Section 2. Monetary and Budgetary Spheres

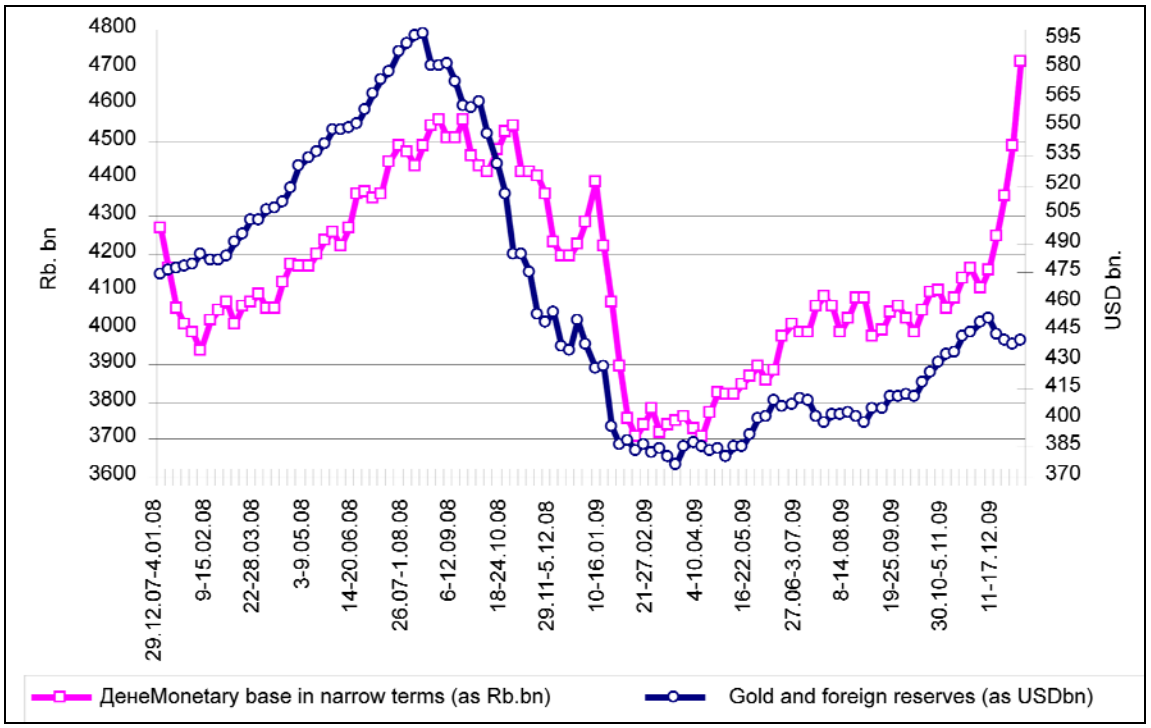
2.1. Monetary Policy in the Crisis Period

2.1.1. Monetary Market

The global financial and economic crisis that burst out in Russia in late 2008 battered primarily the financial sector of the economy. In August, crisis developments on the global financial markets were further aggravated by Russia's military action in the Southern Ossetia and triggered a sizeable capital outflow from the country. Plus, a slowdown in the largest economies' growth resulted in a dramatic deterioration of foreign trade conditions for Russia and a subsequent drastic contraction of the nation's foreign exchange revenues. As a result, Russia's international reserves began to dwindle rapidly, as the Bank of Russia had to throw them on pegging the Rb. exchange rate. In addition, the appreciation of the USD against the Euro on the global forex market has sent the value of the USD-denominated fraction of the reserves nosedive.

A rapid depletion of the volume of international reserves had been continuing through January 2009 and was the result of the Bank of Russia's pursuance of the policy of a gradual devaluation of the Rb. It was just the stabilization of prices for energy sources and the end of a sharp phase of the global economic crisis that allowed one to stop the rapid fall of the reserves. Between February and March 2009 the dynamic of international reserves demonstrated its fluctuating nature, with their minimum value reported in mid-March, when they stood at USD 376.1bn vis-à-vis a peak of USD 597.5bn back in the early August 2008. So, the gradual devaluation cost the bank of Russia roughly as much as one-third of the nation's international reserves (with account of the fact that the fall in the reserves was partly fueled by the noted appreciation of the USD vs. the Euro). The policy *de facto* enabled economic agents (primarily, commercial banks) to cut it fine with betting on a predictable exchange rate dynamic. It can be suggested that had the authorities opted for a one-time devaluation of the Rb. exchange rate to a level of circa Rb. 35/USD, the equilibrium on the forex market would have been secured anyway, but the price for the monetary authorities would have been less. That said, the gradual nature of depreciation of the Rb. allowed one to somewhat smooth down negative social effects from the process.

With global financial market stabilizing and prices for major Russian exports slightly bouncing back to normality, as early as in May 2009 the volume of the nation's international reserves was back on track of growth and by November-December accounted already for USD 440bn-plus. So, despite a sizeable contraction of the reserves, their volume remained fairly considerable by international standards (as of December 2009, Russia had the world's third greatest volume of the reserves after China and Japan). In all likelihood, should oil prices in the medium term remain within the corridor of USD 60-70/bbl or above that, the nation's international reserves would stabilize or slightly grow.



Source: the CBR

Fig. 1. The Dynamic of the Monetary Base and International Reserves in 2008–2009

The dynamic of money supply over the crisis period also allows singling out several sub-periods. As already noted above, in the second half 2008 Russia's gold and foreign reserves were in decline, as the CBR had to sell forex to keep the Rb. exchange rate buoyant. But a considerable increase in the CBR's volume of lending to commercial banks (between July and December 2008 the increase in loans credit organizations had received from the CBR accounted for over Rb. 3.3trln), nonetheless, resulted in a slight growth (+2.9%) of the monetary base over the 2nd half 2008. In January 2009, in the conditions of a full-scale capital outflow form the private sector, there took place the most significant contraction of the monetary base over the crisis period (-22.4%). It was fueled by the fall in the volume of cash (-14.5%) in the first place and that of balances of the credit organizations' corresponding accounts with the CBR (more than twice) due to a USD 40.2bn-worth contraction of Russia's gold and foreign reserves (*Table 2*). The CBR partly damped the liquidity outflow from the banking sector in January by boosting up the volume lending to Russian banks. More specifically, in January 2009 alone, the aggregate volume of loans disbursed to the national banking sector surged by Rb. 325.3bn (up 8.8%).

Between February and March 2009, the amount of the monetary base in broad terms has not undergone any substantial changes due to some stabilization on the exchange market and remained at the level of a. Rb. 4.3trln. Between April and December 2009, with the global economy recovering, prices for main Russian exports soaring, and the Rb. rate appreciating, the volume of the monetary base rose at 50.4% against the background of growing budget expenditures. It was the spending of the Reserve Fund's resources and the CBR's purchases of foreign exchange that formed main factors contributing to the growth in the monetary base. Specifically, the use of the resources from the Reserve Fund on financing

the budget deficit has increased money supply by more than Rb. 2 trln. Meanwhile, the CBR's cutting back on the volume of lending to commercial banks helped slightly inhibit the increase of the monetary base.

So, spending the Reserve Fund's resources in 2009 began to contribute substantially to the growth in money supply. Given that as of January 1, 2009, the aggregate volume of the National Welfare Fund and the Reserve Fund combined accounted for Rb. 6,612.1bn (USD 225.1bn, or 15.9% of GDP) (+ Rb. 2,763bn when compared with January 1, 2008), as of January 1, 2010, the respective value was Rb. 4,599.5bn (USD 152.4bn, or 13.6% of GDP). A rapid increase of budget expenditures may once again fuel an impetuous surge of money supply – by results of December 2009, the monetary base increase rate has already hit 24% and proved to be the most substantial one since December 2003. Meanwhile, the CBR's capability to sterilize an excessive money supply by virtue of recovery of the earlier extended to commercial banks credits will be smaller than between March and August 2009.

Table1

Dynamics of Monetary Base in Broad Terms between 2008–2009 (as Rb bn)

	1.07.2008	1.10.2008	1.01.2009	1.04.2009	1.07.2009	1.10.2009	1.01.2010
Monetary base (in broad terms) including:	5 422.9	5 317.8	5578.7	4298.8	4967.6	4803.7	6467.3
Cash in circulation, with account of credit organizations' cash balances	4 077.2	4 285.3	4372.1	3658	3908.1	3869.2	4622.9
Commercial organizations' corresponding accounts with the CBR	592.4	702.9	1027.6	431.7	471.4	545.4	900.3
Emergency funds	360.3	152.1	29.9	33.3	61.8	153.9	151.4
Commercial organizations' deposits with the CBR	369.3	154	136.6	163.4	508.8	216.9	509
The CBR's obligations in hands of commercial organizations	23.7	23.5	12.5	12.4	17.5	18.4	283.7

Source: the CBR

An analysis of the change in the structure of assets in the CBR's balance (see *Table 2*) allows one to note that in the critical phase of the crisis (between the autumn 2008 and the winter 2009) it was credits and deposits disbursed to Russian credit organizations that demonstrated the highest increase rate. By contrast, capital placed with non-residents was shrinking[1]. Once between the spring and summer 2009 the global financial market began recovering, the CBR has been gradually shutting off its lending pipe. In parallel with that, the RF Government had found by then its resources drying up, as were the CBR's accounts. In other words, because of the crisis phenomena, it was the CBR's operations on refinancing credit institutions that formed the principal source of formation of money supply. This is consistent with the most developed nations' practice. In the circumstances it is interest rates of the CBR's credits that gain a far greater role than before, as employing them, the Bank of Russia can exert a substantial influence on the situation in the monetary sphere. Meanwhile, as long as resources were being spent from the Reserve Fund, the money supply in the country was on the rise, and the Bank of Russia precludes it from a further excessive growth by cutting back on the net lending to commercial banks. But its capability to do so is limited,

[1] This paper highlights on changes in the Bank of Russia's international reserve assets.

while further appropriations from the accounts of the RF Government with the CBR might result in an acceleration of growth rates of money supply, which, in the event of a sharp aggravation of the situation on financial markets in the form of a growing financial instability, could create a downward pressure on the Rb. exchange rate and trigger inflation escalation.

Let us note that the lending fragmentation to credit institutions in the autumn 2008 (in anticipation of a looming devaluation) did not allow one both to solve the problem with liquidity in the banking sector and the problem of lending to the real sector, as at the expense of the *de-facto* predetermined gradual devaluation the CBR has generated very lucrative assets, that is, foreign exchange, that has proved to be more rewarding and less risky than alternative avenues for investment. As a result, once bankers received the CBR's transfers, the latter were immediately channeled onto the forex market and ultimately back to the reserves-bleeding CBR. So, the gradual devaluation allowed the financial sector to generate extra profits, which mitigated the liquidity crisis in the banking system, albeit, as already noted, it cost the CBR one-third of its international reserve assets and triggered a boom on the forex market.

Table 2

The Balance Sheet of the Bank of Russia in 2008–2009

	1.08.2008		1.01.2009		1.12.2009	
	USDbn.	**% assets / liabilities**	**USDbn.**	**% assets / liabilities**	**USDbn.**	**% assets / liabilities**
Funds placed with non-residents and foreign issuers' securities	13653.9	93.2	12091.1	71.3	12448.2	80,4
Loans and deposits	69.2	0.5	3871.3	22.8	1707.7	11.0
Precious metals	382.2	2.6	450.3	2.7	746.4	4.8
Securities	442	3.0	441	2.6	459.7	3.0
Other assets	103.1	0.7	110	0.6	120.8	0.8
Total, by assets	**14650.3**	**100**	**16963.7**	**100**	**15482.6**	**100**
Cash in circulation	4153.9	28.4	4378.2	25.8	4024.9	26.0
Funds deposited in accounts with the CBR	9729.8	66.4	10237.6	60.4	8520.7	55.0
including the RF Government's	7145.9	48.8	7093.9	41.8	5441.6	35.1
resident credit institutions'	1097.6	7.5	2010.1	11.8	1214	7.8
Receivables	50.3	0.3	16.1	0.1	52.2	0.3
Issued securities	40.7	0.3	12.5	0.1	111	0.7
Other liabilities	201.6	1.4	319.2	1.9	823.7	5.3
Capital	474.1	3.2	1902.4	11.2	1950.1	12.6
Profit in the banking year	0	0.0	97.8	0.6	0	0.0
Total by liabilities	**14650.3**	**100**	**16963.7**	**100**	**15482.6**	**100**

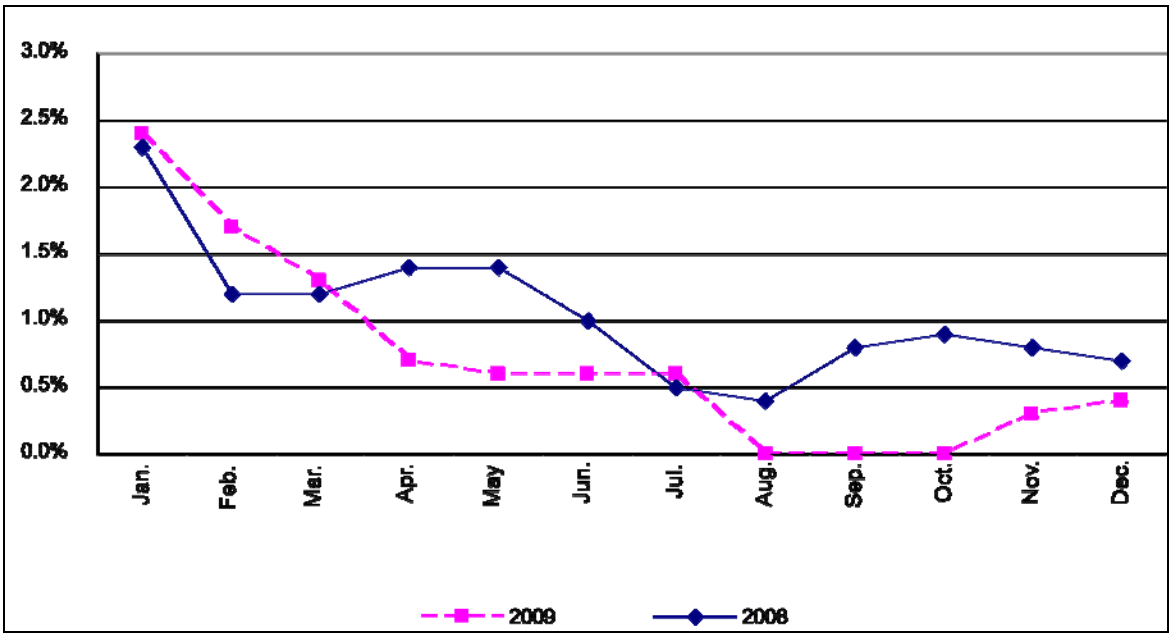
Source: the CBR

Money supply M_2 in national terms increased in 2008 just at 1.7% and as of January 1, 2009, accounted for Rb. 13, 493.2bn, or 32.5% of GDP (as of January 1, 2008, M_2 equaled Rb.1,3272.1bn, or 40.2% of GDP). Main reasons behind such a slow rise of money supply were the CBR's sales of international reserve assets for the sake of protecting the Rb. exchange rate and a fall of the lending activity in the banking system due to the crisis. In 2009, money supply tumbled by 1.4% and by September 1 had hit the level of Rb. 13,305bn (32.5% of GDP). So, in 2009, the monetization rate of Russia's GDP remained at its 2008 level. Compression of money supply in 2009 was noted only in January – at the time, by results of the month it plunged by 11.1% resulting from the CBR's large-scale forex interventions. In the conditions of a high uncertainty about further trends of Russia's economic development, an increase in money supply in the medium term will be determined largely by the situation in the foreign trade sector, velocity of the economy's recovery, and the lending activity in the banking sector.

2.1.2. Inflationary processes

In the first half 2008 inflation remained high compared with the same period of the previous year (*Fig. 2*), with a rapid increase of money supply in late 2007 accelerating the price rise. But in the second half 2008, due to the contraction in international reserve assets the CBR was selling to buoy the Rb. exchange rate, money supply began to contract and the price rise rate started slowing down. In all, by results of the year the CPI hit 13.3% vs. 11.9% reported in 2007, with consumer prices nationwide rising at an average 3.2% between September and December (vs. 4.8% over the same period of the prior year).

But the depreciation of the Rb. in early 2009 triggered an acceleration of the price rise, when the contracting domestic and external demand continued inhibiting it. With the Rb. exchange rate stabilizing, the decline in economic activity has formed a critical factor fanning up inflationary processes and the CPI in Russia accounted for 8.8% by results of the year. Let us examine the 2009 dynamic of the CPI in a greater detail.



Source: the Rosstat

Fig. 2. The Dynamic of Russia's CPI (Monthly Values) in 2008–2009

Costs of paid services to the population gained 11.6% in 2009 (15.9% в 2008 г.). Between January and December it was prices for housing and utilities (+19.6%), preschool education services (+16.2%), medical services (+13.9%) that posted the highest growth rates. So, the paid services to the population became the greatest contributor to the 2009 increase in the CPI. Prices of non-food goods soared at 9.7% (+ 8% - in 2008). Between January and December it was prices for tobacco goods (+ 18.7%), medicines (+17.6%), washing and cleaning goods (+12.6%), and clothing and linen (+11%) that demonstrated the highest growth rates. Between January and December 2009 food prices surged by 6.1% (16.5% over the same period of the prior year) (*Table 3*). In 2009, it was prices for white sugar (+42.7%), fish and seafood (+10.6%), and liquors (+8.9%) whose contribution to the price rise for foods was the greatest one. The 2009 growth in the basic consumer price index made up 8.3% (13.6% - over the same period in 2008). So, the main factors behind the 2009 inflation slowdown were the

declining domestic demand as a result of the crisis, a slow rise of money supply over the first three quarters, and the price downfall for an array of import goods (foods, primarily) on the global market.

As evidenced by data of *Table 3*, it was the rise in the housing and utilities tariffs that has formed the principal inflation component between 2006 and 2009. The respective payments account for a substantial fraction of the households' expenses, particularly because prices of the said services nearly doubled between 2006 and 2009. As concerns the group of non-food goods, it is worth noting the price rise for gas on the backdrop of bouncing upwards prices for energy sources and a very moderate price rise for construction materials, because of an intense slump in the construction sector. Finally, it is important to note a sharp deceleration of price rise rates for foods in 2009.

Table 3

The Annual Price Increate Rates for Individual Kinds of Goods and in 2006–2009 (%)

	2006	2007	2008	2009	2006–2009
CPI	**9.0**	**11.9**	**13.3**	**8.8**	**50.4**
Foods	8.7	15.6	16.5	6.1	55.3
Cream butter	6.8	40.3	10.5	7.9	78.7
Pasta	4.7	23.6	33.8	1.6	75.9
Bread and bakery	11.1	22.4	25.9	2.4	75.3
Gruels and legumes	12.1	24.7	25.8	-2.5	71.5
Milk and dairy products	8.7	30.4	12.2	2.3	62.7
Fish and seafood	7.8	9.0	15.1	10.6	49.6
Sunflower seed oil	-1.2	52.3	22.1	-19.8	47.3
Meat and poultry	5.9	8.4	22.2	5.0	47.3
Non-food goods	6.0	6.5	8.0	9.7	33.7
Construction materials	11.5	16.2	11.3	2.1	47.2
Gasoline	10.9	8.5	1.2	8.0	31.5
Paid services for the population	13.9	13.3	15.9	11.6	66.9
Pre-schooling services	28.5	11.8	20.7	16.2	101.5
Housing and utilities	17.9	14.0	16.4	19.6	87.1
Sanatorium and rehabilitation services	15.2	15.6	21.2	9.5	76.7
Services by organizations of culture	15.6	14.5	15.5	11.3	70.2
Passenger transportation services	14.2	13.6	22.5	6.5	69.3

Source: Rosstat

In conclusion let us compare the price rise rates in Russia with those across the CIS (*Table 4*).

