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Russia: Virtual Stabilization  
and Real Crisis

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Anton Stroutchenevski<sup>1</sup>

## Russia: Virtual Stabilization and Real Crisis

### Abstract

This article describes the main features of the Russian stabilisation program of 1995-1997 and examines factors contributing to the 1998 financial crisis. After a brief discussion of stabilisation programs implemented in other developing countries, the tendencies of Russian macroeconomic performance in 1996-1998 are considered. The main capital flows into the Russian economy during 1996-1998 are also analysed. The evidence presented argues that stabilisation in 1995-1997 was achieved at the cost of increasing indebtedness. The author favours that Russia should look to monetary-based stabilisation policies in the future.

## 1 Introduction

Russia's economy in 1997 appeared to have overcome excess inflation and seemed poised for growth. Unfortunately, there was little time to enjoy the fruits of financial stabilisation, which was overturned by the 1998 crisis. Most crises do not spring up suddenly without warning as the conditions needed to foment crisis take a fairly long time to develop. Contradictions within the economy build up over time until they finally get resolved in a sudden eruption, or crisis. The Russian crisis of 1998 was no exception. Macro and microeconomic factors contributed to this crisis. This article focuses on the macroeconomic preconditions for the Russian crisis, i. e. those concerning budgetary and monetary policies.

The article is divided into five sections. The first section describes stabilisation programs in other developing countries. The features of exchange rate-based stabilisation (ERBS) and money-based stabilisation (MBS) are described. Some consequences of the different types of stabilisation programs are considered. What the Russian government did to stabilise the Russian economy, is described in the second section. Sources and uses analysis of the Russian domestic debt is presented in this section as well. The behaviour of the agents of the Russian economy in 1996-1997 is observed in the third section. The structure of financial transactions having formed by the end of 1997 is described. This structure reflects dangerous tendencies in the macroeconomic performance. The fourth section analyses what the government could have done in the beginning of 1998 having faced non-residents' capital outflow. Two scenarios are considered. In the first, the government tries to keep the same exchange rate; in the second, the government tries to avoid domestic debt default. The fifth section concludes with a discussion of future perspectives for a stabilisation program in Russia.

## 2 Stabilisation programs: the choice of a nominal anchor and results

A key aspect of most stabilisation programs in developing countries is the choice of nominal anchor. This involves choosing between exchange rate-based and money-based stabilisation. Practice shows that the selection of exchange rate or money growth as a nominal anchor may give different results.

Calvo and Végh (1999) provide a detailed review of stabilisation programs in developing countries. They study exchange rate-based stabilisation (ERBS) and money-based stabilisation (MBS) implemented in Argentina, Brazil, Chile, Dominican Republic, Mexico and Uruguay. At first sight, exchange rate-based stabilisation demonstrated better results in comparison to money-based stabilisation, because inflation falls faster. A possible explanation is that the exchange rate is a more observable nominal anchor than money growth. Thus, government efforts to stabilise the economy can be easier controlled under an ERBS program. If the exchange rate is truly fixed, agents can reduce their inflation expectations. Under an MBS program, agents lack knowledge of e.g. the amount of daily emission. Thus, uncertainty persists and inflationary anticipation goes down slower.

Moreover, an ERBS program is usually followed by the initial increase of real activity and foreign investment. Pegging the exchange rate might make foreign investors believe that devaluation risk is low. Together with high interest rates, this can encourage non-residents to invest in the economy. Great capital inflow leads to the growth of consumption and reanimation of the economy. In the case of an MBS program, the devaluation risk remains with the

central bank unable to guarantee the fixed regime. Usually, a “dirty” floating regime is used. This might limit foreign capital inflow. Money-based stabilisation usually causes a decrease in government nominal expenditures, which in turn may cause a decrease in household income and aggregate demand.

The initial success of the ERBS program is often followed by a balance of payments (BOP) crisis. Among EBRBS programs ending in BOP crises, the following deserve mention: Argentina (March 1967 – May 1970), Uruguay (June 1968 – December 1971), Chile (February 1978 – June 1982), Uruguay (October 1978 – November 1982), Argentina (December 1978 – February 1981), Argentina (June 1985 – September 1986), Brazil (February 1986 – November 1986), Mexico (December 1987 – December 1994), Russia (July 1995 – August 1998), and Brazil (July 1994 – January 1999).

