies, currency crisis in 1997 helped facilitate unfettered finance. Given the country's heavy dependence on exports, its overarching financial priority had been to maintain currency stability; accordingly, free capital mobility had never been a vital part of its financial policy. Rather, a system of state-led "financial repression", in which the banking sector was a servant to the "real economy", was the main force behind Korea's economic miracle, decades of which had resulted in underdeveloped capital markets.

Since the start of financial liberalisation experiments in the early 1980s, Korea has faced many challenges, most notably in harmonising financial liberalisation with currency stability. Eventually, the first experiment ended in twin financial crises—in currency and banking—in 1997–8. The crises and the International Monetary Fund (IMF) intervention that followed marked a watershed in terms of Korea's shift to financial liberalisation and openness. Bold structural and regulatory reforms towards full-fledged liberalisation were undertaken. However, the Korean economy then suffered a series of financial shocks, which led to another currency crisis in late 2008.

This paper assesses the impact of the recent global financial crisis in Korea. Although the country was not involved directly in the US subprime market debacle, the global credit crunch after the collapse of Lehman's hit its financial markets severely, provoking a foreign and domestic liquidity crisis and a collapse of the won. This paper examines factors behind the financial turmoil that Korea has experienced since late 2008 and its policy response to the crisis. The case illustrates the dangers posed by unfettered global

finance, with sound macroeconomic fundamentals, including huge foreign currency reserves, offering little protection against currency instability and financial crisis.

## **KOREA'S FINANCIAL SECTOR DEVELOPMENT AFTER THE 1997 CRISIS**

Korea's impressive economic performance, politically adorned when it entered the Organisation for Economic Co-operation and Development (OECD) in 1996, came to an abrupt end in late 1997 when the devastating tsunami of financial crises that began in Thailand reached the country. The overseas borrowing spree of domestic banks and firms became fatal, resulting in twin crises in currency and banking. After the 1997 financial crisis, the Korean government took radical steps towards further financial liberalisation and implemented IMF-imposed structural adjustment programmes. This was believed to be the best way to prevent another crisis as well as to increase the efficiency and competitiveness of Korea's underdeveloped banking industry. Financial development corresponding to the size and development level of Korea's real economy became a key policy objective in the post-crisis period. Full full-fledged financial liberalisation was considered the only effective way to reach this goal (see Cho and Kalinowski, 2009; 2010).

Financial restructuring changed the landscape of the Korean banking system dramatically, resulting in a massive concentration in the banking sector. The number of commercial banks halved, from 26 in late 1997 to 13 in 2007—7 nationwide and 6 regional banks. The market share of the three largest banks by assets has more than doubled, from 27 percent in 1997 to 58.6 percent in 2007. This concentration resulted from the government's belief that economies of scale were the first step towards increasing the international competitiveness of the domestic banking sector.<sup>1</sup>

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<sup>1</sup> The Korean government has long held the goal of establishing a megabank ranking in the world's top 50 banks and being able to compete with global financial giants like Goldman Sachs and Citigroup.

**Table 1: Assets and foreign equity share in the commercial banking sector in Korea**

	Foreign equity share (%)			Assets (₩ trillions)	Asset share (%)
	2001	2004	2007	As of end 2007	
KB Finance Holdings	71.11	76.1	81.32		
Kookmin Bank				218.9	22.7
Woori Finance Holdings	0	11.58	13.69		
Woori				187.9	19.5
Kyungnam				19.2	2.0
Gwangju				15.3	1.6
Shinhan Finance Holdings	52.33	62.88	58.14		
Shinhan				169.1	17.5
Jeju				2.8	0.3
Hana Finance Holdings	52.14	68.3	75.11		
Hana Bank				116.9	12.1
KEB*	33.53	68.3	80.51	79.9	8.3
SC First*	50.99	48.6	100	52.9	5.5
Citi*	53.22	99.9	99.95	46.9	4.9
Daegu**	3.77	55.8	69.67	23.8	2.5
Busan**	10.64	59.2	64.21	26	2.7
Jeonbuk**	0.05	12.1	21.63	6.1	0.6
Total	32.78	56.27	66.42	956.7	100

Note: \*Foreign controlled banks;\*\*Independent regional banks.

Source: Financial Supervisory Services (FSS) data.

Another conspicuous change was a sharp increase in foreign participation in the Korean banking industry. Of seven nationwide commercial banks, three medium-sized ones were sold to foreign investors. In terms of equity ownership, three other banks are foreign owned.<sup>2</sup> Foreign holdings in stocks of the commercial banking sector jumped from 16.4 percent in 1997 to 66.4 percent in 2007 (see Table 1). The government welcomed and fostered foreign participation as a necessary vehicle for efficiency and competitiveness of the Korean financial industry.

<sup>2</sup> The government has failed to re-privatise Wooribank, the second largest bank in terms of assets, which was formed through a merger of several nationalised banks after the 1997 crisis. On the banking restructuring process and its outcome, see Cho (2011); Cho and Kalinowski (2010).

