Liquidity Crisis in the Russian Money Markets

Facts, Causes, Evaluation, Impact

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1. Liquidity Crisis in the Russian Money Markets - The Facts

The trends in the main monetary variables that had already begun to emerge towards the end of May continued into the summer (see Table 1): the inflation rate continued to decline, though not by as much as observers had expected. The monthly rate of 4.6% recorded in August no more than equalled the previous year's figure.

Table 1: **Monetary Indicators**, September 1994 - August 1995

	Monthly inflation rate	**Monthly nominal interest rate (CBR)**	**Monthly real interest rate (CBR)**	**Dollar exchange rate 1 US$ = ... Rb (end of period)**	**Rate of devaluation or appreciation (-): % change on previous month**
Sep	7.70	10.80	2.90	2,633.00	19.85
Oct	15.10	12.50	-2.30	3,075.00	16.79
Nov	14.10	14.60	0.30	3,234.00	5.17
Dec	16.40	15.00	-1.20	3,550.00	9.77
Jan	17.80	16.70	-0.90	4,048.00	14.03
Feb	11.00	16.70	5.1	4,473.00	10.50
Mar	8.90	16.70	7.2	4,899.00	9.52
Apr	8.50	16.70	7.5	5,116.00	4.43
May	7.90	16.25	7.74	4,990.00	-2.46
June	6.70	15.00	7.78	4,539.00	-9.94
July	5.70	15.00	8.80	4,415.00	-2.73
Aug	4.60	15.00	9.94	4,447.00	0.72

Basic Data: Brigitte Granville, Business World Weekly, Russian Economic Trends, Kommersant

Boosted by the agreement reached between the Russian government and the IMF, by improved real-economy data signalling an end of the sharp output decline, and by high real rates of interest, the rouble continued to appreciate, not only in real but also in nominal terms, and in June the gain in value was even quite substantial. These developments prompted the Russian government and the central bank to introduce a band for trading against the dollar, with a lower limit of Rb 4,300 and an upper limit of Rb 4,900 to the dollar; this band was to apply up until the end of September. In imposing the band, the central bank made official the exchange rate-oriented monetary policy that it had been pursuing since the onset of the rouble's recovery. On 24 August the government announced that the rouble band was to remain in force until the end of the year.

Initially, the trend towards lower interest rates also continued. On the interbank market, a one-month credit cost only 5% per month. The central bank lowered its refinancing rate from 16.25% to 15% per month. However, in mid-July interest rates in all the monetary markets began to rise again, although the increase was punctuated by fluctuations (see Table 3, column 1). On the evening of 24 August interest rates in the Moscow interbank market suddenly leapt upwards.[1] The overnight rate, i.e. the interest rate at which Russian banks lend each other central bank money, rose from 10% to 83.3% per month.[2] By the next day, however, the overnight rate had dropped back to below the CBR refinancing rate.

2. Liquidity Crisis in the Russian Money Markets - The Causes

The money market is where commercial banks trade central bank money. Given that the total volume of available central bank money is determined by the central bank's lending activities, the central bank can influence the price of central bank money, i.e. the interest rate, as it sees fit.[3] However, this does not mean that every change in the interest rate is caused or triggered by the central bank, in other words, that the central bank necessarily plays an active role. It is equally possible for interest rate movements to be brought on by the actions of the commercial banks. If this is the case, the question arises as to whether the central bank approves of the change in the interest rate, and, if not, why the central bank - even for a only a short time - tolerates it or indeed has no choice but to tolerate it.

Dramatic interest rate fluctuations such as occurred in the Russian money market in the third week of August can be attributed to three possible causes (see Overview 1).

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1 The liquidity crisis in Moscow had relatively little impact on other regional interbank markets. The main reason for this is that the Moscow-based banks deny access to the Moscow interbank market to all but a very few banks from outside the capital.

