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**Evolution of Monetary Policy Instruments in Russia<sup>1</sup>**

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**Abstract**

This paper analyzes the evolution of monetary policy in Russia, focusing on the period January 1992–December 1995. Special attention is given to the role of monetary policy instruments. Initially, policy was completely dominated by flows of credit from the Central Bank of the Russian Federation (CBR) to the budget, to enterprises, and to other republics in the ruble area. Over time these flows have been reduced and indirect monetary instruments have become key elements of monetary policy implementation

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### SUMMARY

This paper analyzes the evolution of monetary policy in Russia, focusing on the period 1992–1995. Previously, in the Soviet Union, monetary policy was conducted largely through direct instruments—chiefly administrative controls and direct credits from a monobank (the Gosbank) to specific sectors of the economy or to the government.

The institutional heritage of the Soviet Union, in particular a poorly implemented ruble area, pressures to finance a large fiscal deficit, and a lack of monetary instruments drastically, compromised the CBR's ability to implement an effective monetary policy in the period immediately following the establishment of the Russian Federation as an independent country.

This paper describes the evolution of the CBR from a passive institution with insufficient instruments to develop and implement an independent monetary policy, to a full-fledged central bank. It traces the steps that the CBR took to shift from the use of direct monetary instruments to a system of indirect instruments where the CBR influences overall market conditions by influencing the supply of reserves in the banking system. This shift required changes in both instruments and procedures. Direct monetary instruments are relatively simple to implement and have the advantage of an apparently straightforward link to the policy objectives. The shift to indirect instruments required new techniques of analyzing market developments and new ways of intervening in the market. It also required clearer definition of the objectives of central bank intervention. In describing this transformation, the paper highlights the importance of matching the instruments used to conduct policy with the structure of the financial market within which they operate. It also discusses the measures that must be introduced in parallel in order to facilitate an effective monetary policy implementation.

## I. INTRODUCTION

In late 1991, the Soviet Union dissolved into 15 independent states, each with its own economic policies and its own institutional structure, of which Russia was by far the largest. The Russian authorities moved quickly to adopt a series of measures aimed at reforming the economy. Prices were freed immediately in 1992, the ruble was made convertible in mid-1992, and an ambitious plan for privatizing the bulk of the state-owned enterprises was initiated. During 1992–1995, additional reforms were introduced aimed at liberalizing domestic markets.

The conduct of overall macroeconomic policy during 1991–95 was erratic. Measures adopted by the authorities to address major structural impediments conflicted at times with the requirement for tight demand management policies. As a result, economic policies followed a stop-and-go approach, with expansionary policies in one period being followed by contractionary policies in others.

Fiscal policy was extremely volatile, particularly in the early years following independence. This volatility largely reflected a lack of internal consensus both on the role of the government in the economy and on the appropriate stance of fiscal policy. In addition, there were delays in implementing effective tax policies and streamlining widespread entitlement programs, which made expenditure control difficult.<sup>2</sup> Lack of financing alternatives other than central bank credit aggravated the impact of continued high fiscal deficits.

Similar factors hampered the conduct of monetary policy. The Central Bank of the Russian Federation (CBR) initially was not established as an independent body responsible for maintaining the stability of either internal or external prices. Rather, its initial functions were to finance the government deficit and give directed credits to specific economic sectors. This role was largely a legacy of the previous Soviet system in which the Gosbank was essentially limited to monitoring the execution of the production plan. Moreover, initially the CBR was not equipped to follow a monetary policy that could help in dealing with the effects of the expansionary fiscal policy. The CBR's effectiveness was further hampered by a host of institutional factors. The financial system was small and inefficient. Most banks had been state-controlled and were unfamiliar with techniques of balance sheet and credit management. Furthermore, market participants were generally unresponsive to price signals because prices had been controlled until close to the collapse of the Soviet Union. Market difficulties were compounded by the fact that the CBR had only limited monetary instruments. Throughout the history of the Soviet Union, the banking system had relied on direct controls to allocate financial resources within the economy. As central planning was replaced by a more market-oriented policy stance, the CBR was forced to introduce new instruments and new operating procedures.

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<sup>2</sup>Granville (1995), p. 61.

Payments system problems further complicated the implementation of monetary policy in addition to making it difficult for banks and enterprises to manage their liquidity.<sup>3</sup> Soviet-era payments had been dominated by cash; non-cash payments had relied on credit payments instruments. These instrument were paper-based and were processed through a network of about 1,600 clearing centers operated by branches of the CBR. The explosive increase in the number of banks and their branches, as well as of business enterprises created enormous problems for the system in the early years of the post-Soviet period. Errors, loss of documents, fraud, and delays were common, and all contributed to a large and erratic amount of float. Starting in 1992, the CBR began to make sustained progress in tackling these problems, which has resulted in a much more reliable and faster payments system. Some significant shortcomings still exist, notably the absence of a real-time gross settlement system for large payments, which the CBR intends to implement in 1998. That system, particularly if appropriately adapted to the needs of securities operations will greatly facilitate the development of the money and securities market, and enhance the capacity of the CBR to act rapidly in those markets.

While treasury bills so far have been used mostly for financing the deficit rather than as a monetary instrument, Russia has made remarkable progress in developing a market for these instruments. The CBR has been instrumental in this development, as it is the agent of the treasury for the placement of those instruments, operates actively in the market, holds a significant portfolio of those securities, and regulates the market. Thus, by end-January 1997 the market value of treasury bills and Federal savings bonds (of which the bulk was in the form of bills) exceeded Rub 230 trillion (equivalent to about \$41 billion) of which the CBR held about 7 percent.

This paper describes the evolution of the CBR from a passive institution with insufficient instruments to develop and implement an independent monetary policy, to a full-fledged central bank. It traces the steps that the CBR took to shift from the use of direct monetary instruments to a system of indirect instruments where the CBR influences overall market conditions by influencing the supply of reserves in the banking system. This shift required changes in both instruments and procedures. Direct monetary instruments are relatively simple to implement and have the advantage of an apparently straightforward link to the policy objectives. The shift to indirect instruments required new techniques of analyzing market developments and new ways of intervening in the market. It also required clearer definition of the objectives of central bank intervention. In describing this transformation, the paper highlights the importance of matching the instruments used to conduct policy with the structure of the financial market within which they operate. It also discusses the measures that must be introduced in parallel in order to facilitate an effective monetary policy implementation.

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<sup>3</sup>For a lucid discussion of these issues see Sensenbrenner and Sundararajan (1994).

The paper is organized as follows. The following section describes the institutional framework within which monetary policy functioned during the period of the Soviet Union. It discusses the monetary instruments introduced in the mid-1980s and analyzes why they were ineffective. Section III outlines the initial steps Russia took in conducting monetary policy. Given the weak institutional state of the financial system and the lack of experience in the CBR, direct monetary instruments predominated. This section highlights the constraints imposed by the ruble area and by the expansionary fiscal policy adopted by the Russian Government. Section IV discusses the period from the end of the ruble area to end-1995. During this period, the CBR began to develop a number of indirect instruments which, although initially of limited effectiveness, gradually gained importance and became the basis of the conduct of monetary policy at the end of the period. This section also includes a description of improvements made in monetary instruments during 1996. Section V presents the paper's conclusions.

## **II. MONETARY POLICY IN THE SOVIET UNION**

### **A. The Conduct of Monetary Policy Until 1987**

Until 1987, the Soviet economy was centrally planned, with over 90 percent of production and investment under direct state control. The plan developed by the central authorities established output targets and determined the end-use of most products considered critical to the fulfillment of the national economic plan.

The financial system was an integral part of the central allocation system. Four financial institutions existed: the Savings Bank, the Construction Bank, the State Bank for Foreign Trade, and the Gosbank. The latter was charged with monetary policy operations. It designed and implemented the Credit Plan for the enterprise sector. That plan specified the credit enterprises needed to fulfill the production plan determined by the authorities. Thus, the Credit Plan did not influence the economy by imposing a financial constraint on the production process, but, rather, only served as a means to ensure the fulfillment of the physical plan. Credit was extended to business enterprises on a short-term basis to meet their working capital needs. The financial needs for investment, on the other hand, were provided through direct budget transfers. Bank credits carried administratively fixed interest rates, and were earmarked to finance specific expenses.<sup>4</sup> All interenterprise payments took place across the books of the Gosbank.

The aggregate credit plan for each period was built up from the credit needs of each enterprise. Enterprise credit demands were aggregated at the level of each region and then, again, at the national level. Queuing and bottlenecks were the main consequences of excess

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<sup>4</sup>The interest rates on these credits would vary depending on the activity of the enterprise being financed.

enterprise credit, since all prices were fixed and production levels could not deviate from the production plan. To deal with such consequences, the Gosbank would occasionally write off enterprise deposit balances that it deemed excessive.