## EXTERNAL FINANCIAL LIBERALISATION

In pursuit of financial development, priority was given to capital account and foreign exchange (FX) market liberalisation. In May 1998, the ceiling on foreign investment in Korean stock markets was abolished and the local bond and money market were opened fully to foreign investors. Furthermore, the experience with the 1997 crisis underscored the need to develop the shallow FX market in Korea. With the introduction of a free floating FX system in December 1997 and the country's substantial financial opening immediately after the crisis, it was feared that market volatility would increase. Thus, FX market development was seen as critical to absorbing external shocks better. In 2002, liberalisation of FX transactions gained a new impetus as the Korean government, under newly elected President Roh Moo-Hyun, announced a national agenda to promote Korea as a financial hub of northeast Asia by 2010 (MOSE, 2007).

The financial hub project was a deliberate policy to designate the financial industry the key strategic sector and future growth engine of the Korean economy. As part of the project, the government presented a plan for full liberalisation of FX markets by 2011, virtually removing all regulatory controls on FX markets and pursuing internationalisation of the Korean won. In 2005, the Roh Moo-Hyun administration advanced the deadline from 2011 to 2009. In January 2006, the capital account transaction permission system was abolished, and replaced by an *ex post* reporting system. With only a few exceptions, the Korean FX market was fully liberalised.<sup>3</sup>

## THE IMPACT OF GLOBAL FINANCIAL CRISIS ON KOREAN FINANCIAL MARKETS

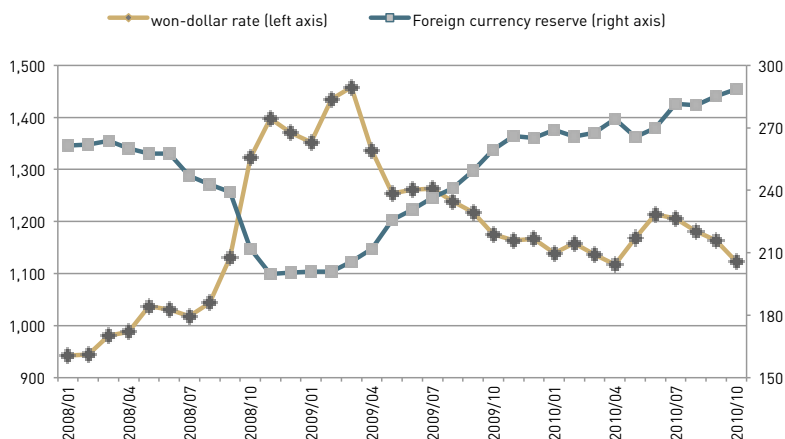
### CURRENCY MARKET TURMOIL IN 2008

One immediate effect of the global financial crisis in Korea was a freefall of the won (Figure 1), which depreciated 60 percent against the US dollar through the second half of November 2008 to become the second worst performing currency in the OECD after the Icelandic krona (The Economist, 2010).

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<sup>3</sup> Only three specific types of transactions were not liberalised: (1) non-residents are not permitted to buy won-denominated funds, including forward currency contracts, which can potentially be used to attack the local currency; (2) foreign currency borrowing by non-viable domestic firms is not permitted; and (3) the Korean government ensures that Koreans firms that have extended credit to foreign borrowers collect their debts. In addition, despite full FX market liberalisation, the Korean government has retained the right to re-impose restrictions on capital outflows in the case of severe economic or financial emergency.

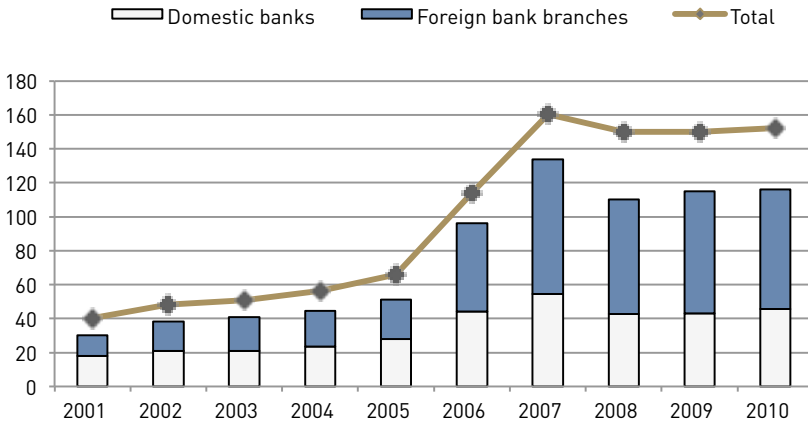
**Figure 1: Nominal won-dollar exchange rate, monthly average and FX reserve, 2008–10 (US\$ billions)**



Source: Bank of Korea (BOK) data.

