The Financial Crisis in Russia

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1. Preface:

The financial turmoil that hit Russia in August 1998, was extremely confusing to many foreign observers working in Russia. It was astonishing to see a country that seemed on its way to prosperity suddenly experiencing an economic meltdown. As part of my work, I was often asked to provide explanations and guidance regarding the situation in Russia. The casual explanations were gradually transformed into a methodical presentation, which eventually became this article. Combining information and opinions from various sources I have tried to compose a comprehensive presentation of the economic events that have taken place in Russia during the second half of 1998. It is my hope that this presentation will help other people to gain better understanding of the situation in Russia.

2. Fundamental Economic Problems

Russia's financial crisis did not appear from out of the blue, but rather was a result of fundamental weaknesses that affected the Russian economy. Although the existence of each of these problems was known prior to the crisis, their full extent was only revealed afterwards.

The outline of the following analysis is based on an excellent presentation, which appeared (regrettably, unsigned) in Russia Today on August 21 and listed the factors that have determined the events which took place in Russia during August 1998:

- Ballooning debt.
- Prices of oil and raw materials.
- Weak banking sector.
- The Asian crisis.
- Exchange rate policy.

In the following analysis I will try to augment these points by a more comprehensive analysis.

2-a. Ballooning Debt:

Russia inherited from the Soviet Union (SU) a debt to foreign governments, banks and agencies of $150 billion. In the period between the collapse of the SU and the eve of the August crisis Russia increased its foreign obligations and thus faced an outstanding foreign debt of $180 billion, of which some $50 billion was due by the end of 1999. Although the absolute amount of the outstanding debt seems extremely high, understanding its potential effect on the Russian economy requires that it be viewed in the context of the country's ability to repay its debts. The ratio of Debt-to-GDP places the debt in such a context. The value of the Debt-to-GDP ratio in Russia - 50% prior to the crisis – is not high, however its expected increase (dynamics) suggests an unavoidable instability. Sophisticated investors and lenders examine not only the Debt-to-GDP ratio, but also its expected direction in the future. A simple analysis of the Debt-to-GDP ratio dynamics attributes the increase in this ratio to three factors:

Increase(%) = Real Interest Rate - Growth Rate + Primary Deficit-to-GDP(%)
(Primary deficit is the government deficit without debt servicing expenses).

In the following table I have inserted the numbers for Russia prior to the crisis:

Table 1:
The Dynamics of Debt-to-GDP ratio
(2nd Quarter 1998)

Primary Deficit	**0%**
Expected Growth	**1%**
T-bills rate (90 days maturity)	50%
Inflation	7%
Real rate on ruble denominated debt	**40%**
Interest rate on dollar denominated debt (estimate)	15%
Ruble/Dollar exchange rate 1/98	6.0
Expected exchange rate 12/98	6.5
Devaluation rate	8%
Real rate on dollar denominated debt	**16%**
Average real rate	**24%**
Implied increase in Debt-to-GDP ratio	**23%**
Debt-to-GDP ratio at the end of:	
1997	**50%**
1998	**73%**
1999	**97%**

Sources: EIU and the author's calculations

It is interesting to see that the primary deficit was in the area of zero. The fact that, if the debt servicing expenses were excluded, Russia would ran a balanced budget escaped the notice of many Western commentators. Russian officials were aware of it however, and made the point a few times in their interpretations of the crisis. Russia's borrowing needs were solely to service its existing debts and that was the source of the debt spiral. The expected increase in the Debt-to-GDP ratio is primarily the result of the high real interest rate. In spite of the impressive reduction in inflation, nominal interest rates were still very high due to the risk premium demanded by lenders to the Russian government. For the same reason interest rate on dollar-denominated debt were also very high. Thus Russia faced intolerably high real interest rates that have gradually deteriorated its Debt-to-GDP ratio.
The projected annual increase in the Debt-to-GDP ratio, on the eve of the crisis, was 23% - an alarming figure implying the doubling of the Debt-to-GDP ratio by 1999. Such ballooning debt was obviously unsustainable, and during the second quarter of

1998 more and more lenders recognized the danger and decreased their exposure to Russian debt. Those who were willing to take the risk of Russian debt were demanding higher interest rates and insisted on short-term lending, a fact that only worsened the situation of the Russian authorities and banks.