The Gosbank also formulated and monitored the Cash Plan, which determined the allocation of cash rubles for specified purposes such as wage and salary payments. Households carried out most of their transactions in cash and held their savings in cash, or in deposits with the Savings Bank. Interenterprise transactions were paid through bank transfers; enterprises could not hold or use cash except in transactions with households. The ruble was non-convertible and foreign exchange flows from imports and exports were administratively allocated through the foreign exchange plan. Budgetary subsidies or taxes offset any difference between foreign prices and administratively set domestic prices that otherwise would have affected the profitability of the exporter or importer. The official exchange rate of the ruble was determined by a peg to a basket of currencies.<sup>5</sup>

## **B. The Conduct of Monetary Policy: 1987–December 1991**

### **Reforms of 1987–88**

In 1987, the Soviet planned economy began to be reformed, to make it more efficient through limited liberalization and decentralization. As part of this process, reforms in financial sector legislation were introduced in 1987 and 1988, aimed at establishing a two-tiered banking system and separating specialized banks from direct government control. To this end, three new state banks were founded in 1987: the Agricultural Bank (Agroprombank), the Industrial and Construction Bank (Promstrobank) and the Social Investment Bank (Zhilstotsbank). These banks took over the commercial activities of the Gosbank. The Law on Cooperatives, signed in 1988, authorized cooperatives to open banks, and shortly thereafter state enterprises were granted the same right. As a result, the number of cooperative and commercial banks (CCBs) grew from less than 80 by the end of 1988 to about 400 two years later. CCBs had ample scope to carry out their activities and were free to set their own lending policies and interest rates.

### **Credit policies**

Under the more decentralized system set up in 1987, ceilings were placed on the aggregate credit granted by each specialized bank. Although those banks were allowed to mobilize

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<sup>5</sup>For a detailed description of the foreign exchange regime in the U.S.S.R. see IMF et al, 1991, Vol. I, p. 424. Initially the ruble exchange rate was pegged to the dollar, but starting in 1977 it was based on a basket of currencies.

deposits, they were almost exclusively funded by Gosbank credits.<sup>6</sup> The Gosbank determined the amount of credits directed to each specialized bank and the refinance rate for those credits. Although the specialized banks were granted some discretion to select their borrowers, the Gosbank established the sectoral allocation of each bank's lending and interest rates.

Together with the introduction of financial sector reforms, the government initiated reforms of the enterprise sector. The 1987 Law on State Enterprises reduced earmarking of enterprise funds and gave enterprises incentives to expand production. As a result, excess supply of credit to finance one activity could be used to finance other activities instead. Overall demand increased, leading to excess demand and pressure on domestic prices.

The increased demand for bank credit from enterprises developed at a time of fiscal slippage and growing demand for budget deficit financing. As a result, total bank credit grew at an average rate about 10 percent a year during 1988–90 compared with less than 5 percent in 1987 (Table 1). Because of this relaxation in monetary policy, inflation, which had been virtually unknown in the Soviet Union, reached almost 5 percent in 1990 and widespread shortages emerged.<sup>7</sup>

As decentralization gathered momentum in 1990, the republics of the Soviet Union gained increasing autonomy. The Soviet Government envisaged the creation a central bank system similar to the U.S. Federal Reserve System, in which the branches of the Gosbank would act as regional central banks. As a step in this direction, in June 1991, the Supreme Soviet of Russia approved the charter of the CBR. The CBR continued to use the Soviet Union's methods of monetary control. Credits to the non-government sector were mostly directed through specialized banks at administratively determined refinance rates.<sup>8</sup> As other republics passed laws similar to that in Russia, the influence of the central authorities on monetary

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<sup>6</sup>During the monobank system, the Savings Bank Department of Gosbank had raised deposits, which were channeled to the sectoral lending departments of the Gosbank. This procedure continued in the new two tier system: the Savings Bank placed deposits at the Gosbank, and the Gosbank gave credits to the sectoral specialized banks.

<sup>7</sup>Prices were formally set by Goskomsten, based on production costs plus a mark up. Proposals for price increases were submitted by the enterprises, through the ministries, to Goskomsten. In reality, however, Goskomsten reviewed only a small fraction of price proposals. Enterprises gained more latitude to determine production levels, as well as prices.

<sup>8</sup>In 1991, the CBR refinancing rates varied from 1–5 percent for onlending to the agriculture or housing sectors, and 6–9 percent for onlending to the industrial sector. During the same time the Gosbank refinancing rate was 12 percent. Beginning in the spring of 1991, the rates charged to the final borrowers by the banks were no longer specified. Instead, a uniform 3 percent interest surcharge was introduced as a commission fee to the banks.



policy was substantially reduced. As a result, the possibilities for implementing a unified monetary policy of the Soviet Union became dependent on the ability of the newly created central banks to cooperate.

The weakening of the powers of the central authorities was accompanied by a rapid acceleration in credit growth. The annual rate of growth of total credit more than doubled in 1990, and then quadrupled in 1991 (Table 1). While credit to the government had been the source of total credit growth up to 1990, in 1991 the nominal stock of credit to the economy more than doubled and became a major source of credit expansion, after having been steadily falling in nominal terms.

Table 1. USSR: Total Domestic Credit

	1987	1988	1989	1990	1991
(Billions of rubles)					
Total bank credit	554.0	631.3	693.0	838.2	1,650.8
Credit to government	123.1	226.7	301.9	473.8	888.4
Credit to economy	430.9	404.6	391.1	364.4	762.4
(Yearly percentage change)					
Total bank credit	4.9	14.0	9.8	21.0	96.9
Credit to government	63.0	84.2	33.2	56.9	87.5
Credit to economy	-4.8	-6.1	-3.3	-6.8	109.2

Source: "The Economy of the Former U.S.S.R. in 1991," *Economic Review*, Washington: International Monetary Fund *et al* 1992.

As the Gosbank's power diminished in line with the collapse of the Soviet Union, the Russian Supreme Soviet passed a resolution which required the CBR to take over the responsibilities of the Gosbank.<sup>9</sup> In its new role, the CBR acted as fiscal agent for the Russian Government—financing the budget deficit—and it extended directed credits to Russian enterprises through

<sup>9</sup>The resolution was passed on November 22, 1991. The Gosbank was formally liquidated on December 25, 1991.

commercial banks. At the same time, the CBR financed interstate credit flows in the ruble area by automatically granting credits to commercial banks throughout the area. In effect, by the end of 1991, the CBR had become the only central bank for Russia, and the sole issuer of cash rubles in the ruble area.

### **Monetary instruments**

Before the introduction of the 1987 reforms, monetary instruments were administrative in nature. As noted above, financial flows to enterprises were regulated by the Credit Plan while flows to households were regulated by the Cash Plan. With the introduction of a two-tier banking system in 1987 and the further diversification of the banking system in 1988 with the passage of the Law on Cooperatives, it became possible to begin to develop monetary instruments typical of market economies. However, this proved to be a long and slow process.

Before the reforms of 1987 and 1988, different institutions operated under different interest rate regimes. Specialized banks were not allowed to pay a rate higher than 0.5 percent per year on enterprise deposits and 2–3 percent on household deposits. Interest rates on loans were, in practice, set at or below the refinance rate charged by Gosbank. As the CCBs—which were allowed to set their own interest rates—began to operate actively in the market, a wide interest rate differential emerged among lending institutions. Interest rates offered by CCBs on household deposits averaged about 6 percent per year while lending rates averaged about 9 percent per year. A wide range of lending rates existed, however, ranging as high as 60 percent per year.

In February 1990, to control this dispersion, the interest rates on household deposits on CCBs were linked to the deposit rates offered by the Savings Bank and lending rates were not allowed to exceed 15 percent per year.

Mandatory reserve requirements on CCB deposits, introduced in 1988, were set initially at 5 percent. However, in August 1990, the Gosbank doubled this rate in order to dampen the monetary impact of financing the budget. Banks could meet the requirements by holding interest free deposits with the Gosbank, or government bonds.<sup>10</sup> In November 1990, a separate Russian reserve requirement of 2 percent was established, which all banks except the Savings Bank had to fulfill.<sup>11</sup> Reserve ratios differed across banks and were used to promote

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<sup>10</sup>No information is available on actual enforcement of these requirements in the U.S.S.R.

<sup>11</sup>The U.S.S.R. reserve requirements continued to be in place, but banks registered with the Russian authorities were subject to Russian requirements. Since the requirements for Russian banks were lower than the comparable U.S.S.R. requirements, the reserve requirement scheme did not constitute a barrier to the registration of banks with the Russian authorities. By mid-1991 the U.S.S.R. Gosbank reserve requirements, which now ranged from 12–15

(continued...)

lending to specific sectors of the economy. A bank lending to a priority sector would face lower requirements than other banks. In June 1991, such requirements were tightened to rates ranging between 2 and 20 percent. However, compliance was poor. The effective reserve ratio, which measures actual reserve balances as a fraction of total ruble deposits, was significantly lower; for instance, at the end of 1991 that ratio was below 1.5 percent (Table 2).

Table 2. Effective Reserve Requirements 1991–1995

	Ruble Deposits (in millions of rubles)	Reserve Deposits (in millions of rubles)	Effective Reserves (in percent)
<b>1991</b>			
December	831	12	1.4
<b>1992</b>			
March	1,075	86	8.0
June	1,276	113	8.9
September	2,940	254	8.6
December	4,405	472	10.7
<b>1993</b>			
March	6,522	731	11.2
June	10,845	1,227	11.3
September	13,635	1,895	13.9
December	19,574	2,710	13.8
<b>1994</b>			
March	23,855	3,603	15.1
June	36,092	5,431	15.0
September	47,619	8,119	17.0
December	60,410	8,982	14.9
<b>1995</b>			
March	72,162	12,568	17.4
June	101,719	16,148	15.9

Source: Central Bank of the Russian Federation.

<sup>11</sup>(...continued)  
percent, were largely ignored.