The sharp depreciation of the won in late 2008 was a by-product of global deleveraging which began with the US subprime crisis in mid-2007 and accelerated after the collapse of Lehman's in September 2008. This sparked the massive withdrawal of foreign capital from Korean financial markets. Within the four months between September and December 2008, capital outflows amounted to US\$69.5 billion, about 30 percent of the US\$221.9 billion 10-year gross capital inflow since 1998. The largest portion of capital outflows in 2008 comprised a rapid withdrawal of short-term foreign loans which had surged in previous years. Gross short-term foreign debt rose to US\$160.2 billion in 2007 from US\$65.9 billion in 2005, an increase of US\$94.3 billion. This was attributable to the banking sector: in 2006 and 2007, its short-term foreign borrowing totalled US\$74.4 billion, accounting for over 80 percent of the country's total short-term foreign debt. Foreign bank branches were the major driver: their net short-term foreign borrowing in the same two years amounted to US\$56 billion compared with US\$26.7 billion of all domestic banks (see Figure 2).

**Figure 2: Gross short-term foreign liability in Korea (US\$ billions)**



Source: BOK data.

### CAUSES OF KOREA'S FOREIGN DEBT PROBLEM

In the second half of 2008 and the first quarter of 2009, amid the unfolding global financial crisis, Korea's short-term foreign debt emerged as a major concern, following the same pattern as in the 1997 crisis. The short-term foreign debt to FX reserves ratio rose to 79.1 percent in the third quarter of 2008 from around 30 percent in 2005—approaching levels prevailing at the time of the 1997 crisis. However, the more recent rapid increase in foreign debt differed considerably from excessive foreign borrowing before the 1997 crisis: a substantial part of it was linked to FX hedge-related financing, which saw a rapid increase from 2004 alongside the appreciation of the Korean won. Despite stepped-up accumulation of FX reserves, the won continued to rise, as both capital and current account inflows increased sharply. From 2000 to 2003, the value of the won was maintained roughly constant on a real effective exchange rate (REER) basis. However, from 2004 to 2005, it appreciated by about 25 percent on a REER basis, largely because of massive inflows of foreign direct investment (FDI) and portfolio investment (Dwor-Frécaut, 2008). This prompted the Korean government to refocus FX policy on the liberalisation of capital outflows in order to alleviate upward pressure on the won and reduce the cost of large-scale sterilised intervention. Yet this attempt had little effect, as domestic exporting firms started to use FX forward transactions not only for hedging purposes but also for speculative bets against the won appreciation. As a result, net forward sales expanded dramatically (see Table 2). Along with the increase in FX derivative transactions, foreign borrowing by the banking sector continued to surge.

**Table 2: FX forward transactions of domestic companies in Korea, 2003–10 (US\$ billions)**

	2003	2004	2005	2006	2007	2008	2009	2010
Sales (A)	38.7	62.1	71.7	99.7	126	136.6	70.9	103.4
Purchases (B)	23.1	30.3	42.5	50.4	54.2	74.6	49.8	70.3
Net sales (A-B)	15.6	31.8	29.2	49.3	71.8	62	21.1	33.1

Source: BOK Foreign Exchange Market Trends (various years).

## FX HEDGING AND FOREIGN DEBT

In 2005, Korea's major exporters, such as ship builders, with anticipated foreign currency export revenue rushed into selling dollars forward to banks in order to hedge against FX risks and expected losses from the ongoing won appreciation. Asset management companies involved in overseas investment did the same. Net currency forward selling by Korean firms soared to US\$71.8 billion in 2007, from US\$29.2 billion in 2005. As currency forward purchasers, banks proceeded with FX and currency swap contracts with foreign bank branches to adjust their FX positions.

The increase in FX risk hedging from 2005 had three effects. First, it contributed to further appreciation of the won, as the strategy involved foreign borrowing and selling dollars on the spot market (IMF, 2011b). Like a chain reaction, FX risk hedging activities added upward pressure on the won leading to a further need for FX hedging.

Second, it offered lucrative riskless arbitrage opportunities for foreign bank branches. As domestic firms' need for FX risk hedging increased, foreign bank branches entered the FX swap market in Korea by selling dollars to domestic banks to buy Korean won on the spot market, simultaneously buying dollars on forward markets. Before the FX swap matured, they used the local currency bought through FX swaps to buy won-denominated assets such as certificates of deposit (CDs)<sup>4</sup> and sovereign bonds. In FX swap transactions, foreign bank branches engaged in carry trade by borrowing at a lower dollar or yen interest rate to lend at a higher Korean interest rate. As the dollar demand for hedging purposes increased, the swap rates foreign banks paid for buying the Korean currency fell, which gave rise to profitable arbitrage opportunities. A surge in foreign bank branches' FX swap transactions rendered the central bank's monetary policy increasingly

<sup>4</sup> As the interest rate on 91-day CDs is used as the benchmark for floating-rate mortgage loans, the CD rate is the most important money market interest rate in Korea.



ineffective. Although BOK successively raised bench interest rates after 2006 to quell the housing bubble, market interest rates were not affected and remained low as a result of increased arbitrage investments by foreigners. This enabled banks to continue the mortgage lending spree.