2-b. Prices of Oil and Raw Materials:

As much as Russia would like to be acknowledged as an advanced industrial country, the exploitation of raw materials, and especially fuels and energy products, is still the driving force of its economy. Russia is the world's third-largest oil producing country, with 5% of the world's oil reserves and 10% of the world's oil output. Russia's exports are highly biased towards raw materials, with fuel and energy comprising 47% of total exports, and metals 21%; machinery and equipment account for only 10% and chemicals for 8%. Thus, the Russian economy was highly exposed to world prices of oil and metals, that were constantly declining during the recent period as shown in the following table:

Table 2:
The Decrease in Prices of Oil and Metals

Type	**Decrease since 1/95**	**Decrease during the last 12 months**
The Economist metal index ($ terms)	40%	23%
The average price of:		
Nickel	60%	18%
Copper	45%	19%
Aluminum	40%	16%
Crude oil (North Sea Brent)		28%

Source: the Economist

Since Russia's production of oil has been more or less stable during the last two years (about 6 million barrels per day) the declining prices caused a decrease in oil's revenue and in the overall Russian's hard currency inflow. In a recent article by S. Fredrick Starr ("Petro-State: Wondering about the future of Russia? It all comes down to price of oil" *The International Economy*, Nov./Dec. 1998), the author claims that many significant events in the history of the SU and Russia where driven by changes in oil prices. This may be an extreme analysis, but there can be little doubt that the decrease in hard currency earnings resulting from the reduction in the price of oil and raw materials, was one of the causes to the current crisis.

2-c. Weak Banking Sector:

The importance of a sound banking sector to a healthy economy cannot be over-stated. Many economists attribute both the Great Depression of the thirties and the Asian financial crisis of 1997 to weak banking sector. On the eve of the Russian crisis many of the country's 1,500 banks were highly exposed to devaluation. Banks had taken loans in foreign currencies creating an outstanding debt of $19.2 billion, of which $16.4 billion was due to mature by the end of 1998. In addition Russian banks sold foreign exchange forward contracts to Western banks in the amount of $6 billion, gambling that the ruble would not be devalued. Adding to their misery, Russian banks used mainly government T-bills (known as GKO) as their assets. Thus, the steps taken by the Russian government on August 17 hit the banks on both sides of their balance sheet. The sudden devaluation made their liabilities impossibly expensive, and the moratorium of the Russian government of its short-term debt dampen their assets which became almost worthless.

2-d. The Asian Crisis:

The financial crisis that hit Asia in 1997 has hurt other emerging markets as well. This phenomenon, known in the economic literature as the "contagion effect", was an important factor in Russia's collapse. The fact that a crisis in one part of the world creates a similar crisis in other, seemingly unrelated, countries is a bit puzzling. One possible explanation relates to the investment patterns of the large global mutual funds that are the main players in the emerging markets. Such funds diversify their investments in emerging markets among many unrelated countries. When there is a sudden fall in one market, which creates losses to the fund, it usually has to reduce its overall emerging-market's position, since the falling market suffers from a lack of liquidity (the fund wants to sell its holdings in local shares/bonds, but cannot find buyers for these securities). Thus a fall in other currencies begins although there is not necessarily any reason for that. Such fall increases the fund's losses and causes it to further reduce its overall emerging-market's position thus aggravating the situation even further.

2-e. Exchange Rate Policy:

The exchange rate policy of the Russian Central Bank (RCB) was to try to peg the ruble to the dollar within a narrow corridor in order to create stability. At the same time though the RCB allowed the free movement of capital, thus exposing the currency to increasing pressures. As Paul Krugman, the famous American economist, demonstrates, sustaining such policy is only possible if a country waives its monetary independence and adopts a currency-board system. However Russia did not have a currency-board system and thus the RCB's hard currency reserves were drained as it sought to ease the increasing pressures on the ruble. On the eve of the crisis the RCB was spending $1 billion a week to defend the ruble exchange rate. Russia's hard currency reserves became dangerously low covering only 1 month of imports (as a comparison the import coverage of Taiwan and Argentina is 8 months, Poland and Brazil 7 months, Thailand and India 5 months and Hungary and the Czech Republic 4 months). Thus, the RCB was forced to abandon its policy and let the ruble exchange rate float.

3. Analysis of the Events.

The Russian crisis is usually attributed to the events that took place in August 17. Notwithstanding, to my opinion, the importance of these event is highly exaggerated.

What happened in August 17, and continued afterwards in August 27, was merely a recognition, by the government, that it was unable to:

- Defend the ruble exchange rate.
- Meet its obligations both to foreign and to domestic lenders.

