



Anatomy of crisis – to be continued

Center of Strategic Investigations

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Emerging markets, among which Russia has been ranked for the past ten years, are distinguished by high growth in industrial production and the financial sector. Such growth has traditionally been above the global average, and a variety of fast-developing segments in finance and banking services have opened vast opportunities for market professionals and investors.

High risks (invariably accompanying the development phase characterized by fast growth) and a deficit of internal funds for development are typical features of emerging markets, which have been forced to borrow externally. Demonstrating robust economic growth, Russia has chosen to explore its own course of development. High prices for raw materials helped the government accumulate substantial resources in the form of international reserves and funds placed abroad. This, in turn, enabled them to control the money supply and inflation in conditions of an under-developed banking sector and financial market. Private companies and banks, on the other hand, actively borrowed on international markets to fund business expansion. Ultimately, the financial resources circulated in two directions: state funds were channeled to international markets, while banks and private companies indulged in foreign borrowing.

These flows helped bolster economic growth on the back of foreign investment and expanded bank lending, but the pattern that emerged could survive only in the short term amidst an extremely beneficial environment, primarily one of sustained high prices for raw materials and continuous expansion of external financing of the private sector.

Of course, the external environment has since changed dramatically. The private sector, the external debt of which is now comparable to the level of state reserves, was challenged by a deficit of funds for debt servicing. Domestic funds are insufficient not only to repay foreign loans, but also to sustain lending activity. Bank loans to the non-financial sector exceeded household and corporate deposits by R3.5 trillion (\$140 billion) as of September 1, 2008. Since the start of the financial crisis (August 2007), the deficit of domestic savings has risen by R2.2 trillion. Monetary authorities found themselves exposed to external risks in conditions of an under-developed refinancing system.

The first alarm signal was heard in August 2007, when the outflow of foreign capital triggered turmoil on financial markets and exacerbated the liquidity problem (subsequently addressed by expanded refinancing). The second troubling sign was seen in spring 2008, when declining banking liquidity was compensated not only by refinancing, but also the placement of state-run company funds and available budget resources. The final alarm was sounded in September-October 2008, a period marked by substantial and wide-spread intervention.

Aggravated structural problems in the banking sector point to the possibility of another, stronger crisis, unless the monetary authorities succeed in combining their efforts and resolving current issues with a focus on eliminating structural disproportions.

Monetary sector

Emerging markets have outperformed average global growth rates using various development models and resources to underpin such growth. China's banking system grew 21% and 24% in 2006 and 2007, while the money supply expanded by 15.7% and 16.7%, respectively. In the same periods, GDP grew 11.6% and 11.9%, while inflation rose 1.5% and 4.5%, respectively. Banking system resources were balanced – the ratio of loans to deposits to the non-financial sector was 67%, while external resources were largely represented by foreign direct investment (net inflow of FDI totaled \$60 billion in 2006 and \$121 billion in 2007). It is notable that the excess of savings over loans to the non-financial sector is typical for most emerging markets (Turkey – 74%, Venezuela – 63%).

An exception was Kazakhstan, where the main problem facing its banking system was fast growth nurtured by external financing (banking system assets grew from \$34 billion in 2005 to \$97 billion in 2007). The maximum ratio of loans to deposits to the non-financial sector hit 203% in the third quarter of 2007. The drying-up of inflows of international capital in August-September 2007 was perceived as an external shock negatively impacting the country's banking sector and economy. The situation was stabilized only by putting the brakes on growth in loans relative to deposits (14.0x versus 19.7x in the first six months of 2008) as well as growth in imports.