A BOP crisis occurs when the demand for foreign currency exceeds international reserves available. In this case, the government must devalue the domestic currency to decrease the demand for foreign currency. The reasons for the dramatic loss of the reserves leading to devaluation, however, may differ. These are briefly reviewed below.<sup>1</sup>

A *budget deficit* is considered as one possible factor increasing the possibility of a BOP crisis (see Krugman (1979) and (1996) or Sargent and Wallace (1981)). In the basic Krugman model, the government covers the deficit by expanding domestic credit. As long as possible, the central bank attempts to peg the exchange rate through unsterilised interventions (Krugman 1996). The possible loss of reserves and exchange rate collapse encourages speculative attack. This description of a currency crisis is very close to the actual events in Russia in summer 1998.

Tornel and Velasco (1995) argue that governments have little incentive to undertake fiscal reform under an ERBS. Having fast achieved the main goal of stabilisation – moderate inflation – “the politicians who control the budget can ... enjoy high spending and low inflation.” Naturally, the soft budget policy eventually leads to the collapse of the fixed exchange rate and the end of stabilisation program. The best-known examples of such failure are the attempts to stabilise in Argentina in 1978 and 1985 and in Brazil in 1986. To a certain extent, Russia (as shown in the next section) may be added to this group of countries.

The examples of successful exchange rate-based stabilisation plans, such as Uruguay’s (December 1990 – present) and Argentina’s (April 1991 – present), demonstrate that the credibility of a stabilisation program becomes stronger when government finances are in order. In Uruguay’s case, the budget deficit decreased, so inflation stabilisation was sustainable. Argentina is somewhat special: the country has applied a currency board arrangement (CBA) since 1991. According to the rules of CBAs, monetary policy must be kept independent of budgetary policy. This implies fiscal discipline.

Money-based stabilisation, on the other hand, demands fiscal discipline in the early stages. The first consequence of a veritable application of an MBS program is a decrease in the budget deficit. Examples of money-based stabilisation programs are presented in Table 1. Note that the implementation of the MBS program was usually accompanied by a decrease in the budget deficit or holding to a low budget deficit.

Table 1. Major money-based stabilisation programs

Country	Budget deficit	Inflation
Chile (April 1975 – December 1977)	1974: 5.4% of GDP 1977: 1.1% of GDP (with a little surplus in previous two years)	1974: 504.7% 1977: 91.9%
Bolivia (1985 – 1987)	1985: 41.2% of GDP 1987: surplus 0.7% of GDP	1985: 11750% 1987: 14.6%
Argentina (December 1989 – February 1991)	1989: 0.7% of GDP 1990: 0.3% of GDP	December 1989*: 4923.3% February 1991*: 287.3%
Brazil (March 1990 – January 1991)	1989: 18.6% of GDP 1990: 6.16% of GDP	March 1990*: 5747% January 1991*: 1119%
Dominican Republic (August 1990 – present)	1989: surplus 0.3% of GDP 1997: surplus 0.9% of GDP	1989: 45.4% 1997: 8.3%
Peru (August 1990 – present)	1989: 5.7% of GDP 1997: surplus 0.3% of GDP	1989: 3398.7% 1997: 8.6%

\* Twelve-month inflation rate

Source: *International Financial Statistics (IMF) and Calvo and Végh (1999)*

The *current account approach* became more popular after the 1994 crisis in Mexico (see Milesi-Ferretti and Razin (1996)). In most cases of exchange rate-based stabilisation, fixing the exchange rate leads to a domestic currency appreciation in real terms and a current account deficit. The current account deficit needs to be compensated by a foreign capital inflow, which might risk an increase the foreign debt. In the next period, the current account deficit grows as the economy needs to pay more interest for the increased foreign debt accrued in the previous period. Increased imports are a second reason for a growing current account deficit. Imports are encouraged by the continuing real appreciation of the domestic currency. In this case, the credibility of an ERBS policy depends on the wishes of non-residents to invest in the economy. If non-residents doubt the economy will be able to service its debt, they stop financing current account deficit and devaluation becomes possible. Well-known cases of BOP crises touched off by huge current account deficits include Chile (1982), Mexico (1994) and Brazil (1999). An interesting feature here is that a negligible budget deficit does not guarantee that a BOP crisis will be avoided.

The *maturity* structure of government and private debt may also foreshadow an approaching BOP crisis. In this case, the analysis focuses not on the amount of debt but on the amount of payments during the period of time (see Sachs et al. (1995)). Extreme examples of *maturity* problems are seen in Mexico in 1994 and Russia in 1998.

Sachs et al. (1996) used the ratio of money supply (M2) to foreign exchange reserves as a signal of the rising possibility of currency crises. Another indicator – the ratio of monetary base to foreign exchange reserves – may be used as well. The first index shows how foreign exchange reserves cover total financial resources in domestic currency that can be used against speculative attack. The second index shows whether the central bank can cover its liabilities with the reserves under the given exchange rate.

As it will be shown, the Russian financial crisis was a complex event and almost all indicators pointed towards a BOP crisis already at the end of 1997.