### **Foreign exchange policies**

The ruble remained non-convertible throughout the Soviet period. In 1987, the authorities began to experiment with multiple exchange coefficients under which different exchange rates applied to different types of transactions. At the same time a foreign exchange retention scheme was introduced, allowing enterprises to retain some of their foreign exchange earnings. From November 1989, a foreign exchange auction was conducted in the Vneshekonombank where all foreign exchange deposits were held; from April 1990, a single market price was established in the auction.<sup>12</sup>

The system of multiple exchange coefficients was replaced on November 1, 1990 by a commercial exchange rate which also replaced the official exchange rate. This administratively determined commercial rate was to be used for most current account transactions. As of 1991 commercial banks were allowed to hold foreign exchange deposits, and surrender requirements on enterprises were relaxed.<sup>13</sup> Since Vneshekonombank's monopoly on holdings therefore was broken, the auction was replaced by an interbank market in foreign exchange which from April 1991, held weekly session at the Gosbank.

### **III. MONETARY POLICY DURING THE RUBLE AREA PERIOD: JANUARY 1992–JULY 1993**

#### **A. Introduction**

Following the dissolution of the Soviet Union, Russia and the other republics agreed to cooperate in maintaining a unified ruble area that would help in preserving the trade flows that existed among the newly independent states. Under the ruble area arrangements, the CBR was the only national central bank that could issue cash. However, all national central banks could create bank reserves. Thus, to avoid an inflationary bias, the arrangement required strict rules on credit creation by the national central banks. However, such rules were never established

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<sup>12</sup>Until October 1990 one auction was held each month, from then on the auction became bi-monthly. The total volume traded in 1990 was modest—a total of 0.3 percent of the estimated 1990 convertible currency imports (see International Monetary Fund, Vol 1, 1992, p. 428).

<sup>13</sup>An amount equivalent to 40 percent of all earnings were to be handed over to a debt service fund. Enterprises were then allowed to keep between 20 and 70 percent of the remaining foreign exchange. In practice, in 1991, 80–90 percent of all foreign exchange was surrendered or deposited with the Vneshekonombank and the remainder deposited with authorized commercial banks. More than 100 commercial banks were authorized to hold foreign exchange.

and coordination arrangements were ignored. Economic conditions deteriorated in the area, reflecting the combined impact of continued deterioration of economic conditions in Russia, the lack of coordination among the national central banks, and ineffective monetary policy instruments.<sup>14</sup>

On January 2, 1992 the Russian Government initiated a comprehensive economic reform program. Prices and interest rates were freed, and fiscal and monetary policies were initially tightened. However, the conduct of monetary policy during this period was hampered by the institutional heritage of the Soviet period. The newly created CBR had few monetary instruments and, therefore, was unable to offset the impact of the subsequent expansion of fiscal policy. At the same time, it was required to passively fund both the government deficit and, initially, the bulk of interstate trade. During this period monetary policy relied on administrative controls.

## **B. Credit Policy**

### **Government financing**

Overall monetary policy was passive throughout most of the ruble area period. Changes in credit policy reflected fluctuations in overall fiscal policy. In early 1992, the government moved to reduce the overall fiscal deficit and control credit growth. These efforts, however, were only partially successful. Although the deficit fell from about 11 percent of GDP in 1992 to 7 percent in 1993, it still required large amounts of domestic financing which prevented the attainment of price stability.

In the first quarter of 1992, the government tightened expenditures, resulting in a lowering of the overall deficit and a reduction in domestic financing. CBR credits to the government, measured as a proportion of reserve money at the beginning of the period, fell by almost 31 percent as the government cut spending (Table 3). The immediate impact of this tightening was some success in containing inflationary pressures. Although inflation remained high following the initial price liberalization, concerns about hyperinflation were eased. At the same time, however, other difficulties quickly emerged. Inter-enterprise arrears mounted and an acute cash shortage emerged.

Reflecting concern about a possible negative impact of the initial stabilization program on output, the government eased restrictions on directed credits in mid-year and overall credit growth of the CBR accelerated. Government spending also accelerated as the government sought to reverse the decline in industrial production. As a result, the overall government deficit expanded throughout the rest of the year and CBR financing rebounded in the

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<sup>14</sup>In fact, the loose and poorly enforced ruble arrangements provided a strong incentive for each republic's central bank to expand its credit because part of the inflationary effect of doing so would spill over onto the other republics.

remaining three quarters of 1992. The resulting surge in monetary aggregates—combined with an increase in the velocity of money—accelerated inflation. After falling to a monthly average of slightly more than 17 percent in the second quarter and 10 percent in the third, monthly inflation averaged almost 25 percent in the last quarter of 1992 (Table 4).

The surge in inflation prompted some efforts to strengthen stabilization policies in early 1993, and credit to government in the first quarter of 1993 grew at less than 14 percent of reserve money, only half the pace of the previous two quarters and then fell in the second quarter (Table 3).

### **Interstate credits**

As noted earlier, after the Soviet Union collapsed in December 1991, the ruble continued to be legal tender throughout the region and the CBR became the sole issuer of cash rubles. However, the national banks of other republics could continue to give credits in rubles, which could be used for both intra- and inter-republican trade. As interstate payments were settled automatically, the CBR could not monitor or control such flows.<sup>15</sup> In the first quarter of 1992, interstate credits from the CBR grew by 11 percent as a percentage of reserve money and by almost 50 percent in the following quarter (see Table 3).

Not only did the CBR lack any control over the growth of interstate credits but it also lacked the necessary instruments to offset the monetary impact of such credits. Therefore, the CBR introduced changes in procedures which aimed at slowing that growth. In July 1992, all interstate transactions were centralized in Moscow and settlement took place only if there were sufficient balances in a republic's bilateral account with Russia. A republic that ran a deficit with Russia was required to negotiate a "technical credit" which, if granted, would be credited to its account at the CBR.<sup>16</sup> Initially the CBR was in charge of the allocation of

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<sup>15</sup>In January 1992, it was decided that all financial flows resulting from trade between Russia and the other republics in the ruble area would be handled through correspondent accounts of the central banks of the respective republics in the 1400 Cash Settlement Centers of the CBR.

<sup>16</sup>As a consequence of the increased delays in settlements, ruble deposits held outside Russia began to carry a discount compared to rubles deposits held in Russia, which guaranteed faster settlement. Furthermore, banknotes became a preferred means of settlement, and in the second and third quarters of 1992 there were reports of cash shortages in the other republics of the former Soviet Union. This problem became less important with the introduction of higher denomination banknotes in late 1992.

Table 3. Russia: Monetary Policy Implementation

(Percentage change with respect to reserve money beginning of period)

	Q1-1992	Q2-1992	Q3-1992	Q4-1992	Q1-1993	Q2-1993	Q3-1993	Q4-1993
NIR	1.4	12.5	29.9	22.9	36.7	56.7	12.3	2.4
Gold	-16.0	21.2	27.6	15.4	16.3	18.1	5.5	2.5
Change in foreign exchange reserve (market intervention)	17.1	-5.2	2.9	4.8	11.6	33.5	4.1	-8.0
Change in foreign exchange reserves due to changed valuation rate	0.3	-3.4	-0.6	2.7	8.7	5.1	2.7	7.9
Credit	30.4	123.0	112.8	102.2	56.8	23.2	70.9	37.4
Credit to government	-30.9	33.2	40.8	24.8	13.7	-5.7	37.1	34.0
Gross credit to banks	50.3	41.7	61.2	59.6	24.4	23.9	27.5	4.8
Credit to banks at penalty rate	6.9	-3.2	1.1	2.1	2.9	3.1	0.5	-0.3
Credit to banks at bank rate	43.4	44.9	60.1	57.6	21.5	20.9	27.0	5.0
Interstate loans	11.0	48.1	10.8	17.8	18.7	5.0	6.2	-1.4
Other	24.0	-29.7	-16.3	-63.3	-44.8	-29.6	-24.7	8.2
Float	1.7	-51.2	10.3	-36.1	5.2	9.4	-22.0	-7.1
Other (excl. float)	22.4	21.6	-26.6	-27.2	-50.0	-39.0	-2.7	15.4
Reserve money	56.4	105.3	126.7	61.8	48.7	50.4	58.6	48.1
Currency	22.4	35.9	46.6	28.7	24.9	41.6	35.8	33.8
Required reserves	20.4	4.8	12.1	8.3	6.1	7.8	7.0	5.4
Correspondent accounts	13.5	64.7	67.9	24.8	17.7	1.0	15.7	8.9

Table 3. Russia: Monetary Policy Implementation (continued)

(Percentage change with respect to reserve money beginning of period)

	Q1-1994	Q2-1994	Q3-1994	Q4-1994	Q1-1995	Q2-1995	Q3-1995	Q4-1995
NIR	4.2	13.9	-15.8	3.1	3.2	30.0	-1.7	3.4
Gold	6.8	1.6	5.0	4.3	4.6	0.3	0.7	0.4
Change in foreign exchange stock (i.e., intervention part)	-4.5	8.4	-20.7	-0.8	-1.6	29.7	...	...
Change in foreign exchange due to changed valuation (rate)	1.9	7.0	-0.1	-0.5	0.2	0.0	...	...
Credit	39.4	48.1	58.5	36.0	9.5	7.7	17.8	2.5
Credit to government	31.6	38.6	50.4	38.7	1.6	18.7	21.1	1.3
Gross credit to banks	7.7	9.8	8.4	-2.8	8.1	-11.1	-3.3	1.3
Credit to banks at penalty rate	0.1	-0.3	-0.1	0.1	-0.6	0	0	0
Credit to banks at bank rate	7.6	10.1	8.5	-2.8	8.6	-11.1	-3.3	1.3
Interstate loans	0.1	-0.3	-0.3	0.1	-0.2	0	0	-0.1
Other	-23.9	-20.7	-11.3	-16.2	-11.0	11.9	-3.8	13.5
Float	2.0	7.8	12.3	-11.2	-1.5	4.5	...	...
Other (excl. float)	-25.9	-28.5	-23.6	-5.0	-9.5	7.5	...	...
Reserve money	19.7	41.3	31.4	22.9	1.7	49.6	12.3	19.4
Currency	11.5	30.2	18.0	12.5	-1.1	32.1	16.6	16.7
Required reserves	4.0	6.8	7.1	3.7	4.2	5.8	5.1	0.4
Correspondent accounts	4.2	4.2	6.3	6.6	-1.5	11.8	-9.4	2.3

Source: Central Bank of the Russian Federation.