In Russia, accelerated growth in the banking system in recent years (banking system assets grew by 44% in 2006 and 2007 versus GDP growth in nominal values of 24.3% and 22.7%, respectively) was boosted by spiraling foreign borrowing, effectively hiding the *mounting structural disproportions* in the banking system:

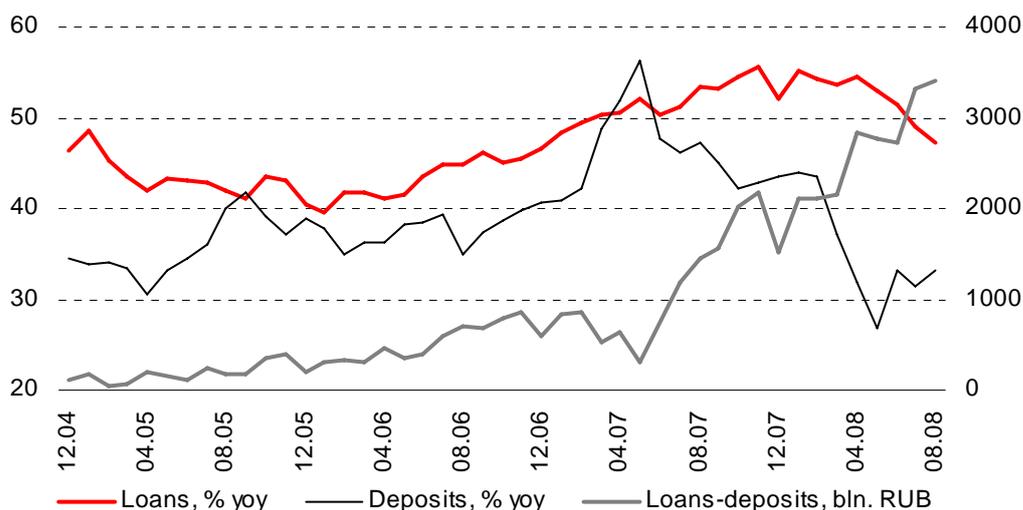
- a broadening gap between the need to expand bank lending volumes to the non-financial sector and the available internal resource base;
- segmentation of the banking system alongside accumulated high risks, making a liquidity crisis and bankruptcy among certain banks more likely;
- an under-developed refinancing system and financial market;
- impaired quality of loan portfolios and risk management.

The current crisis on financial markets has been labeled as a “credibility crisis” or “market hysteria”. But clearly, there are fundamental reasons for this collapse. In our opinion, the circumstances behind the crisis took shape over the preceding 12 months (concurrent to the global crisis), and the major trends were the following:

1. The exit of most Russian borrowers from foreign markets, which actually began in August 2007 (beginning of the global liquidity crisis). The key instability factor here was not the outflow of capital from Russia (though this was periodically observed), but rather a sharp contraction of *inflowing* foreign capital, making it more difficult for many banks and companies to refinance their prior debts.
2. High inflation, which dampened household savings. We estimate that in 2008, high inflation and negative real interest rates robbed the banking system of R440 billion (\$17.5 billion) in household deposits, an amount quite comparable to the net foreign capital inflow to the banking system.
3. Toughened monetary policy in 2008, which resulted in higher interest rates, money supply contraction and shrinking liquidity. The share of highly liquid assets (cash in banks, CBR accounts and CBR bonds) was just 4.5% as of September 1, 2008. The minimal level of last autumn (November 1, 2008) was 4.9%, and in summer 2004 (the local banking sector) this indicator did not fall below 5.9%. Apparently, only the top five banks can function in conditions of such low liquidity.

- Undeveloped risk management and risk-prone strategies adopted by certain banks that actively borrowed on international markets and funneled the obtained proceeds into loans to the non-financial sector, using securities as collateral, etc. Additionally, even against the background of severe liquidity contraction, lending to households and legal entities grew *quickly*. As of September 1, 2008, corporate loans rose by 46% (year-on-year), while consumer loans soared by 50%.

Growth in bank loans and deposits to the non-financial sector (% y-o-y, left scale) and gap between loans and deposits to the non-financial sector (R bln, right scale)



Source: CBR, CSI Bank of Moscow.