Table 4

Consumer Price Indexes in the CIS in 2000−2009 гг., as % to the Same Period of the Prior Year

	2000	2001	2002	2003	2004	2005	2006	2007	2008	Jan.-Sep. 2009
Azerbaijan	2	2	3	2	7	10	8	17	21	2.1
Armenia	−1	3	1	5	7	1	3	4	9	2.9
Belarus	169	61	43	28	18	10	7	8	15	13.9
Kazakhstan	13	8	6	6	7	8	9	11	17	7.8
Kyrgystan	19	7	2	3	4	4	6	10	25	9.1
Moldova	31	10	5	12	12	12	13	12	13	0.2
Russia	20	19	15	12	12	11	9	12	14	12.5
Tajikistan	24	37	10	17	7	8	12	22	20	7.2
Ukraine	28	12	1	5	9	14	9	13	25	16.8

Souurce: The CIS Intergovernmental Statistics Committee (http://www.cisstat.com/).

It can be noted that the 2009 inflation slowed down in all the CIS countries, while the impact of the global financial crisis on the inflationary processes in Russia and other CIS countries was two-fold.

For one part, the depreciation of the national currency drove up the price rise for imports and the rise in inflationary expectations. The latter were also stirred by the growing financial instability. Finally, the slowdown of the economic activity resulted in a lesser demand for cash, as economic agents lost confidence in the national banking system and were transferring their Rb.-denominated savings into the forex ones.

On the other hand, a sharp slowdown of money supply growth rates sent the monetary inflation down. Let us note that the compression of money supply during the critical phase of the crisis was taking place regardless of sizeable anticrisis public expenditures, as a consequence of economic agents' transferring their savings in forex and the money multiplier being in decline. Finally, a sharp compression of the aggregate demand also exerted a substantial downward pressure on prices.

So, in Russia's conditions, contraction in money supply and in the aggregate demand has led to inflation deceleration. Meanwhile, the stabilization of the state of affairs on the global markets that kicked off in April and the price rise for energy sources have resulted in a significant decline in expectations of a further depreciation of the Rb. exchange rate as early as in the spring 2009. The prices for main Russian exports bounced back, the private capital inflow in Russia was noted in the 4th quarter of the year, while the budget deficit was financed out of the Reserve Fund – all this caused a spike of money supply at the end of the year. Should these inflationary trends be further unfolding in 2010, inflation may not demonstrate its further decline and its rate may account for 8-9%.

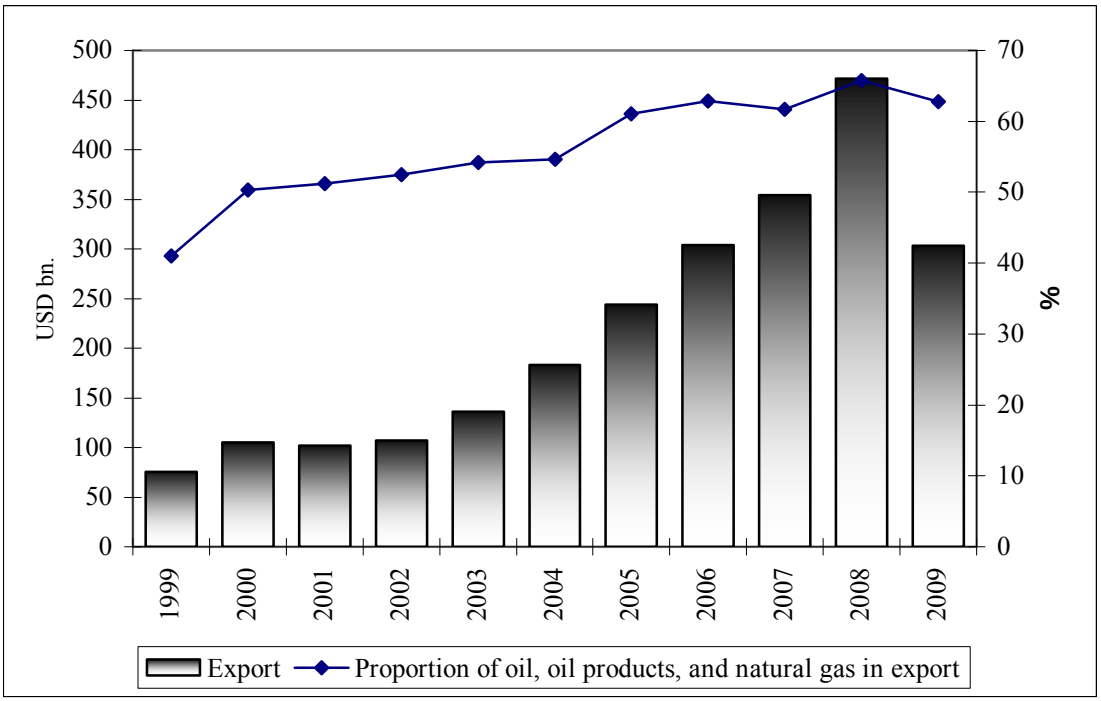
2.1.3. The State of the Balance of Payments[1] and the Forex Market

The sustainability of Russia's balance of payments in 2009 was traditionally secured by its exports, primarily the fuel and energy goods. Meanwhile, the global financial crisis has led to a price downfall for main Russian exports, which is why their ultimate 2009 export volume from RF plunged by 35.7% vs. the prior year. But the restoration of the prices and improve-

[1] Evaluation of the balance of payments was conducted on the basis of preliminary data of the CBR. http://cbr.ru/statistics/credit_statistics/print.asp?file=bal_of_payments_est.htm

ment of the global economy's health since the spring 2009 have resulted in a stabilization of the nation's balance of payments. Ultimately, by the 2009 results, Russia's balance of payments appears fairly sustainable; however in the medium-term the sustainability of the balance of payments will remain exposed to an intensification of the global crisis and an advanced growth in imports in RF vis-à-vis the nation's exports.

According to the published by the CBR's preliminary estimation of the nation's 2009 balance of payments, the positive balance of the current account was USD 47.5bn., i.e. 53.6% down compared with 2008 (*Table 5*). More specifically, down at 38.5% was the positive balance of trade (from USD 139.7bn to 110.6bn), with exports down by 35.7% (from USD 371.6bn to 303.3bn) and imports shrinking at 34% (from USD 291.9bn to 192.7bn). The proportion of oil, petroleum derivatives and natural gas in the aggregate volume of Russia's export was 62.8% (in 2006- 62.8%, 2007 – 61.7%, 2008- 65.8%) (*Fig. 3*). So, like in the recent years, it was the balance of trade that formed a main factor behind the value of the balance of current account. Meanwhile, the balance of the balance in trade in turn is strongly dependent on the dynamic of world prices for energy sources and other main Russian exports. The data presented in *Fig. 4* evidence that the correlation between the world oil prices for oil and the balance of Russia's balance of trade, which was noted between 2002-2008, was still there in 2009.



Source: The CBR.

Fig. 3. Dynamic of Export and Proportion of Products of the Fuel and Energy Complex in 1999–2009

The deficit of the balance of services accounted for USD 19.8bn and tumbled (by its absolute value) by 20.8% vs. its respective value of 2008. Export of services made up USD

42.4bn, thus being USD8.9bn (17.4%) down compared with the prior year. The 2009 value of import of services plunged by 18.6% and accounted for USD 62.1bn.

The 2009 labor compensation balance fell by the absolute value and made up USD -8.7bn (vs. -14.2bn in 2008). The deficit of the balance of investment revenues in 2009 tumbled by 10.4% vis-à-vis 2008 and was USD 31.4bn. Investment incomes due slid from USD 52.2bn to 30bn, which was determined by a substantial drop of the indicator by non-financial enterprises (from USD 28.2bn to 14.2bn) and monetary regulators (from USD 18.3bn to 6.9bn). The fall in incomes due can be ascribed to the global financial crisis and the plunge in the volume of overseas investment. The drop of incomes due across non-financial corporations from USD 73.7bn to 46.4bn was determined by the fall in the aggregate income due from USD 90.2bn to 61.4bn.

The 2009 balance of current transfers[1] accounted for USD -3.2bn (up 4.2% compared with 2008).

So, the main factors underlying the retaining of a considerable positive balance of the current account of Russia's balance of payments in 2009 were prices for main Russian exports that bounced back to their high values in the 2nd-4th quarters of the year. It is worth noting that, despite concerns of potential difficulties the crisis engendered with respect to servicing the private sector's external debt, the national banks and the non-financial sector's indebtedness to overseas economic agents contracted (see *Table 5*) as a consequence of a partial debt restructuring against the background of a notable reduction in the volume of attraction of new debts. One can expect a renewal of the growth rate of the foreign debt in the medium term, and the process should encompass both the private sector and the public one, as the country lacks domestic financial resources which are very costly.

In 2009, determined by stabilization of the state of affairs in the global economy, the absolute value of the balance of the capital account plunged considerably and accounted for USD – 45.2bn. The 2009 balance of capital transfers was -11.7 USDbn. So, without regard to the capital transfers, the 2009 financial account deficit was -33.5 USDbn.

The 2009 ultimate increase in the domestic economic agents' liabilities before overseas economic agents was just USD 6.3bn, or 14.6 times less than in 2008 (USD 92.4bn).

In 2009, the federal public administration agencies became net borrowers before non-residents, with their external liabilities standing at USD 0.8bn resulting from sales of T-bonds to the non-residents. Meanwhile, the balance of external liabilities of the RF Subjects remained practically unchanged. The 2009 rise in the monetary regulatory agencies' liabilities hit USD 11.6bn chiefly due to the Bank of Russia's conducting REPO with foreign counterparts.

[1] According to the CBR, current transfers, e.g. humanitarian relief in the form of consumer goods and services, bolster the level of the disposable income and consumption of goods and services by the recipient and diminish the donor's disposable income and consumption capacity. Current transfers are reflected in the current account. Transfers that are not current by default form capital transfers. Capital transfers result in a change of both the donor and recipient's volume of assets or liabilities and are reflected in the capital account. In the event the donor and the recipient are non-residents towards each other, the capital transfer entails a change in the level of the national wealth of the economies they represent. An example of capital transfers is a non-repayable reassignment of property rights for capital assets, debt forgiveness.

Table 5

Main Items of the Balance of Payments and the Dynamic of the Foreign Debt in 2007–2009 (as USDbn)

Items of the balance	2007					2008					2009				
	I Q	II Q	III Q	IV Q	*Год*	I Q	II Q	III Q	IV Q	*Year*	I Q	II Q	III Q	IV Q*	*year**
Current account	22.6	14.5	15.7	24.2	*77*	38.0	26.2	29.7	8.5	*102.4*	9.3	7.6	15.0	15.6	*47.5*
Capital account**	14.5	48.4	–3.7	26.5	*85.7*	–25.6	35.7	–9.6	–135.5	*–135.2*	–32.0	3.2	–25.4	9.0	*–45.2*
Change in forex reserves («+» means reserves are down, «–» – рост reserves are up)	–32.9	–65.5	–7.9	–42.6	*–148.9*	–6.4	–64.2	–15.0	131.1	*45.3*	30.5	–14.2	9.1	–28.8	*–3.5*
Net errors and omissions	–4.1	2.6	–4.1	–8.2	*–13.8*	–6.0	2.4	–5.0	–4.0	*–12.6*	–7.7	3.5	1.3	4.1	*1.1*
Change in Russia's foreign debt («+» means the debt is up, «–» the debt is down)	41.8	44.2	38.6	33.2	*157.8*	13.6	51.1	12.5	–67.7	*9.5*	–32.8	21.3	9.8	–8.5	*–10.2*
Change in Russia's foreign public debt	3.6	–3.2	3.5	–6.1	*–2.2*	–5.4	–2.1	3.9	–10	*–13.6*	–2.4	4	9.5	0.9	*12*
Change in Russia's foreign debt of the private sector	38.3	47.3	35.2	39.3	*160.1*	18.9	53.3	8.6	–57.8	*23*	–30.5	17.3	0.4	–9.5	*–22.3*

* Preliminary estimate
** With regard to forex reserves.
Source: the CBR.

The continuance of the global financial crisis that has seriously derailed the Russian economic agents' possibilities to attract borrowings for overseas and a vehement restructuring of already attracted loans have led to a USD 43.7bn-worth contraction in the banking sector's liabilities towards non-residents. The overseas economic agents' investment in the Russian non-financial sector made up USD 37.4bn (vs. 97.1bn in 2008). So, the 2009 volume of non-resident investments plunged drastically vs. the respective indicator of 2008, albeit it proved to be far in excess of that to the banking sector. That said, the volume of direct investment in the non-financial sector over the year accounted for USD 38.2bn vs. 63bn. in 2008, while the increase in portfolio investment was in the prior year. In 2009, the volume of the non-financial sector's debt by loans and credits towards non-residents dropped by USD 5.2bn.

Residents' foreign assets (liabilities of foreign economic agents before Russian ones) grew by USD 39.8bn in 2009 (in 2008 – by USD 228bn).

Meanwhile, foreign assets of the federal public administration agencies plunged by USD 10.2bn, while those of banks – by 11.2bn. In contrast, foreign assets of monetary regulatory institutions remained practically unchanged.

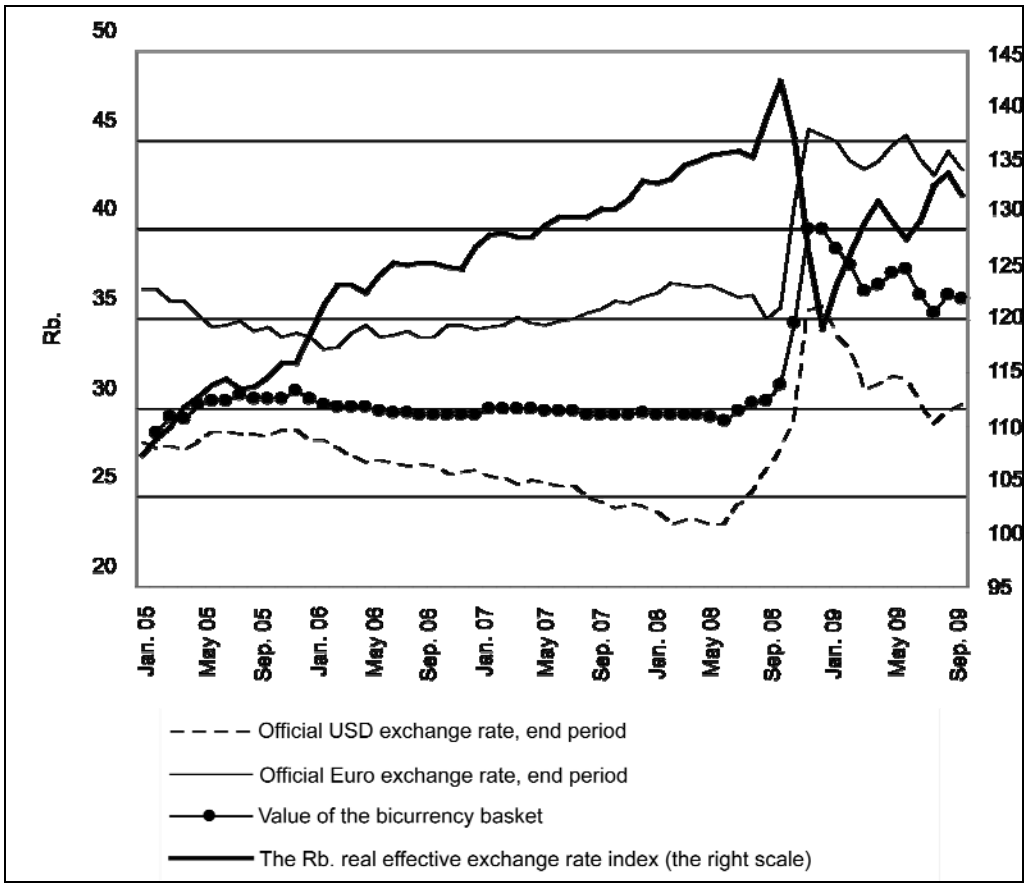
Capital export from the sector of non-financial corporations and households fell by 61.8% vs. 2008 and accounted for USD 61.2bn. The volume of the "not collected on time export proceeds, goods and services not received against monetary transfers by import contracts, transfers by fictitious transactions with securities" also tumbled compared with 2008 and accounted for USD 26.5bn. At this point, it is worth noting that the dynamic of the item "cash foreign exchange" underwent considerable changes – in 2009, Russia saw a USD 3.9bn-worth export of foreign exchange in the cash form, while in 2008 as much as USD 25bn was imported into the country. In other words, once in the autumn of 2008 the Rb. showed the first signs of depreciation towards the bicurrency basket (both in the nominal and real terms), the population and the non-financial sector once again, for the first time since 1997, began vehemently buying foreign exchange. But in 2009, with the situation on the financial markets gradually stabilizing and the Rb. renewing its appreciation trend, the boom on the forex market subsided.

Let us note that during the acute phase of the crisis, that is between November 2008 and February 2009, which was characterized by a large-scale capital outflow and a non-stop price downfall for energy sources, the Bank of Russia allowed a gradual decline of the Rb. rate against the bicurrency basket. In the situation of a considerable fall of Russia's forex revenues, the earlier exchange rate could have been sustained only over a limited period of time by wasting the international reserve assets. That said, as the Bank of Russia was depreciating the Rb. gradually, economic agents found buying forex a relatively low-risk and highly lucrative investment instrument, which led to an increasing demand for forex and the need to spend an increasing amount of the international reserve assets.

We believe in the circumstances a one-time depreciation of the Rb. with a subsequent pegging of the new declared level was the best *modus operandi*, as it would have enabled the CBR to avoid a further waste of reserves and to lower inflationary expectations. We question just the moment picked for a sharp devaluation of the Rb – it can be suggested that in order to save the gold and forex reserves one could have opted for this move far earlier than in early 2009.

As a result, in all between December 2008 and February 2009 the real effective rate of the Rb. slid by 16.3% (see *Fig. 5*). But, driven by the stabilization on the Russian and global financial markets in the spring 2009 and the subsequent price rise for energy sources, the real effective rate of the Rb. renewed its rise and by October had won back over 40% of its value lost due to the earlier drop. Once investors' appetite for risk increased, the USD/Euro rate began to descend, and as a consequence, between March and December the official USD/Rb rate tumbled by Rb. 5.48 – by late December 2009 the USD/Rb exchange rate was 30.24 vs. 35.72 as of February 28, 2009. Meanwhile, the Rb. has grown relative to the bicurrency basket[1] – the value of the bicurrency basket slid by 3.90Rb between March and December – from 40.05Rb. to 36.16 Rb. As a result, the Euro/Rb. rate in the late December was 43.39.