### 3 The main features of the Russian stabilisation program

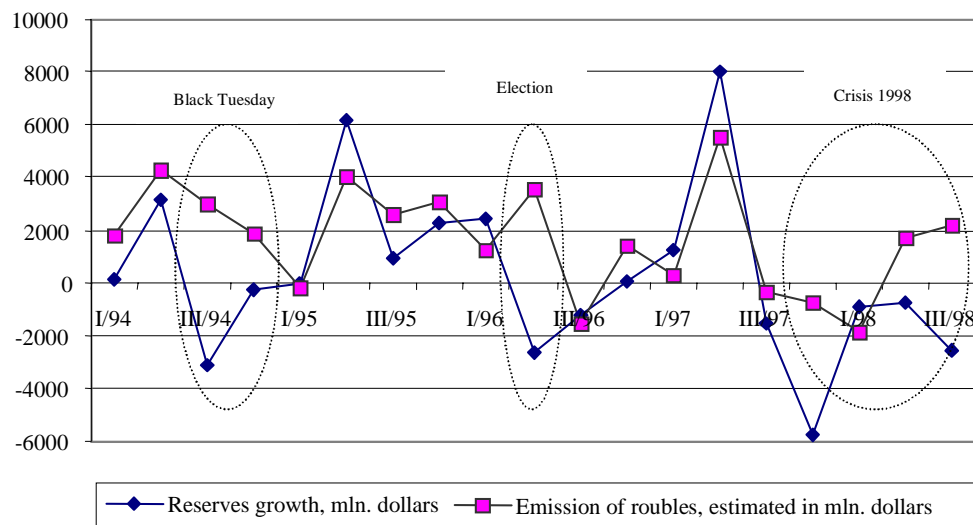
The main features of the monetary and budgetary policies for the period 1995-1997 were set out late 1994 and early 1995. Having experienced a huge budget deficit, inflation, and a currency crisis (Black Tuesday in October 1994) the government decided to pursue financial stabilisation. The main goal was low inflation. The means to achieve it were money supply control and a crawling peg regime.

In hindsight, one can postulate that the sharp fluctuations in the rouble's exchange rate might have been avoided by coordinating the emission of roubles with changes in the foreign exchange reserves. Explained briefly, we note that the stock of financial resources potentially available against speculative attack on the currency market is equal to the money supply measured as M2. To some extent, the Central Bank of Russia (CBR) can control M2 by regulating M0. If, given the current exchange rate, the structure of the balance of payments is such that the reserves are declining, then the CBR should reduce the money supply to avoid excessive liquidity and reduce the possibility of a speculative attack. This scheme is very close to the rules of a currency board (see Caprio et al. (1996), and Santiprabhob (1997)).

With currency boards, the central bank must be absolutely independent of the government. This requirement makes the stabilisation program more credible. In 1995 the Russian government refused to finance its budget with CBR credits. Even so, the CBR independence was only nominal. Indeed, the massive share of GKO-OFZ in total assets of the CBR evidenced an almost complete lack of independence.

Figure 1 illustrates the dynamics of the rouble emissions<sup>2</sup> and the CBR reserves in 1994-1998. Considerable divergences were observed before the devaluation on Black Tuesday (October 1994) and the devaluation in August 1998. In the second quarter of 1996, the emissions were not supported by growth in reserves. During this period, the presidential election was driving the CBR policy. The CBR was providing liquidity to the financial markets, while the financing government expenditures depended largely on the attractiveness of GKO to investors. After the election, the CBR tightened monetary policy to prevent speculative attack.

Figure 1. The change of Central Bank reserves and rouble emissions during 1994-1998, million USD