Third, FX hedging resulted in a massive increase in the banking sector's foreign borrowing. By the end of June 2008, the total external debt of Korea stood at US\$420 billion, of which 41 percent, US\$176 billion, was short term. According to the Financial Supervisory Commission (FSC), US\$94 billion of Korea's total external debt was incurred as a result of FX forwards' hedging of pre-contracted future cash flows. Another US\$51 billion was Korean shipbuilders' FX hedge-related foreign borrowing.<sup>5</sup>

The global credit crunch that followed the collapse of Lehman's led to an unwinding of arbitrage investments. The resulting massive withdrawal of foreign loans amounted to US\$22 billion in the second half of 2008, of which \$11 billion was channelled through foreign bank branches (see Figure 3). This deleveraging continued until the first half of 2009. In addition to rapid deleveraging of the banking sector, currency forward selling by Korean firms also declined, affected by the ensuing global recession. Korean shipbuilders' forward selling dropped from US\$53.5 billion in 2007 to US\$16.7 billion in 2009. Consequently, the banking sector's short-term debt fell sharply from a peak of US\$106.4 billion in the third quarter of 2008 to US\$56.5 billion in the first quarter of 2009. Withdrawal of foreign debts combined with foreign investors' rush to exit the Korean stock market led to acute dollar shortage and a plunge in the Korean currency.

## **GOVERNMENT RESPONSE TO THE GLOBAL FINANCIAL CRISIS**

### **FISCAL AND MONETARY RESPONSE**

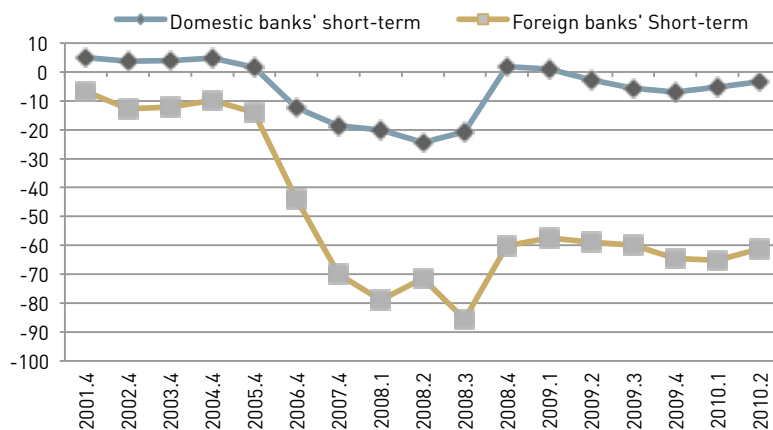
The export-dependent Korean economy took a hard hit from the global recession in late 2008. The government responded to the global economic downturn with proactive fiscal and monetary policy. Given the sound fiscal position and low sovereign debt level,<sup>6</sup> there was sufficient budgetary capacity to deal effectively with the economic downturn, so the government

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<sup>5</sup> The government tried to downplay Korea's foreign debt problem by arguing that FX hedge-related foreign borrowing by the banking sector should not be regarded as foreign debt because it was repayment free. Excluding these debts, the "genuine" foreign debts of the Korean economy would be only about US\$268 billion, and far below the US\$420 billion level (see FSC, 2008). However, these efforts to calm concerns had no effect. Whatever the reason behind the recent surge in its external debt, Korea fell into a severe foreign liquidity crisis in late 2008.

<sup>6</sup> In 2007, Korea had a fiscal surplus of 4.7 percent of GDP and its sovereign debt was 27.9 percent of GDP (OECD, 2011b).

**Figure 3: Short-term external position of the banking sector in Korea, 2001–10 (US\$ billion)**



Source: BOK data.

launched a fiscal stimulus package equivalent to 4 percent of gross domestic product (GDP), the largest among the OECD countries (OECD, 2011). There were successive interest rate cuts from October 2008, and the benchmark interest rate was cut from 5.25 percent to a record low of 2 percent in February 2009, which remained in place until early 2011. The Korean economy saw rapid recovery, driven by strong export growth resulting from the depreciation of the won and Chinese demand (see Table 3) as well as the huge stimulus packages. After having slowed to 0.2 percent in 2009, GDP growth rose to 6.1 percent in 2010.

## FINANCIAL MARKET STABILISATION POLICY

In the year to September 2008, the Korean government seemed unconcerned about capital outflows, given its huge FX reserves, and even supported the accompanying depreciation of the won, expecting positive effects on exports. In addition, Korea's exposure to US subprime mortgage markets was very limited.<sup>7</sup> Therefore, it was believed that the subprime crisis would have little impact on the Korean banking sector. It was not until the full-fledged global credit crunch followed by the Lehman bankruptcy that the Korean government became of the serious collateral damage to the Korean

<sup>7</sup> According to the Ministry of Strategy and Finance (MOF), investment in US subprime mortgages by Korean financial institutions totals US\$850 million, which includes US\$600 million by five local banks and US\$250 million by nine insurers. Their appraisal loss is estimated at US\$85 million (Korea Times, 2007).