Thus, over the past 12 months, bank loans grew faster than deposits, and banks found it increasingly difficult to fund gaps due to volatility on world capital markets and rising domestic inflation. For a short time, the gap was funded by the CBR's measures to curtail liquidity, sell securities and provide refinancing.

In the medium term, the situation in the banking sector and financial markets cannot be stabilized without resolving the above structural problems. The gap between lending volumes and domestic savings is the *basic issue*. This gap is so wide (R3.5 trillion), that it can be eliminated only via refinancing instruments (even if it swells to the maximum size). Moreover, this gap is widening each month, as loans significantly outpace deposits.

In this context, it will be reasonable to project the development of Russia's banking system in the coming six months given the government's decision to provide subordinated loans to the largest banks. Given the current growth of loans and the deposit base, the gap between loans and domestic deposits can grow by another R0.3 trillion by year's end and almost R1 trillion during the first quarter of 2009.

Under the pessimistic scenario – full market disability and terminated funding of old debts with new loans – banks will need up to R1.5 trillion by the end of the first quarter of 2009 to finance planned payments.

Moreover, given the current structure of the banking sector, normal functioning will require liquidity at a level of at least 7% of assets by January 1, 2009 and 5.5–6.0% by April 1, 2009. At year's end, liquidity in the banking sector is traditionally high. For this trend to hold, about R0.7 trillion will be needed, and almost half of this amount may be returned to circulation in the first quarter of 2009.

The banking sector's liability on deposits to the federal budget is more than R650 billion. If all of these liabilities are to be repaid before year's end, the R950 billion in subordinated loans committed to banks will be mostly used to restructure short-term debt to the budget into a long-term liability. However, if necessary, the liability on budget funds placed with

banks can potentially be rescheduled for the next fiscal year. The deposit placement limit in commercial banks is currently set at R1.5 trillion.

Hence, if the banking system continues to develop under the current pattern, the adverse external environment may require more than R3 trillion of investment to the banking sector *in the coming five months alone*. This amount is in line with financing levels promised by the government (R1.5 trillion – deposit placement limit, R950 billion – subordinated loans, and \$50 billion – refinancing of foreign loans by VEB, part of which will be directed to the non-banking sector¹). However, even such large-scale “gap-filling” in the banking sector will only delay the resolution of problems for a short period of time.

Funding Requirements of the Russian Banking System and Sources of Financing, trillions of R

	End of 2008	1Q 2009	Total by April 1, 2009
Funding requirements			
Increasing gap between loans and deposits of the non-financial sector	0.3	1.0	1.3
Payments on foreign loans	0.8	0.7	1.5
Recovery of liquidity	0.7	-0.4	0.3
<i>Total</i>	<i>1.8</i>	<i>1.3</i>	<i>3.1</i>
Sources of financing			
Government loans	0.95	0.0	0.95
Government deposits*	0.0	0.8	0.8
Own funds	0.3	0.3	0.6
<i>Total</i>	<i>1.25</i>	<i>1.1</i>	<i>2.35</i>
Deficit (demand for refinancing by VEB)	0.55	0.2	0.75

*It is assumed that deposits of the Ministry of Finance will be maintained at the current level up to year's end, and the limit of R1.5 trillion will be set in the first quarter of 2009.

Source: CSI Bank of Moscow.

Presumably, the government's steps are aimed at overcoming the current crisis. However, if the structural problems are not resolved, they will remain “quick fix” measures only. The crucial task is to match the pace of loans and deposits in the financial sector, or otherwise minimize the gap. Clearly, rapidly growing loans stimulate investment activity and consumption, and their contribution to economic growth is noticeable. There is a direct link between stabilizing growth of the loan portfolio and the problem of underpinning economic growth. High inflation as well as instability in the banking system and financial markets – in many respects the after-effect of an overheated loan market – reins in growth in household and corporate savings.