2 Evidently, not all banks were charged the same rate: large commercial banks were able to obtain a loan at between 25 and 42% p.m., whereas small commercial banks - if they received credit at all - had to pay 83,3 p.m. or more.

3 In technical terms: the central bank can at all times determine the position and the gradient of the money market supply curve.

<u>Overview 1</u>: Large-Scale Interest Rate Fluctuations in the Money Market - Possible Causes and the Role of the Central Bank

Cause	Crisis in the external sector of the economy, variable affected: exchange rate	Crisis in the domestic economy, variable affected: inflation rate	Financial crisis, lender-of-last-resort function (temporarily) suspended
Role of the central bank	Active	Active	Passive

1. Crisis in the external sector (currency crisis): the central bank raises the short-term interest rate in order to consolidate its own currency, or to maintain a fixed exchange rate. Thus, for example, during the European monetary crisis of autumn 1992 the overnight rate in the Irish money market temporarily reached a level of 300% p.a.; in the same situation, the Swedish Central temporarily raised its marginal lending rate to 500% p.a. The increases in both countries were the result of active efforts on the part of the central banks to keep their local currencies within their set exchange-rate bands against the D-mark, i.e. to counter pressure to devalue and thereby safeguard the stability of their external economies (see Overview 1, column 1).

2. Crisis in the domestic economy (inflationary crisis): the central bank announces a sudden sharp rise in the short-end interest rate in order to signal that the battle against inflation has begun. Thus, for example, in March 1973 the overnight rate in West Germany temporarily topped the 20% p.a. mark, having stood at under 3% p.a. as recently as February of that year. This rise was the result of an active effort on the part of the Bundesbank to ensure the stability of the domestic economy by reining in what was - by German standards - a high rate of inflation. Something similar occurred in the United States in October 1979, although here the increase in the interest rate was not quite so dramatic: Having introduced new operating procedures designed to render it possible to pursue policies based on controlling the money supply, the Federal Reserve considerably tightened its restrictive policies (see Overview 1, column 2).

One thing is clear: neither of the possible causes outlined so far can be responsible for the sharp rise in interest rates in the Russian money markets.

- The "external stabilisation" scenario is contradicted by the fact that the value of the rouble has remained relatively constant against the dollar over time (see Table 2, columns 1/2). In other words, there was nothing in the external economy that needed stabilising, and therefore it is safe to say that the Central Bank of Russia cannot have acted with this objective in mind.

- The "domestic stabilisation" scenario is also implausible because although in recent months the inflation rate had not been declining to as great an extent as the central bank, the government and the IMF had expected, there were nonetheless unmistakable signs of stabilisation. Thus, the domestic economic situation also gave no cause to raise interest rates. Moreover, if problems in the domestic economy had caused the increase:
    - a move aimed at stabilisation would have lasted longer than a single day: interest rates would have remained at a new higher level for some time;
    - other monetary markets, such as the market for treasury bills would have been noticeably affected. Yet this was not the case, despite the fact that last week the interest rate on treasury bills was roughly 20 percentage points higher than during the previous week (see Table 3, column 3).

Therefore it is reasonable to conclude that the rise in interest rates was due to a financial crisis which hit the money market in the third week of August, bringing about its temporary collapse because there was plenty of demand for central bank money, but no-one was willing to supply it.

Table 2: **Financial Market Indicators 16 - 31 August**

Date	Dollar exchange rate US$ 1 = Rb ...	Trade volume on the currency market (US$ millions)	Treasury bill rate (% p.a.)	Trade volume on the treasury bill market (Rb billions)
08-16	4,407	2.9	178.1	3,856.2
08-17	4,408	2.1	164.6	1,395.6
08-18	4,408	11.2	160.9	1,053.5
08-21	4,412	6.7	165.3	1,193.0
08-22	4,428	6.6	161.3	1,311.3
08-23[1]	4,428	3.2	213.0	93.2
08-24	4,428	19.3	175.7	1,505.4
08-25	4,422	77.8	208,8	1,614.5
08-28	4,422	45.1	188,6	793.3
08-29	4,435	77.7	185.1	869.3
08-30[1]	4,442	129.3	-	-
08-31	4,447	102.2	183.2	1,129.5