Table 4. Russian Federation: Consumer Price Inflation  
1992-1997

	1992	1993	1994	1995	1996	1997
(Monthly percentage changes)						
January	245.0	25.8	17.9	17.8	4.1	2.3
February	38.0	24.7	10.8	13.0	2.8	1.5
March	30.0	20.1	7.4	8.9	2.8	1.5
April	22.0	18.8	8.5	8.5	1.8	.9
May	12.0	18.1	6.9	7.9	2.0	
June	19.0	19.9	6.0	6.7	1.1	
July	11.0	22.4	5.3	5.4	.8	
August	9.0	26.0	4.6	4.8	-.3	
September	12.0	23.0	7.2	4.6	.3	
October	23.0	19.5	11.8	4.4	1.2	
November	26.0	16.5	14.2	4.7	1.9	
December	25.0	12.4	16.4	3.1	1.4	

Sources: Data provided by the Russian authorities; and IMF, *International Financial Statistics*.

"technical credits," but from early 1993, negotiations took place between the Russian government and the respective republics. The CBR, however, continued to fund the credits. As a result of these measures, the growth rate of interstate credit fell sharply from a peak of almost 50 percent in the second quarter of 1992 to 5 percent in the second quarter of 1993.

#### Directed credits

CBR credits directed to targeted sectors of the economy continued to play a major role in determining overall credit conditions during the ruble area period. Whereas the CBR had virtually no influence on the amount of budgetary financing and interstate credits, it had substantial influence on the flow of directed credits. When the plan system collapsed in 1991, aggregate limits were no longer set, and in January 1992 the CBR administered the credit programs without such aggregate limits.

The growth of directed credits did not abate during 1992—reaching a growth rate of over 50 percent per quarter relative to reserve money—for several reasons. First, the government began to follow an expansionary fiscal policy throughout most of 1992 in order to reverse the decline in GDP growth. This trend was reinforced by a change in leadership of the CBR in mid-1992.<sup>17</sup> Second, the build up of interenterprise arrears provided a source of automatic growth in directed credit because the payment system arrangements allowed arrears to show up as unprocessed demand orders.<sup>18</sup> In August, 1992 the CBR announced a clearing of the interenterprise arrears, estimated to stand at rub 402 billion.<sup>19</sup> The CBR financed rub 335 billion, equivalent to 2.0 percent of GDP. The remaining arrears were financed by credits from commercial banks.

### C. Monetary Policy Instruments

The monetary policy instruments in Russia evolved with the changes in the banking system and the money market. At the time of the collapse of the Soviet Union, the banking system bore little resemblance to that of a market economy. The monetary instruments of the CBR were limited to directed credits and reserve requirements to control monetary aggregates. Furthermore, the effectiveness of these instruments were limited by both structural and policy deficiencies.

All banks were subject to reserve requirements. Required reserves were held in blocked—interest free—accounts at the CBR for the entire maintenance period of one month. Banks had to keep funds in a separate account with the CBR (called correspondent or settlement account) to effect interbank settlements. In January 1992, reserve requirements

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<sup>17</sup>The new CBR chairman said that the government had overemphasized the fight against inflation, and underemphasized industry support. Even though the CBR leadership played a role in ending the stabilization effort, it would be too simplistic to blame it alone for the policy reversal. Of the amounts of directed credits extended throughout 1992, over half resulted from government directives, parliament was responsible for measures which led to 10 percent of the increase in the volume, and the CBR and the Credit Commission (active from October 1992) authorized 25 percent and 12 percent of the directed credit amounts, respectively.

<sup>18</sup>Payment demand orders were orders from the seller to the buyer's bank to transfer money to the seller's account.

<sup>19</sup>Out of the total net arrears of rub 402 billion, rub 227 billion were arrears to the budget, rub 113 billion arrears to commercial banks, and rub 62 billion arrears to business enterprise accounts.

were increased to 15 percent for deposits with a term of less than one year and to 10 percent for all other deposits. Then, in the face of continued inflation, reserve requirements were increased to 20 percent and 15 percent, respectively, effective April 1, 1992. At the same time, new deposits at the Savings Bank were also subject to reserve requirements.<sup>20</sup>

The tightening of reserve requirements had a limited effect on the growth of monetary aggregates for a number of reasons. First, a bank whose deposits fell during the month could apply for a reduction in its required reserves and such authorization was automatically given. Second, foreign exchange deposits, which grew significantly in early 1992, were exempt from reserve requirements. Finally, enforcement of the reserve requirements was weak. Table 2, shows that while effective reserve requirements, increased from about 1 percent in December 1991, to almost 9 percent in June 1992; on the latter date nominal reserve ratios were in the range of 15–20 percent. Compliance was hampered by the poor enforcement tools available to the CBR. For example, the maximum penalty for noncompliance was only rub 100.000. While that amount was equivalent to some US\$1,000 at the end of 1991, penalties were not adjusted in line with the exchange rate depreciation. Accordingly, the value of the maximum penalty had fallen to the equivalent of only US\$240 by the end of 1992.

Two structural factors further limited the effectiveness of reserve requirements as a policy instrument in 1992. First, liquidity was unevenly distributed among banks. A few large banks concentrated the bulk of assets, while a large group of small banks had a much smaller share.<sup>21</sup> The uneven liquidity distribution and the virtual absence of an interbank market for short-term liquidity meant that any tightening of reserve requirements would be hard for some banks to absorb—a limiting factor in the CBR's flexibility in setting reserve ratios. Second, the slow and unreliable payments system gave banks an excuse to delay their monthly transfer of funds to their required reserve account, hampering the enforcement of reserve requirements.

The tightening of control over directed credits should have allowed the CBR to limit monetary growth. However, the CBR's ability to use that instrument was hampered by its policy of allowing commercial banks to obtain short term credit by running up overdrafts on their correspondent accounts at the CBR. Regional CBR managers continued to provide those overdrafts virtually automatically. Moreover, although overdrafts were charged twice the refinance rate, in real terms that penalty rate was still negative.

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<sup>20</sup>This was part of the strategy of treating all financial institutions identically, but also reflected the authorities wish to curtail direct commercial bank borrowing from the Savings Bank (International Monetary Fund, 1992a, p. 29).

<sup>21</sup>See Lamdany (1993) pp. 9–10 for details. In January 1992 there were 1350 banks in Russia; a year later, the number increased 27 percent to 1713. In January 1993, the largest 65 banks accounted for 70 percent of total assets and loans in the system, and the five largest banks held about one third of total loans and assets.

#### **D. Foreign Exchange Policies**

As noted earlier, at the time of the collapse of the Soviet Union, a multiple exchange rate system was in place for the ruble, which was unconvertible. In February 1992, the CBR started to intervene in the Moscow International Currency Exchange (MICEX) foreign exchange auction, where the bulk of trading took place. The CBR intervention aimed at smoothing the path of the nominal exchange rate, and at ensuring a steady nominal depreciation.<sup>22</sup> Nevertheless, the trend of the exchange rate was left largely for the markets to determine. In July 1992, the exchange rate was unified, and current account convertibility was introduced.

The CBR was a net purchaser of foreign exchange throughout most of 1992, but the size and sign of intervention varied. The overall effect of intervention on reserve money ranged between -5 percent and 17 percent of reserve money (Table 3). The share of CBR foreign exchange operations in market turnover fell steadily during 1993, reflecting not so much reduced volumes of CBR intervention but the rapid increase in the total volumes traded in the market (Table 5). The development of the foreign exchange market is highlighted by the fact that from May 31, 1993, the number of weekly MICEX auctions doubled from two to four. The authorities also took institutional steps to strengthen the market. Beginning on July 1, 1993, exporters were no longer required to sell their foreign exchange to the CBR, but could instead sell it directly in the market through an authorized bank.<sup>23</sup>

### **IV. MONETARY POLICY AFTER THE RUBLE AREA PERIOD**

#### **A. Introduction**

In early 1993, the authorities took steps aimed at limiting the impact of problems that the ruble area arrangements posed for the conduct of monetary policy. In April 1993, they stopped providing open-ended "technical" credits to other republics in the area. The impact of this move was initially limited, however, as the CBR continued to provide ruble currency to former republics free of charge and without restrictions. As a result, during the first half of 1993 cash transfers from Russia to other republics largely substituted for the former technical credits. In addition, improvements in the interstate payments and settlement system permitted commercial banks to deal directly with each other, introducing another channel for circumventing monetary policy measures. In particular, capital flight from other republics to Russia resulted in an uncontrolled increase in Russia's monetary aggregates.