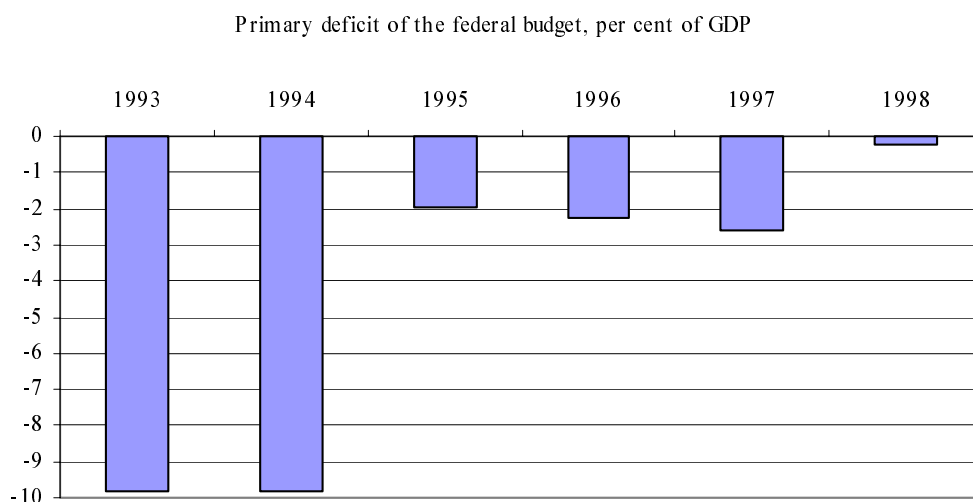
Source: CBR



The effectiveness of this policy was demonstrated in practice. In 1996, inflation was 22%, in 1997, 11%. The money supply continued to grow in real terms and interest rates declined.

After 1994, government finances underwent a fundamental change: the budget deficit decreased compared to earlier years. However, budget deficits started to grow again in 1996 and 1997 (see Fig. 2). Only in the first half of 1998, faced the threat of default, did the Russian government manage a primary surplus. In other words, a stabilising monetary and a expansionary budgetary policy were operating simultaneously. Having refused to use CBR credits, the government went to the financial markets for deficit financing.

Figure 2.



Source: BEA estimates based on Minfin data

To describe this situation, we employ a simple debt model. If the government issues  $n$ -days bonds, every  $n$ -th day it must make interest payments of the principal ( $R_{t-1} * B_{t-1}$ ) and primary budget deficit ( $PD_t$ ). Thus the government's total deficit of ( $D_t$ ) is equal to the sum of these payments:  $D_t = R_{t-1} * B_{t-1} + PD_t$ . The total domestic debt ( $B_t$ ) equals the total deficit plus the principal:  $B_t = D_t + B_{t-1}$ . If there are high interest rates and primary deficit, then there is permanent growth of domestic debt. This was the case in Russia during 1995-1998.

Was Russia's domestic debt too large? On the one hand, Russia had a fairly low domestic debt-to-GDP ratio (about 15% in the end of 1997). But to judge whether the debt is sustainable or not, one needs additional information about debt liquidity and capacity to repay. Measures about the debt liquidity help determine whether it is possible to attract money for debt refinancing. The ratio of debt servicing costs to borrower's income as a measure of capacity to pay is useful in determining whether the government can cover their liabilities themselves. If an economy faces debt liquidity problems or capacity-to-pay problems, the debt can be unbearable even if the domestic debt-to-GDP ratio is low. The government of Russia clearly faced liquidity and capacity-to-pay problems in 1998.

Money supply, measured as M2, might be considered as consolidated resources of the financial system, which then can be used to finance the budget deficit. In implementing tight monetary policy, the CBR limited money growth and the potential demand for government securities. The money supply grew much slower than domestic debt (Fig. 3). For example, at the end of 1996 the ratio of domestic GKO debt to M2 was about 80%. Already at the end of

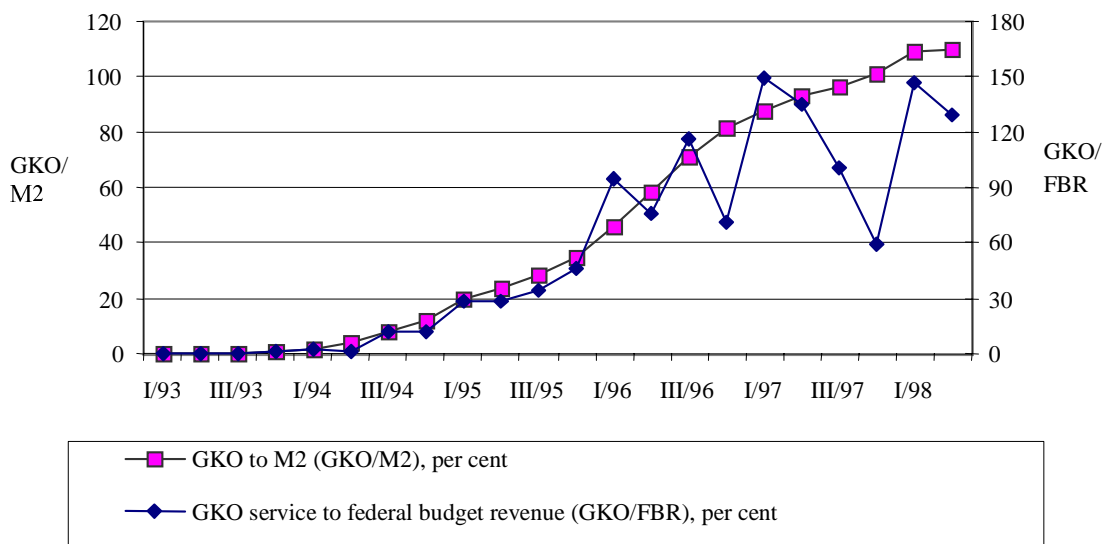
1996, this high ratio could well have been interpreted as a warning of impending liquidity difficulties. The resources of the domestic financial system were exhausted.