1 Only new placements are made on Wednesdays, but no secondary market trading takes place on that day. This applies to both 23 August and 30 August (on 30 August, no new placements were made either

Source: Information bulletin of the Moscow Interbank Currency Exchange

The course which the crisis took mirrors the classic financial crises experienced by the western industrialised countries in the late 19th and early 20th centuries when the central banks were either unwilling or (for example, because of the gold standard) unable to fulfill their function as lender-of-last-resort[4]:

1. One or several banks were suspected to be, or were actually, experiencing liquidity problems which manifested themselves in the fact that they did not or could not pay back the money they had borrowed on the interbank market.[5] As a consequence, the commercial banks that offer central bank money on the interbank market (surplus units)

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4 See, for example, Mishkin, F. (1991), Asymmetric Information and Financial Crises: A Historical Perspective, in: Hubbard, R.G. (ed.), Financial Markets and Financial Crises, Chicago, pp. 69 - 108.

5 According to an article in "The Economist", the crisis was triggered by a malfunction in the payments system at Mosbusinessbank, which therefore failed to meet a payment obligation on the interbank loan market. Other reports cite liquidity problems at Lefortovsky Bank as the cause of the crisis.

cut off the supply, i.e. they practised credit rationing. They were no longer willing to lend central bank money to other commercial banks (see Diagram 1, Shift from A to A1).

2. Credit rationing spread to all the banks because, in the absence of precise information, there was no way of distinguishing between good, i.e. "merely" illiquid, banks and bad, i.e. insolvent banks. Or rather, banks which still wanted to absorb more debt even after interest rates had passed a certain level were automatically classified as bad.[6]

3. Even in cases where the lending bank was able to distinguish whether a potential borrower was illiquid or insolvent, credit rationing was applied to all banks because the lenders could not be entirely sure that the central bank would actually step in as a lender-of-last-resort, i.e. that it would temporarily increase the supply of central bank money in order to bridge short-term liquidity gaps.

4. Banks which were facing liquidity problems and had some treasury bills tried to sell them. This is reflected in the changing levels of interest rates in the securities market in the weeks leading up to the crisis (see Table 3).

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6 To put it in non-technical terms: Anyone who is willing to pay 300% p.a. for a loan, *must* be a bad debtor because there are no investment opportunities which could possibly generate such a high return. Or, in the language of economic theory: an adverse-selection effect of rising interest rates is assumed to obtain.

Table 3: **Interest Rates and Trade Volume on the Moscow Interbank and Securities Market, June/August 1995**