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<sup>22</sup>This strategy began to emerge in the spring of 1992, after an initial unsuccessful attempt to keep the nominal exchange rate stable. (For details of Russia's foreign exchange policy, see Koen and Meyermans, 1994).

<sup>23</sup>Previously they had to sell 30 percent of their foreign exchange earnings directly to the CBR.

Table 5. Russian Federation: Exchange Rates and Foreign Exchange Market Operations, December 1992–June 1994

	Nominal Exchange 1/ Rate	Real Exchange Rate 2/ Index	Total MICEX Turnover	Average Turnover per Session	CBR Intervention 3/
	(Rub/US\$)	(July 1992= 100)	(In millions of U.S. dollars)		
<b>1992</b>					
December	414.6	89.5	452.7	56.6	-102.0
<b>1993</b>					
January	484.2	95.0	485.1	69.2	154.6
February	569.0	101.4	519.6	64.8	185.0
March	664.6	104.1	494.9	55.0	122.1
April	767.2	106.9	534.8	59.3	244.0
May	928.3	105.9	428.3	53.5	197.2
June	1,080.1	107.3	682.5	30.7	-101.5
July	1,024.5	138.8	1,361.7	61.1	-923.4
August	985.8	180.3	1,236.9	56.8	447.1
September	1,072.7	202.5	2,216.2	99.9	1,005.2
October	1,187.6	218.6	1,250.5	59.5	4.0
November	1,194.5	252.8	1,616.4	73.6	425.1
December	1,240.3	274.3	1,876.0	98.6	-143.4
<b>1994</b>					
January	1,444.5	279.9	2,094.8	116.4	1,053.1
February	1,583.4	278.8	1,696.7	84.6	180.7
March	1,719.0	275.1	1,253.1	57.2	123.1
April	1,793.7	285.8	1,157.9	56.1	-60.4
May	1,880.5	291.2	1,112.8	58.4	267.3
June	1,958.0	295.2	...	...	...

Sources: Moscow Interbank Currency Exchange (MICEX); Central Bank of the Russian Federation; and Fund staff estimates.

1/ Simple average of daily rates quoted at the MICEX.

2/ Based on the monthly consumer price index in the United States and in Russia.

3/ CBR net sales/purchases at the MICEX.

Unable to halt the problems arising from the ruble area, in July 1993 the CBR announced the demonetization of pre-1993 rubles. This effectively ended the ruble area, as the CBR assumed full control over reserve money in new Russian rubles. The collapse of the ruble area did not immediately lead to a stable monetary policy. The large government financing requirements together with the few financial instruments available to the CBR prevented a substantial tightening of monetary policy in both 1993 and 1994. At the same time, the weak structure of the financial system prevented the effective introduction of indirect monetary instruments. As the banking system developed and economic conditions stabilized, the CBR began to develop

more orthodox monetary instruments. In 1994 and 1995, monetary measures focused on raising the interest rates charged on direct lending while establishing the basis for a wider range of monetary instruments.

### **B. Financing of the Deficit**

By early 1993, the government moved to accelerate structural reforms and strengthen its control over economic policy. One of the first steps was to activate the Commission on Credit Policy, which was used to approve all credit allocation and authorization of directed credit. Quarterly ceilings were established for overall credit. The CBR also began to use the refinance rate to slow credit demand (see below). Steps were also taken to streamline the operations of the budget. A number of off-budget accounts were brought into the budget, enhancing transparency but also increasing the measured deficit. Most centralized credits were abolished, in particular those granted to agriculture and to the northern territories. Agricultural prices were deregulated as were the prices of bread and grain. The government stopped procuring food. In addition, it began to sequester expenditures, sharply limiting overall outlays. Long-term bonds were also introduced to reduce the monetary impact of the remaining deficit financing.

As a result of these measures, growth in CBR credit to the government slowed to the equivalent of 14 percent of reserve money in the first quarter and became negative in the second quarter (Table 3). However, higher expenditures combined with falling tax revenues forced the government to turn to CBR financing in the second half of the year. Thus, CBR credit to the government grew by 37 percent and 34 percent in the third and fourth quarters, respectively (Table 3). Monthly inflation, which had slowed from 26 percent in January to 19 percent in June, accelerated slightly, reaching 23 percent by September (Table 4).

By the end of 1993, the government had made important strides toward adopting a full-fledged stabilization program. As described in detail below, monetary policy had become increasingly oriented to controlling inflationary pressures while steps had been taken towards strengthening fiscal control. However, the highly visible nature of these measures, together with the apparently slow pace in achieving price stability, brought into focus the serious differences between the legislature and the executive on economic policy. By the third quarter of 1993, pressures for a fundamental redirection of economic policy emerged. The disagreement culminated in the October 1993 crisis between the government and the parliament and the subsequent dissolution of parliament. Parliamentary elections and a referendum on a new constitution were held in December 1993. Those elections did not result in the strengthening of the political support for continued economic reform but rather in a divided parliament that made it even more difficult to obtain such support.<sup>24</sup>

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<sup>24</sup>The December elections resulted in a parliament that was evenly split among liberals, the centralists and the nationalists parties.

Faced with less-than-expected support for continued economic reforms, one of the first moves of the new government in 1994 was to announce a decision to fight inflation with "nonmonetary measures" and adoption of a monetary policy aimed at stimulating domestic production.<sup>25</sup> As a result, the rates of growth of credit to the government, measured with respect to reserve money, for the first two quarters of 1994 were 32 percent and almost 40 percent respectively. Credit expansion accelerated in the summer of 1994 when the authorities opted to provide CBR financing to help clear interenterprise arrears.

The CBR sought to offset the impact of the fiscal slippage through a series of measures, which included strengthening the Credit Commission, and reducing interest subsidies. These efforts, however, were only partially successful and CBR credit to the government grew by 50 percent and 39 percent in the third and fourth quarters of 1994, respectively (Table 3).

### C. CBR Refinancing

In the face of difficulties encountered in limiting the government's financing requirements, the CBR turned to other means of reducing the growth of overall credit. A full range of market-based instruments was unavailable. Accordingly, the CBR sought to combine administrative measures with measures to increase the cost of CBR credit. First, the Credit Commission tightened the expansion of directed credit, and, second, the CBR made such credits significantly more expensive.

In mid-1993, the Credit Commission was authorized to approve all credit allocation of the CBR, thus ensuring that such allocation had inter-agency support. The Commission was also in charge of establishing and monitoring quarterly credit ceilings. In effect, it was made responsible for setting priorities for credits to the government and ensuring that their total remained within programmed levels. The Commission was partially successful and directed credit flows slowed down in 1994. The abolition of all directed credits in late 1994 eliminated the key function of the Commission.

A second measure was the introduction of a new interest rate policy, in which the interbank rate served as the floor for the refinance rate. Thus, on September 23, the refinance rate was raised from 170 to 180 percent, and on October 15, to 210 percent (Table 6). In addition, even though interbank rates fell throughout the fall of 1993, the CBR refinance rate remained unchanged. This policy not only reduced demand for CBR credit but it had the

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<sup>25</sup>Aslund, p. 201. The newly elected parliament was composed by three large groups: the nationalists (40 percent) the reformers (30 percent) and centralists (30 percent).

additional benefit of shifting banks' short-term borrowing from the CBR to the interbank market.<sup>26</sup> The interbank market, therefore, developed quickly and provided a key element for the development of indirect market instruments to control domestic liquidity.

Table 6. CBR Refinance Rate 1/

	1992	1993	1994	1995	1996
January	20	80	210	200	160
February	20	80	210	200	120
March	20	100	210	200	120
April	50	100	205	200	120
May	80	100	200	195	120
June	80	140	155	180	120
July	80	170	155	180	110
August	80	170	130	180	80
September	80	180	130	180	80
October	80	210	170	170	60
November	80	210	180	170	60
December	80	210	180	160	48

Source: Central Bank of the Russian Federation.

1/ Following Russian practice, the rates are calculated by taking the monthly rate and multiplying it by 12. The compounded rate would be higher.

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<sup>26</sup>For every ruble lent through a directed credit program, the banking sector lent 1.5 rubles through commercial bank intermediation in June 1993. In December 1993 the ratio had increased to 2.2.



The CBR kept the refinance rate significantly above the interbank rate throughout 1994. Not only did the growth of overall credit slow down but, because the penalty rate significantly exceeded the interbank rate, commercial bank overdrafts at the CBR virtually stopped, beginning in the second half of 1993. (The reduction in recourse to such overdrafts is reflected in the entry "credit to banks at penalty rate" in Table 3.)

The resulting slowdown in commercial bank credit demand in 1994 only partially offset the impact of the expansionary fiscal policies being followed. However, by end-1994, the directed credit program was eliminated and the demand for CBR financing of the government deficit was eased. As a result, the growth of total CBR credit fell from a quarterly average of over 45 percent in 1994 to only 9.5 percent in the first quarter of 1995 and, for the remainder of 1995, growth in credit to commercial banks was negligible. This slowing of credit growth helped bring average monthly inflation down from 14 percent in the last quarter of 1994 to 7 percent in the second quarter of 1995 and further to 4 percent by the last quarter of 1995. The refinance rate continued to fall in 1995 and in 1996 (Table 6) in line with interbank market rates and the stabilization reflected in the drastic deceleration of inflation (Table 4).