[1] The bicurrency basket constitutes a CBR's forex policy operational benchmark, with the proportion of the Euro in the basket currently accounting for 45% and, accordingly, 55% that of the USD.



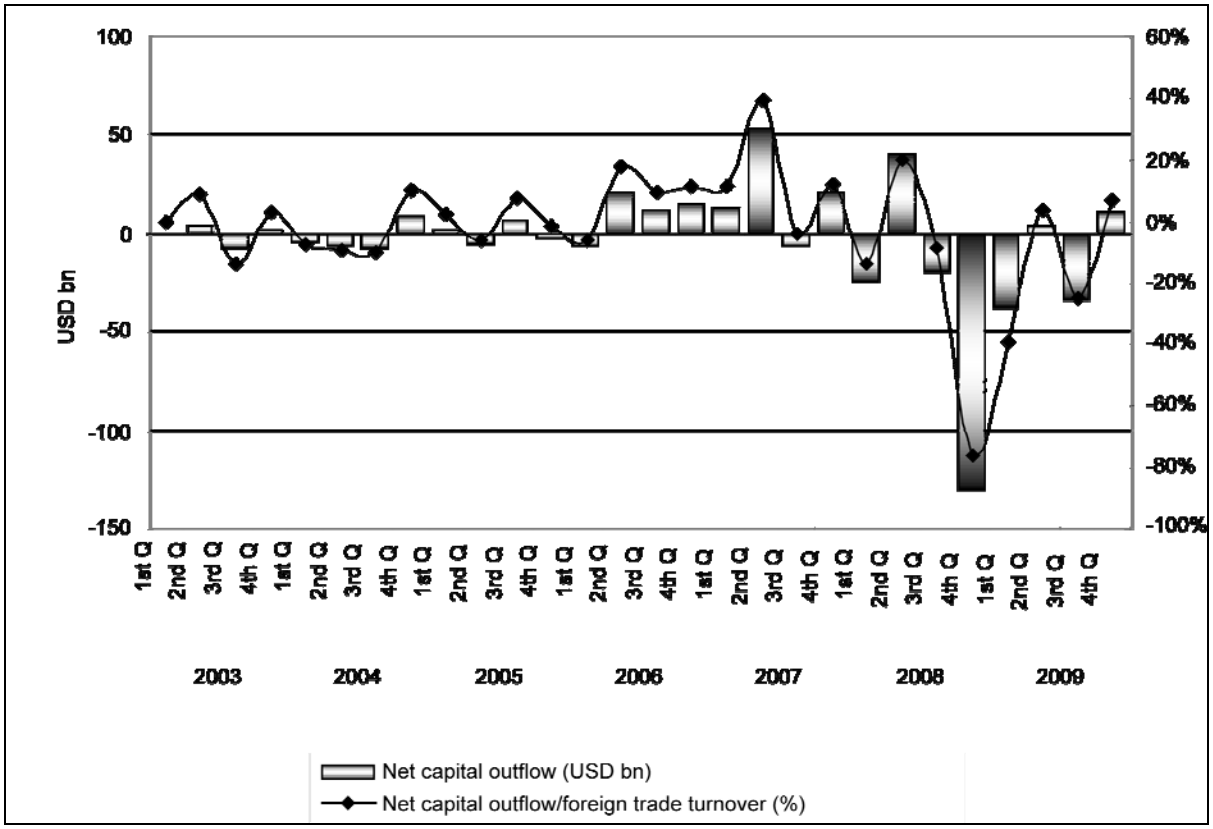
Note: While calculating the Rb. real effective exchange rate, 100= the level as of January 2002
Source: the CBR, the author's calculations.

Fig. 5. Indexes of the Rb. Exchange Rate Between January 2005 – December 2009

So, the CBR's forex policy in the crisis period has basically been smoothing down exchange rate fluctuations without creating obstacles to fundamental changes of exchange rate. More specifically, in the second half 2009, the amplitude of the exchange rate fluctuations was over 15%. By increasing the exchange rate volatility, the CBR creates disincentives for economic agents to play on the forex market. The CBR is going to stick to this tactic in the medium term, too. However, it should be noted that in the event of a further price rise for energy sources and renewal of a large-scale capital inflow, the Rb. will find itself under a considerable upward pressure and the CBR may once again start buying forex in order not to let the Rb. nominal rate surge. In such circumstances, the monetary policy will de-facto replicate the pre-crisis one, which once again will give rise to bubbles on the financial markets, unless the government succeeds in creating additional mechanisms of sterilization of an excessive money supply.

In addition to the contraction of the balance of current account, one of the pivotal trends in the dynamic of indicators of the nation's 2009 balance of payments was the dynamic of net capital outflow from the non-financial sector, which by results of the year hit USD 52.2bn. (in 2008, stirred by the crisis, the respective figure was 132.8bn) (see *Fig. 6*). Meanwhile, the dynamic of the private capital flow was uneven during the crisis. Between the 3rd quarter 2008 and the 1st quarter 2009 the net private capital outflow accounted for USD 186.6bn. In the 2nd

quarter 2009, there was noted its insignificant inflow worth a total of USD 4.2bn, which once again was replaced by a -32.2bn outflow in the 3rd quarter of the year. In the 4th quarter 2009, against the investors' growing confidence in stability of Russia's economy (at least, in the short run) and their desire to make money on the appreciation of the Rb, the private capital inflow accounted for USD 11.1bn.

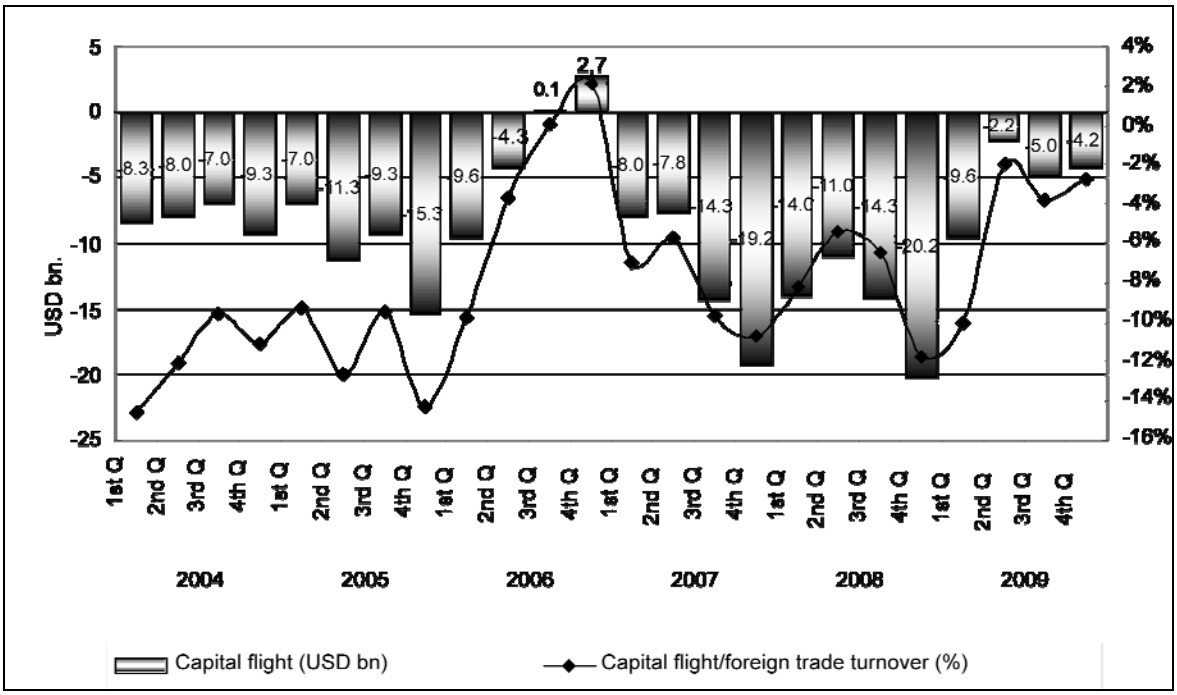


Source: the CBR; the IET calculations.

Fig. 6. Dynamic of the Net Capital Outflow in 2003–2009

The 2009 unofficial capital outflow (capital flight) (*Fig. 7*) also dropped significantly vs. 2008 and accounts, by our estimates[1], for some USD 21bn, or at 38.5bn. less than in 2008. Accordingly, the proportion of capital flight in the nation's foreign trade turnover slid from 7.8% in 2008 to 4.2%.

[1] We calculate capital flight with the use of the IMF methodology, according to which it constitutes the sum of "trade loans and down payments", "not received on time export proceeds and goods and services not supplied against money transfers by import contracts" and "net errors and omissions".



Source: the CBR; the IET calculations.

Fig. 7. Dynamics of the Capital Flight in 2004–2009

As for other peculiarities of the 2009 balance of payments, it is worth noting a remaining high proportion of revenues from energy sources in export of goods. The price downfall for energy sources in the late 2009 exposed the vulnerability of the nation's balance of payments. The oil prices recovery in 2009 and the Rb. depreciation allowed Russia to stabilize its balance of payments, but, with the situation in the economy gradually improving, import began to recover, too. That said, given that between the 2nd and 3rd quarters 2009 the pace of its recovery has been falling behind the one of export, in the 4th quarter of the year the import increase rate practically accounted for 24%, while that of export - just for 15%. Should the tendency persist further on, the positive balance of current account may renew its plunge, which, other conditions being equal, would create a downward pressure on the Rb. exchange rate. However, it should be noted that traditionally, the 4th quarter is the period of seasonal import hikes, and given the current economic stagnation, a further rapid growth in import appears unlikely.

As to the balance of capital account, in the medium term, the dynamic of capital flows to a significant degree will be driven by the situation on the global financial markets. Should the trend of a gradual recovery of the world economy persist, one may expect a net private capital inflow in Russia by results of 2010.

2.1.4. Main Steps in the Monetary Policy

Whatever moves the CBR was undertaking to ensure the financial system's stability, they can be provisionally split into two groups- namely, *the interest rate policy and other measures*.

Speaking of the CBR's interest rate policy in 2008-2009, it can be further broken into two stages. At the first stage, the CBR has been raising the refinancing rate four times (Nov 12,

Dec 1, 2008; Feb 2 and 9, 2009). That said, prior to the first raising of the refinancing rate in the crisis period the CBR had lowered rates on a series of liquidity lending instruments without changing the refinancing rate. The move was made in pursuance of facilitation of the access to liquidity for commercial banks. As a result of the four consequent moves, the refinancing rate rose from 11 to 13% annualized and the CBR's lending rates to commercial banks were raised by a comparable value.

Underlying the increase in the interest rates largely was the CBR's desire to increase costs of the resources credit institutions attracted from the Bank of Russia and subsequently invested in forex assets. As a reminder, since January 23, 2009, the CBR set the upper margin of the technical band of the bicurrency basket at the level of Rb 41/USD and declared its readiness to maintain the rate by the margin for a minimum of several months. Meanwhile, already on January 30, after the tax payment period was over and banks had free Rb-denominated liquidity at hand, the value of the bicurrency basket was over Rb. 40. Given that yet back in November 2008 the value of the bicurrency basket was below Rb. 30, buying forex became a very lucrative direction of investment for the domestic economic agents. Expectations of devaluation were fueled by low oil prices that engendered fewer forex revenues in the country and the capital outflow from emerging markets. At that juncture the CBR decided to constrain the banks' capacity for buying forex by increasing for them costs of attraction of Rb.-denominated resources. This move was simultaneously aimed at demonstration of the CBR's commitment to keep the Rb. exchange rate at the selected level, which contributed to a fall of forex buys by economic agents and the subsidence of speculative activities on the forex market. Given that the CBR's resources have increasingly been playing a greater role in the domestic credit organizations' liabilities (see sub-section 2.1.1), the policy indeed helped lower the attractiveness of forex purchases against the background of statements made by the CBR leadership that a dramatic contraction of import between late 2008 and early 2009 enabled it to balance the current account of the nation's balance of payments.

Once the state of affairs on the financial markets began stabilizing, the CBR started to gradually soften its monetary policy. Specifically, between April and December 2009, the CBR lowered interest rates seven times, with the refinancing rate ultimately being brought down from 13% to 8.75% annualized, while rates on the CBR's operations were down at 3.5-4.5 p.p. Underpinning these moves was a drastic deceleration of the pace of lending to the real sector against the background of a lowering inflation. The inflation deceleration enabled the Bank of Russia to lower the costs of resources disbursed to commercial banks without a serious change of the value of the rates in real terms, as the nominal rates were maintained at a level roughly equaling that of inflation.

The decline in interest rates was also fueled by the renewal of influx of forex revenues in the country due to the price rise for Russia's main exports and stabilization of the economic situation worldwide. In the event of a further slowdown of inflation, the CBR may once again lower its interest rates. But we believe an overly drastic softening of the monetary policy in the current circumstances appears unjustified, as it may once again trigger escalation of inflation against the backdrop of the growing budget deficit. Plus, it should be borne in mind that high credit rates banks set for the real sector mirror not only costs of attraction of financial resources, but high credit risks associated with the uncertainty of the future economic dynamic. Hence, renewal of lending to the real sector will become consequent to stabilization of Russia's economy and the recovery of the external demand.

Let us also note that in the crisis period, the CBR's interest rates for the first time ever have grown into an effective monetary policy instrument. That was the result of the growth of the share of the CBR's credits in commercial banks' liabilities, as for them the CBR's resources in the crisis conditions formed practically a sole source of relatively inexpensive funds. Meanwhile, it proved impossible to boost the domestic money supply by purchasing forex by the CBR, either, due to a large-scale capital outflow out of the country and the price downfall for major Russian exports. In other words, the CBR's monetary policy has increasingly become similar to that of the developed nations' central banks that manage the situation on the monetary market by means of interest rates. The CBR's ability to pursue this policy in the future will be determined by the situation on the domestic forex market (the absence of considerable fluctuations in forex flows in and out of the country) and the Bank of Russia's readiness to allow fluctuations of the Rb. exchange rate and to transit to the inflation targeting regime.

As for the CBR's non-interest policy, the shortage of liquidity in the banking system in the autumn 2008 compelled the CBR to undertake a series of extraordinary moves aimed at preclusion of the rise of instability in the national banking sector.

Thus, on October 10, 2008, the State Duma promulgated an act that granted the CBR with the powers to disburse unsecured loans to Russian commercial banks. Such loans can be extended for the term of 6 months to credit organizations whose credit rating is not below a set level. The measure was aimed at supporting the national banking sector that had found itself in a dire situation because of a large-scale capital outflow from the country, a sizeable external debt (under growing expectations of devaluation) accumulated over the previous years, and the crisis in the real sector. Until the adoption of the new act the CBR had been able to disburse loans to Russian commercial banks against securities, forex, receivables under loan agreements or credit institutions' guarantees. But as the banks were in a great need in credit resources, they lacked assets against which they could receive a loan from the Bank of Russia. At that juncture the granting of the possibility to the CBR for disbursement of unsecured loans enabled it to support Russian banks, albeit the move increased risks of an inequitable conduct by the banks that were recipients of such loans. With the financial markets stabilizing, the credit institutions' debt to the CBR was gradually declining. As of January 1, 2010, their aggregate debt before the CBR was Rb. 190 bn, or down by Rb. 1.6trln over the whole 2009. Let us note that in order to maintain the banking system's stability it proved possible to support just a handful of large banks. Most Russian credit institutions *de facto* are not engaged in the classical banking. Rather, they are engaged in schemes related to optimization of taxation, which allows one to tolerate their bankruptcy without serious ramifications for the whole domestic financial system.

To buoy the banking sector in the conditions of the unfolding financial crisis, the CBR began enter into agreements with large Russian banks on compensating a part of their prospective losses due to interbank lending. The Bank of Russia has also assumed an obligation to compensate to the banks a part of their losses with regard to their transactions with other banks whose licenses were subsequently revoked. As of October 1, 2009, the CBR had concluded 18 such agreements. As well, the CBR has also undertaken such measures as provision of the REPO financing against the collateral in the form of an extended list of assets, extension of the term of the REPO lending, provision of subordinated loans to strategic banks, and adoption of the legislation on guarantees by corporate loans. In addition, in order to conduct a bailout of the banking system, the Deposit Insurance Agency has been recapitalized.

Let us note that in order to tame speculations on the forex market, on December 25, 2008, the CBR offered recommendations to credit institutions not to boost up their foreign assets and net balance positions by foreign exchange, whose exercise the Bank of Russia accounted while imposing limits on the credit institutions' participation in forex auctions. The recommendations have failed to preclude mass purchases of forex during the acute phase of the crisis, but they contributed to subdue the boom on the forex market in the course of the stabilization of the financial markets. On July 2, 2009, the CBR announced that due to stabilization of the situation on the domestic forex market, it ruled not to extend the effect of the recommendations. Thus the Bank of Russia demonstrated it was confident that a large-scale capital outflow and depreciation of the Rb. exchange rate in the second half 2009 were unlikely developments.

Finally, on December 30 2009, the CBR modified procedures of the credit institutions' building provisions for losses on loans and advances. In compliance with the effective procedures, credit institutions are bound to provide reserves for possible losses on loans depending on the degree of credit risk. That said, the exercise diminishes the volume of resources available for commercial banks to carry out their current operations.

According to the decisions, credit institutions were granted the right not to increase their reserves on loans through December 31, 2009, in the event:

- the delinquency by the principal debt or interest on the debt has extended for no more than 30 calendar days relative to the effective term;
- the loan is restructured (e.g. in the event of a change of the currency in which the loan has been denominated, modified (the principal debt and/or interest repayment timelines) in the period since October 1, 2008;
- the loan received since October 1, 2008, is used for repayment of an earlier extended loan.

The move was devised to help the banks cope with yet another challenge they had faced when the unfolding crisis battered the national real sector, that is, growth in arrears by earlier disbursed loans. While the arrears growth rates fell in the fall of 2009, the problem of "bad" assets still appears a fairly persisting one and may aggravate once again, should the state of affairs in the national economy deteriorate.

In 2009, the mechanism of extension of subordinated loans to banks has proved to be fairly efficient one, as far as the recapitalization function is concerned, at least, for the largest banks. Provision of the first-level capital to banks with government participation in the current volume is most likely to satisfy their need in capital even in the event the situation develop according to the negative scenario. As to the backbone private banks, should they face capital shortages, there exists a mechanism of implanting the temporary administration therein represented by the Deposit Insurance Agency, which was commissioned to conduct their rehabilitation.

Let us note that without cleaning the banks' balances from problematic assets, regalvanizing the lending to the real sector may take long. Anyway, while tacking this challenge, the government's participation will allow a substantial simplification of the process. To maintain the budget stability, it seems appropriate to replace a fraction of problematic assets with long-term securities backed by the government agencies' guarantees. This can form a plausible mechanism to solve the problem.

Other key monetary policy measures aimed at bolstering the financial stability the Bank of Russia implemented during the financial crisis were:

1. The Board of the Bank of Russia twice (on January 19 and April 23, 2009) ruled to extend the timelines for a stage-by-stage increase of the effective standards of contributions to the Compulsory Reservation Fund (CRF). As a reminder, since October 15, 2008, the Bank of Russia lowered the respective contribution rates – they were set at 0.5% across all kinds of reserved liabilities. On the same date it was ruled to lower the rates for a certain period of time – they should be raised up to 1.5% since February 1, 2009 and to a further 2.5% - since March 1, 2009. On January 19, the Bank of Russia decided to shift the timelines for increase of the standards from the said dates to May 1 and June 1, 2009, respectively. According to decisions made in April, the standards were set for a stage-by-stage 0.5% increase- that is, on May 1, June 1 and August 1. So, the level of all the standards had hit 2.5% by August 1.