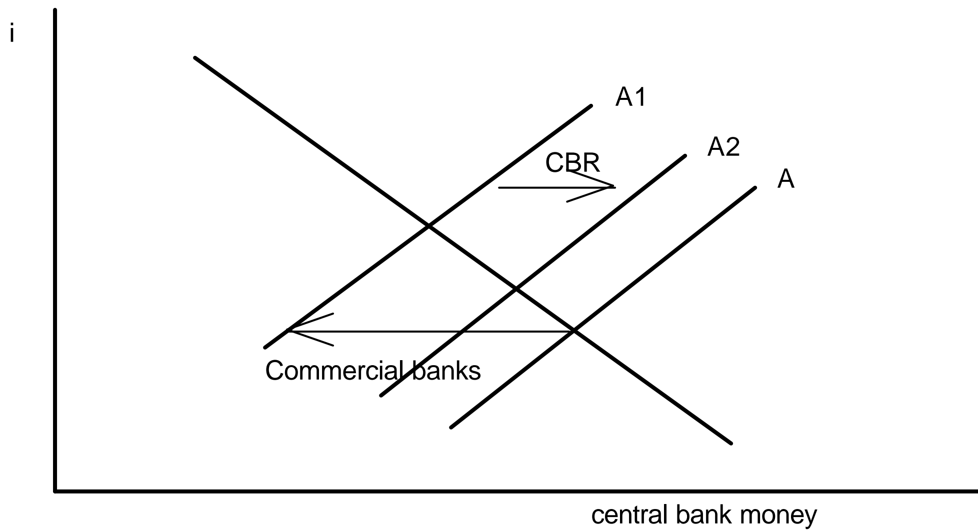
Period (weekly)	Interbank market (1 month) Effective interest rate (%, p.a.)	Trade volume (Rb billions)	Effective interest rate (%, p.a.)	Trade volume (Rb billions)
01. - 07.06	98.39	4,205	64.99	4,055
08. - 14.06	88.33	3,389	64.93	2,735
15. - 21.06	78.55	4,444	62.65	7,050
22. - 28.06	95.28	6,528	83.61	3,719
29. - 05.07	108.22	7,204	111.40	5,140
06. - 12.07	234.95	6,757	111.53	3,653
13. - 19.07	149.56	5,193	105.43	6,890
20. - 26.07.	161.71	4,822	117.62	3,138
27. - 02.08.	144.91	4,752	147.31	5,821
03. - 09.08.	103.24	5,575	143.79	4,840
10. - 16.08.	179.62	6,523	163.57	6,997

Source: Kommersant

5. These sales did not raise enough cash to cover the banks' liquidity requirements. Since the Central Bank of Russia does not operate a window, comparable to Germany's Lombard loan facility, from which the commercial banks can, subject to certain terms, borrow unlimited amounts of short-term funds, the overnight rate went through the roof. Several commercial banks declared themselves insolvent on the interbank market.

6. By Thursday afternoon the Russian central bank had already begun to intervene in the monetary markets by buying up treasury bills on a massive scale, and continued to do so at an intensified level on Friday, 25 August. Estimates of the amount of additional central bank money that became available vary between Rb 1.5 and 2 billion (see Diagram 1, shift from A1 to A2). Once the central bank had thus made clear its intention to fulfill its lender-of-last-resort function, the situation calmed down again, although interest rates settled at a significantly higher level than they had been the previous week and liquidity was still in short supply.

Diagram 1: **Schematic Representation of the Events on the Russian Money Market**



7. On Friday, 25 August, in Moscow at least, banks reported that substantial amounts had been withdrawn from deposit accounts held by private customers. However, at the end of the fourth week of August, after it had become clear that the banks were paying up, i.e. that they were able to convert deposits into cash, a similar volume of funds flowed back. In other words, the liquidity crisis did not lead to a bank run.

8. Some of the large Russian banks are evidently trying to initiate their own "first quality" interbank market which they can operate as a closed shop. The group is said to include Sberbank, Imperial, Inkombank, Menatep and Mostbank. Should these efforts prove successful, the costs of funding incurred by those banks that do not belong to this select club will rise in relative terms. At least, this will be the case if the central bank - as it has done for the past year - continues to set its refinancing rate at a level well above the interbank market rate.

Any attempt to evaluate the liquidity crisis must draw a distinction between its origins and its outcome. Its origins serve to highlight the causes of the problems facing the Russian financial sector:

- The central bank's restrictive monetary policy, as manifested in high real rates of interest, was bound to lead to above-average loan default rates - even if it could be assumed that Russian banks were capable of performing faultless credit analysis - simply because many

enterprises cannot afford to bear such a heavy interest burden.[7] True, the real economy is no longer faring as badly as it was last year, yet there is still a large discrepancy between the rate at which GDP is growing in real terms and the real rate of interest, and this is eating into corporate profits. The stabilisation and then the appreciation of the rouble against the dollar has weakened Russian enterprises' competitive position on foreign markets, which means that enterprises are under pressure on this front as well.[8] Sooner or later, this pressure is sure to be passed on to the creditors of the enterprises, namely the banks, and this in turn will obviously affect their liquidity and solvency.