#### **D. Introduction of New Monetary Instruments**

The success in controlling credit expansion in 1994 reflected the combined impact of limiting the financing requirement of the government and increasing the cost of bank borrowing from the CBR. In particular, interest rates were used actively to reduce the demand for CBR credit. However, with the gradual development of the banking system and, in particular, the interbank market (see Appendix I), the CBR saw the possibility of developing market-based monetary instruments over time. The introduction of monetary instruments was conditioned by the environment in which those instruments had to operate. This environment was characterized by a large number of banks, many of which were unsound; lack of transparency, which made it hard to assess an individual banks' soundness, and an underdeveloped payments system. These factors contributed to the segmentation of the banking system, which put pressure on the CBR to provide liquidity to individual banks.

A key step in developing indirect monetary instruments was the introduction of a market-based credit facility capable of providing short-term liquidity to the banking system. In February 1994, the CBR introduced a credit auction.<sup>27</sup> The first auction was held on February 28, 1994 and offered a fixed maturity three-month credit. It was held simultaneously at all regional CBR branches throughout Russia. Initially, the credit auctions in the regions were oversubscribed while those in the two major financial centers—Moscow and St. Petersburg—were undersubscribed.<sup>28</sup> This disparity reflected the fact that the refinance

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<sup>27</sup>For an analysis of credit auctions see Saal and Zamalloa (1997).

<sup>28</sup>In Moscow, which had the most developed interbank markets, only about 10 percent of the  
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rate was used as a minimum auction rate, which was higher than interbank lending rates. Banks in the financial centers that had access to the interbank market, therefore had scant interest in the CBR's credit auction. Monthly credit auctions were held after February in each region but in June they were centralized in Moscow. Low take up rates continued during 1994 as a result of the continued use of the refinance rate as a minimum rate in the auction (Table 7).<sup>29</sup> As a consequence the amount of credits allocated in the auction as compared to total CBR credits remained very low.

Although the CBR gradually phased out the credit auctions, commercial banks needed reliable access to short-term financing. In developed capital markets, this source of funding is frequently found in the interbank market. In Russia, however, such an interbank market had not fully developed. The market was insufficiently integrated, chiefly due to a lack of trust among market participants and a lack of information to evaluate the creditworthiness of banks. To help banks meet their liquidity needs, the CBR introduced two facilities: a Lombard auction and a Lombard Standing Facility. The former functioned as the credit auction but required that borrowers provide negotiable securities as collateral. As with the credit auction, there was little demand, and Lombard auctions were suspended after September 1996. The Lombard Standing Facility was used by the CBR to provide collateralized credits to banks on demand. Banks placed their securities in a blocked account in the CBR and, the next day, had the resources credited to their account. Lombard credits carried maturities of 7 days, 14 days and 28 days respectively. Although the Lombard facility in many countries carries a penalty rate to discourage excessive use of central bank resources, the objective of the Lombard facility in Russia was not to penalize banks but to provide a secure source of short-term financing. Accordingly, the maturities mentioned above carried annualized interest rates of 24, 33, and 42 percent, respectively.<sup>30</sup> These rates were at or below the CBR's refinance rate. In practice, the Lombard Standing Facility was not successful in providing emergency credits to banks. The facility required that banks collateralize credits. However, banks did not know if they needed overnight or emergency credit until late in the day, while shifting securities through the Settlement Center required at least a day. In 1996, therefore, the CBR authorized Primary Dealers to obtain uncollateralized overnight credit. Such credits were charged

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<sup>28</sup>(...continued)

total amount offered was placed, while in some regional auctions those rates were close to 100 percent.

<sup>29</sup>The CBR incurred some credit risk owing to the collateral used in the auctions. Firstly, Russian law allowed the pledger to keep possession of the collateral until the loan became due. Secondly, fixed assets were often used as collateral, which meant that the effectiveness of the pledges was limited by the poor liquidity of such assets.

<sup>30</sup>The CBR periodically changed the interest rates on the Lombard Standing facility. By early 1997, the rates had been unified.

Table 7. CBR Credit Auctions, February 1994–June 1995

	Total Amount Offered	Total Amount Disbursed	CBR Refinance Rate	Interbank Lending Rate on 1–3 Month Credit
	(Billion rubles)		Monthly Rates (In percent)	
February 1994	70	45	17.5	17.8
March	175	116	17.5	17.5
April	190	107	16.1	16.7
May	150	81	16.7	15.0
June	160	114	12.9	12.6
July	120	119	12.9	11.3
August	160	77	10.8	10.0
September	100	20	10.8	10.0
October	150	107	14.2	12.4
November	50	49	15.0	12.9
December	70	67	15.0	13.5
January 1995	30	30	16.7	15.9
February	100	97	16.7	16.2
March	50	46	16.7	14.7
April	50	37	16.7	12.3
May	50	15	16.3	10.1
June	50	14	15.0	7.3

Source: Russian Economic Trends Vol. 4 (2) 1995.

1.3 times the CBR's refinance rate. Through the end of 1996, however, use of the facility has been limited because the cost of raising funds in the interbank market was lower than the rates of the overnight facility.

The CBR used changes in reserve requirements as a major instrument of monetary policy. However, the reserve requirement regime, which did not allow averaging and paid no remuneration on reserve balances, was inflexible and costly for the banks. The CBR, therefore, initiated a policy of improving the effectiveness of the system and reducing its burden on bank operations. In February 1994, the reserve requirements were reduced to 20 percent on all ruble demand deposits, and 15 percent on all deposits that accrue interest. The new scheme also introduced a new system for calculating the deposit base of the reserve requirement which gave banks four options.<sup>31</sup> By introducing flexibility through multiple reporting standards, there was a risk that banks could circumvent the requirements by switching between the standards. However, effective reserve requirements rose slightly from 14 percent in December 1993 to 15 percent in June 1994 and reached 17 percent in December 1994.<sup>32</sup> From the third quarter of 1993 until the fourth quarter of 1994, reserve deposits continued to grow at rates of between 4 and 7 percent, when measured against reserve money (Table 3).

The CBR significantly modified the reserve requirement system in the first half of 1995. On February 1, 1995 reserve requirements were increased to 22 percent on demand and time deposits with a maturity of up to 30 days. The rate for time deposits with a maturity of 31–90 days was set at 15 percent, and for deposits with a longer maturity at 10 percent. A 2 percent reserve requirement was also introduced on foreign exchange deposits. This system was further modified on May 1. Rates were lowered to 20 percent, 14 percent and 10 percent for the respective maturity bands.<sup>33</sup> Reserve requirements on foreign exchange deposits were lowered to 1.5 percent. At the same time, the deposit base was to be calculated on a single basis—on the basis of the monthly average of daily balances, which made it harder to circumvent the requirements.

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<sup>31</sup>Banks were allowed to choose among four different methods for calculating the base: (1) they could continue to use deposit balances as of the first day of the month, (2) they could instead select deposits as of the 16th day of the month, (3) they could use daily averaging, and (4) they could average deposits held at the end of each six five-day periods in the month.

<sup>32</sup>As described in Section II, the CBR had also had an ineffective penalty regime for noncompliers. The maximum fine of 100,000 rubles remained in place (equivalent to US\$94 in June 1993, US\$80 in December 1993, US\$51 in June 1994, US\$28 in December 1994 and US\$21 in June 1995). The CBR, however, also had other penalties available such as denying the commercial bank access to centralized credits and raising reserve requirements by up to 10 percent on top of the standard requirement.

<sup>33</sup>The same bands as introduced in February.

Continued concern about the impact of reserve requirements on commercial bank profitability led the CBR to further reduce reserve requirements in May 1996. Reserve ratios were lowered to 18 percent on 0–30 day deposits; 14 percent on 31–90 day deposits and 10 percent for deposits of more than 90 days. Reserve requirements on foreign currency deposits were increased to 2.5 percent.<sup>34</sup> Reserve ratios were applied to the average deposits held between the 5th and 30th of each month. Limited averaging of reserve balances was introduced. Commercial banks wishing to average reserve balances, were required to be in compliance with prudential regulations, and with their reserve requirements and could have no overdue payments to the central bank. Once averaging was authorized, a bank could request that the CBR transfer up to 5 percent of its reserve deposit to its correspondent account.

The CBR combined the modifications in the reserve requirement system with a tightening of compliance. In particular, it was given the authority to transfer unilaterally amounts from a bank's correspondent account if needed to meet shortfalls on the reserve account. Furthermore, the CBR strictly enforced the requirement that averaging was permitted only to those banks that had complied with reserve requirements over the previous six-month period. As a result of these actions, overall compliance with reserve requirements increased sharply in 1996.

As noted earlier, by 1995 the CBR had been relatively successful in developing monetary instruments that injected liquidity into the economy. The credit auctions provided a source for credit, albeit at high costs, and reductions in reserve requirements increased bank liquidity. However, these instruments were less appropriate for absorbing liquidity. Some consideration was given to the sale of CBR foreign exchange holdings. However, such action would have added to pressures for an exchange rate appreciation, initiated by large capital inflows in early 1995, and would have limited the flexibility of the CBR to manage its overall foreign reserve position. Two initiatives were tried. First, the ministry of finance sold treasury bills in excess of its financing needs. Although this increased the financing costs to the ministry of finance, the CBR did not hold a sufficiently large stock of treasury bills in its own portfolio to allow it to engage in open market operations. The introduction of CBR notes was contemplated, but it was decided that such a move could disrupt the treasury bill market, particularly in light of its thinness.