   The CBR took the decision because of a complex situation in the domestic financial sector, which was spurred by the global financial crisis. Russian credit institutions may soon face a rise of arrears on extended loans, which would derail their financial standing. Withdrawing liquidity from banks in the form of deductions to the CRF would add to their financial instability. We think that in the event there are no signs of improvement of the state of affairs in the banking sector in the summer 2010, the timelines of the increase of compulsory reservation rates may once again be modified.

   In addition, the Bank of Russia offered credit organizations, regardless of classification groups they are awarded with resulting from their economic standing, the possibility to use the averaging of emergency funds[1]. Lastly, in August 2009 the CBR ruled to shift, since November 2009, timelines of conduct of regulation of emergency funds in such a fashion so that the end of a regulation period would not coincide in time with the period when bank's need in liquidity on the dates of tax payments to the budget is the greatest one.
2. On January 19, 2009, the CBR's Board took a decision to extend the term of asset-backed lending available to banks up to 365 calendar days, while the earlier set maximum timeline for such loans had been 181 days. Besides, on June 15, 2009, there was held the first ever direct REPO auction for the term of 1 year.

   Let us note that in the spring 2009 the CBR has been gradually cutting back on volumes of unsecured lending, and with the economy stabilizing, the Bank of Russia is in transition towards "long" loans backed by papers. We find this move to be a right one – it will contribute to solidification of the financial stability and increase in the CBR's influence on interest rates.
3. On February 9, the CBR's Board decided to extend the Bank's Lombard list, ie the list of securities against which commercial banks may attract the Bank of Russia's resources. Added to the list were stock and bonds issued by companies enumerated in the list of strategic backbone corporations approved by the government commission on increase of stability of the Russian economy's development. That said, such papers should be included in the quotation list of at least one exchange operating in the territory of the Russian Federation. The CBR started to accept such corporations' promissory notes and credit contracts as a security against disbursed loans.

[1] The averaging of emergency funds enables credit institutions to hold on their corresponding accounts and use in settlements a fraction of emergency funds equaling the averaging coefficient.

The move pursues the goal of boosting the banking system's demand for these issuers' papers and, accordingly of bolstering the opportunity for them to attract financing. Meanwhile, it should be remembered that while providing liquidity to banks against such papers, the CBR assumes the risks associated with a possible aggravation of the strategic corporations' standing. Plus, the extension of the Lombard list should improve the standing of those credit institutions on whose balance sheet there are securities issued by backbone corporations whose papers were not previously been included in the Lombard list, as such banks can now get financing against such papers.

4. On March 27, the Bank of Russia announced changes in the methodology of calculation of the Russian commercial banks' statutory requirements. In compliance with the ruling, first, participation of public corporations in legal entities' authorized capital is not regarded as the grounds for classification of these legal entities as a group of associated borrowers for the sake of calculation of a rate of the maximum size of the risk per borrower or a group of associated borrowers (N6). The rate is calculated as the bank's calls to the group of associated borrowers to the bank's capital ratio. In all likelihood a number of banks have found it hard to comply with N6 due to the financial crisis and the public companies' participation in numerous corporations' capital. So, the decision can be regarded as a softening of regulation for such banks.

   Second, the Bank of Russia decided to set a 50% risk coefficient with regard to credit calls to open-end joint-stock companies that meet the natural monopoly criteria, providing they are included in section 2 of the List of Strategic Corporations and Strategic Joint-Stock Companies as well as providing the companies' securities have been included in the Bank of Russia's Lombard list. The measure, too, is to soften for banks restrictions on lending to such corporations from the perspective of the credit risk rate.

5. On April 10, the CBR ruled to raise credit limits by unsecured loans extended to credit organizations that, at the same time, meet the following criteria:

- their long-term international credit rating is not below B (by the S&P and Fitch's classification) or below B3 (by the Moody's classification);
- they have decided to convene the general shareholder meeting of the credit organization, with the issue of its reorganization in the form of merger or acquisition on its agenda, and submitted the respective information to the Bank of Russia;
- they have got agreements by which creditors lodged a claim to the said credit organizations on an early execution of their obligations in connection with the rise of developments determined by the reorganization, and submitted the respective information to the Bank of Russia.

So, the CBR has extended its possibilities to provide financial aid to credit organizations engaged in M&A processes. This move can be regarded as a positive one, as Russia's banking system appears overly fragmented, with most banks not actually exercising the classical banking functions. In the circumstances, encouraging consolidation in the sector proves to be a fairly justifiable move on the part of the monetary regulator.

On May 26, the CBR approved modifications of the methodology of calculation of credit institutions' capital. In compliance with the novelties, banks can increase their Core Tier 1 capital at the expense of a string of subordinated loans that must satisfy the conditions of longevity (for the term of not less than 30 years), non-cumulativity (the unpaid interest on them is not refunded, nor accumulated), as well as the possibility to cover the credit organization's

losses. Meanwhile, the overall volume of included in the capital subordinated loans with additional conditions is capped at the level of 15% of the value of the Tier 1 capital.

Thus, the CBR has de facto softened its requirements to sufficiency of the credit organizations' capital. The move was dictated by the growth of arrears and, accordingly, the need for securing reserves against potential losses. In so doing, it is important to bear in mind that such moves do not resolve the problem of growth in arrears debts *per se* nor they give banks additional resources to overcome that. Rather, they were devised to preclude the rise of an inconsistency between the large banks' reporting and the regulator's requirements, which may trigger negative systemic effects on the financial market.

7. On June 19, the Board of the Bank of Russia introduced a number of amendments to the Instruction "On compulsory standards for banks" which is one of the pivotal ones for the domestic credit organizations, as it sets compulsory standards failure to comply with which can result in the license revoking. The main amendments are:

- a considerable increase in the minimum amount of the credit institution's own capital (from euro 500,000 up to Rb. 180m);
- setting a 70% risk coefficient by mortgage loans that meet the following conditions combined – the bank's own capital sufficiency rate (N1) and the maximum amount of risk per one borrower or a group of associated borrowers (N6);
- setting a 10% decreasing coefficient on calls by mortgage loans extended to the military who partake in the savings-and-mortgage system;
- exclusion of an increased (1.3) risk coefficient with regard to calculation of N1 standard by calls to credit institutions that are members of the same group as the lending bank;
-Vnesheconombank, which, in compliance with the federal act "On the development bank", is a public corporation that performs banking operations while exercising its function, has become subject to the same approaches to risk (credit, liquidity) assessment as the ones applied to resident banks of RF;
- calls towards resident banks of RF that have arisen with respect to transactions completed between October 14, 2008 and December 31, 2009, in the part subject to the CBR's compensation have been now classified as risk-free assets;
- calculation of the acid test ratio (N2) encompasses liquidity placed with resident banks of RF for the term of 1 day or on demand that are on the balance sheet for no longer than 10 calendar days discharge of obligations by which as per an agreement is provided for not later than on the date following the day of their demand and on condition the said assets are recognized as the 1st –class quality loans;
- the international development banks' committed loans have been classified as liquid assets for the sake of calculation of the current liquidity (N3);
- classification as highly liquid and liquid of cast interest claims with respect to the 2nd-class quality assets as per CBR's Statute of March 26, 2004, №254-П and on the 1st- and 2nd – class quality assets as per CBR's Statute of March 20, 2006, №283-П for the sake of calculation of standards N2, N3.

Overall, the amendments were of a qualifying nature and have brought the law on compulsory standards in consistency with the realities of the crisis. We regard their introduction as an attempt to spur concentration in Russia's banking system for one part, and to soften to some degree standards in the crisis conditions, on the other hand.

8. In compliance with federal act of October 13, 2008, № 173-FZ "On additional measures on support of the financial system of the Russian Federation", the CBR extended Rb. 500bn

in subordinated loans to Sberbank of Russia under 8% annualized with the term of credit until December 31, 2009. Besides, in compliance with the federal act, Rb. 410bn (resources of the National Welfare Fund) may be deposited with the VEB in order to disburse loans to Russian credit institutions. As of October 1, 2009, as many as 14 banks were granted subordinated loans worth a total of Rb. 267.4bn, including 225bn. extended in loans to two banks in 2008 and another 42.4bn. – to twelve banks in 2009.

The moves have boosted recapitalization of a number of large banks that had found themselves under pressure of a rapidly mounting delinquency. It should be noted though that with the economic situation stabilizing, demand for such loans plunged considerably.

2.2. The State Budget

In 2009 Russia's economy has completed its journey from the recession noted in the first half of the year to the stabilization with initial signs of revival. The latter phenomenon was mirrored in some improvement of economic indicators vis-à-vis expectations, particularly the ones in the area of public finance. Behind the improvement there had been huge injections of public funds into the economy. Quite illustratively, the enlarged government's aggregate expenditures hit a record-breaking value ever reported in the '2000s. In tandem with a sizeable fall in budget revenues, that had resulted in the budgets of all levels running deficit by the end of the year.

It was the Reserve Fund whose resources in 2009 formed a major cushion ensuring a greater balance of the budget system in 2009. However, it is envisaged that the Fund would be completely run out of its resources this year already. The imperative to pursue an anticrisis fiscal policy in 2010 paired with the necessity to fulfill the earlier assumed expenditure obligations have compelled the RF government to revise their public borrowing program towards its extension. So, with the current correlation between the robustness of the budget system and the situation in the foreign trade area, the state of affairs in the sphere of public finance has remained challenging and far from its pre-crisis fairly balanced state.

2.2.1. Overview of the Budget System of the Russian Federation

The slump in the real sector in the late 2008 with a subsequent recession since the early 2009 has had an adverse effect on the state of the public finance, which resulted in the rise of a steady budget deficit at all the tiers of the government. The 2009 volume of revenues to the budget of the enlarged government plunged ay 4.4 p.p. of GDP vs the respective figures of the same period of 2008 (see *Table 1*). Behind the nosedive was chiefly a considerable fall in the federal budget revenues (by 3.7 p.p. of the nation's GDP).

The crisis period made the domestic corporations' survival a critical imperative. That is why the RF government devised a set of measures to support various industries and the social sphere. Within a fairly short time (practically since November 2008) the government introduced a broad package of anti-crisis measures, unprecedented by the variety of forms and avenues of the government's influence on the economy, as well as by the volume of resources deployed. In the autumn 2008, given tight timelines, the anti-crisis measures were more of "pin-point response" ones and required largely the use of "manual- control" mechanisms. The RF government's 2009 comprehensive anti-crisis Program had been developed by March 2009.

The need to finance the Program's priority avenues necessitated amending the act on the federal budget. Subsequently, the earlier approved budget appropriations were axed by Rb.

943.3bn, while as much as Rb. 1.61trln, including thus available funds, was earmarked to stabilize the financial market, support the strategic nationwide and local backbone corporations as well as individual, particularly vulnerable to the crisis, industries in the real sector, and the social protection of the population. The measures, to some extent, had been implemented in the pre-crisis period, but it is in the crisis conditions that they emerged as the priority ones. As a result, the enlarged government's budget expenditures rose at 6.7 p.p. of GDP vs the prior year, with the rise driven primarily by growth in the expenditure volume of the federal budget (some 6.4 p.p. of GDP). With the gap between collection and spending of budget funds widening, 2009 has become the first year over the past decade when the budget deficit of the enlarged government was reported to account for 6.2% of GDP.

Table 1

Execution of Revenues and Expenditures of Budgets of All the Tiers of the Government in 2008–2009

	2009		2008 г.		Bias as p.p. of GDP
	As Rb.bn.	As % of GDP	As Rb.bn.	As % of GDP	
Federal budget					
Revenues	7336.8	18.8	9274.1	22.5	–3.7
Expenditures	9636.8	24.7	7566.6	18.3	+6.4
Deficit (–) /Surplus(+)	–2300.0	–5.9	1707.5	4.2	– 10.1
Consolidated budgets of the RF Subjects					
Revenues	5927.2	15.2	6199.1	15.0	+0.2
Expenditures	6256.3	16.0	6253.5	15.2	+0.8
Deficit (–) /Surplus(+)	–329.1	–0.8	–54.4	–0.2	–0.6
Budget of the enlarged government					
Revenues	13420.7	34.4	16003.4	38.8	–4.4
Expenditures	15847.3	40.6	13989.2	33.9	+6.7
Deficit (–) /Surplus(+)	–2426.6	–6.2	2014.2	4.9	–11.1
For reference: GDP. as Rb. bn.	*39016.1*		*41256.0*		

Source: The RF Ministry of Finance; IET calculations

Notwithstanding the gravity and scale of budget infusions in the domestic economy, the measures not only came late (their real financing and an immediate delivery of the funds to recipients under the auspices of the anti-crisis program kicked off only between May and June 2009), but suffered a lack of consistency and, in certain instances, the absence of the much-needed for their implementation legal base.

2.2.2. An Analysis of Main Parameters of Execution of the Budget of the Enlarged Government

A sizeable contraction of the volume of revenues to the national budget system (*Table 2*) took place under the impact of negative ramifications of the global financial crisis and debilitation of the economy against the backdrop of the earlier emerged, extremely exposed to external shocks, mineral structure of Russia's exports. It was revenues from taxes and levies that directly depend on the prices of, and demand for Russian exports – namely, revenues from *the mineral tax* and from *foreign trade*, that plunged most drastically. When compared with 2008, these revenues to the budget of the enlarged government slid by 1.3 p.p. and 1.7 p.p. of GDP, respectively. The main cause for such a fall in revenues became a drastic price downfall for energy sources: the 2009 average price of Urals on world markets was some USD 61/bbl, or down by 35.5% relative to the average 2008 price level. The effect from the price drop was aggravated by the contraction of the physical volumes of production and export of carbohy-

drates (mostly natural gas). A rapid plunge of revenues from the said taxes and levies was registered in the first half 2009, when contracts concluded in late 2008 by compulsory low prices were due to be exercised. But the depreciation of the Rb. against the USD between late 2008 and early 2009 to some extent mitigated the dynamic of the fall of revenues from the mineral tax to the budget[1]. With the price situation improving between the 1st and the 3rd quarters last year, the dynamic of collection of revenues from the oil-and-gas taxes once again became positive.

Table 2

Dynamic of the Level of Tax Burden and Collection of Main Taxes to the Budget of the Enlarged Government of RF in 2004–2009 (as % of GDP)

	2004	2005	2006	2007	2008	2009
The level of tax burden (1+2+3)	**35.8**	**36.3**	**35.9**	**36.1**	**35.6**	**30.8**
1. Tax revenues, including:	27.5	25.7	24.4	25.7	23.9	20.5
Corporate profit tax	5.1	6.2	6.2	6.6	6.0	3.2
Personal income tax	3.4	3.3	3.5	3.8	4.0	4.3
Uniform social tax*	3.5	2.0	1.9	2.0	1.9	2.1
VAT	6.3	6.8	5.6	6.9	5.1	5.3
Excise taxes	1.4	1.2	1.0	1.0	0.8	0.9
Mineral tax	3.0	4.2	4.1	3.6	4.1	2.8
2. Insurance contributions to the compulsory pension insurance	2.8	2.9	2.9	3.1	3.1	3.4
3. Foreign trade revenues	5.5	7.8	8.6	7.3	8.6	6.9

*Without regard to insurance contributions to the compulsory pension insurance.
Source: The RF Ministry of Finance; IET calculations

The export duty rates for oil were revised following the improvement of the situation with the world oil prices. More specifically, between January and June 2009 the figure has been fluctuating within the range of USD 100-135 per ton of crude oil. Between July and August it was raised up to USD 222/t, while between September and December it was fluctuating between USD 231-271/t. The increase in the export duty rate has inevitably resulted in growing revenues from foreign trade, but failed to attain the 2008 relative volumes of tax revenues, nonetheless.

In addition to external factors, the amount of oil-and-gas revenues in 2009 found itself affected by changes in the mineral tax administration procedures, including the following ones:

- increase of the exempt minimum threshold from 9 USD/bbl to 15 USD/bbl;
- since 2009 for the sake of taxation the volume of the extracted oil was identified in net mass units;
- the list of fields subject to application of zero rate of the mineral tax was extended;
- the subsoil use license write-off procedure was modified for all the oil companies.

As well, the year of 2009 saw adoption and promulgation of a new procedure of collection of the mineral tax-based revenues. The revenues from the carbohydrate minerals, oil and gas condensate in full have now become subject to collection to the federal budget. As a reminder, the tax was previously collected to the federal budget at a rate of 95%. Whereas the respective proportion of revenues from the mineral tax in the revenue structure of budgets of

[1] The USD/RB exchange rate is used to calculate the coefficient of the oil price dynamic, which is used to set the mineral tax rate with respect to oil.

the Subjects of the Federation has recently accounted for a meager 1.5-2%, such redistribution has not entailed any considerable fall in the said revenues. Plus, the increase of rates of individual regional taxes (the transport tax, state levies, excise taxes) effective since 2010 may offset a possible withdrawal of a fraction of regional resources due to the modification of the mineral tax distribution procedure.

Declining revenues, primarily in the oil-and-gas sector and the general slump of business activity in other industries have resulted in a plunge of revenues from *the corporate profit tax*. Between January and December 2009 the revenues to the enlarged government's budget accounted for 3.2% of GDP compared with 6% of GDP in 2008. As of early 2010, financially, most enterprises have found themselves in dire straits, while the government stimulus package was delivered to a limited number of the most critical, backbone corporations and fell short of securing a mass positive effect. Meanwhile, it is worth noting some stabilization of the financial health of corporations in individual sectors over the last months of 2009.

In all, according to the preliminary data, over 11 months of 2009 the real sector posted an aggregate financial result of Rb. 3,639,3bn, or more than 1.2 times lower than the respective figure of 2008, while the proportion of profit-making organizations in their overall number dwindled by 5.8 p.p. and accounted for some 67%.

In addition, the corporate profit tax underwent some reform in 2009. Specifically, its rate slid from 24% to 20%, while the regional component soared to 18% instead of the previous 17.5%. As well, the year of 2009 saw some amendments to Art. 25 of the Tax Code in the part of administering the corporate profit tax levied on organizations and improvement of the taxpayers' situation come in force. More specifically, the following novelties are worth notion:

- simplification of the procedure of payment of the corporate profit tax by virtue of transition from the quarterly-advance arrangement to its monthly payment on the basis of effective profit;
- increase of the bonus depreciation rate (attribution of a part of the initial costs of capital assets to expenses in the ongoing tax period) from 10 to 30%;
- provision of the possibility for amortization of capital assets identified as a result of stock-taking;
- granting organizations the right to factor in costs of training of their staff by major, as well as complementary professional programs;
- possibility to consider individual kinds of R&D costs with the use of an increasing coefficient -1.5.

The above modifications of the procedure of administration and accounting of the corporate profit tax reduce the tax base. But that was counterbalanced by some new modifications, including:

- obligation to restore the bonus depreciation by capital assets which are sold prior to the 5-year deadline of their use;
- payments to members of the Board of Directors are not subject to their accounting as costs.

Overall, the above measures aimed at expansion of the tax base of the corporate profit tax failed to substantially reverse the unfolding in 2009 tendency to contraction of the volume of payments by the corporate profit tax.