- In the past the Russian banking system has not exactly excelled in the area of credit analysis. This view is supported not only by anecdotal but in the meantime also by statistical evidence, including the central bank's figures on the volume of non-performing loans (see previous IPC Monetary Report, June 1995), as well as our own experiences with banks, both in connection with the Small and Micro lending programmes and also in the course of due diligence audits. As long as real interest rates were strongly negative, thus placing debtors at an advantage over creditors, these institutional deficiencies remained hidden. However, the change in monetary policy to (high) positive real rates of interest brought the difficulties of the financial system out into the open, and led inevitably to the present liquidity and solvency problems.

Against the background of the macroeconomic stabilisation policies currently being pursued and the past and present lending practices of Russian banks, symptoms of crisis are unavoidable, and sooner or later they will be on a large enough scale to cause serious disruptions in the financial markets. Assuming this to be true, the only question that remains to

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7 In our first Monetary Report (Summer 1994) we pointed out that small and micro enterprises were better able than most to pay such high interest rates on account of their ability to respond very flexibly to changes in the macroeconomic environment.

8 Reports in the press repeatedly mention that the policy of exchange rate stabilisation has denied the banks one of their most lucrative opportunities to make profits, namely speculative profits on the currency markets. This is true, yet it should be emphasised that these were no more than opportunities. After all, playing the foreign exchange market is - disregarding commission fees - a zero-sum game: if one side wins, the other side inevitably loses. Given that foreign currency is (or was) predominantly traded between banks, it is difficult to see why the stabilisation of the rouble should have adversely affected the profits of the banking system as a whole. This does not rule out the possibility of a redistribution within the banking system. Another explanation as to why the stabilisation of the rouble has ostensibly had an adverse impact is based on the notion that small commercial banks in particular relied on the appreciation of their dollar-denominated assets as a source of funds with which to pay off their rouble-denominated liabilities. This form of speculation has come to an end now that the exchange rate is stable in nominal terms.

be answered is whether the financial crisis will damage the entire financial system, or whether the resulting concentration processes and, in some cases, liquidations will help to resolve the problems without doing serious, lasting harm at a macroeconomic level.

The way in which the liquidity crisis has, for the time being at least, been brought under control, gives grounds to hope that the people in key positions are aware of the dangers and will act accordingly. Evidently, a number of banks were (de facto) closed down after 24 August, and the acting president of the central bank predicts that another 100 banks will follow them in the near future.[9] Yet the manner in which the Central Bank of Russia succeeded in getting a grip on the runaway interest rates within a matter of hours is remarkable and encouraging not only in the narrow context of the present crisis. The signal which will have gone out to market participants will probably have strengthened their confidence in the ability and the determination of the central bank to take firm action, and in this respect it will have rendered the system less prone to crisis.

A number of observers have expressed the fear that the liquidity crisis may prompt economic policy-makers, including those in the central bank, to ease their restrictive monetary and fiscal policies. This is undoubtedly possible, but as yet there have been no signs that it is actually happening. Yet it is equally clear that no economy and no financial system, be it in Russia or anywhere else, can sustain a real interest rate of 5% per month for any length of time, not even for the sake of achieving price stability. This means that the liquidity crisis can also be read as a warning signal that very high real interest rates cannot be used indefinitely as a means of combating inflation. Sooner or later, real interest rates will have to come back down to a level that is compatible with intensified investment on the part of enterprises and with economic growth. Therefore, it will be necessary to create in the near future the structural preconditions - not only, but also in the financial sector - that will allow monetary policy to bring nominal interest rates gradually closer to the now lower inflation rate without causing inflation to flare up again. This will be the true test of whether or not the stabilisation policies we have observed over the past few months are actually succeeding.