Furthermore, alongside financial assistance, the quality of credit institutions should be revisited and transparent criteria outlined for the withdrawal of inefficient market operators. Bankruptcy procedures with respect to insolvent banks and companies should be implemented with appropriate diligence, assuring rigorous control to prevent any illegal withdrawal of assets.

Finally, the principal task of future financial policy is to support liquidity vital for the current structure of the banking system, or alternatively to reduce the number of small banks, increase the banking system's capitalization, and settle at a lower liquidity level. “Excess” liquidity (or, put differently, the price for small and medium-sized banks) can be estimated at a level of at least 20% of the total, or R200–250 billion. At the same time, small and medium-sized banks (below the top 100) account for one-third of liquid assets and only 14% of total banking sector assets.

¹ In late September, the four largest companies in the oil and gas sector voiced complaints about VEB's transactions to refinance foreign loans.

Real sector

Industrial production overshadowed by the financial crisis: pending death or revival

The recent upheaval in financial markets and the banking sector has overshadowed the situation in Russian industry. Official data that give little if any clear guidance in understanding the trends and growth structure of domestic industry have unfortunately encouraged little interest in the topic.

According to August data, Russian industrial output rose 4.7% year-on-year. Despite nominal output growth (0.9% in June and 3.2% in July), the output movements in August can hardly be viewed as an upswing or growth recovery. Not only did this rate substantially underperform the 6–7% recorded by Russian industry this spring, it is also unclear to what extent the production slump registered in June-July after May's healthy 6.7% may be a statistical aberration. Until we learn what actually happened to industrial output in May–July (i.e. whether it was a dramatic plunge or statistical error), it is too early to treat the 4.7% growth rate in August as recovery.

At the start of the year, industrial production began to accelerate, reaching 6.9% in January-April. The official data for January-May showed little variation, whereas June was marked by a sharp slowdown (a drop to 0.9% year-on-year) and transition to moderate growth of 3.2–4.7% in July-August.

In our opinion, this may indicate substantial overstatement of industrial growth rates (at least in May 2008), leading in turn to a more severe fall in June-July. From this standpoint, it is more reasonable to distinguish two phases of industrial growth in January-August 2008: acceleration in January-April, and deceleration in May-August.

Industrial Production Output Growth in 2008, % y-o-y

	January- April	May-August (estimate)	January- August
Industrial production	6.9	3.9	5.3
Mining and quarrying	0.6	-0.1	0.2
Manufacturing	10.2	5.5	7.6
Electricity, gas and water supply	4.5	3.7	4.2

Source: Russian Statistics Service, CSI Bank of Moscow.

Therefore, the 5.3% industrial growth in January-August 2008 following the 6.9% figure in January-April was brought about by the industry's transition to moderate growth in May-August. Output growth during this period stayed within 4% year-on-year against the background of stagnation in the mining and quarrying sector, some deceleration in the electricity, gas and water supply sector (3.7%), and a slump by nearly half in the manufacturing sector (to 5.5%).

It appears that industrial production has switched from a 7% growth rate underpinned by surging investment and consumer demand (which, in turn, was buoyed by bank lending) to a conservative growth phase of 4% contained by contracting demand.

Growth curtailment in the manufacturing sector (accounting for the greater part of aggregate industrial production growth) to 5.5% after 10.2% in January-April and settling at 7.6% in January-August may be dramatic, but is not yet catastrophic.

Growth structure of the manufacturing sector appears a much greater concern

The cost of output in manufacturing sectors that grew the most during the first eight months of the year (8.3–16.3%) is less than one-fourth the cost of overall manufacturing sector output, and their contribution to the profits of the manufacturing sector is less than 7%. This means that industries that contributed the lion's share of the 7.6% growth in

Russia's manufacturing sector in January-August 2008 have rather modest output and profit indicators.

On the other hand, the industries with moderate (3.1–5.3%) or slow (below 2.3%) growth account for greater shares in manufacturing sector output and profits.