On the backdrop of a substantial fall of revenues by main taxes to the country's budget system, the 2009 volume of the *VAT*-based revenues rose by 0.2 p.p. of GDP. But considered in absolute terms, it tumbled. The tax revenues in question slid due to the deteriorated business activity in the domestic and national economies and under an adverse effect of measures devised to improve calculation and administration of the tax. More specifically, they include the abrogation of the obligation to pay VAT in cash equivalent under non-cash kinds of settlements, exemption from VAT of payments for technological equipment, granting the right to deduct VAT from advances.

But in some months the VAT collection rate would outpace the respective figures of the prior year. The trend does not mirror an improvement of its collection - rather, it can be ascribed to modifications of the respective payment and refund timelines. Given that in 2008 VAT was paid on the quarterly basis, ie the whole amount of tax obligations was payable as a single payment in a month following the reporting quarter, in 2009 the taxpayer was able to effect the payments at his discretion - that is, either quarterly, or monthly, in equal installments. The novelty secured some equalizing of revenues from the tax in the span of the year, but, at the same time, has complicated comparison of the annual dynamic of the 2008 with that of 2009.

The 2009 volume of revenues from *excise taxes* did not undergo any substantial changes and remained at the level of 0.9% of GDP, notwithstanding a traditional indexation of its rates. To exemplify, the excise rate on straight-run gas surged up to Rb 3,900 per ton vs. the previous 2,657/t; excise rates on liquors were indexed by the inflation rate on average, while those on cigarettes soared by 20 to 25% relative to the prior year. The excise rates on passenger cars with the engine capacity of over 67.5kW (90 HP) and motorcycles with the engine capacity over 112.5 kW (150 HP) were raised roughly by 9%.

An important move in 2009 became the RF government's decision to drastically index excise rates on low-alcoholic and tobacco products since 2010. Specifically, excise rates on low-alcoholic goods with the volume ratio of up to 9%, alcohol-containing products and wine were indexed at 30% on average, and those on beer – at 50%. As concerns cigarettes (including Russian cigarettes), the ad-valorem component of the respective excise tax on them calculated proceeding from the maximum retail prices is envisaged to rise by 0.5%; meanwhile, the specific component of the excise rate on the filter cigarettes should be raised by 30% on average, while that on Russian cigarettes – by 50%. We believe such a drastic increase of excise rates on low-alcoholic and tobacco goods is a quite timely move and it appears fairly justifiable from the fiscal perspective and from the perspective of promotion of a healthier lifestyle in Russia. But the move should not entail a substantial decline of demand for these excised products, nor should it derail the investment attractiveness of the respective sectors.

The 2009 revenues from *the personal income tax* to the budgets accounted for 4.3% of GDP, up by 0.3 p.p. of GDP vis-à-vis the respective figures of 2008. Meanwhile, the revenue volume declined slightly in absolute terms. Some growth in the PIT-based revenues in relative terms does not at all evidence its collection has improved. Rather, it was driven by a higher dynamic of deceleration of the economy's growth rates compared with revenue volumes from the tax. More specifically, according to preliminary estimates, the 2009 increase in the population's real disposable incomes (incomes less compulsory payments adjusted by the CPI) followed the 2008 dynamic and accounted for 1.9% relative to the prior year. Meanwhile, real salaries and wages tumbled by 2.8% vs. the respective figures of 2008, while a number of benefits reducing the PIT tax base were put in effect, including:

– increase of the child benefit up to Rb. 1,000 and the respective amount of the annual income eligibility threshold (up to Rb. 280,000);
– increase of the upper marginal amount of the social tax benefit by the PIT with regard to expenses on the savings part of the labor pension from Rb. 100,000 up to 120,000;
– calculation of income in the form of interest on Rb.-denominated bank deposits is made using the CBR refinancing rate +5%, which to a significant degree reduces the tax base vis-à-vis the earlier set one;

In addition to the tax novelties associated with individual taxes and levies, the year of 2009 saw introduction of amendments that regulate the basic procedure of provision of a tax credit:

– In September, the RF government approved a bill "On introducing amendments to Section One of the Tax Code of the Russian Federation with regard to regulation of tax, levy, penalty and fine arrears". With the amendments in place, it has become possible to grant the taxpayer determent of payment, installment of date in connection with the threat of the rise of insolvency (bankruptcy), should the tax payment be nonrecurrent. However, the risk of bankruptcy should be proved by documented evidence;
– the credit ceiling of the investment tax loan extended to the taxpayer in the event he runs R&D projects, pilot-plan works, or technical rearmament is increased from 30% of his assets to 100%.

Affected by the domestic and external factors, the 2009 aggregate indicator of tax burden on the economy slid by nearly 5% of GDP and accounted for not more than 31% of GDP (see *Table 2*).

With the revenues to the enlarged government's budget being in decline, its expenditure component demonstrated an opposite dynamic and posted growth equivalent to 6.7 p.p. of GDP (see *Table 3*). Interestingly, in the last months of 2009 budget funds were spent more intensively than in the beginning of the year.

Table 3

Execution of Expenditure Obligations of the Budget of the Enlarged Government in 2008–2009, as % to GDP

	2009		2008		Bias, as p.p. of GDP
	As Rb. bn.	As% of GDP	As Rb. bn.	As% of GDP	
Expenditures, total	15847.3	40.6	13989.2	33.9	+6.7
including					
General public administration matters	1290.6	3.3	1287.6	3.1	+0.2
including the public and municipal debts servicing	236.6	0.6	189.3	0.5	+0.1
National defense	1191.2	3.1	1043.6	2.5	+0.6
National security and law enforcement	1245.9	3.2	1092.1	2.6	+0.6
National economy	2782.3	7.1	2253.1	5.5	+1.6
Housing and utilities sector	1005.9	2.6	1149.2	2.8	–0.2
Environmental protection	29.7	0.08	31.2	0.1	–0.2
Education	1777.9	4.6	1665.5	4.0	+0.6
Culture, the motion picture industry, mass media	324.4	0.8	310.6	0.8	–
Health care and sport	1653.1	4.2	1548.6	3.8	+0.4
Social policy	4546.1	11.7	3607.7	8.7	+3.0

Source: the RF Treasury, the IET calculations

As far as expenditure management is concerned, the RF government's budget policy rested upon the "anti-cyclic" principle. With a significant fall in budget revenues, there were no expenditure cutbacks. But already in the beginning of the year the structure of expenditures by directions of their use displayed notable modifications, with investment expenditures being cut vis-à-vis extra funds being earmarked for the sake of financial support of the population and domestic businesses. The funding by the item "Social policy" hit a record-breaking value of 11.7% of GDP vs. 8.7% of GDP reported in 2008. A considerable increase in expenditures was noted by the item "National economy" – up to 7.1% of GDP in 2009 vs. 5.5% of GDP in 2008. As well, substantial funds were earmarked to finance the items "National defense" and "National security and law enforcement activity" – 3.1% and 3.2% of GDP, respectively, each up by 0.6 p.p. compared with the respective figures of 2008.

2.2.3. Execution of the Federal Budget of Russian Federation

The global crisis has battered the revenue collection to the federal budget – the revenues found themselves in a steady decline since October 2008. Notably, it was not just oil-and-gas revenues, which directly depend on oil prices, that tumbled considerably, but non-oil-and-gas ones too, due to the general deterioration of business activity indicators in the country.

According to the Federal Treasury, between January and December 2009 revenues to the federal budget accounted for 18.8% of GDP, or down by 3.7 p.p. compared with the respective 2008 figures, while expenditures outran the prior year's level at 6.4 p.p. of GDP and hit the mark of 24.7% of GDP (*Table 4*). Such a drastic increase in expenditures is explained by a large-scale funding of the anti-crisis measures set for accomplishment in 2009, as well as by a far smaller nominal volume of GDP in 2009.

The key cause behind the absolute and relative contraction in the volume of the federal budget revenues in the period in question vis-à-vis the same period of the prior year was the fall of the proportion of oil-and-gas revenues in the budget. At this point, it should be noted that while the volume of revenues from the mineral tax and foreign trade activities are directly dependant on the dynamic of the world carbohydrate prices, the rate of their production and the exchange rate of the Rb., the size of the structural (non-oil-and-gas) revenues is determined by the current state of the national economy.

The federal budget revenues, without regard to investment revenues to the Reserve Fund and the National Welfare Fund (NWF), worth a total of Rb. 205.1bn and 63.4bn, respectively, collected to the budget in January 2009, as well as Rb. 4.1bn-worth interest on the NWF's deposits with the VEB, proved to be substantially smaller than in 2008.

Table 4

Main Parameters of the Federal Budget of RF in 2008–2009

	2008		2009		As % to the budget estimate	Bias	
	As Rb. bn.	As% of GDP	As Rb. bn.	As% of GDP		As Rb. bn.	As p.p. of GDP
Revenues, including:	9274.1	22.5	7336.8	18.8	109.3	–1937.3	–3.7
Oil-and revenues	4389.4	10.6	2983.9	7.6	145.1	–1405.5	–3.0
Expenditures	7566.6	18.3	9636.8	24.7	97.0	2070.2	+6.4
Surplus (deficit) of the federal budget	1707.5	4.2	–2300.0	–5.9	78.1	–4007.6	–10.1
Non-oil-and-gas deficit	–2681.9	–6.5	–5283.9	–13.5	95.7	–2628.2	–7.0
GDP estimate	41256.0		39016.1				

Source: the RF Ministry of Finance (preliminary estimates), the IET calculations

As concerns execution of the expenditure part of the federal budget, their financing was extremely uneven and erratic. *Table 5* presents the dynamic of spending of the federal budget funds in 2009 according to the functional classification of budget expenditures. As evidenced by the Table, the rate of spending was lower than in 2008; however, the bias the federal budget funds in spending on the whole was not as significant on average as the one across individual directions of spending. More specifically, the 2009 federal budget expenditures were executed in a proportion of some 97% of the specified budget estimate, or just at 0.8 p.p. lower than the prior year's rate. It was items "General public administration matters", "Culture, the motion picture industry", and "National economy" by which the federal budget spending lagged behind the 2008 figures at most, with the respective cutbacks accounting for 3.1-6.3 p.p. of GDP. By contrast, the advanced rate of spending (by 0.4-5.7 p.p. of GDP vs. the 2008 figures) was posted by financing of items "Housing and utilities sector", "Interbudgetary transfers", and "Healthcare and sport".

Table 5

Cash Execution of the Federal Budget in 2008–2009
(as % to the Annual Budget Estimate)

	2009 г.	2008 г.
Expenditures, total	**97.0**	**97.8**
Including:		
General public administration matters	85.3	91.6
the public and municipal debts servicing	86.9	97.4
National defense	98.7	99.7
National security and law enforcement	99.7	99.9
National economy	93.5	96.3
Housing and utilities sector	99.3	93.6
Environmental protection	97.5	98.8
Education	100.6	101.1
Culture, the motion picture industry, mass media	97.4	100.5
Health care and sport	99.3	98.9
Social policy	97.7	98.4
Interbudgetary transfers	99.7	98.6

Source: the RF Ministry of Finance (preliminary estimates), the IET calculations

The main cause behind a substantial increase in the federal budget expenditures became the need for implementation of stimulus measures aimed at mitigation of the adverse effects from the global financial crisis and their economic and social consequences. It is particularly worth noting that in addition to the financing of the anti-crisis program out of the budget, the RF government vigorously deployed quasibudgetary sources, including funds of the Central Bank, extrabudgetary funds, public corporations, tax credits, etc. (*Table 6*).

Table 6

Structure of the Financial Anti-Crisis Measures in 2008–2009

Budgetary anti-crisis measures	Planned for execution in 2008–2009, as Rb. bn	Executed as of January 1, 2010, as Rb. bn.
Measures on securing the economy's financial stability		
Out of the federal budget		
On balancing regional budgets (subsidies, subventions, budget loans)	363.4	363.4
Vneshekonombank	175.0	175.0
VTB	180.0	180.0
Rosselkhozbank	45.0	45.0
JSC Rosagrolizing	25.0	25.0
AIZHK	80.0	80.0
Out of the federal budget, subtotal	*868.4*	*868.4*
Extrabudgetary sources (quasi-budgetary)		
Subordinated loan to Sberbank of Russia (source- the CBR)	500.0	500.0
Extended to Vneshekonombank to disburse subordinated loans to other banks (14 banks, source -NWF)	410.0	404.0
Placement of funds on deposits at Vneshekonombank for the sake of lending to small and medium-sized (source -NWF)	30.0	30.0
Banks' debts restructuring (source- the CBR and the Deposit Insurance Agency)	n/a	297.1
Extrabudgetary sources, subtotal	–	*1 231.1*
On securing the economy's financial stability, subtotal	**–**	***2 099.5***
Measures on support of the real sector		
Out of the federal budget		
Support to car makers	68.0	69.0
Support to aircraft makers	15.9	21.9
Support to shipbuilding	3.0	3.0
Subsidizing interest rates for agrarian and fishery corporations	18.1	60.4
Support of export	6.0	6.1
Development of small and medium-sized businesses	13.6	18.0
Support to the defense and industrial complex	73.3	79.0
Support to transport complex	53.0	56.4
Имущественный contribution to the public corporation "Rostekhnologii"	1.0	1.5
Government guarantees to backbone enterprises	300.0	300.0
Out of the federal budget, subtotal	*551.9*	*615.3*
Extrabudgetary sources (quasi-budgetary		
Support to housing construction (source- the Fund for Assistance to the Housing and Utilities Sector Reform)	n/a	136.5
On support of the real sector, subtotal	–	*751.8*
Social measures		
Out of the federal budget		
Support to the labor market and assistance to employment	43.7	43.7
Raising unemployment benefits	37.0	80.5
Possibility to use the "maternity allowance" to improve housing conditions and for one-time Rb. 12,000-worth allowance for ongoing needs	44.3	44.3
Additional measures in the health care area (combating the A/H1N1 pandemic, provision of necessary medicines, delivery of high-tech medical assistance, etc.)	9.7	9.7
Procurement of housing for veterans	55.8	55.8
Provision of transfers to extrabudgetary funds and the EAEC' s anti-crisis fund	427.7	443.0
On social measures, subtotal	*618.2*	*677.0*
On anti-crisis measures, TOTAL		**3 528.4**

As evidenced by the Tables, the anti-crisis measures on securing financial stability in the economy were being implemented at the expense of both the federal budget and extrabudgetary sources. The proportion of the latter accounted for over 2/3 of the respective expenditures. Other support measures were financed exclusively out of the budget funds.

In all, between 2088 and 2009 the anti-crisis measures cost a total of some Rb. 3.5 trln.

Main objectives of moves ***to secure financial stability of Russia's economy*** were reduced to combating liquidity shortages, recapitalizing the largest banks, having banks and corporations repay their external corporate debts and regions get their budgets balanced.

The government support to the banking system was exercised by means of boosting the largest banks' capital and providing liquidity in the form of subordinated loans. These measures combined cost some Rb. 2.1trln, with the the federal budget's contribution accounting for Rb. 500bn. In the frame of this bloc of measures the government invested in Vnesheknombank (Rb. 175bn), Rosselkhozbank (45bn), VTB (180bkn), JSC Rosagrolizing (25bn). In addition, the CBR disbursed subordinated loans to Sberbank of Russia (a total of Rb. 500 bn), completed a Rb. 300bn-worth debt restructuring of 18 other banks, which were recognized as being significant for the national banking system or backbone for their respective regions, including: KIT Finans investment bank (JSC), AKB ROSSIYSKY KAPITAL (JSC), Bank Vefk-Sibir (JSC), Gubernsky Bank Tarkhany (JSC), KB Moskovsky Kapital (Ltd, AKB Soyuz (JSC), SEVERNAYA KAZNA (JSC), Nizhny Novgorod (JSC), to name a few.

In the frame of ***support of the industrial and technological sectors*** the RF government employed both a direct aid from the budget and issuance of government guarantees and provision of tax benefits. The volume of funding on support of corporations from different sectors over the crisis period 2008-09 accounted for some Rb. 750bn, including Rb. 300 bn in government guarantees.

The following programs were to be financed out of the federal budget: the technological rearmament of backbone DIC enterprises (to this effect Rb. 50.7bn. was earmarked); innovation-oriented federal target programs on development of the infrastructure for small- and medium-sized business (Rb. 18bn.); automakers' investment projects (a. Rb. 69bn.).

As well, the government practiced a widespread support of corporations by means of *subsidized interest rates*. This form of support was provided for beef and dairy husbandry enterprises, and fishery companies (Rb. 60.4bn), DIC corporations (20.3bn), etc. In addition the government provided for subsidizing interest rates across individual kinds of economic activity, including refinancing of investment loans, interest rates with respect to transactions on leasing of the domestic automobile hardware, for exporters (Rb. 6.1bn), among others.

Additional financing out of the federal budget was exercised by means of *granting subsidies and subventions*: more specifically, to prevent the strategic DIC objects from going bankrupt (Rb. 7.9bn); subsidies to air carriers to continue passenger transportation in the event their licenses had been revoked (5.0bn), etc.

To support individual industries, the government employed the public procurement mechanism, which formed the bulk of funds spent on procurement of motor vehicles for the federal and territorial public agencies and renewal of other special hardware (circa Rb. 15.5bn).

The government also provided *guarantees* on backbone corporations' loans worth a total of Rb. 300bn.

Support to the construction sector was exercised through the Fund for Assistance of the Housing and Utilities Sector Reform, which contributed to the Subjects of the Federation with some Rb. 136bn, to co-finance regional target programs.

As concerns measures on ***support of the most vulnerable strata of the population***, the following ones should be particularly referenced to:

- support to the labor market and assistance to employment measures (some Rb. 44bn);
- increase of unemployment benefits (some Rb. 80bn);
- possibility to use the "maternity allowance" to improve housing conditions and for one-time Rb. 12,000-worth allowance for urgent needs (Rb. 44.3bn);
- Provision of transfers to extrabudgetary funds and the EAEC' s anti-crisis fund (Rb. 443bn);
- Procurement of housing for veterans (Rb.55.8bn)

The social measures also included co-financing of special programs in the housing and utilities sector, that is, restructuring the private individuals' mortgage arrears. This measure is implemented by means of an additional capitalization of the AHML's authorized capital (Rb. 80bn).

The analysis of the system of anti-crisis measures allows one to assert that they have centered mostly on securing the financial stability and support of strategic corporations, while just an meager fraction of them was to be spent on improvement of the situation on the labor market. The target approach to allocation of the budget aid is laudable; however not all the measures were implemented in a timely fashion. Furthermore, some of them latently derailed economic agents' incentives to conduct a more sound policy and more adequately assess risks.

Because of the expansion of volumes of financing out of the federal budget in 2009 and given the persistence of the negative tendency to contraction of revenues to the budget that started yet in 2008, the 2009 federal budget posted deficit amounting to 5.9% of GDP, with the size of the oil-and-gas deficit equivalent to -13.5% of GDP.

The funding of the large-scale measures on support of the economy without attracting external borrowing became possible thanks to financial reserves accumulated in the period of economic growth. It was resources of the oil-and-gas Funds that formed the major pool securing the 2009 federal budget equilibrium. As evidenced by *Table 7*, as much as some Rb. 3.0trln was allocated out of the Reserve Fund alone to finance budget expenditures. This allows to reckon that the concept of formation of the oil-and-gas Funds has been absolutely sound and the current fiscal policy should be given a due credited for that.