**Table 3: Korea's exports to key countries and regions, 2006-10 (US\$ billion)**

	2006		2007		2008		2009		2010	
	Volume	Share (%)	Volume	Share (%)	Volume	Share (%)	Volume	Share (%)	Volume	Share (%)
China	69.5	21.4	82.0	22.1	91.4	21.7	86.7	23.9	116.8	25.0
US	43.2	13.3	45.8	12.3	40.4	9.6	37.7	10.4	49.8	10.7
Japan	26.5	8.1	26.4	7.1	28.3	6.7	21.8	6.0	28.2	6.0
EU	49.2	15.1	56.0	15.1	58.4	13.8	46.6	12.8	53.5	11.5
ASEAN	32.1	9.9	38.7	10.4	49.3	11.7	41.0	11.3	53.2	11.4
<b>Total</b>	<b>325.5</b>		<b>371.5</b>		<b>422.0</b>		<b>363.5</b>		<b>466.4</b>	

Note: ASEAN = Association of Southeast Asian Nations; EU = European Union.

Source: Ministry of Foreign Affairs and Trade (MOFAT) data.

banking sector. Faced with erratic FX markets and a skyrocketing sovereign credit default swap (CDS) premium, the government took emergency measures. In late October 2008, it announced that it would guarantee US\$100 billion in foreign debt and forged a bilateral currency swap arrangement of up to US\$30 billion with the Federal Reserve to secure additional FX sources. In December, currency swap deals took place Japan and China. Such aggressive emergency measures temporarily stabilised the won but did not help stop the massive capital outflow. Withdrawal of foreign short-term loans accelerated in the last quarter of 2008 and continued until the first quarter of 2009. In early 2009, the Korean won plunged again, this time at an even faster rate than experienced in previous months. By March 2009, it fell to a 10-year low.

## **RESPONSE TO DOMESTIC LIQUIDITY CRISIS**

Given Korea's increased linkages to global financial markets, the global credit crunch directly affected the country's financial sector, resulting in a full-blown meltdown. The banking sector faced double risks. Rapid withdrawal of foreign loans and a surge in domestic and global market interest rates led to an acute liquidity crisis. This was because the commercial banking sector increasingly used short-term wholesale funding sources<sup>8</sup> and short-term foreign borrowing related to FX hedging to finance longer-term mortgage loans. The rollover ratio of domestic banks' short-term foreign currency debt fell to 33.9 percent in the fourth quarter of 2008, and the credit squeeze in FX markets and domestic capital markets in late 2008 pushed up market interest rates. Consequently, wholesale funding costs soared. CDS premiums on Korean bank-issued foreign currency bonds (five year) spiked to over 700 basis points in October 2008 from below 20 basis points in mid-2007 (BOK, 2010). This left global credit markets out of reach for domestic banks, and the banking sector faced serious difficulties refinancing its domestic and foreign debt.

Both a currency and a maturity mismatch in banks' balance sheets made them vulnerable to capital outflows resulting from the unwinding of FX derivative transactions. In addition, credit risks heightened, with mounting non-performing loans (NPLs) incurred as a result of the downturn in the overall economy and in the housing market, which saw rapid expansion owing to excessive mortgage lending in previous years. In late 2008, banks' balance

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<sup>8</sup> Along with a sharp increase in mortgage lending since 2004, the loan to deposit ratio began to rise, reaching 138 percent in 2008. The funding gap was filled with wholesale market sources. In August 2008, the banking sector's wholesale funding, like CDs, bank bonds and repurchase agreements, accounted for 32.8 percent of total funding, up from 15 percent in 2003 (BOK, 2009).

sheets deteriorated rapidly. This prompted the government to intervene by introducing a wide range of countermeasures. In early 2009, it announced plans for an additional foreign liquidity provision of US\$55 billion for interbank transactions, a NPL Restructuring Fund of ₩10 trillion (US\$7.8 billion at the 2009 average exchange rate of ₩1,276 to US\$1) and a Bank Recapitalisation Fund of ₩20 trillion (US\$15.6 billion) to prop up banks' balance sheets (FSC, 2009). Other financial stabilisation measures introduced included a Bond Market Stabilisation Fund of ₩10 trillion (US\$7.8 billion), a Stock Market Stabilisation Fund of ₩500 billion and a Corporate Restructuring Fund of ₩40 trillion (US\$31.3 billion) (FSC, 2009b).

## **MUDDLING THROUGH THE SHOCKS OF THE GLOBAL FINANCIAL CRISIS**

Pre-emptive measures to restore overall financial stability combined with aggressive interest rate cuts by BOK helped the banking sector weather the shocks of the global financial crisis. More importantly, the end of the global credit squeeze halted the withdrawal of foreign loans in the second quarter of 2009 and resolved the liquidity crisis. However, the sector faces a difficult time ahead: its greatest challenges are a sluggish housing market and snowballing household debt given that the lion's share of banks' assets are household and small and medium enterprise (SME) loans.<sup>9</sup> This was the result of the debt-driven housing boom starting in 2005. Korea's household debt to personal disposable income ratio went up from 143 percent in 2009 to more than 150 percent in 2010, among the highest in the world. Furthermore, variable interest rates accounted for more than 90 percent of all bank loans, so borrowers are exposed directly to interest rate risks. Korea's overvalued housing market and high household debt have become more and more of a headache for BOK. Rapid economic recovery and massive capital inflows hinted at a build-up in inflation pressures during 2010, although BOK retained the record low interest rate. The government attempted to avert inflationary risks by asserting price controls,<sup>10</sup> a strategy which had only limited success.