Manufacturing Sector in January–August 2008

	Growth output, % y-o-y			Share in respective indicator of the manufacturing sector, %	
	January-August 2008 (actual)	including		January-August 2008 (actual)	including
		January-April (actual)	May-August (estimate)		
Manufacturing sector	7.6	10.2	5.5	100.0	100.0
<i>High growth rate in January-August 2008</i>				23.7	6.9
Manufacture of transport and other equipment	16.3	17.6	15.3	9.3	2.0
Manufacture of rubber and plastic products	16.1	34.1	2.2	2.6	0.6
Other	11.1	19.3	4.5	4.4	2.2
Woodworking and manufacture of timber products	8.8	14.8	3.7	1.5	0.1
Manufacture of machinery and equipment	8.3	24.3	-4.3	5.8	2.2
<i>Moderate growth rate in January-August 2008</i>				39.3	46.3
Manufacture of leather, leather products, shoes	5.3	7.5	3.3	0.2	0.0
Manufacture of pulp, paper and paper products; publishing and printing	5.3	7.5	3.4	3.4	0.8
Manufacture of other non-metallic mineral products	5.3	10.3	2.1	6.8	5.4
Manufacture of food products, including beverages and tobacco	4.2	6.1	2.7	16.6	5.4
Manufacture of coke, refined petroleum products	3.1	3.6	2.7	12.4	34.6
<i>Low growth rate in January-August 2008</i>				37.0	46.8
Manufacture of chemical products	2.3	3.7	1.0	8.4	13.3
Manufacture of basic metals and fabricated metal products	1.2	9.8	-6.4	22.6	31.9
Manufacture of textiles and textile products	0.6	2.0	-0.7	0.9	0.1
Manufacture of electric, electronic and optical equipment	-6.6	-6.8	-6.5	5.1	1.5

* Share in the cost of output – data for January-July 2008.

** Share in profits – share in the corporate performance of the manufacturing sector for the first six months of 2008

Source: Russian Statistics Service, CSI Bank of Moscow.

In this context, the 7.6% growth in manufacturing sector output for January-August – assuming statistical accuracy – is a poor reflection of the real growth rate. Most major industries are showing growth rates below 5.3%, and the high aggregate growth indicator in the manufacturing sector was contributed by manufacturers of transport equipment, rubber and plastic products.

We estimate that manufacturers of transport equipment were the only ones who succeeded in sustaining high growth in May-August (15.3%) and supported relatively high

growth in the manufacturing sector (5.5%) as a whole. All other industries decelerated to 3.7% and below in May-August 2008.

In short, the proliferating crisis on financial markets and the lending sector triggered a sharp deceleration of Russian industry in May-August, with growth averaging around 4%. Production of transport and other equipment was the main growth driver, while growth in other manufacturing industries and the electricity, gas and water supply sector was less than 3.7%. The mining and quarrying sector remained mired in stagnation.

Banking system

Growth in banking assets rose 3.2% in August, up from the dismal performance of July (+1.0%). Borrowed funds and equity of the banking sector grew faster compared to July: borrowed funds rose by 3.4% (0.9% in July) and equity increased by 2.4% (1.4%) over the month.

That said, the upturn in the banking sector did not solve the structural problems piling up so rapidly in the recent period, but only aggravated them. Corporate and retail loans, albeit decelerating, jumped significantly. The gap between loans and deposits widened by nearly R80 billion over the month.

Corporate clients contributed most generously to the banking resource base in August, accounting for more than one-third of asset growth. Budget accounts and deposits recorded the fastest growth, though their role was more modest – about 15% of monthly growth in assets. The increase in foreign liabilities was triggered by the currency translation effect resulting from dollar appreciation versus the ruble. Non-resident funds denominated in dollars decreased.

In August, the government continued its active support of the banking sector – budget accounts and deposits grew by R112 billion, or more than 15%. Unlike in the previous month, growth in budget accounts was mostly the result of federal budget deposits. Over the month, the banking sector's liability in respect of federal budget deposits leapt by R107 billion, from R66 billion to R173 billion.