Table 7

Dynamic of Formation and Use of the Oil-and-Gas Funds in 2009, as Rb. bn.

Indicator	Cash balances as of end-2008*	Collected in 2009		Spent in 2009 on:		Cash balances as of end-2009.*
		Oil-and-gas revenues	Revenues from capital management	Securing the balanced budget	Securing the oil-and-gas transfer	
Reserve Fund	4027.6 (9.8% of GDP)	488.5	205.0	2964.8	179.4	1830.5 (4.7% of GDP)
National Welfare Fund	2584.5 (6.3% of GDP)	–	92.5	–	–	2769.0 (7.1% of GDP)
Total	6612.1 (16.0% of GDP)	488.5	297.5	2964.8	179.4	4599.5 (11.8% of GDP)

* balances recalculated using the exchange rate as of January 1, 2009, and January 1, 201, respectively

The year of 2009 saw introduction of amendments to the Budget Code of RF with respect to administration of the Reserve Fund and the National Welfare Fund. More specifically, it was ruled to detest using funds from management of both Funds on their replenishment. Hence since January 1, 2010 and though February 1, 2012 the said funds have become subject to an immediate collection to the federal budget. The measure will enable one to compensate for the fall of the revenue component of the federal budget and narrow its deficit.

2.2.4. Main Parameters of Russia's Federal Budget for 2010-2012

The year 2009 has de-facto marked a turning point of trends of main budget indicators and the discontinuation of a long-term policy of boosting expenditures in particular (*Fig.1*). In 2009, the federal budget expenditures hit their peak value both in constant prices and as percentage of GDP (some 24.7% of GDP – for reference, the 2004 indicator did not exceed 16% of GDP). The fact of the matter is that in order to secure the financial sustainability of the budget system in the medium term, the RF government has focused on curtailing volumes of expenditure obligations in shares of GDP together with a parallel increase of their efficacy.

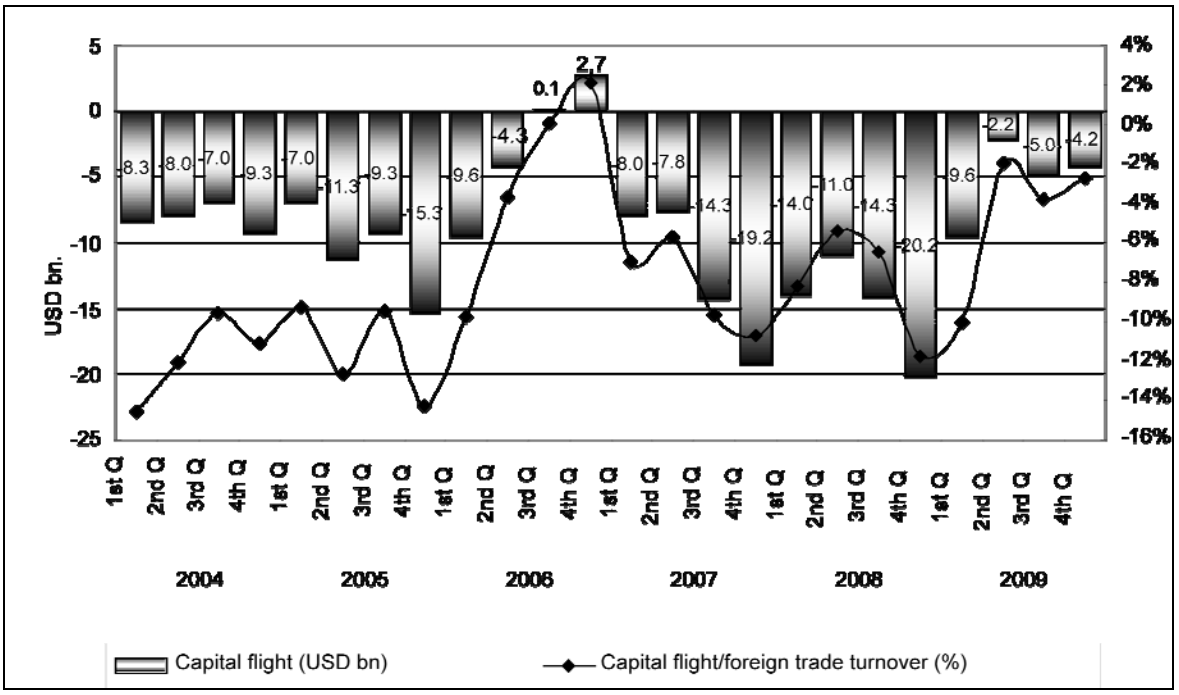


Fig. 1. Dynamic of the Federal Budget Revenues and Expenditures (in the 2006 prices), as Rb. bn.

The volume of revenues to the federal budget is expected to plunge to 15% of GDP by 2012, while the volume of government obligations will be consistently sequestrated from nearly 23% in 2010 to 18% of GDP by 2012.

During the period in question the federal budget revenues should tumble substantially due to the projected relative downfall in the world prices for oil and gas, deceleration of the increase rate of extraction and export of carbohydrates and appreciation of the Rb. against the USD under conservation of the earlier emerged mineral structure of Russia's export. The fed-

eral budget act provides for a decline in the volume of oil-and-gas revenues by 0.7 p.p. of GDP over the three-year period concerned. It should be noted that a surge of structural revenues would fall short of duly compensating for the contraction in oil-and-gas revenues. The volume of collection of non-oil-and-gas revenues to the budget would plunge by 1.5 p.p. of GDP over the period in question.

While the volume of expenditure obligations is projected to decline, they would still remain on a fairly high level. Such a structure of the federal budget should give rise to a steady deficit whose size would be fluctuating within the range of 3-5% of GDP. To run a balanced federal budget, the respective act provides for the financing of the deficit out of domestic and external sources, with the Reserve Fund and domestic borrowings constituting major ones. Meanwhile, there has emerged the need for borrowing from overseas – it is planned to attract some USD 18bn already in 2010 alone, while the overall volume of borrowings for 2010-2012 was set at the level of USD 60bn. It may also become possible to introduce some adjustment to the value of annual borrowing in the period in question, should the change in the oil price level display a negative dynamic. In light of the prospective borrowings in 2009 Russia faces a critical challenge of a full repayment of its debt to the London Club and of another USD 400-500mln-worth commercial debt of the former USSR.

An analysis of the revenue part of the act on the 2010-2012 federal budget of RF

According to the federal budget act, the period between 2010 and 2012 would witness a decline in, or a lower dynamic of revenues from most taxes and levies compared with the period of 2006-2008 (*Table 8*). The tendency is characteristic of both the oil-and-gas- and infrastructure-based taxes. The projected decline would be driven chiefly by a relative deterioration of the situation with prices and demand for Russian exports. Specifically, according to forecasts of main macro indicators of the economy's health, through the end of 2011 the world oil prices should not exceed USD 60/bbl, being in a stark contrast with the USD70-120/bbl noted between 2006 and 2008. Likewise the growth rate of production of oil and natural gas should slow down and export of the oil-and-gas complex products should contract. Given that customs duties still account for a fairly substantial proportion in the overall volume of the federal budget revenues, in the medium perspective the level of revenue collection to the federal budget will remain directly correlated with prices for the nation's exports.

Table 8

Dynamic of Tax Revenues to the Federal Budget in 2006–2012 (as % of GDP)

Name of tax	Actual collection rate				As per the federal budget act		
	2006	2007	2008	2009	2010	2011	2012
Revenues, total:	23.6	20.4	22.5	18.8	16.1	15.5	15.0
Corporate profit tax	1.9	1.9	1.8	0.5	0.5	0.5	0.4
VAT	5.6	6.8	5.1	5.3	5.1	5.2	5.3
Excise taxes	0.4	0.4	0.4	0.3	0.3	0.3	0.4
Customs duties	8.3	7.0	8.6	6.9	6.2	5.9	5.7
Mineral tax	4.1	3.4	3.9	2.5	2.5	2.3	2.2
Proportion of the above taxes in the federal budget revenues, as %	87.0	83.4	88.0	82.5	90.5	91.6	92.9

In addition, the global financial crisis has continued exerting an adverse impact on the financial standing and business activity in the real sector. It is still very likely that renewal of their operational performance, that is, bouncing back to the pre-crisis rates of production of

goods and services may take long, which does not at all make it certain that non-oil-and-gas tax revenues would be on the rise any time soon.

An analysis of the expenditure part of the act on the 2010-2012 federal budget of RF

As concerns the dynamic of the federal budget expenditures in 2010-2012, the respective act has outlined a consistent capped-spending policy, which contrasts the recent one that would suggest the expenditure increase rate should outpace the economy's growth rate. Originally, the 2010-2012 federal budget blueprint implied a budget for development; however, presented in the act, main estimates of its expenditure part suggest a continuous policy aimed at social support to the population and target subsidizing of the largest corporations and individual industries vis-a-vis curtailing investment expenditures.

It is assumed that in 2010 the federal budget expenditures should be cut by 1.8% of GDP compared with the 2009 figures. But once the 2010 expenditure volume is compared with parameters of the pre-crisis years, it appears quite significant, and it is going to be 2012 when it will catch up with relative figures of 2007-08.

Table 9

Structure of the Federal Budget Expenditure in 2007–2012 (as % of GDP)

	Actual execution			The act		
	2007	**2008**	**2009**	**2010**	**2011***	**2012***
Expenditures, total:	18.1	18.3	24.7	22.9	19.5	18.0
including:						
General public administration matters	2.5	2.0	2.1	2.7		
of which the public debt servicing	0.4	0.4	0.5	0.7		
National defense	2.5	2.5	3.1	2.9		
National security and law enforcement activity	2.0	2.0	2.6	2.5		
National economy	2.1	2.5	4.2	3.1		
Expenditures on the social policy and social sphere	2.4	2.5	3.1	2.7		
Interbudgetary transfers	5.8	6.5	9.2	8.6		
Other expenditures (provisionally approved)	–	–	–	–	0.5	0.9

* The budget act comprises projections with regard to the 2010 expenditures in a full volume with the breakdown by items of the classifications. Meanwhile, parameters of the 2011 and 2012 expenditure obligations are presented just by marginal values. Let us note that the previous years' format provided for a detailed stipulation in the federal budget act of assumed expenditure obligations for the three-year span, which enhanced transparency and certainty in the sphere of public financing of expenditures for the citizenry. But it is inappropriate to present a detailed breakdown in the conditions of instability of individual macroeconomic indicators in the post-crisis period.

Source: the RF Ministry of Finance, the IET calculations

With the decimation of expenditures, the most notable changes vis-à-vis the 2009 budget execution parameters are ascribed to cuts in financing of measures in the national economy sphere and expenditures on the social policy.

More specifically, it is planned to curtail expenditures on *the national economy* by 1.1. p.p. of GDP against their 2009 volume. The cuts can be explained by the fact that the biggest measures on supporting various industries in the frame of the government anti-crisis program were envisaged to be complete in 2009. A certain fraction of the measures is due to be accomplished in 2010, but in a far smaller volume.

The volumes of financing of *the social policy expenditures* likewise are subjected to cuts equivalent to 0.4 p.p. of GDP relative to their 2009 figures. Behind the cuts there is imple-

mentation of main measures on pay rises for budget employees and other social monetary allowances in 2009 by means of their advanced indexing.

It should be noted that the 2010 expenditures by item "Interbudgetary transfers" should be cut by 0.6 p.p. of GDP. Such a dynamic is explained primarily by the fall in the volume of transfers to the RF Subjects on balancing their budgets. On this background there should be an increase in transfers to the government extrabudgetary funds (to the greatest extent – to the Pension Fund) to ensure fulfillment of the earlier assumed obligations and conduct the pension reform measures.

Expenditures on general public administration matters (with account of expenditures on the public debt servicing) should also grow from 2.1% of GDP in 2009 to 2.7% of GDP in 2010. The rise is fueled chiefly by growth in newly assumed debt obligations. Relative volumes of financing across other federal budget items should remain unchanged or undergo an insignificant adjustment.

Overall, it can be ascertained that the 2010-2012 federal budget has been formed proceeding from the need to hold the budget system balanced. In the conditions of a substantial fall in budget revenues the government will have to stick to the policy of curtailing its obligations to preclude the budget deficit from rising.

2.2.5. The Medium- and Long Term Prospective Avenues of the Fiscal Policy

Next decade, Russia's tax system will face two major challenges.

First, the effective decisions on the pension reform do not warrant the pension system's balance, unjustifiably mount pressure on the labor compensation fund and imply the need for its constant replenishment out of the federal budget. Accordingly, the tax system as a whole is in need for a certain adjustment, which should help the public finance adapted to the global process of the population ageing.

Secondly, the national economy's advancement along the path of innovation implies contraction of the proportion the mining sector holds in the nation's GDP. But the tax burden on the mining sector has substantially exceeded the one on other sectors. In the medium term Russia will see rental payments to the budgets in decline, which will necessitate revision of the problem of the level of tax burden on the economy and transformation of the revenue structure from main taxes.

Below, we briefly highlight on main measures that may be employed in response to the said challenges.

Pension reform

Recent decisions on the national pension system overhaul– that is, federal act №212-FZ of July 24, 2009 "On insurance premiums to the Pension Fund of the Russian Federation, the Social Insurance Fund of the Russian Federation, the Federal Fund for Compulsory Medical Insurance and territorial funds of the compulsory medical insurance", in our view, are inadequate, as they fail to solve the problem of securing the pension system's balance in the long run, but, at the same time, drastically increase the tax burden and complicate the tax administration.

As most developed nations, Russia likewise experience the basic demographic process-namely, the population's ageing. The negative demographic trend poses a strategic long-term challenge for Russia's pension system.

The rise in the number of pensioners in Russia from 330 per 1,000 able-bodied people in 2007 to 450 in 2020 will necessitate making a fairly complex choice:

- -either to keep expenditures on pension payments as a percentage of GDP at the 2007 level and yield with the decline of the replacement rate to 16% by 2020 (vs. 23.4% in 2007), or
- to maintain the replacement rate at a socially acceptable level of some 30%, but compromise on a rise of expenditures on pension payments up to 8.2% of GDP in 2020 (ie by 3.4% of GDP vs. the 2007 figures).

As a consequence of the increase of the basic rate of pension contributions from 26% up to 34% most corporations would experience a 1.6 p.p. of GDP rise of the tax burden on the labor compensations fund. By most OECD nations' standards the proposed insurance premium tariffs appear abnormally high. Increase of the tax burden on labor contradicts the general international trend which suggests that to boost an economy's competitiveness, one needs to lower the tax burden on labor and capital and increase the one on consumption.

An increase of the tax burden on the labor compensation fund may result in:

- noncompetitiveness of Russia's economy;
- fall in the official employment rate and, accordingly, in the respective contributions;
- migration of salaries and wages into the grey zone.

The reassignment of administration of pension contribution from the Federal Tax Service to the Pension Fund is explained by the need to update the respective data 4 times a year. But the need to accomplish this technical exercise could justify an increase of the burden on businesses by establishing yet another controlling agency can be questioned.

In the short run an increase of the fiscal burden on the labor market in the time of economic crisis appears a *non-licet* exercise. With the employment problems aggravating, one should not increase the said burden on salaries and wages of the least prosperous strata from the current 26% to 34%. The RF Minzdravsotsrazvitiya maintains it is necessary to secure a steady increase of the insurance tariff from up to 42% by 2047[1], which will make Russia's economy uncompetitive. At this juncture it appears urgent to confine oneself to a moderate indexing of the UST scale, which would not increase the fiscal burden on the labor market in 2010-11.

In the medium term it is imperative to attract financial resources into the pension system to complement premiums on compulsory pension insurance plans. In addition, provided a favorable state of affairs, one should use reserve funds for this purpose. It may also become possible to consider *privatization of public assets*, particularly by means of their transfer to the Pension Fund of RF and non-government pension funds as current contributions by the savings component of pension plans.

To secure a long-term balance of the pension system it is also necessary to *raise the pension age*. While fully appreciating the complexity of the issue from the political perspective, it should be noted that this move constitutes the only solution to the problem of balancing the pension system in the long run, which would enable one to effectively increase the replacement rate.

To minimize political costs engendered by the move, it should be implemented in a gradual fashion and concern just relatively young residents.

Export duties

[1] According to the RF Minzdravsotsrazvitiya's documents

Russia's economy restructuring in the long run is interwoven with abrogation of export duties whose existence means subsidizing the domestic mineral and energy sources producers at the expense of the mineral rent, with mineral inventories being owned by the state. Compensated by an increase of the mineral tax, the abolishment of export duties should entail a rise in domestic prices for minerals and energy sources up to the international levels. As a consequence, domestic producers will be compelled to boost resource efficiency of their production to the level of nations that import minerals and energy sources. Without this, an efficient consumption of natural resources and environmental protection would appear an unlikely prospect.

Selling their products on the domestic market under the present system, the national mineral producers pay the mineral tax, export duties and incur losses equivalent to the difference between international prices for their products and domestic ones. Accordingly, an increase of the mineral tax under the abrogation of the duty should be sufficient to compensate for the value of the export duty and benefits corporations consuming minerals and energy sources enjoy from the difference between the domestic and world prices adjusted by the fall in the volume of domestic consumption caused by contraction of demand fueled by rising domestic prices.

But, at the same time, it is understood that any drastic changes in this area are highly unlikely. Transition to taxation of mineral producers on the basis of the mineral tax should be implemented fairly gradually, so that to give mineral- and energy-source consuming corporations, as well as their consumers, a chance to modify their behavior, particularly, by means of introducing innovations.

The mineral tax

In the conditions of the forecasted change in the structure of oil output, primarily an increase in the share of new regions subject to the tax holiday regime, as well as in the proportion of "exhausted" wells subject to a reduced rate, revenues from the mineral tax may fall. This should be taken into account while pursuing a long-term fiscal policy.

The VAT

1. Regulation and simplification of the VAT refund procedures in the conditions of application of zero rate and other cases. More specifically, to prove the fact of export it is necessary to set a sole attribute - that is, the good's crossing the customs border of RF.
2. In the countries practicing VAT, most taxpayers not engaged in complex transactions find this tax easy to calculate and pay. To this effect, one needs to modify procedures for filling out invoices and unify procedures with regard to granting the right for tax rebate.
3. It is appropriate to introduce a uniform VAT rate at a level which would ensure that the budget revenues would remain unchanged or grow. Transition to the uniform rate would help simplify administration of the tax, albeit lower progressiveness of distribution of the tax across the population income groups (in an assumption of shifting of the tax on consumers). Compensation for such groups' losses should be secured at the expense of the respective budget expenditures.

In the conditions of the post-crisis development and, accordingly, given the need for maintaining the financial stability, the public expenditure annual increase model is far from being effective. That is why it is the objective of fiscal deficit cutbacks in tandem with the need to bolster return on each Ruble out of public funds that have come to the front burner. In its quest for attaining such ambitious goals, the government focuses primarily on organizing most agencies' budgets on the basis of program-target methods, which suggests a substantial

increase in the proportion of target programs in the budget and transition to a program-wise classification of budget expenditures. Another vector of improvement of the quality of budget management lies in reforming the public procurement program and its fundamentals, particularly towards a substantial increase in the proportion of public expenditures on the innovational sector.