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<sup>9</sup> At the peak of the housing bubble in 2007, outstanding household loans by the commercial banking sector accounted for 50.9 percent of the total, of which about 50 percent was mortgage loans; lending to the construction and real estate-related sector accounted for 27.3 percent of total corporate loans (Cho, 2011).

<sup>10</sup> Since mid-2008, the Korean government has put a series of price controls on public services, selected basic foodstuffs and consumer products (Bloomberg, 2008). In January 2011, declaring a war on inflation, it announced additional price control measures by freezing power and gas charges and pressing companies to cut gasoline prices, mobile phone charges and college tuition fees (Bloomberg, 2011).

## **POLICY SHIFT TOWARDS CAPITAL CONTROL**

A faster-than-expected rebound of the Korean economy in 2009 led to a sudden reversal in capital flows, and the won began to appreciate rapidly. The government feared that the rising won would hurt Korea's exports and a sudden shift in global market sentiment would trigger a reversal in capital flows, leading to disastrous results like those of late 2008 and early 2009. Indeed, FX hedging started rising again along with the won. Accordingly, the Korean sovereign bond market saw a surge in foreign capital inflows lured by increased opportunities for arbitrage trading. Perplexed by extreme volatility in the FX market, the government scrapped its original plan to fully liberalise the capital market by 2009. In January 2010, it introduced a series of measures to control destabilising capital inflows. In response to warnings of exporters' over-hedging, which exacerbated upward pressure on the won, a cap was introduced on FX forward trading by domestic exporters at 125 percent of underlying transactions. As for domestic banks, the long-term foreign currency borrowing ratio to foreign currency loans with maturity over one year was raised from over 80 to over 90 percent. Domestic banks were also required to hold a certain level of safe foreign assets, such as foreign treasury bonds rated "A" or higher (2 percent of total foreign assets) as a buffer against foreign liquidity shocks. Furthermore, the central bank continued to intervene in the FX market to stem the won rise. However, such efforts did not work amid excessive capital influx, which amounted to US\$81.6 billion from January 2009 to April 2010, equivalent to about 10 percent of Korea's GDP of US\$820 billion in 2009.

In June 2010, the Korean government tightened the regulatory rules introduced in January 2010 and implemented additional measures targeting foreign banks. Foreign currency liquidity rules for domestic banks were tightened. The ratio of long-term foreign borrowing to long-term foreign lending was raised further to over 100 percent. The cap on FX forward trading by domestic exporters was tightened to 100 percent of their export revenues. More importantly, the government moved to impose capital controls, which marked a fundamental shift in the regulation of FX risks.

New measures on capital controls had three components. First, foreign-currency loans of both domestic and foreign banks were limited to overseas use only. Second, foreign bank branches were recommended to establish liquidity risk management mechanisms, although these were not obligatory. Third, a cap on the build-up of FX derivatives was set, as this was considered the main cause of the won fluctuation and to be hampering monetary policy. The FX forward trading position by domestic banks was limited to

50 percent of their equity capital. Foreign bank branches were required to lower their FX forward positions to 250 percent of their equity capital.<sup>11</sup>

### CHANGE IN REGULATIONS ON CAPITAL INFLOWS

Prudential regulations on FX risks introduced in 1999 stipulated that both domestic banks and foreign bank branches meet ceilings on overall FX positions, but these referred to only a net amount of forward and spot positions. Parallel with FX market liberalisation, the ceilings on the overall overbought and oversold position of FX were loosened from 20 percent of banks' equity capital in 1999 to 30 percent in 2006 and 50 percent in 2007. Such ceilings were to be abolished by 2009. Amid the global financial crisis, the Korean government tightened the ceilings on overall FX positions to 20 percent in 2008 and raised them again to 50 percent in 2009 to relieve the dollar shortage. Yet the government saw that the regulations on overall FX positions had no effect in terms of discouraging volatile capital flows, as banks could expand both spot and forward positions without any changes in their overall FX position.

**Table 4: Foreign exchange positions of domestic and foreign banks in Korea**

	FX position (US\$100 millions)			Equity capital (D)	FX positions as of equity capital (%)		
	Spot (A)	Forward (B)	Overall (C=A+B)		Spot (A/D)	Forward (B/D)	Overall (C/D)
Domestic banks	-123.5	157.6	34.1	1013.6	-12.2	15.6	3.4
Foreign bank branches	-446.5	461.2	14.7	153.1	-291.6	301.2	9.6

Note: FX positions as of end-April 2010, equity capital as of end-March 2010.

Source: Financial Supervisory Commission (FSC) data.