The three leading banks were the major recipients of government infusions. More than R85 billion was channeled into Sberbank, VTB (excluding subsidiaries) and Gazprombank (80% of growth in federal budget funds with banks). The question is to what extent these banks really needed additional funding. They did not seem to experience any liquidity crunch, and even stepped up their investment in foreign assets (thus becoming the main channels of capital outflow).

In August, the banking resource base grew by R95 billion, while banks' assets rose by 13% thanks to the CBR's refinancing measures. The refinancing effort was less concentrated on large and state-owned banks than budget support. The top three banks accounted for 53% of growth in banking liabilities to the CBR, while small and medium-sized banks accounted for more than 20%, even as only 8% of federal budget funds were directed to these banks.

Structure of Russian banking liabilities, end of month, % of total

	12.05	12.06	03.07	06.07	09.07	12.07	03.08	06.08	07.08	08.08
Liabilities (R bln)	9696	13963	15516	17113	18131	20125	21323	23059	23282	24033
Equity	15.4	14.3	15.5	15.9	16.1	15.3	15.7	15.3	15.4	15.3
CBR loans	0.2	0.1	0.1	0.1	0.0	0.2	0.7	0.2	0.3	0.7
Interbank transactions	4.0	3.4	3.3	3.1	2.9	4.1	4.3	4.1	4.3	3.9
Foreign liabilities	13.7	17.1	16.3	17.0	17.6	18.1	17.2	18.3	19.1	19.0
Household deposits	28.9	27.6	26.3	25.9	26.0	26.2	25.4	25.5	25.6	25.4
Corporate deposits	24.4	24.4	25.3	25.6	24.9	25.8	26.2	25.5	24.0	24.4
Deposits of federal and local governments	2.0	2.2	2.6	2.4	2.6	1.5	1.7	2.5	3.0	3.3
Issued securities	7.6	7.2	6.4	5.8	5.3	5.8	5.5	5.7	5.5	5.2

Source: CBR, CSI Bank of Moscow.

Expanding foreign assets accounted for almost half of growth in banking sector assets in August (47%). The loan portfolio increased moderately in step with asset growth, while liquid assets were dwindling.

Foreign banking assets surged by R9.9 billion in August, representing the strongest outflow of Russian banking capital abroad since the initial financial upheaval in late summer 2007, when foreign assets soared by R11.8 billion (in September).

However, last year's record was surpassed already in September 2008. According to BOP data, banks' foreign assets rose by \$18 billion in September. Overall, during the third quarter, banks were the main channels of capital flight. According to CBR estimates, capital outflow from the private sector in the third quarter reached \$16.6 billion. At the same time, banks' foreign assets surged by \$24.6 billion during these three months and by \$27.8 billion in August-September.

Federal budget funds provided to banks in August-September (net of repaid deposits) are estimated at \$25.1 billion. Liabilities on foreign loans did not show any sharp contraction over this period: foreign liabilities of the banking sector declined by about \$1.5 billion during the two months. By all evidence, the funds obtained by banks from the monetary authorities were not used to patch up the outflow of foreign borrowings, but instead encouraged growth in foreign assets and foreign exchange dealing.

Major Banking Assets, year end, % to total

	12.05	12.06	03.07	06.07	09.07	12.07	03.08	06.08	07.08	08.08
Assets (R bln)	9696	13963	15516	17113	18131	20125	21323	23059	23282	24033
Cash and precious metals	2.7	2.6	1.8	1.8	1.9	2.5	1.9	2.0	1.9	1.9
Accounts with the Bank of Russia	7.3	7.5	8.0	10.9	6.1	6.9	5.1	5.8	4.9	4.7
Interbank transactions	6.3	5.8	5.4	5.3	4.7	5.4	6.2	5.9	6.2	5.6
Foreign assets	9.1	9.9	11.5	8.4	10.0	9.8	10.8	9.9	9.5	10.7
Consumer loans	12.1	14.7	14.4	14.9	16.0	16.1	16.4	17.0	17.5	17.6
Corporate loans	47.0	45.3	44.8	45.0	47.2	47.2	48.8	49.1	49.7	49.3
Securities and equity holdings	6.6	5.2	5.0	4.7	4.1	4.1	3.3	3.4	3.2	2.9
Government loans and debt securities	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1

Source: CBR, CSI Bank of Moscow.