We believe main avenues of increasing efficacy of the budget expenditures have been picked quite adequately; meanwhile, the overall progress in the quality of control over budget resources may become possible only under a comprehensive approach to the problem, which would enable one not only to embrace a maximum broad array of the employed regulative instruments, but structure their employment in time. More specifically, in the nearest future (2010-2011), it appears mandatory to center primarily on problems of increasing accessibility of the public social services. The objective is realistic and achievable through restructuring the budget network. As well, a focal point will remain incentivizing the grass-root level of the government to consume budget funds more efficiently, improving the public procurements system, optimizing individual budget procedures (introducing assessment of the regulating impact into the technology of managerial decision-making that bear budgetary ramifications).

Once the respective institutional conditions arise in the country, a further improvement of such fairly sophisticated managerial mechanisms as result-oriented budgeting, program-target operations, public-private partnership may evolve into a critical factor of the rationalizing of budget expenditure and increasing of the budget process on the whole. This bloc of measures should be implemented between 2010 and 2015.

As concerns ***the medium-term fiscal policy priority avenues,*** it is worth noting the following ones:

Reforming the budget institution network in main sectors of the budget sphere.

The ultimate objective of the budget institution network reform should be bolstering its operational efficiency by introducing fundamentals of competition and assiduity in public spending, which arises thanks to liquidation of duplication of functions and discontinuation of delivery of similar services by different public agencies. Meanwhile, those institutions which, by their nature or operational conditions, appear unadapted to survival in the market environment or whose reorganization may entail unfavorable socio-economic effects, should not become subject to restructuring.

To attain the ultimate reform objective, the whole budgetary network should be restructured. But there exist objective challenges associated with updates on the state of the regional and municipal budget institutions sub-networks, as well as with the absence of inter-level coordination and the subfederal networks reorganization procedures, etc. That is why an appropriate mission for the upcoming 2-3 years would be centering on the federal element of the budget institutions network.

We believe the main mechanism of optimization of the federal budget institutions (FBI) network lies in the necessity of modifying the legal status of the existing budget organizations. The modification process can be two-fold – either the budget organizations keep their newly affirmed status that would suggest they are granted with the right for a non-restricted control over their income and assets acquired using that, or their transition into treasury enterprises that are subject to estimate-based financing, while their proceeds are to be collected to their founders' budgets.

In tandem with the aforementioned optimization procedures, wherever possible, one should also complete:

- amalgamation of small-sized institutions into larger ones;
- liquidation of poorly performing institutions or those with a thin contingent of customers, with their powers reassigned to peer institutions operating within a given or neighboring territories;
- reassignment of a string of FBIs for the sake of observance with the sectoral operational profile principles;
- reassignment of FBIs, which exercise powers falling under the mandate of public administration agencies of the RF Subjects or under local self-governance bodies' mandate, under control of the RF Subjects' public administration agencies or local self-governance bodies, respectively;
- privatization of FBIs that do not fall within a given department's mandate (e.g. sanatoria, etc.) or their reassignment to respective ministries and agencies (e.g. medical and educational institutions.

While pursuing optimization procedures, one should consider sectoral peculiarities of the FBI network and care to develop a performance monitoring system for restructured institutions.

Increasing efficiency of the public procurement management procedures

In order to shape a uniform integrated cycle of planning and placing of the public order, and executing of public contracts which should secure a peremptory fulfillment of the government's obligations, an adequate to the state needs quality of supplied goods, works and services, an efficient consumption of resources, a reliable management of technological, economic and corruption risks, it appears appropriate to accomplish the following moves:

- optimization of the technology of awarding the public order and conditions of selection of qualified suppliers by means of extending the use of e-auctions. That would allow one to abandon the routine "paper" procedures, give entrepreneurs a chance to take part in such auctions via remote access, substantially lower bid-rigging schemes. These measures should be complemented with the fine-tuning of order placement procedures with regard to complex R&D, development or technological projects that should enable the customer to enjoy the possibility for specifying the subject of a contract with account of alternative technological solutions put forward by bidders;
- -consideration of a possibility for centralization of procurement under the aegis of the general manager of budget funds (to secure economies of scale) and development of a system of incentives to securing an even cash execution of limits granted to customers;
- Fixing with customers the right for an independent spending of funds they have received as a payment of a fine (penalty), as well as funds they have received due to the public agency's failure to honor its obligations with regard to securing a customer's auction bid and fulfillment of the public contract;
- Improvement of procedures of monitoring of, and control over the progress with execution of the public contract by optimizing the inventory system with regard to conditions of concluded public contracts; development of procedures of auditing of efficiency of public procurements and recommendations on bringing to account public customers (penalties, lowering their volume of budget funding, suspension of the contract, etc.), introduction of an automated monitoring system (AMS), which should allow one to evaluate the progress in execution of a public contract in real time, supply necessary information to all the participants and make decisions on correcting measures.

Improving the budget decision-making technology and other result-oriented budgeting instruments

Today, particularly challenging became the problem of organization of assessing the potential impact a regulating act has on the economy and society on the whole yet at the stage of its development. That is why in order to enhance the quality of managerial decisions it appears justifiable to obligate agencies, which are engaged in development of normative documents, to run a comprehensive evaluation of prospective and ongoing socio-economic policy measures. Methodological fundamental of the measures should be formed by the cost-benefit analysis method as the most acceptable vehicle that takes into consideration all significant effects from a proposed regulatory measure.

The need to increase the efficiency of the interdepartmental planning system makes it appropriate to undertake the following steps:

- to form a report on budgeting agents' operational results and main avenues (BA Report) in a hierarchical fashion, by setting objectives for BA as an upper target margin for their subordinated agencies of executive power;
- to include in the final version of the Report only the budget programs underway. Unapproved (under development) programs may be enumerated in the limits of the budget of assumed obligations only until the budget law for next year has been passed; afterwards a program either is granted with the status "in progress", or it is excluded from the Report;
- to modify the form of the register of expenditure obligations by adding margins hereto, to reflect BAs' objectives and programs;
- one should consider departmental target programs (DTPs) as a grouping of measures implemented by BAs to tackle tactical tasks stipulated in the Report, with specification of the aggregate volume of expenditures, the program's control system and possible risks associated with failure to attain performance benchmarks;
- to establish that executive agencies form DTPs on their own, without an external evaluation and approval. It is the agency's performance results fixed in the Report that should become subject to the external evaluation (and control); meanwhile the right to select a mechanism of its implementation - that is, the DTPs' composition and substance, is assigned to the executive agency. Fixing simpler procedures with regard to development, coordination and, essentially, organization of implementation of DTPs (due to their smaller scale vis-à-vis (long-term target programs (LTTPs) will enable one a in the nearest future to formulate a maximum possible number of programs and ensure a faster transition to the program-target principles of budget execution;
- to fix approved DTPs in the register of expenditure obligations as a target budget expenditure item (while individual measures under the aegis of a program are to be fixed as kinds of budget expenditures);
- to form model methodologies of evaluation of a program implementation efficiency of and the respective budget spending by providing for respective forms in the composition of budget reports;
- to specify the role and designation of an agency's analytical programs in order to preclude the civil service from their use only for allocating of the available funds.

Improving the public investment management mechanism, particularly in the frame of development of the public-private partnership.

It is imperative to enhance the operative management of investment projects that have been already selected and are currently financed out of the investment Fund of RF. More specifically, this should imply tightening responsibility for failure to meet the respective timelines. But as with its peculiar procedures for the possibility of transfer of unused cash balances to next year the Investment Fund forms an exception from the general procedures of public finance administration set by the Budget Code of RF, it appears appropriate to relinquish this instrument of organization of the government's investment activity in favor of budget target programs.

It seems appropriate to introduce amendments to the federal act "On special economic zones in the Russian Federation" and the respective bylaws in order to simplify procedures of selection of regions aspiring to have special economic zones within their territories, revise the amount of co-funding of projects on creation of such zones to increase the proportion of regional and municipal budgets in them, bolster incentives for (obligations of) investors with regard to transfer of rights for the use of technologies developed by them upon the 5-year period of their residence and scale of their operations in Russia's territory.

It is imperative to organize training and retraining programs on public private partnership for civil and municipal servants and specialists from the private sector.

Whereas budget resources for encouragement of investments into individual sectors are scarce, an alternative to direct budget expenditures is a mechanism of provision of government guarantees. In order to develop this mechanism, it is necessary to:

- create reserves for the whole term of effect of the guarantee, albeit not in a full volume, but with a due account of risks of a rise of a guarantee event;
- create a reserve fund at the expense of appropriations from the National Welfare Fund;
- exercise flexibility with regard to provision of a collateral for guarantee by the principal on obligations underwritten by the government.

It is equally important to promote the practice of engaging commercial banks in funding and managing investment projects in the infrastructural sphere. More specifically, it seems plausible to more vigorously engage the largest commercial banks in the process of monitoring of implementation of state-funded investment projects and, in the future, to commission the public customer functions to them. It is envisaged that this would allow a greater efficiency of the public investment management and lower construction costs coupled with a greater quality of implementation of such projects.

Dividing expenditure powers between the Russian Federation, its Subjects, and municipal entities

Numerous regions and municipal entities have found themselves in a situation when a sizeable proportion of their budget revenues are formed by subventions on exercise of their respective mandates. The subsequent jeopardy to efforts to increase the quality of control over the state and municipal finance is two-fold. First, regional and municipal authorities may not be keen to ensure a maximal efficiency of exercising a de facto someone else's mandate, while the respective monitoring mechanisms are far from being perfect. Second, funding the delegated mandates inevitably gives rise to certain challenges: there primarily exists a certain information asymmetry, i.e. data that directly affect the volume of subventions is supplied to the federal agencies by the RF Subjects. In addition, in the process of execution of the budget it may well happen that a given RF Subject (municipal entity) has received from the federal

budget (the RF Subject's budget) an excessive amount of financing to exercise some delegated powers, while other powers have remained underfinanced. Given rigorous conditions of using subventions strictly to fund a certain delegated power, this results in an inefficient consumption of budget funds and the need in an urgent introduction of amendments to the RF Subjects' law in the end of a fiscal year.

The division of powers between the tiers of the budget system has recently been revised literally every year. This lowers predictability of the fundamental parameters of the budget system in the eyes of regional governments and local authorities and has an adverse effect on the quality of management of the public and municipal finance.

At this juncture it seems inappropriate to introduce amendments to the division of expenditure powers in 2010. Meanwhile, it is appropriate to use this period to monitor and evaluate efficiency of the effective system of division of powers.

It is imperative to provide for a possibility for revision of the effective system of division of powers for the sake of reducing the number of delegated powers and to fix with each tier of government those powers it is able to exercise in the most efficient way. This move should be completed as early as in 2011-2012. As the decision has been made to finance the Interior Ministry's bodies exclusively out of the federal budget, there arise ample opportunities and room for a "trading of powers" between different tiers of government.

Optimizing mechanisms of management of financial support to the RF Subjects

According to the draft 2010-2012 budget, there are 87 more transfers in the Russian Federation (4 ones – in the subsection on budget transfers per se, 43- in the subsection on subsidies, including federal programs and sub-programs, 21- in the subsection on subventions, and 19 ones- in the subsection on other interbudgetary transfers). Notably, the volume of funding of as many as 35 transfers has been under Rb. 1bn, which means that an array of programs run by given RF Subject are eligible for just a meager financing. Given a strictly targeted nature of most of them (funded by means of subsidies and subventions), the costs of evaluation of the targeted spending of the respective funds, let alone evaluation of efficiency of such a spending, may overweigh their prospective benefits.

Hence the growing appreciation of the need for systematization of interbudgetary transfers, including a rigorous observance with the fundamental principle, which implies that financial aid should be allocated with account of the RF Subjects' budget sufficiency rate.

This problem can be partly resolved by improving the expenditure powers division procedures. At the same time, the need for integration of a big number of small-volume target interbudgetary transfers into blocs has become evident.

The bottom line is that the concept of bloc transfers implies that financial resources in the frame of a given interbudgetary transfer can be spent by several directions, with the level of government from whose budget they are allocated enjoying the right for setting both the formula of their allocation and conditions of their spending by each direction of financing. The said level of government should have the right to opt for certain proportions of spending of the received bloc transfer by each direction included therein.

This should increase the quality of management of public and municipal finance in the course of implementation of the national priorities, particularly by taking into account, to a maximum degree, the local population's preferences. It seems appropriate to gradually replace after 2010 a considerable fraction of funding in the frame of the national projects, as well as the bulk of versatile subsidies to regions, with bloc interbudgetary transfers. Because of a high degree of differentiation of the fiscal capacity and costs of delivery of budget ser-

vices in the RF Subjects, it appears appropriate for the federal level to allocate bloc subsidies with account of the regions' budget sufficiency rate. But the equalizing progressiveness rate should be substantially lower than the one of transfers earmarked from the Fund for Financial Support of Regions. It is proposed to grant bloc transfers in proportion to the size of the gap between the regions' budget sufficiency rate and the one of the most prosperous Subject of RF.

As concerns possible directions that may be integrated into bloc transfers at the regional level, those may be: capital refurbishment of public schools; capital refurbishment of blocs of apartments whose owners have established condominium; upgrading the quality of municipal motorways; population relocation from hardly accessible settlements; the health care reform, to name a few.

2.3. Interbudgetary Relations and Subnational Finance in 2009

2.3.1. Subnational budgets in the grip of economic crisis

Main trends in relations between different tiers of government are mirrored in the revenue and expenditure structure of the consolidated budget of RF. *Table 1* presents data that highlight on the proportion of tax revenues and expenditures of the Subjects of the Federation in the respective indicators of Russia's consolidated budget.

Table 1

Proportion of Some Indicators of Budgets of the RF Subjects in Russia's Consolidated Budget in 1992–2009 (as %)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Tax revenues	44.2	53.1	53.4	47.6	49.5	53.1	56.6	49.2	43.5	37.4	35.1	39.6	36.1	30.9	31.8	33.9	33.2	36.6
Tax revenues less mineral payments and customs duties	47.7	61.7	61.4	56.0	55.8	59.5	59.9	53.0	49.0	42.6	40.1	41.9	47.5	49.1	52.0	50.5	53.7	54.8
Expenditures	34.0	40.3	37.7	43.4	45.4	48.1	54.1	51.9	54.4	54.2	49.3	50.0	50.8	49.5	43.4	48.3	49.2	43.4

Source: the Federal Treasury, the IET calculations.

Analysis of the data of *Table 1* allows the following notes: between 1998 and 2005 the proportion of tax revenues to the RF Subjects' budgets in the consolidated budget has tumbled from 56.6% to 30.9%. The tendency has been fueled chiefly by the economic factors (specifically, the price rise for energy sources has entailed a greater influx of customs duties and mineral payments to the federal budget), rather than by reallocation of revenue sources between different tiers of the budget system. This is evidenced by the fact that the plunge in the proportion of subnational budgets in tax revenues to the consolidated budget has not been equally drastic – from 53% in 1999 to 49.1% in 2005. Between 2006 and 2007 the proportion of subnational budgets in tax revenues was on the rise due to a faster growth in revenues from taxes fixed with regional budgets vis-à-vis those fixed with the federal budget. In 2008, the proportion slid slightly, but remained on a level substantially in excess of the 2005 one, nonetheless. Meanwhile, the 2008 proportion of regional budgets in tax revenues to the consolidated budget posted a notable growth vs. the respective figure of 2007. The economic crisis has altered the relations in question. The proportion of the RF Subjects' tax revenues in the respective revenues to Russia's consolidated budget posted a dramatic growth from 33.2 to

36.6%, which can be ascribed primarily to a drastic fall in revenues to the federal budget from the mineral tax and custom duties. The proportion of regional budgets without regard to mineral payments and customs duties also was slightly up at 1.1 p.p., from 53.7% to 54.8%. This is largely determined by the steadiness of revenues from the PIT to regional budgets during the crisis period (Rb 1, 666.2bn in 2008 and 1,665.8bn in 2009).

Let us examine the situation with regard to the revenue part of the subnational budgets in a greater detail. Starting from November 2008, the economic crisis has begun intensively affecting revenues to the regional budgets. As noted in the previous review, initially, the crisis most heavily battered those subjects of RF that were more better off economically (Tyumen oblast, Orenburg Oblast, Khanty-Mansy AO, Chelyabinsk oblast, etc.), as their revenues are dependent chiefly on the financial standing of large taxpayers concentrated in the metallurgical, oil, petrochemical and some other sectors. Between November and December 2008 tax revenues to the RF Subjects' consolidated budgets shrank in nominal terms in 34 regions compared with the same period of 2007, with 15 regions suffering a sizeable (over 10%) fall in the revenues (see *Table 2*).

In the 1st quarter 2009, the economic crisis hit budget revenues of most Russia's regions: when compared with the same period of 2008, the tax revenues to the RF Subjects' consolidated budgets tumbled in nominal terms in 54 regions, with already 31 regions suffering the noted drastic 10%-plus fall in their revenues. Meanwhile, it should be noted that the situation with execution of the revenue part of the RF Subjects' budgets was particularly stretching in January and February and improved notably in March.

Between April and May 2009 the situation with execution of the revenue part of the budget remained relatively stable (compared with the 1st quarter of the year). But when compared with the same period of 2008, most Russian regions saw their tax revenues plunge. By results of the first 9 months of the year the magnitude of the fall diminished slightly; however, the number of the RF Subjects that reported a rise in their tax revenues in 2009 dropped vis-à-vis the same period of 2008 (their number proved to be smaller than the one reported by results of the 3 and 5 months of 2009). In the 4th quarter, the situation with tax revenues to the RF Subjects' consolidated budgets somewhat improved. By results of the year only 6 Subjects saw their tax revenues fall by more than 25%, while another 31 Subjects registered their rise. So, it can be argued that it was in the beginning of the year that regional budgets experienced the most serious problems with their revenue part. The situation had slightly improved by the end of the year; however, as many as 52 out of 83 RF regions saw their tax revenues fall vs. the 2008 level.

The main cause behind the rise of problems with execution of the revenue part of the RF Subjects' budgets became a fall in revenues from *the corporate profit tax*, which kicked off in the late 2008. Between November and December 2008 the said revenues to the consolidated budget of the RF Subjects plunged by 30.5% in nominal terms compared with the same period of 2007. The fall encompassed most Subjects of the Federation (65 out of 83 ones), and the negative tendency continued in the first quarter 2009, with the revenues in question slid by 35% in nominal terms vs. the same period of 2007 already in 72 regions. It should be noted that the situation with revenues from the corporate profit tax began to improve in March, but it was extremely daunting in January and February 2009. More specifically, in three regions (Republic of Sakha-Yakutiya, Astrakhan oblast and Yamal-Nenetsky AO) the amount of refunds of the corporate profit tax even exceeded the volume of the respective revenues. In April and May 2009, revenues from the corporate profit tax were substantially (roughly two-

fold) lower than the respective figures of 2008, i.e. the situation continued to aggravate. While it somewhat improved in the second half of the year, the problem remained very pressing, nonetheless. By results of the year revenues from the corporate profit tax to the RF Subjects' consolidated budget shrank by 39% compared with the 2008 figures, with the fall registered in 67 regions.