As I have shown in the previous analysis the government merely announced what was already written on the wall. The only surprising thing, regarding the August 17 events, is why they have caught so many governments and sophisticated investors by surprise.

The move from a pegged exchange rate to full floatation was made in two steps. On August 17 the upper limit of the corridor was raised to 9.5 rubles to the dollar, and on August 27, when the black market rate was already 15, the RCB ceased altogether its attempts to intervene in the foreign exchange market.

The default on the government debt was not formally announced; rather, the government declared a 90-days moratorium on debt payments in order to renegotiate the terms. The slow pace of the renegotiations, and the fact that certain interest payments were already postponed, suggests that Russia has de-facto defaulted on, at least part, of its debt.

To the lay observer it seems obscure how the two events, described above, could have led to a total economic collapse. Based on the former section, I will try to shed some light on this issue.

3-a. The Devaluation:

The ruble devaluation by itself need not necessarily have been a bad thing. The dollar-Yen exchange rate has fluctuated considerably in the last decade, moving between 100¥ per dollar to 200¥ per dollar without a significant effect on the two nations economies. In general, a devaluation causes a decrease in imports and an increase in exports. As a result of the devaluation total imports to Russia decreased by 45% in September compared to August. The following table presents the decrease in imports of various products in September vs. August:

Table 3:

The Decrease in Imports between 8/98 to 9/98

Product	**Decrease**
Fruits and vegetables	62%
Meat	60%
Milk products	85%
Medicines	71%
Heavy machinery	64%
Clothing	60%

Source: Russia Today

Unfortunately, due to the structure of the Russian economy, the offsetting rise in exports did not occur. This is due to the fact that close to 70% of Russian exports are based on raw materials whose prices are determined by the world market. Obviously Russian raw materials producers are profiting from the devaluation, mainly since their wage bill did not increase, but their rigid Soviet-style organizational structure make it doubtful whether such profits will be translated into bigger market share and increase exports. The main effect of the devaluation was not its direct impact on imports and exports, but rather its effect on the banking sector and through it on the entire economy.

3-b. The Banking Sector:

The immediate result of the crisis was an almost complete paralysis of the banking sector. Although the government moratorium on debt repayment temporarily protected the Russian banks from their foreign creditors, they were still unable to meet the demand from their depositors since most of their assets were held in government T-bills that were frozen by the same moratorium. This caused a collapse of the payment system, preventing companies from paying their suppliers and employees, while individuals were unable to withdraw money for their daily use. According to recent reports about 50% of Russia's 1,500 banks were insolvent beyond hope, even by Russian standards. Most of the others are insolvent by Western criteria, but may be subject to government attempts to bail them out. A handful of banks, mainly foreign but also the few large government-owned banks, are able to function and to keep the payment system afloat. The extent of the banking sector's losses was recently estimated by the RCB to be 100 billion rubles. These losses have created a deficit in the banks combined assets of 22 billion rubles or about 39% of their total assets. The financial sector has shed thousands of employees due to closures and shrinking activity. However the most severe effect was the enormous misery of millions of people who lost their savings when their banks suddenly became insolvent. This caused an overnight impoverishment of the middle class which is, like in any economy, the driving force behind economic growth.

3-c. The Economy:

According to September data Russia's GDP had shrunk by 10% in annual terms. Given the World Bank's definition of recession as annual growth of less that 1%, the Russian situation is a catastrophe rather than a recession. About 30% of the population (about 40 million people) are already below the official subsistence level (552Rb – less than $30 a month at the current exchange rate). With the risk of food shortages during the coming winter growing, the United States and the European Union agreed to provide Russia with an emergency aid of food amounting to about $1 billion.
The collapse of the Russian economy is the direct result of the debt crisis and the collapse of the banking system. Private consumption has plunged due to the sudden hit on savings and bank deposits, investment has declined due to the flight of foreign investors and the lack of domestic savings to replace foreign capital.