The Korean government was compelled to impose a separate control on FX forward trading, which has in recent years served as a major channel for excessive short-term capital inflows to the country. These new rules are implemented with a three-month grace period to avoid jolting the banking

11 Korea's financial authorities use local branch capital rather than parent banks' capital as a benchmark for foreign bank branches' operations in the country. Given regulatory norms based on separated branch level, the capital of each local branch, not that of head office, is regarded as the bank's capital. After the 1997 crisis, the government eased some restrictions on foreign banks' capital base. Foreign bank branches' net borrowing from the parent bank is classified as bank capital.

system; in exceptional cases, existing positions can be held for up to two years. These rules will affect only some foreign banks, including SC First and Citibank. Foreign bank branches' FX forward positions, which averaged over 300 percent of their capital (see Table 4), varied widely. For example, the FX forward position of BNP Paribas was 900 percent, whereas that of Deutsch Bank was only 236.2 percent. In the cases of Citi and SC First, which are considered domestic banks because of their legal status, their FX forward positions were 69.3 percent and 58.5 percent, respectively.

## **POLICY DILEMMA**

Both the Korean financial authorities and mainstream economists who have advocated rigorously for full-fledged financial liberalisation in the past decade seem to have lost their faith in its benefits and the self-regulating efficiency of markets. The sudden implosion of US financial markets, which Korea had been emulating since the 1997 crisis, was a great shock to policymakers and proponents of neoliberal reforms in Korea. Nevertheless, the Korean government reiterated that it would go ahead with financial liberalisation to develop its financial markets. Even after imposing controls on capital flows, it tried to play down the implications of its policy move, arguing that the new regulatory measures were only an inevitable “surgical response” to enhance the overall soundness of the financial market, not an attempt to regulate or control it. This illustrates the regulatory dilemmas facing the country.

## **INCONSISTENCY IN FINANCIAL POLICIES**

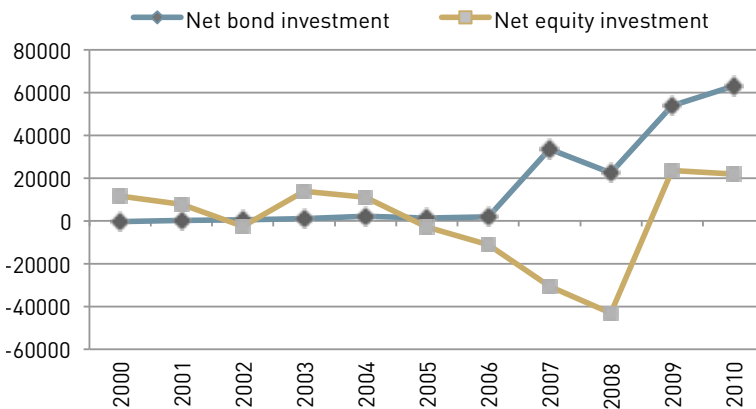
The Korean FX market has grown by 24 percent over the past three years, faster than the global FX market growth rate of 20 percent. With US\$43.8 billion being traded on an average day, the market has become larger than that of Russia, Italy, India and China and is much larger than the stock and bond market. KOSPI, Korea's main stock market index, has a daily turnover of about one-tenth of the FX trading volume. Theoretically, the daily FX trading volume of US\$54.1 billion during the second quarter of 2010 can soak up Korea's current FX reserve of US\$289.7 billion in less than six days. Nevertheless, the government and advocates of financial liberalisation argue that the FX market in Korea is relatively small—accounting for only 5.4 percent of GDP as of 2007; Japan's accounts for 10.6 percent, the US's 11.5 percent and Singapore's 256.8 percent. This position, represented by MOSF as well as the domestic financial industry, has dominated financial policymaking in the past decade and remains mainstream today.



Pointing out the low level of foreign investment in the Korean bond market, MOSF proceeded in 2007 with tax incentives for foreign investors. Until 2006, a 25 percent withholding tax had been charged on foreigners’ income and capital gains from sovereign bond transactions. In 2007, this was reduced to 14 percent, the same level of tax charged to domestic bond investors. In June 2009, a 14 percent withholding tax on foreign bond investors was abolished. It is not surprising that foreign investment in the Korean sovereign bond market has since surged (see Figure 4).

Tax exemptions for foreign bond investors stand at odds with ongoing desperate attempts to reduce destabilising capital inflows. While growth in net FDI and foreign equity investment has slowed considerably, net foreign bond investment has continued to rise, unaffected by the new regulatory measures taking effect in October 2010. Net foreign bond investment amounted to ₩63.1 trillion in 2010 (US\$54.4 billion at the 2010 average exchange rate of ₩1,159 to US\$1) compared with the previous year’s ₩53.5 trillion (US\$46.1 billion). The won is destined to keep rising in the near future, as a further easing of monetary policy in developed countries is imminent. This will fuel more foreign capital inflows to Korea, posing a dilemma for officials, who have been willing neither to take a more aggressive approach to capital controls nor to allow the won to appreciate.

**Figure 4: Foreigners’ net investment in securities market in Korea, 2000–10 (₩ billions)**



Source: FSS data.