Could the Russian government have serviced its debt with its own resources? Figure 3 shows the ratio of domestic debt servicing costs to federal budget revenues. This ratio exceeded 100% in the third quarter of 1996, in 1997 (excluding the fourth quarter) and in the first half of 1998. Thus, because of the short-maturity of the domestic debt, Russian government found itself in a very awkward position already in the end of 1996. The Russian government was in a debt trap and could not cover the debt itself.

In revising its macroeconomic policy, the government could have implemented a radical budget reform. The necessary condition for doing this effectively would have been reduction of the primary deficit. Moreover, the servicing of domestic debt would have taken place without new loans. Of course, the government was unable to convince either parliament to cut expenditures or producers to pay taxes. Thus, another route was chosen.

The chosen route required a new source of financing – foreign capital. For non-residents, the situation in Russia at the end of 1996 seemed quite stable. The election had removed policy risk, the exchange rate was nearly fixed and inflation was low. High interest rates made the Russian bond market attractive to foreign investors and financial liberalisation made the bond market accessible. Non-residents were allowed to invest in government treasuries (GKO) at the end of 1996. A huge capital inflow, which had started in the third quarter 1996, enabled the government to continue the previous policy, but the price for this was the dependence of the domestic market on the moods of foreign investors.

Figure 3. The growth of GKO debt



Source: BEA estimates based on CBR data

## 4 Notable macroeconomic events

To understand how the Russian economy responded in 1996-1997 to the government's efforts to carry out financial stabilisation, let us consider some financial transactions in 1996 and in 1997, as presented in Table 2.

First, the structure of banks' liabilities, which could have been attracted by the government, changed substantially. Deposits of households and enterprises grew by about 53 (52+1) trillion roubles in 1996 and about 75 (17+58) trillion roubles in 1997. Although the banks seemingly improved their positions in 1997 in comparison with 1996, there was deterioration in fact. In 1996, the share of the households' deposits in the total funds attracted from these two sectors (households and enterprises) was about 99% (or 52.3 trillion roubles). In 1997, households' share was only 23% (or 16.9 trillion roubles). The reasons for this shift may have been as follows.

The success of the financial stabilisation encouraged non-residents to invest in Russia in 1997. This decreased interest rates (annual average deposit interest rate was 55% in 1996 and 17% in 1997). As a result, deposits became less attractive to households in comparison to foreign currency holdings.

As interest rates fell, credits became more readily available to enterprises. Banks began to reallocate their investment portfolios towards credits to enterprises (15 trillion roubles in 1996 vs. 49 trillion roubles in 1997). At the same time, enterprises' deposits increased (1 trillion roubles in 1996 vs. 58 trillion roubles in 1997). Thus, the net inflow of funds from enterprises to banks was about 9 trillion roubles in 1997. The increase in credits to enterprises was not supported by the increase in households' deposits in 1997.

Table 2. Some financial transactions

	1996	1997
Growth of financial system sources, trillion roubles	75	127
- households' deposits	52	17
- enterprises' deposits	1	58
- foreign liabilities	22	52
Credits to enterprises, trillion roubles	15	49
Government borrowing, trillion roubles	168	207
Government financing by non-residents, trillion roubles	70	153
- % of attracted sum	42%	74%
Growth of arrears to the government, trillion roubles	161	118
Capital flight via trade credits, non-residents' arrears to enterprises, net errors and omissions, trillion roubles	144	151

Source: BEA preliminary estimate of SNA financial account based on CBR data, Goskomstat.