3-d. Inflation:

A key question regarding the future of Russia is what will happen to inflation. The following table presents the recent trend in Russia's inflation:

Table 4:
Russian Inflation Trends

	Consumer Price Index (CPI)		Producer Price Index (PPI)	
Month	**Month on Month**	**Year on Year**	**Month On Month**	**Year on Year**
Jul-97	0.9%	14.7%	0.2%	15.5%
Aug-97	-0.1%	14.9%	0.5%	13.8%
Sep-97	-0.3%	14.2%	0.1%	11.9%
Oct-97	0.2%	13.0%	0.2%	9.1%
Nov-97	0.6%	11.5%	0.2%	8.4%
Dec-97	1.0%	11.0%	-0.1%	7.4%
Jan-98	1.5%	10.5%	0.9%	7.1%
Feb-98	0.9%	9.4%	0.6%	6.0%
Mar-98	0.6%	8.5%	-0.1%	4.5%
Apr-98	0.4%	8.0%	0.1%	3.7%
May-98	0.5%	7.5%	-0.9%	2.4%
Jun-98	0.1%	6.4%	0.1%	1.6%
Jul-98	0.2%	5.6%	-0.8%	0.5%
Aug-98	3.7%	9.7%	-1.2%	1.2%
Sep-98	38.4%	52.2%	7.5%	6.2%
Oct-98	4.5%	58.8%	5.9%	12.1%
Nov-98	5.7%	66.8%	5.1%	17.7%

Source: EIU

The CPI rose sharply during September, but in October and November consumer prices were already stabilizing. The PPI, which reflects the prices of locally produced goods, has rose only moderately, while the CPI annual rise of 66.8% in November can be almost entirely attributed to the ruble devaluation, taking into consideration the fact that Russia imports around 33%-40% of its consumer goods, and that the ruble has devalued by ~250% since October 1997.

These data suggest that the current rise in prices does not necessarily imply higher inflation, but rather a one-time increase due to the sharp devaluation. Whether or not this one-time price increase becomes an inflationary spiral depends on how the government reacts. Other countries' experiences suggest that containing inflation in the wake of a sharp devaluation is indeed possible, as illustrated in the next table:

<u>Table 5:</u>
Currency Devaluation & Inflation in Selected East-Asian Countries
July 98

Country	Currency per $ 22/7/98	Currency per $ 22/7/97	Annual Devaluation	Annual Increase in CPI	Real Devaluation
Indonesia	14,150	2,585	447%	59.5%	243%
Malaysia	4.14	2.64	57%	6.2%	48%
Philippines	42.0	28.7	46%	10.7%	32%
Singapore	1.71	1.47	16%	0.5%	16%
S. Korea	1290	894	44%	7.5%	34%
Taiwan	34.4	28.0	23%	1.4%	21%
Thailand	41.0	31.6	30%	10.7%	17%

Source: the Economist and the author's calculations

Table 5 shows what happened in South-East Asia about a year after the financial crisis hit this region. The data clearly demonstrate that all seven countries have been able to contain inflation below the extent of the devaluation and thus sustained real devaluation that has helped to boost their exports and to improve their trade balance.
The prospect of containing inflation in Russia depends primarily on the monetary policy adopted by the central bank. Many commentators have expressed the opinion that the RCB is already running an inflationary policy by printing money to finance the government's deficit. There is some basis for assuming that this is the planned policy. To begin with the options of the government are extremely limited. Cut off from foreign capital and with growing wage and pension arrears, printing money may seem the only feasible solution. The ideological stand point of the existing government also suggests that printing money will be their preference. However, the money supply data do not at the present provide conclusive evidence of monetary expansion.

Table 6:
Money Supply Indicators (Billions of rubles)

	M(0)	%	M(2)	%
01-Dec-97	128.8		357.4	
01-Jan-98	130.4	1.2%	374.1	4.7%
01-Feb-98	116.7	-10.5%	361.2	-3.4%
01-Mar-98	120.4	3.2%	362.9	0.5%
01-Apr-98	119.1	-1.1%	360.4	-0.7%
01-May-98	128.6	8.0%	368.0	2.1%
01-Jun-98	129.9	1.0%	370.0	0.5%
01-Jul-98	129.8	-0.1%	368.6	-0.4%
01-Aug-98	129.3	-0.4%	360.0	-2.3%
01-Sep-98	133.4	3.2%	343.6	-4.6%
01-Oct-98	154.2	15.6%	365.8	6.5%
01-Nov-98	166.4	7.9%	377.6	3.2%

M(0) - Cash in circulation (outside the banks).
M(2) - M(0) + ruble balances in settlement and current accounts + deposits of resident non-financial enterprises, organizations and individuals (excluding foreign currency deposits).