The second initiative was introducing an auction of CBR deposits. As initially used, deposits were not formally auctioned. Instead, the CBR informally polled a number of banks to identify those interested in depositing funds with the CBR at a rate specified by the CBR. In the first two deposit "auctions," the CBR offered to accept two-week deposits, but less than 0.5 trillion rubles (equivalent to less than 3 percent of excess reserves) were absorbed. Deposit auctions were halted in late 1995, reflecting the lack of success in absorbing excess balances held by commercial banks. They were re-introduced in 1996 but again with only limited

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<sup>34</sup>Rates were temporarily increased in June 1996, to offset the impact of large profit transfers from the CBR to the government, and then were reduced to May levels in August.

success. As before, the principal limitation of the deposit auction was that commercial banks were invited to place deposits with the CBR at interest rates determined by the CBR rather than by the market. As these rates were significantly below yields on other instruments, the results of the deposit auctions were disappointing. Since September 1996, the CBR has modified its deposit operations. Deposits have since been sought in support of a CBR interest rate objective. Interbank rates are tracked and where they fall below a desired level, overnight deposits are sought from selected banks.

### **E. Coordination of Monetary Instruments**

By end-1996, the monetary instruments available to the CBR had significantly evolved to include both open market instruments and standing facilities for providing resources to the banking system. The open market instruments included the Lombard auction (suspended in mid-1996), purchases of securities such as treasury bills, deposit auctions (which were rarely used), and the purchase or sale of foreign exchange. Standing facilities included the Lombard Standing facility, limited reserve averaging and the unsecured overnight facility for Primary Dealers.

As the number of instruments developed, implementing monetary policy became increasingly complex. Criteria were needed for the selection of both the targets for monetary policy and for the mix of instruments. When direct instruments are used, the selection of monetary targets is evident and the link between the direct instrument and the monetary policy object is straightforward. When the CBR began to introduce indirect instruments, intermediary targets had to be selected, which had to have a fairly predictable relationship with the ultimate objectives of monetary policy.

Given the growing number of instruments, the CBR developed a monetary program to coordinate their use and evaluate their effectiveness. The program was based on a monetary-based stabilization program and contained projections on net international reserves, net domestic assets and reserve money. First, projections were made of the CBR's balance sheet, identifying autonomous factors that injected liquidity into the economy, including changes in net international reserves, net credit to government and the expected use of the standing facilities by financial intermediaries. The impact of the growth of these autonomous factors on the domestic money supply was then compared with the CBR's targeted money supply growth. The monetary program was then used to estimate the amount of additional base money that needed to be injected or absorbed by the CBR in order to achieve the CBR's monetary targets. Annual projections were first developed and, then, disaggregated into monthly and, ultimately, weekly projections.

Once the monetary program was developed, implementation of the program was monitored through the CBR's liquidity management exercise. The CBR used this framework weekly to determine the combination of instruments that would be used to achieve the desired change in base money. The selection of instruments was determined, in part, by their flexibility and predictability. Given the weak banking system, the CBR was not able to rely on interest rate

changes to affect the demand for money. At the same time, the CBR sought to limit sharp fluctuations in security yields. Equally importantly, the CBR was constrained by the limits imposed by the operation of the exchange rate system, as discussed below.

#### **F. Financial Policies and the Exchange Rate**

The implementation of monetary policy after the ruble area period has been constrained not only by the institutional structure of Russia's banking system and the expansionary fiscal policies but also by the CBR's exchange rate policy. Throughout the period, the CBR has intervened regularly to prevent sharp fluctuations in the exchange rate.

During the first five months of 1993, high inflation combined with a relatively moderate depreciation of the exchange rate resulted in a sharp appreciation of the real exchange rate. During this period, the nominal exchange rate depreciated by 124 percent while inflation increased to 164 percent (Table 5). At this time, Russia adopted a program supported by the structural transformation facility set up by the IMF. Capital inflows, stimulated by improved investor confidence, surged and resulted in pressures for a further sharp appreciation in the rate. Rather than allowing such an appreciation, the CBR intervened strongly, purchasing dollars in both the interbank market and in MICEX. As a result, the exchange rate depreciated only marginally for the remainder of 1993 and the net international reserve position of the CBR significantly improved. Net international reserves grew by almost 35 percent in the second quarter of 1993, the highest rate since the collapse of the Soviet Union.

This intervention by the CBR also resulted in rapid growth in monetary aggregates. Reserve money grew by 50 percent during the third quarter, the bulk of which was in the form of currency in circulation. While the CBR succeeded in stabilizing the exchange rate, it was unable to control the increase in base money, or prevent an acceleration in inflation. After declining during the first five months of the year, monthly inflation accelerated, peaking at 26 percent in August. The August inflation was the highest monthly rate since the period of generalized price liberalization in early 1992.

Given the slippage in domestic monetary policy and the expansion in the CBR's net domestic assets, described above, inflation remained high through the second half of 1993. However the CBR maintained its policy of limiting exchange rate flexibility and the real exchange rate appreciated by almost 100 percent during 1993.

In the first half of 1994, the CBR maintained its exchange rate policy while it gradually lowered its refinance rates and financed a generally expansionary fiscal policy. By end-June 1994, the ruble had lost an additional 7 percent of its real value. Concern about the sustainability of these policies led the private sector increasingly to shift from ruble-denominated assets into dollar-dominated assets. This concern was heightened following the arrears-clearing operation conducted in the summer of 1994.

The above developments resulted in an exchange rate crisis in mid-October 1994. The crisis led the authorities to renew efforts to adopt internally consistent economic policies and achieve macroeconomic stability. The 1995 budget, passed in December 1994, envisioned a sharp contraction in the overall deficit and shifted financing from the CBR to the treasury bill market. In addition, the authorities announced a 10 percent limit on exchange rate movements during the daily trading in MICEX, a 30 percent open exposure limit for commercial banks and a two percent minimum reserve requirement on foreign currency deposits.

As the flow of CBR budgetary financing and directed credits stopped in early 1995, foreign exchange intervention became the largest contributor to reserve money growth. In the second quarter of 1995, the CBR intervened heavily, buying foreign exchange to prevent an appreciation of the ruble caused by renewed foreign capital inflows. Such intervention accounted for most of the growth in reserve money (Table 3).

As the CBR became increasingly concerned about the impact on domestic inflationary expectations of wide exchange rate fluctuations, it opted to establish an exchange rate band in July 1995, within which the market exchange rate was permitted to fluctuate freely. The CBR stood ready to defend the rate if pressures developed to move the market rate outside the predetermined bands. The CBR initially set the mid-point of the exchange rate band at rub 4,600 per US dollar for the period July–December 1996, with a band width of 6.5 percent on either side of the mid-point (the band ranged from rub 4,300 to rub 4,900 per US dollar).

During the second half of 1995, the market exchange rate depreciated slowly within the corridor. Accordingly, the CBR extended the corridor for the period January–June 1996 but at a slightly more depreciated level. The mid-point was fixed at rub 4,850 and the corridor bands were rub 4,550–5,150 per US dollar.

The CBR considered revision of the exchange corridor in early 1996. While convinced of the usefulness of the exchange system in guiding inflationary expectations, there was a concern about the need for frequent changes in the corridor. Accordingly, a sliding band was established in early 1996, starting at rub 5,000 to rub 5,600 and ending at rub 5,500 to rub 6,100 per US dollar at end-December 1996. The mid-point of the band was depreciated by 1.5 percent a month and the band was slightly narrowed over the period. During 1996, the exchange rate depreciated smoothly and remained within the more appreciated part of the band through the second half of the year.



## V. CONCLUSIONS

Russia's experience in reforming its instruments for monetary policy implementation illustrates the constraints and difficulties policymakers face in carrying out such reforms. Those impediments were particularly severe in Russia's case as the reform had to take place in a broader context of radical political and economic change. However, Russia's experience also shows that despite those impediments a country can complete the main aspects of instrument modernization in a fairly short period of time.

In addition to the constraints that political and economic change posed, the CBR had to deal with a wide spectrum of constraints, both external (arising from outside the CBR) and internal (from within the CBR). The external constraints were particularly severe. First, the attempt to use monetary expansion as an engine for growth led other State authorities to put pressure on the CBR to finance a large budget deficit and to provide subsidized credits (directed credits) to specified economic sectors. Second, inadequate arrangements to control credit and monetary expansion in a monetary union led to a ruble area that in fact allowed central banks of the member countries to act independently from one another. Moreover, each member had strong incentives to inflate, because it would accrue the full benefits of the monetary expansion while sharing the costs (inflation) with the other members of the area. Thus, during the ruble area it was impossible for a coherent monetary policy to be implemented, particularly since the authorities of member states mostly ignored agreements to allow for such coherence. Third, shortcomings of the laws and regulations inherited from the Soviet era made it difficult to enforce monetary regulations (such as reserve requirements) and to introduce some instruments, like collateralized lending. These shortcomings included negligible penalties for violations to CBR monetary regulations, and the absence of collateral legislation that would adequately protect lenders' interests. Fourth, an underdeveloped and segmented financial market (reflected for instance in wide differences in interest rates paid by interbank market participants) further complicated the implementation of monetary policy and constrained the range of instruments that the CBR could use.<sup>35</sup>

The CBR also had to deal with several key internal constraints. First, a lack of modern instruments and techniques for monetary management required the CBR to develop them from scratch, a particularly hard task given the constraints listed above. Second, an inadequate payments system made it difficult to predict the demand for bank reserves, complicating monetary management, and making it harder to penalize delays in fulfilling reserve requirements. Third, CBR staff had to make substantial efforts to adapt its skills to the requirements of a market-based economy. Thus, a trial-and-error process was an unavoidable element in improving policy implementation.