Forecast of key economic indicators

	Actual			Forecast			
	2005	2006	2007	2008	2009	2010	2011
Macroeconomic indicators							
Nominal GDP:							
R. trln	21.6	26.9	33.0	42.6	49.8	59.3	70.1
\$ bln	764	992	1 289	1 728	1 824	2 059	2 337
Real GDP, % y/y	6.4	7.4	8.1	6.9	5.5	5.9	6.3
Industrial production, % y/y	5.1	6.3	6.3	5.1	4.7	5.0	5.2
Retail turnover, real, % y/y	12.8	13.9	15.2	14.8	9.0	10.0	11.0
Gross fixed investments, real, % y/y	10.9	13.7	21.1	11.0	9.0	9.5	10.0
Exports real, % y/y	6.5	7.3	6.4	6.4	4.3	4.4	4.5
Imports real, % y/y	16.6	21.9	27.3	26.6	13.2	12.4	11.4
Monetary Aggregates							
M0 (year end), % y/y	30.9	38.6	32.9	25.0	23.0	20.0	19.0
M2 (year end), % y/y	38.5	48.8	47.5	30.5	26.7	23.7	22.0
M2X (year end), % y/y	36.3	40.6	44.2	31.0	27.2	24.0	22.4
Total banking assets, % GDP	44.8	51.9	61.0	63.0	65.0	67.0	68.0
Inflation							
CPI (year end), %	10.9	9.0	11.9	14.0	12.5	11.0	10.0
CPI (year average), %	12.5	9.8	9.1	14.2	12.9	11.7	10.5
Core CPI (year end), %	8.3	7.8	11.0	13.5	11.5	9.3	8.1
Budget							
Federal budget revenues, % GDP	23.7	23.4	23.6	22.5	21.2	19.8	19.0
Federal budget expenditures, % GDP	16.3	15.9	18.1	16.8	17.5	17.4	16.7
Federal budget balance, % GDP	7.5	7.4	5.4	5.7	3.7	2.4	2.3
Consolidated budget balance, % GDP	8.1	8.4	6.1	6.4	4.1	2.7	2.6
Reserve fund, year end, \$ bln	43.0	89.2	156.5	160.8	176.6	201.5	229.4
National wealth fund, year end, \$ bln				48.2	70.7	100.8	126.2
Balance of Payments							
Exports, \$ bln	244	304	354	485	440	460	480
Imports, \$ bln	125	164	223	305	370	430	500
Current account, % GDP	11.1	9.5	6.1	6.9	0.3	-1.9	-3.9
Net capital inflow/outflow, \$ bln	2.0	41.9	82.9	5	15	35	45
International reserves, year end, \$ bln	182	304	476	577	581	564	510
External Debt							
Foreign public debt, % GDP	10.0	5.2	3.5	2.3	2.0	1.6	1.4
Foreign private debt, % GDP	3.9	3.8	3.8	3.8	4.1	4.6	5.1
Exchange Rate							
R/\$:							
end of period	28.8	26.3	24.6	26.5	28.2	29.4	30.6
year average	28.3	27.1	25.6	24.7	27.3	28.8	30.0
Exogenous Parameters							
Urals, \$ p/bbl	50.4	60.9	69.6	101	75	72	70
\$/€	1.24	1.26	1.37	1.48	1.33	1.29	1.26

Source: Rosstat, CBR, Russian MOF, CSI Bank of Moscow forecast.

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