## CONSERVATIVE CRITICS OF FINANCIAL MARKET VOLATILITY

Until the recent global financial crisis, Korea's banking sector development, with its huge profits and sound performance, was seen as a success story. Skyrocketing share prices of banks in which foreign investors had been the major driving force seemed to be evidence of this. The traumatic memory of the 1997 system failure had faded away with time. Not until the crisis of 2008 were underlying vulnerabilities revealed. Interestingly, criticism of the banking sector's reckless practices came from expert groups as well as private and public research institutes that had long advocated financial deregulation and openness. These successfully pressured the financial authorities to reregulate the banking sector, particularly foreign banks. Alarmed by the strong upward trend of the Korean currency,<sup>12</sup> the government stepped up capital controls in late 2010 by restoring a tax on foreign bond purchases and imposing a levy on non-deposit foreign currency debt held by domestic and foreign bank branches. Furthermore, the ceiling on the FX forward position was lowered from 250 percent to 200 percent of capital for foreign bank branches and from 50 percent to 40 percent for domestic banks (BOK, 2011).

The current conservative government is seemingly prepared to put an end, at least temporarily, to onerous experiments with unfettered finance since the 1997 crisis, opting instead for currency sovereignty. The government's plan for financial reregulation is supported widely by the conservative ruling party and expert groups; progressive circles remain silent. It is ironic that the very financial authorities that stood at the forefront of unfettered finance in the past decade are now determined to go against free capital flows. The Korean government's move towards financial reregulation is basically conditioned by the recent crisis situation, but also reflects disillusionment with past attempts to imitate US-style free financial markets.

## CONCLUSION

In the past decade, Korea's financial markets have seen rapid expansion in line with the financial liberalisation rigorously pursued by the government. The outcomes of the radical approach to financial liberalisation after the 1997 crisis were household debt-driven asset bubbles and heightened FX market volatility, which became major threats to the overall economy, with the banking sector suffering repeatedly from ill-fated overstretches in household debt and housing markets. Contrary to expectations, FX market

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<sup>12</sup> After having gone as low as ₩1,596.6 to US\$1 in early March 2009 the won continued to appreciate. It reached ₩1,067.7 to US\$1 as of end-June 2011.

liberalisation made the domestic banking sector more vulnerable to global financial vagaries, as evidenced in the currency and liquidity crisis in late 2008. Furthermore, economic policies have increasingly been held captive to the dynamics of financial expansion, presenting the government with the daunting task of managing the “impossible trinity” of free capital flows, FX stability and independent monetary policy.

The government’s ambition to make Korea a financial hub in northeast Asia pushed financial expansion far beyond the ability of the country’s economy to deal with the risks and dangers inherent in financial development. The financial hub project runs increasingly counter to the overriding objective of Korea’s economic policies to maintain export competitiveness. Amid the escalating “currency war”, in which Korea has been one of the most active participants, the government is now compelled to choose one of both strategies and is more likely to opt for export competitiveness and currency stability alongside tighter capital controls. This is because there is no room for reviving domestic demand, given the prolonged crisis in the housing market. Such measures violate agreements such as the World Trade Organization (WTO) General Agreement on Trade in Services (GATS) and Free Trade Agreements (FTAs) with the US and the EU, as already signed by the Korean government.<sup>13</sup>

However, capital controls, although conflicting with GATS and FTA rules, have regained their legitimacy, reflecting a general global trend of financial reregulation in response to the recent global financial crisis. The Korean government’s determined action for capital controls was encouraged by the G20 Seoul Summit agreement in November 2010, which gave emerging markets the green light to use capital controls to deal with currency volatility. In addition, both the IMF and the Bank for International Settlements (BIS) have acknowledged the need for emerging market economies to curb destabilising capital flows by endorsing capital controls as a last line of defence against volatile and excessive financial flows in extraordinary circumstances (BIS, 2011; IMF, 2011a; 2011b).

Korea’s relentless efforts in the past decade to emulate a US-style financial system following neoliberal orthodoxy failed to achieve the desired results. Instead, it brought about a different kind of crisis-prone financial system exposed to a combination of market and regulatory failure. The case of

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<sup>13</sup> The GATS as well as FTAs with the EU and US do not allow countries to roll back their commitments to financial liberalisation. For more details on Korea’s obligations under the GATS, see Cho (2011). Korea’s FTAs with the US and EU contain provisions that prohibit the contracting parties from introducing any new restrictions on the movement of capital and making the existing arrangements more restrictive.

Korea shows that the more progress is made on financial liberalisation, the more government intervention is required to alleviate market deficiencies and correct market failure in crisis situations. However, government capacity and resources for coping with the negative effects of free finance have limitations. Sound macroeconomic fundamentals and huge FX reserves provide little protection against volatile capital movements. The vulnerability of emerging market economies with open capital accounts is not to be overcome at individual state level, but rather requires a global solution. Coordinated capital controls at the global level are needed to tame destructive volatile capital flows. In parallel, after having suffered unmanageable financial liberalisation in the past decade, Korea needs to turn away from the obsession with financial expansion and refocus its financial policy on strengthening the banking sector's basic role of stable financial intermediation and promoting financial inclusion of marginalised groups and SMEs.

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