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<sup>35</sup>Segmentation was not simply a consequence of market failure. Differences in risk premia and difficulties in transferring funds between banks undoubtedly probably explain much if not all the differences in interest rates across banks.

The experience of the period illustrates the above factors. Both the ruble area arrangements and the requirement that the CBR finance large deficits and lend to selected sectors made it impossible for the CBR to create monetary conditions conducive to stabilization. Moreover, a poor understanding of the inflationary consequences of excessive monetary expansion led the CBR not to oppose (and sometimes to support) a lax credit policy. It was only after the exchange rate crisis in October 1994 that a coherent anti-inflationary policy started to take shape. Thus, towards the end of that year, the CBR had begun to curtail its financing of the deficit and abolished directed credits. The strengthening of the CBR's independence after the passage of the CBR Act in 1995 further facilitated that process. The broad picture that emerges from the period is as follows.

During the era of the Soviet Union, monetary policy was conducted largely through administrative controls. Instruments of monetary policy consisted of credits extended directly from the Gosbank to specific sectors of the economy or to the government. Reserve requirements were introduced but were ineffective and poorly enforced; interest rate controls were also imposed on all commercial banks. Moreover, those requirements and controls were used mainly as selective credit instruments, promoting lending to specific sectors of the economy.

As noted above, the ineffective ruble area arrangements, coupled with a lax domestic credit policy, made it practically impossible for the CBR to implement an effective monetary policy between the period that began with the breakup of the Soviet Union and the collapse of the ruble area. Moreover, the CBR lacked monetary instruments to offset the monetary impact of its deficit financing and directed lending. Although reserve requirements were increased steadily throughout the period, they initially had no significant impact on monetary aggregates, largely because of widespread noncompliance. Faced with these difficulties, the authorities resorted to administrative controls, which included limits on spending and interest rate controls. Furthermore, the payments system was unable to cope with the increased volume of transactions resulting from the rapid increase in the number of banks and enterprises. This resulted in erratic changes in float and great uncertainty over the timing of payments, further complicating monetary policy implementation.

Following the collapse of the ruble area in July 1993, the CBR gained some ability to control monetary policy. Nevertheless, the financing needs of the government continued to dominate the CBR's credit policy, and administrative measures rather than monetary instruments were used to limit the monetary impact of the fiscal deficit. Some institutional reforms began to give the authorities a better control over credit expansion. A Credit Commission was assigned responsibility for controlling CBR credit flows to the economy. Directed credits were first shifted to the budget and were finally eliminated in late 1994.

By 1994, the development of the financial system and the growing size of the interbank market facilitated the improvement of the CBR's market-related instruments. A key step was for the CBR to attach penalty rates to its lending, keeping its refinance rate above the interbank rate. This effectively reduced bank demand for CBR credit. The CBR also

introduced a credit auction in February 1994, to provide short-term liquidity support to the banking system, replacing it with a Lombard auction in 1996. However, the use of both instruments was limited, largely because the interest rates charged for those credits exceeded interbank rates in the major financial centers in Russia.

The changes to the CBR credit policy drastically improved the CBR's control over the injection of liquidity. However, the CBR still lacked an efficient means of reducing domestic liquidity. High reserve requirement rates made it difficult to contemplate further raises in reserve ratios as an instrument for liquidity absorption. Against this background, foreign exchange intervention gained importance in the determination of monetary conditions. However, this required consistency between the domestic monetary policy target and the exchange rate policy which proved hard to achieve. This problem was highlighted in the second quarter of 1995, when reserve money grew rapidly owing to large scale foreign exchange intervention that was aimed at stopping the appreciation of the ruble that occurred in part because of large capital inflows. To address this situation, a deposit auction was introduced in the summer of 1995. Progress at using this instrument effectively, however, was limited. In part, the CBR was reluctant to have its deposits compete with the government's treasury bills, and was concerned that paying competitive rates on its deposits would undermine its financial position.

Despite the difficulties summarized earlier, by end-1996, the CBR had developed a broad range of monetary instruments. These included a credit auction, collateralized with government securities, a deposit auction, dealings in foreign exchange, and reserve requirements. The most developed instruments injected liquidity into the market. Instruments for withdrawing liquidity were less well developed. The deposit auction was of limited quantitative impact because its rate was set too low to attract sizeable amounts. Changes in reserve requirements were occasionally used for monetary purposes. The CBR also had a number of nondiscretionary instruments. A Lombard facility allowed banks to obtain short-term emergency credit as did the unsecured overnight overdraft facility. Although not yet very actively used to implement monetary policy (through outright sales and purchases or repos), the CBR had been a key player in the development of a market for treasury bills, and plans were underway to use them more actively also to implement monetary policy.

## **THE RUSSIAN FINANCIAL SECTOR**

### **A. Pre-1992 Developments**

#### **The banking sector**

Until 1988 the U.S.S.R. had a banking system that comprised the Gosbank, and two specialized banks—Sberbank (Savings) and Vneshekonombank (Foreign sector). In that year, a two-tier banking system was introduced with the creation of three state-owned specialized banks: Agroprombank (Agriculture), Promstroibank (Industry) and Zhilsotsbank (Social Investment). In addition, the 1988 Law on Cooperatives authorized the establishment of commercial banks by cooperatives and later by state-owned enterprises.<sup>36</sup>

Given the structure of the Soviet economy, the banks were mainly channels for directed credits rather than proper financial intermediaries competing for deposits and lending on the basis of credit ratings. The specialized banks were initially completely dominant. However, as competition from the new commercial banks began to increase, interest controls that linked commercial bank rates to Sberbank rates were introduced in February 1990 to prevent large shifts of deposits away from Sberbank.

#### **Foreign exchange markets**

There were no foreign exchange markets in the Soviet Union prior to 1990, when banks were allowed to deal in foreign exchange and to take foreign currency deposits. Subsequently, in January 1991 a presidential decree introduced a free foreign exchange market, and on January 8, 1991 MICEX began weekly auctions of foreign exchange.

### **B. Post-1992 Developments**

#### **Banking sector**

The number of commercial banks in Russia increased rapidly after 1988. At the end of 1991 there were 1350 commercial banks, and by the end of 1994 the total number had reached 2500. However, tighter licensing requirements and a more vigorous banking supervision reduced the number of banks operating by end-1996 to fewer than 2300. Due to the reliance on directed credits in the U.S.S.R., and in the period from 1992–1994 in Russia as well, most of these banks did not engage in actual financial intermediation. Banks acted as intermediaries for directed credits between the CBR and enterprises, administering the loans and getting a fee derived from a 3 percent spread between the rate banks paid the CBR and the rate they

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<sup>36</sup>For a full survey see: International Monetary Fund, 1991, Volume 2, pps. 107–136.

charged enterprises. The continued reliance on directed credits from 1992–1994 no doubt hindered the development of the financial sector. By 1994 fewer than 200 banks in Russia carried out significant banking activities, whereas the rest performed only very limited operations.

To estimate the amount of active financial intermediation performed by the commercial banking system in Russia, one can look at the ratio of commercial bank credits to the non-government sector over CBR credits to commercial banks (which is a proxy for the amount of directed credits).<sup>37</sup> This ratio hovered between 1 and 2.2 from 1992 until late 1993. In mid-1994 it had climbed to 2.8 and by the end of 1994 it stood at 4.2 (see Appendix Table). This suggests that while the Russian banking sector only started to perform large-scale intermediation as of mid-1993, it developed rapidly thereafter.

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<sup>37</sup>Until 1995, the bulk of CBR credits were directed, the only significant alternative source of liquidity was the credit auction introduced in February 1994.

Appendix Table. Russian Banking Intermediation 1992–1995

	March 1992	June 1992	Sep. 1992	Dec. 1992	March 1993	June 1993	Sept. 1993	Dec. 1993	March 1994	June 1994	Sept. 1994	Dec. 1994	March 1995	June 1995
Banks claims on rest of economy (ruble credit)	1,010	1,488	3,306	5,583	8,814	13,572	20,711	27,930	35,723	49,761	65,648	77,575	98,046	110,268
CBR gross credits to banks	326	562	1,273	2,844	3,884	5,401	8,025	8,744	10,467	13,092	16,281	14,897	19,821	12,951
Commercial bank lending (excl. directed credits)	684	926	2,033	2,739	4,930	8,171	12,686	19,186	25,256	36,669	49,367	62,678	78,225	97,317
Intermediation	2.1	1.6	1.6	1.0	1.3	1.5	1.6	2.2	2.4	2.8	3.0	4.2	3.9	7.5
Intermediation=Commercial bank lending (excl. directed credits)														

Source: Central Bank of the Russian Federation.

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