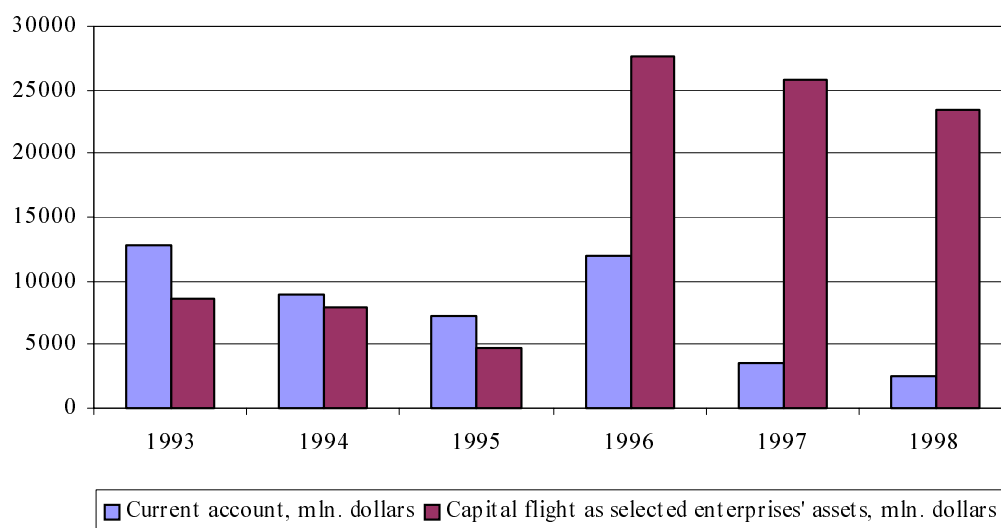
Second, the inflow of foreign capital to Russian banking system increased in 1997 in comparison with 1996 (22 trillion roubles in 1996 vs. 52 trillion roubles in 1997). The liquidity of Russian banks rose, but this in turn increased the vulnerability of the domestic financial system to the outflow of foreign capital.

Third, the government's need for financing exceeded the resources of the domestic financial system. In 1996 government borrowing amounted to 168 trillion roubles, of which about 42% was financed by non-residents or by the rest of the world (including IMF and World Bank credits). In 1997, government borrowing amounted to 207 trillion roubles<sup>3</sup> of which about 74% was financed by the rest of the world.

Fourth, the growth of arrears to the budget and off-budgetary funds induced the government to borrow even more. The increase in these arrears was about 161 trillion roubles in 1996 and 118 trillion roubles in 1997. This huge increase in arrears forced the government to borrow in 1996 and exacerbated the problem of servicing the domestic debt in 1997.

The current account surplus decreased in 1997, but stayed positive. This indicates that changes in foreign trade were not the main reason for the Russian crisis and that there could have been some possibilities for Russia as a nation to service its foreign debt (see Fig. 4).

Figure 4. Current account surplus and capital flight



Source: CBR

But the capital flight from Russia hampered the stabilisation policy further. Here, capital flight means the increase of foreign assets held by residents. Some of these transactions are registered in the balance of payments, but nevertheless all estimates of capital flight are very approximate. Using the official statistics of the balance of payments, capital flight can be estimated as a sum of trade credits and non-residents' liabilities.

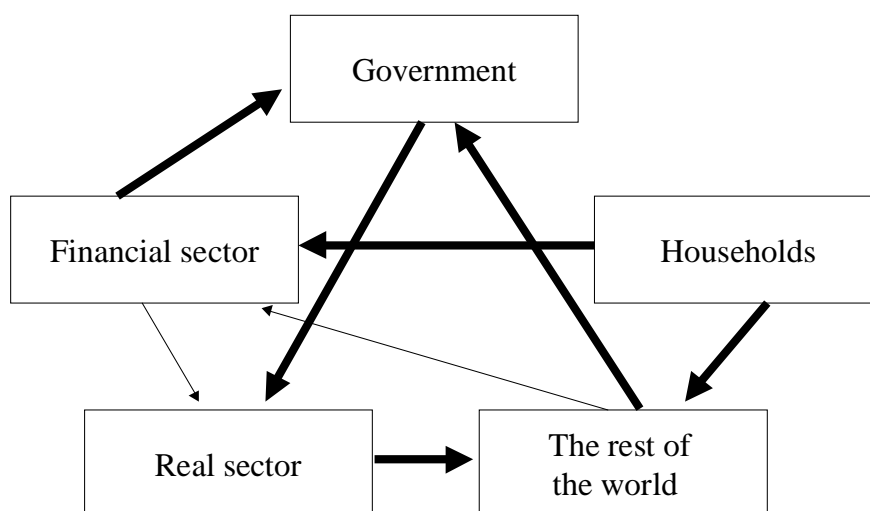
The balance of payment data shows the amount of capital flight from Russia exceeded the current account surplus in 1996-1998 (see Fig. 4). In 1996, capital flight was about 100 trillion roubles, in 1997 about 107 trillion roubles. "Net errors and omissions" of the balance of payments is often used for estimation of illegal capital flight.<sup>4</sup> Including this item, the estimates of total capital flight from Russia are 144 trillion roubles (or 27.6 billion dollars) in 1996 and 151 trillion roubles (or 25.8 billion dollars) in 1997 (see Fig. 4).

Thus, in 1996-1997 the stability of the domestic currency was based on foreign capital inflow and capital flight hampered it. This is quite similar to the stabilisation and crisis experiences in Chile (1982), Mexico (1994) and Brazil (1999).