Source: the RCB

The amount of cash in circulation – M(0) – increased substantially in September, but stabilized in October. The more significant monetary aggregate M(2) rose only moderately in September and October, and is only slightly higher than its level on January 1 1998. The sharp increase in cash holdings in September may be attributed to people's mistrust in the banking system. It seems that the Russian authorities are currently refraining from using the printing press. The reason for that may be the legal limitations on printing money, which have not yet been abolished, or perhaps the fact that the collapse of the SU, due to a irresponsible economic policy, is still remembered by the decision makers in Moscow. Another good sign is the recent approval, by the Russian parliament, of the new budget with significant cuts in government spending, which will ease the pressures to print money.

4. Prospect for the Future:

It is hard to be optimistic in Russia nowadays. The country is sinking fast into poverty and despair, and the way out is far from clear. Notwithstanding, I will try to list certain consequences of the crisis that may lead to a better economic future:

4-a. The Real Devaluation:

If the Russian authorities avoid expansionary monetary policy, and are thus able to contain inflation, the devaluation of the ruble may have a potential positive influence on the economy. Exporters and import-substitutes producers should benefit from the real devaluation as they become more competitive. The average salary in Russia –

currently at 1,113 Rb. per month (~$50) - has risen only by 7.8% since November 1997, creating a substantial real devaluation on labor costs. Import-substitutes producers already feel this advantage as the following table, that was recently published in the Economist, demonstrates:

Table 7:
The Price of a Bar of Soap (rubles):

	Imported	Domestic
July 1998	5	2
November 1998	14.5	4.5

Source: the Economist

The Economist reports that certain Russian consumer-goods manufacturer such as Svoboda (hygienic products) and J-7 (fruit juices) have already been able to extend their market share at the expense of imported goods. However, in order for this process to be significant in the Russian economy the assistance of the government is required. It is unlikely that the Soviet-style industry, which is not used to responding to changing market conditions, will use the opportunity and to increase efficiency and competitiveness. However there is a good opportunity for the development of new, entrepreneurial, sector that will use the cheap, but most valuable Russian resource - its highly educated work force. Russia is distinguished from other emerging-market economies by its high education level and its scientific technological expertise. A new technology-based sector in Russia may be able to attract foreign capital and will enable Russian entrepreneurs to assimilate modern managerial techniques.
In order to achieve that the Russian government has to develop a much friendlier attitude towards foreign investors and to extend their ability to own shares in Russian companies. While the Duma has already approved new legislation permitting higher flexibility in share holdings for investors in the oil industry, this is only a minor step and much more should be done. It is also imperative for the legal system relating to all corporate activity such as property rights, bankruptcy, etc. to be effectively implemented and enforced. The rule of the law should replace corruption and protectionism.

4-b. The Tax System:
The crisis has brought Russia's fiscal policy to its moment of truth. The Russian government has long tried to avoid prudent fiscal policy, first by printing money and then by reckless borrowing; it failed both times. It seems now that the authorities in Moscow have realized that creating a reliable and accountable tax code is the only solution. The big challenge for the Russian government is to clean the corruption in government agencies and create a new tax code, based on socially accepted principles, that will restore confidence in the tax system.

4-c. The Banking Sector:
The systematic failure of the banking sector can be used to establish a healthy base for the next generation banks in Russia. First of all it is essential to avoid bailing out ailing banks but to create, instead, a mechanism for bankruptcy. The government

commitment should be to the depositors, not to the owners of reckless banks. The current crisis should also be used as a trigger to establish a strong authority that will supervise and regulate the banking sector. Such regulation will help to restore the confidence of foreign lenders in the Russian banking sector.

5. Conclusions:

Many observers feared that the August crisis will mark the end of market reforms in Russia and the retreat to command economy. However it seems that even the conservative government that is currently in place realizes that the only feasible way for Russia to recover is to continue the transition towards market economy. Although the crisis has hurt the country substantially and its damaging effects will prevail for several years, it also brought some prospect for restructuring the Russian economy. Such restructuring will not be easy, and requires a widely supported and brave government, however I believe that it is the only rational choice for Russia. The other alternative, a gradual withdrawal towards poverty, is much worse both for Russia and for the whole world.

6. References:

The sources of information and opinions for this article are numerous: professional articles, newspapers and magazines that I receive regularly. Among others I have relied on: the Financial Times, the Economist, the Economist Intelligence Unit (EIU), Russia Today, Moscow Times, and official statistics of Russia and the CIS. I am also indebted to Anthony Korenstein for his extremely important comments.