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9 People we interviewed intimated that the liquidity crisis in the money markets may at last have given the central bank a reason strong enough to convince even its political overseers that it would be justified in closing down banks or forcing them to merge with other, healthy banks.

4. Liquidity Crisis in the Russian Money Markets - Impact on the Russia Small Business Fund

One of the recurrent themes of the monetary reports over the past 12 months has been the fact that a consistent macroeconomic stabilisation policy, and in particular a stabilisation policy which is accompanied by real interest rates in the region of 5% per month over a relative protracted period,[10] will confront Russia's financial sector with major problems. In particular, the problem of maintaining the stability of the banks will have a significant impact on financing conditions and relationships, affecting interest rates, exchange rates, and the choice between dollar- and rouble-denominated credits. The likely consequences of these developments for the Russia Small Business Fund and its implementation have already been discussed.

The liquidity crisis in the money markets served to make these effects more clearly visible; or, to put it another way, the crisis expresses in terms of market results what all those involved have known for a long time:

1. Russian banks are unstable. A programme based on direct lending to commercial banks, i.e. without any guarantee from the partner country's government, as is the case with the Russia Small Business Fund, is therefore running a bank risk due to the bad loan exposure which the bank may have inherited from the past. The crisis therefore provides renewed justification for the efforts made last year to place special emphasis on assessing the respective institutions' stability, which ranks alongside (potential) target-group orientation as one of the key criteria when selecting local partner banks. And indeed, the existing partner banks of the Russia Small Business Fund are, according to our initial research, not among those banks that were seriously affected by the liquidity crisis.

2. Small banks are considered to be particularly unstable, and indeed they were particularly severely affected by the liquidity crisis. Many will not be able to survive - at least, not as independent institutions. This picture broadly agrees with the results of the due diligence audits we have conducted. However, our experiences have also shown that the implementation of the Russia Small Business Fund in big banks is fraught with difficulties,[11]

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[10] The examples of stabilisation in the central European countries demonstrate that this does not necessarily have to be the case.

[11] It may well be - as indicated in IPC's monthly report for August 1995 - that the immediate impact of the liquidity crisis will make banks even more cautious in their lending activities, and they will want to rely even more on traditional loan securities.

either because the bank in question is not seriously committed to serving the target group, or because the sheer size of its organisational apparatus is in itself an obstacle to introducing new credit assessment and monitoring techniques. The generally rather difficult situation of small banks should therefore not be regarded as sufficient reason per se to rule them out as partner banks right from the outset. All the same, they first have to prove that they are qualified for the task by passing the due diligence test.

However, in the future it may prove even more difficult to find a sufficiently large number of banks which meet both criteria - stability and target group orientation. It is our impression that, faced with a trade off between the two criteria, the EBRD is currently inclined to opt for larger, seemingly more stable banks as partners of the Russia Small Business Fund. In this respect, it might be worthwhile to reconsider another option that may resolve the dilemma of having to choose either more stable or more target group-oriented banks: namely, to acquire an equity stake in a small, target group-oriented bank. By broadening the equity base, this measure by itself would lead to more stability. In addition, the EBRD or its representatives on the Board of Directors could directly influence the bank's policies in favour of greater stability if this should be necessary. Last but not least, the EBRD would gain much more and better information about the bank's actual performance, a definite advantage compared with the current situation, even if only large banks are considered, because their stability - with the exception of Sberbank as a special case - can only be assumed but not taken for granted.

3. The Russian money market will continue to become more differentiated. The split-up of the money market that would take place if the big banks succeeded in setting up a money market for "prime addresses" would merely be the continuation of an already discernible trend, or rather, it would raise that trend onto a new level. For the Russia Small Business Fund, this would mean that - assuming not all of the partner banks would belong to the same interbank market - different partner banks would have different funding costs to bear. Partner banks that were able to obtain funds on the "prime" interbank market would - once their loan portfolios within the Micro Credit or Small Loan component had reached a certain volume - be able to achieve cost coverage more rapidly than the other partner banks.