The structure of financial transactions in Russia could be described as follows. The government credited the real sector, because it allowed arrears to the budget. The real sector credited the rest of the world with the capital flight. The financial sector credited the government more than the real sector. The households credited the financial sector with deposits and the rest of the world with purchases of foreign currency. The rest of the world credited the Russian government and other sectors of the domestic economy, but less than the government. Figure 5 illustrates the structure of financial transactions in Russia in a simplified manner.

We isolate a closed contour (Government - Real sector - The rest of the world - Government). Here, the amount of circulating capital, compared e. g. with M2 or total budget revenues, was huge. Other financial transactions were either negligible or connected with this contour. All agents were satisfied in the short-term with this structure of financial transactions. Households were satisfied because they enjoyed cheap imported goods. The government was satisfied because it avoided conflicts with households (if it would have decreased budget expenditures), and enterprises if it had tried to collect all owed taxes. The rest of the world and the financial sector were satisfied because they could make good money lending to the government.

Figure 5. Key financial transactions in Russian economy<sup>5</sup>



Obviously, this equilibrium was not stable. It existed only because of foreign capital inflows. When the foreign investors grew skittish over whether the government was able to service its debts in the future, capital inflows ended and the financial system collapsed.

The structure of financial transactions described above illustrates the fact that the domestic sector of the economy did not trust the government and preferred to invest abroad. The question of trust, therefore, remains a crucial point for any stabilisation program developed in Russia. No stabilisation program can succeed if Russians themselves do not invest in their economy.

## 5 Foreign capital flows in 1998

Finally we consider the possible consequences of the foreign capital outflow in 1998. First, we describe a basic macroeconomic setting. According to the balance of payments data, non-residents invested about 16 billion dollars in GKO's during 1997. In addition, they had 11 billion dollars investments in GKO's during 1996 and there was an increase in reserves of 2 billion dollars. Thus, the total outflow could be some 25 billion dollars (16+11-2). Suppose now that non-residents withdrew this capital from the Russian financial market. At the start of 1998, the CBR's foreign exchange reserves amounted to only 13 billion dollars. Without additional financing, there would have been a balance of payments crisis.

Now add another assumption. Suppose that Russia obtains about 20 billion dollars in credits from international financing institutions. The compensating decrease in reserves would be about 5 billion dollars (25-20). This supposition is quite reasonable in light of the agreements made in the summer of 1998 between international financing institutions and the Russian government.<sup>6</sup>

The federal budget also needed financing. Using the data at the beginning of 1998, domestic debt servicing in 1998 would have been about 270 billion roubles. Federal budget revenues in 1998 were about 310 billion roubles.<sup>7</sup> Assume also that non-financial expenditures could not have been less than 250 billion roubles.<sup>8</sup> Thus, the government would have needed about 200 billion roubles to service the domestic debt. Keeping in mind the assumption for international credits, the government's demand for the domestic financing could be estimated at least as 80 billion roubles (200 billion roubles of total government demand - 6 roubles per dollar x 20 billion dollars in foreign credits = 80 billion roubles).

Using the results for 1997 (Table 2), the net increase in deposits of households and enterprises would not have exceeded 30 billion roubles. Thus, domestic financing was inadequate for the government's needs.

We can see from our basic figures, how difficult the situation became for the Russian government when capital outflow started in 1998 and it was cut off from foreign financing. Under these basic initial conditions, we can consider the "rock and the hard place" options for government action: 1) the government tries to avoid devaluation; 2) the government tries to avoid default.

### ***Scenario 1. The government attempts to avoid devaluation***

Under this scenario the central bank should coordinate cash in circulation and the reserves to prevent a speculative attack against the currency. If the reserves fall by 5 billion dollars, then M0 should decrease by around 30 billion roubles. In this case, the price for avoiding devaluation is a decline in liquidity. If the government's demand for additional money resources is 80 billion roubles and the net increase in deposits is only 30 billion roubles, default would be quite likely.

Tight monetary policy can induce residents convert their foreign assets into domestic assets. This process could help the CBR build up the reserves.<sup>9</sup> But this needs credibility. This can be gained by huge infusion of stabilisation credits. In other words, devaluation may be avoided at the cost of a liquidity crisis and larger foreign debt. If the Russian government would have employed this strategy, they should have also undertaken measures to decrease capital flight. Otherwise, foreign debt tends to grow and the threat of the balance of payments crisis arises again.

### **Scenario 2. The government attempts to avoid default**

Suppose that the government tries to avoid default. As the government's demand for the domestic financing is about 80 billion roubles and the increase in deposits is about 30 billion roubles, the CBR participates in the financing of the budget deficit. This means that M0 will definitely not decrease. But since the reserves decrease by 5 billion dollars, devaluation becomes necessary.

The choice between a liquidity crisis and devaluation can be illustrated with Tinbergen's model. Let the liquidity of financial system ( $L$ ) be a function of M2:  $L = f_1(M2)$ , where the first derivative is positive. Let the exchange rate ( $e$ ) be the function of the ratio of M2 to reserves ( $Res$ ):  $e = f_2(M2/Res)$ , where the first derivative is positive.

Consider the simple set of equation:

$$L = f_1(M2)$$

$$e = f_2(M2/Res)$$

The CBR next increases M2 to avoid liquidity crisis and default. Assuming the conditions prevailing in 1998, Russia's reserves would decrease to zero and devaluation would become necessary.<sup>10</sup>

Analysis of the macroeconomic indicators enables us to suppose that the CBR tried to tighten monetary policy in the first quarter of 1998 to defend the exchange rate (Fig. 1). In the second quarter, as the threat of default was realised, the CBR tried to ease its monetary policy stance. The application of contradictory strategies strengthened expectations for a crisis and the objectives were not reached. Both devaluation and default occurred.

## **6 What have we learned?**

The Russian financial crisis in 1998 showed that success of a financial stabilisation program must not be measured solely in terms of low inflation. There are many other interrelated features that determine an economy's exposure to the danger of a financial crisis. The key features that should be included in an analysis of the economy are budget deficit, debt liquidity, ratio of debt servicing costs to borrower's income, how residents use their savings, and how dependent the economy is on the inflow of foreign capital.

For example, Russia achieved low inflation in 1997, but at the cost of growing debt. Foreign investors financed the apparent stability in 1997, while the most critical issue – convincing residents to invest into their own country – was not resolved. The result was the financial crisis of 1998.

What options does the current Russian economy have? Exchange-rate-based stabilisation does not make much sense in the near future. An aim of pegging the exchange rate is attracting foreign investors, but the experience of 1998 made investors avoid emerging markets because of their high risk. Moreover, the credibility of such a stabilisation program would be quite low until the matter of foreign debt servicing is solved.

Monetary-based stabilisation make more sense under existing circumstances. Indeed, there are indications that such a program is being used in Russia presently. For example, the

government has managed to decrease the deficit and now runs a primary surplus in the federal budget. The CBR now attempts to regulate the currency market and fight against capital flight. This has brought modest results: foreign reserves began to grow in May 1999 and the exchange rate stopped increasing. The rouble's exchange rate has also remained fairly stable since May.<sup>11</sup>

Nevertheless, the stabilisation in the second quarter of 1999 has been achieved at the cost of a technical default on Russia's foreign debt. Thus, the question of what the central bank is supposed to do if reserves begin to fall is still open. If the CBR continues a tight monetary policy, then there will be a chance of financial stabilisation.

In summary, the success of Russian stabilisation depends on three things: monetary policy, budgetary policy and patience of foreign creditors.



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## Notes

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The views expressed in this paper are those of the author and do not necessarily reflect the official position of BEA. The author remains responsible for all judgements and possible errors. The article has been revised by T. Komulainen.

<sup>1</sup> For the more accurate reviews of BOP crisis theories see Calvo and Végh (1999) and Komulainen (1999).

<sup>2</sup> Emission was estimated in dollars. Quarterly average exchange rate was used for estimation.

<sup>3</sup> Without the government debt to London Club (the fourth quarter of 1997) and to the CBR (the first quarter of 1997) restructuring.

<sup>4</sup> See "The problem of capital flight from Russia", A final report...

<sup>5</sup> Bold arrows mean the main direction of financial transactions.

<sup>6</sup> Although received only 4.8 billion USD in the first IMF tranche at summer 1997.

<sup>7</sup> Estimation is based on 1997 data.

<sup>8</sup> Estimation is based on 1998 data.

<sup>9</sup> There are some examples of at least short-term success of such efforts. After Black Tuesday the CBR raised the interest rate to 200% and stopped financing the government. As a result of this monetary policy, residents began selling foreign currency to the CBR. The supply of foreign currency exceeded the demand and the rouble appreciated. But the result of the monetary tightening was a liquidity crisis in August 1995.

A similar story applies to Argentina in 1995. Capital outflow caused a decline in foreign reserves. Under the rules of the currency board, the Central bank reduced the monetary base. The national currency was saved, but at the cost of a liquidity crisis and high interest rates.

<sup>10</sup> If the CBR is to avoid devaluation in the face of diminishing reserves it should tighten monetary policy, which again makes default plausible.

<sup>11</sup> The article was finished in the end of July 1999.

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