Table 2

Classification of Russia's Regions by Change in Tax Revenues to Their Consolidated Budgets

The number of regions wherein the change in tax revenues accounted for:	November-December 2008 to the same period of 2007	January-February 2009 to the same period of 2008	January-March 2009 to the same period of 2008	January-May 2009 to the same period of 2008	January-September 2009 to the same period of 2008	January-December 2009 to the same period of 2008
Fall over 25%	3	15	7	11	10	6
Fall between 10 and 25%	12	24	24	24	19	19
Fall less than 10%	19	29	23	21	31	27
Growth	48	14	29	27	23	31

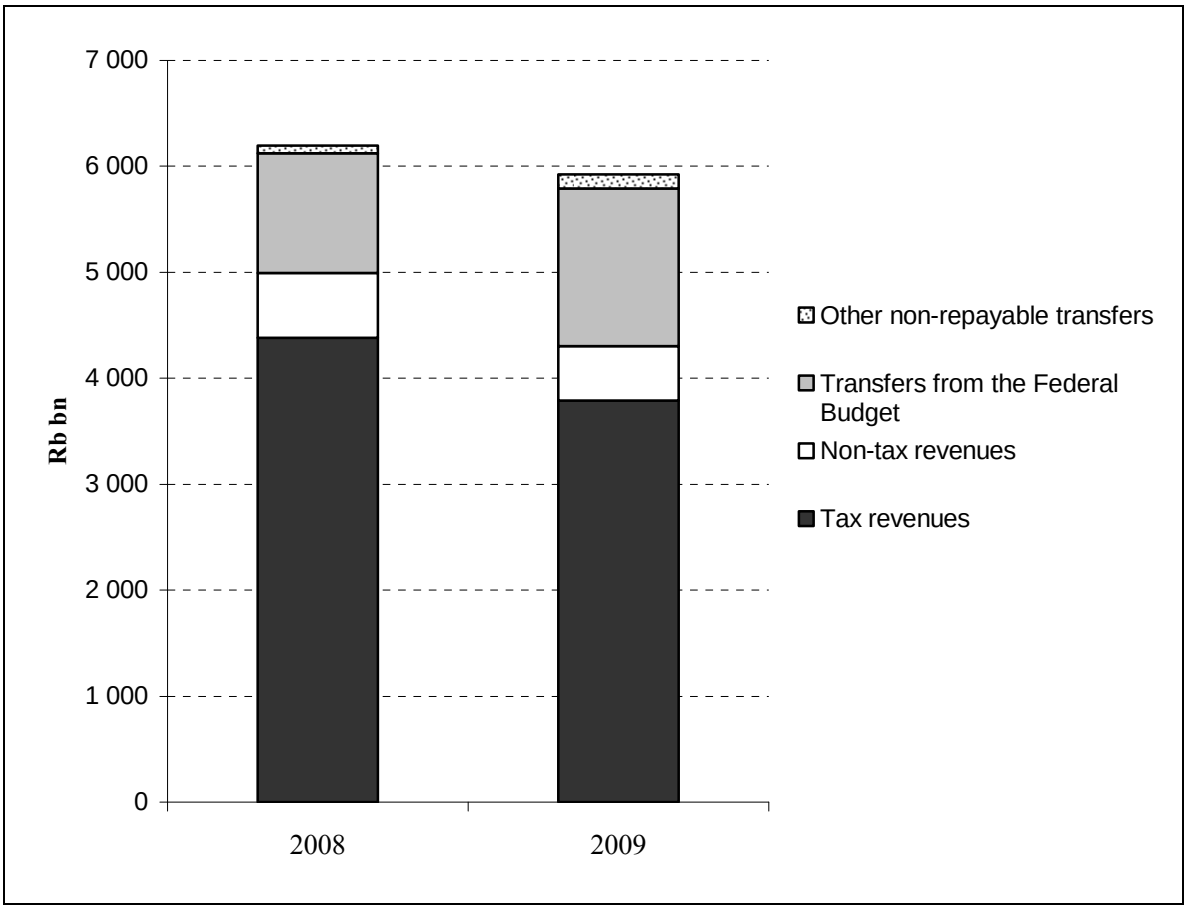
Source: the Federal Treasury, the IET calculations.

By contrast, revenues from *the personal income tax* across the country on the whole proved to be far more stable. In the first quarter 2009 they posted a 5% growth in nominal terms vis-à-vis the first quarter of 2008. But some Subjects of the Federation (Chelyabinsk, Yaroslavl, Kemerovo, Orel, Sverdlovsk oblast) saw their considerable (by more than 5%) plunge. The increase in revenues from the PIT can be partly ascribed to pay rises to budget employees. But the situation aggravated shortly afterwards. As already noted, overall, the 2009 PIT-based revenues remained at the 2008 level, but region-wise the situation appears far less unambiguous. In 36 regions revenues from PIT were down, with 7 regions reporting their 10%-plus fall[1].

Overall, the 2009 revenues to the RF Subjects' consolidated budget fell by 4.4% in nominal terms vs. their 2008 level. That said, different components of the revenues demonstrated a multidirectional dynamic, and, consequently, the revenue structure underwent notable transformations (see *Fig. 1*).

The 2009 tax revenues to the RF Subjects' consolidated budget shrank by 13.5% in nominal terms, while their proportion in the aggregate revenues to regional budgets slid from 71% to 64%. Non-tax revenues also dropped by 15.4%, and their proportion slid from 9.8% to 8.7%. Meanwhile, transfers out of the federal budget grew by 31.4% in nominal terms, with their proportion in the aggregate revenues soaring from 18 to 25%. So, in the conditions of crisis, the role of the federal aid grew substantially. Transfers from the federal budget have formed a cushion, thanks to which regions were able to more painlessly pass the peak of the economic crisis (more on federal transfers below).

[1] Republic of Dagestan, Chelyabinsk, Yaroslavl, Sverdlovsk, Kemerovo oblasts, Republic of Chuvashia, Permsky Krai



Source: the Federal Treasury, the IET calculations.

Fig. 1. Revenues to the Consolidated Budget of the RF Subjects in 2008–2009, by Components

The expenditure part of the RF Subjects' consolidated budget also underwent substantial modifications. It should be noted that the year 2009 saw interruption of the previous 2007-08 trend to growth of regional expenditures in the consolidated budget of RF (see *Table 1*). The proportion of regional expenditures tumbled from 49.2% in 2008 to 43.4% in 2009. This situation emerged due to the fact that expenditures of the RF Subjects' consolidated budget remained practically at their 2008 level (with their increase accounting for a meager 0.04%), while the federal budget expenditures (less transfers to regions) posted a 26% increase compared to the respective figure of the prior year.

But given that the aggregate volume of expenditures has remained unchanged, their 2009 structure underwent certain transformations (see *Table 3*).

The data of *Table 2* evidence that it was regional transfers by sections "Social policy" and "Interbudgetary transfers" (this concerns largely transfers to the CMI Territorial Funds), as well as those on servicing the public and municipal debts, that posted the greatest increase. The rise in the debt servicing expenditures was fueled by more intense subnational borrowings in 2009, while the increase in expenditures on the social policy was driven by greater expenditures on implementation of the government employment policy (funded with subventions out of the federal budget), among other factors.

Table 3

Expenditure Structure of the Consolidated Budget of the RF Subjects in 2008–2009 (as %)

	2008	2009	Change (p.p.)
General public administration matters	7.1	7.3	0.2
Including servicing the public and municipal debts	*0.6*	*1.0*	*0.4*
National security and law enforcement activities	4.1	3.9	–0.2
National economy	19.6	18.1	–1.5
Housing and utilities sector	16.3	13.6	–2.7
Environment	0.3	0.3	–0.1
Education	20.8	21.5	0.7
Culture, motion picture industry, and mass media	3.5	3.4	–0.1
Healthcare and sport	12.7	12.1	– 0.6
Social policy	12.2	15.3	3.1
Interbudgetary transfers (IBT)	3.3	4.4	1.1

Source: the Federal Treasury, the IET calculations

The greatest decrease in the proportion in the aggregate expenditures was noted across sections "Housing and utilities sector" and "National economy", with expenditures on the former being cut in nominal terms by 16.2%, while those on the national economy - curtailed by 8% vis-à-vis the respective figures of 2008. The cuts in the housing and utilities sector occurred largely due a 23% fall in capital investment therein. As concerns support of the national economy, it is important to examine the expenditure dynamic across its subsections. The cuts in expenditures on the national economy can be ascribed primarily to a 3.8% curtailing of the funding of the road construction, maintenance and repair sector (*aka* "the road sector"), which in 2008 accounted for 37% of the aggregate expenditures on this particular sector. Meanwhile, expenditures on the subsection "General economic expenditures" increased substantially (1.7 times). This can be attributed primarily to a greater volume of funding of measures on alleviating the stretching situation on the labor market. As well, expenditures on the support to the agrarian sector were also up (by 8.7%). It should be noted that all the three expenditure directions in the sphere of national economy are funded with subsidies out of the federal budget.

In all, speaking of the dynamic and structure of expenditures of the 2009 RF Subjects' consolidated budget, the following phenomena are worth referencing to: it was capital expenditures that were trimmed most intensively, while expenditures on servicing the public and municipal debts, as well as expenditures on directions that are (co-) financed out of the federal budget posted a substantial increase.

Table 4

Volume of the Public Debt of the Subjects of RF in 2008–2009

	Volume of the public debt, as Rb bn:						
	As of 01.01.08	As of 01.01.09	Increase in 2008	As of 01.07.09	Increase in the 1st half 2009	As of 01.12.09	Increase over the 11 months 2009
All RF Subjects	456.9	599.6	142.7	725.4	125.8	787.7	188.1
The city of Moscow	89.3	121.5	32.2	208.1	86.5	232.3	110.8
Moscow oblast	92.1	156.1	63.9	164.6	8.6	158.1	2.0
RF Subjects (less the city of Moscow and Moscow oblast)	**275.4**	**322.0**	**46.5**	**352.7**	**30.7**	**397.3**	**75.3**

Source: the RF Ministry of Finance, the IET calculations.

With a drastic decline in tax and non-tax revenues to the regional budgets in 2009, the RF Subjects have renewed their pro-active borrowing policy (see *Table 4*).

As evidenced by the data of *Table 4*, the aggregate volume of borrowings over the 11 months of 2009 proved to be up 32% vs. the respective figure of the whole 2008. But worth a particular notice is the fact that 59% of the borrowings falls on the city of Moscow alone. The Moscow mayor office nearly doubled the city's debt over the period in question. Other Russian regions proved to be more conservative in this regard, but as of December 1, 2009, their aggregate debt volume posted a 23% growth compared with the respective figure as of January 1, 2009. The modification of the format of presentation of the RF Subjects' public debt by the RF Ministry of Finance allows tracking down the dynamic of borrowings by their individual kinds only over the first half 2009. That said, just as much as 41% of the volume of the increase of the debt over the 11 months of 2009 (less the city of Moscow) falls on the first half-year. But the respective data give a certain idea of the structure of the RF Subjects' borrowings in 2009, nonetheless (*Table 5*).

Table 5

Volume of the Public Debt of the Subjects of the Federation by Kinds of Liabilities in the First Half of 2009

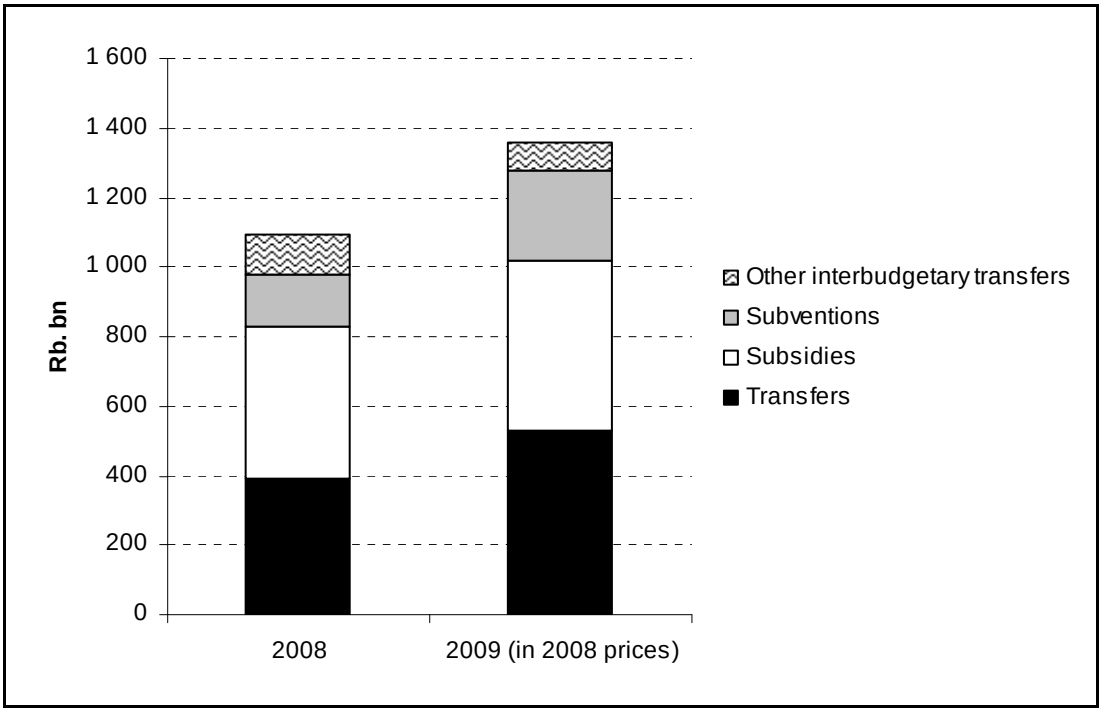
	Total, across the RF Subjects	including:	
		The city of Moscow	Across the RF Subjects (without regard to the city of Moscow)
Loans to the RF Subjects			
as of 01.01.2009, Rb bn	268.9	81.5	187.4
as of 01.07.2009, Rb bn	323.9	152.1	171.7
change (+/–), Rb bn	55.0	70.6	–15.7
increase rate %	20.4	86.7	–8.4
Loan agreements and contracts			
as of 01.01.2009, Rb bn	166.3	32.4	133.9
as of 01.07.2009, Rb bn	180.7	34.2	146.5
change (+/–), Rb bn	14.4	1.8	12.6
increase rate %	8.7	5.6	9.4
Government guarantees			
as of 01.01.2009, Rb bn	123.2	3.2	120.0
as of 01.07.2009, Rb bn	143.8	17.2	126.6
change (+/–), Rb bn	20.6	14.0	6.6
increase rate %	16.7	436.9	5.5
Budget loans			
as of 01.01.2009, Rb bn	40.8	4.5	36.3
as of 01.07.2009, Rb bn	76.8	4.5	72.2
change (+/–), Rb bn	36.0	0.0	35.9
increase rate %	88.2	0.9	99.0
Other debt liabilities			
as of 01.01.2009, Rb bn	0.4	–	0.4
as of 01.07.2009, Rb bn	0.3	–	0.3
change (+/–), Rb bn	–0.1	–	–0.1
increase rate %	–19.3	–	–19.3
Liabilities, total			
as of 01.01.2009, Rb bn	599.6	121.5	478.1
as of 01.07.2009, Rb bn	725.4	208.1	517.3
change (+/–), Rb bn	125.8	86.6	39.2
increase rate %	21.0	71.3	8.2

Source: the RF Ministry of Finance, the IET calculations.

It should be first noted that the volume of bonded loans across Subjects of RF (less the city of Moscow) in the first half 2009 did not post any growth, but even slid by 8.4%. This can be ascribed to several factors. First, the luxury to attract loans on the security market is not within an immediate reach of all the Subjects of the Federation, as there exist technical complexities and the necessity to meet certain criteria. For example, as of late 2009, it was only 19 Subjects that had earned an S&P rating. Second, the overall situation on the financial market had drastically aggravated since the second half 2008. That resulted in higher lending rates and, fairly frequently, the impossibility for second-class borrowers to place their papers. Yet another peculiarity of the RF Subjects' borrowings in 2009 became a growing role of budget loans disbursed from of the federal center's pool. By results of the first half 2009 the budget loans have increased nearly 3-fold compared with banks' commercial loans (on the whole, across the RF Subjects, less the city of Moscow). Thus, in the conditions of a substantial fall of tax and non-tax revenues to regional budgets, and a substantial worsening of conditions of borrowings and an increase of lending rates, budget loans from the federal center, together with transfers, formed one of the pivotal financial pools for the RF Subjects' budgets.

2.3.2. Financial aid from the federal budget

In all, the 2009 volume of financial resources the federal budget transferred to the RF Subjects' ones rose by 34%. The biggest increase was posted by subventions (up 71%) and budget loans whose volume was more than 10-fold greater than the respective figures of 2008. Transfers increased by 36% and subsidies – by 12%. By contrast, the volume of other extrabugetary transfers shrank by 30%. All that resulted in some transformation of the structure of federal transfers to regions (see *Fig. 2*).

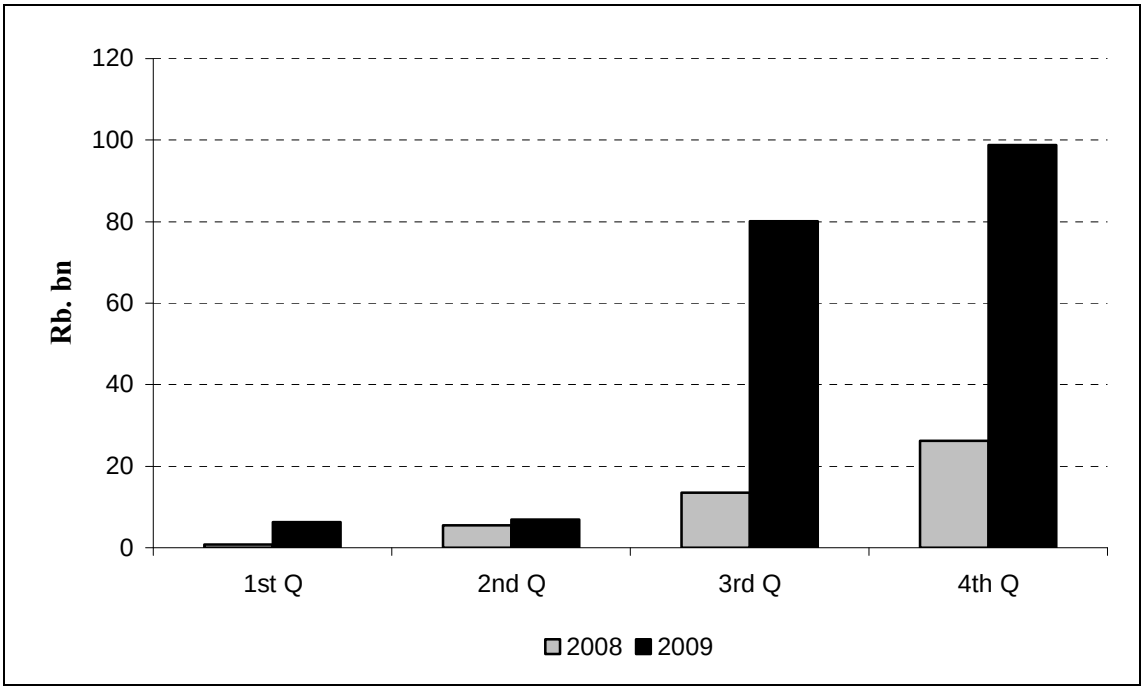


Source: the Federal Treasury, the IET calculations.

Fig. 2. Transfers to Regions out of the Federal Budget in 2008–2009

On the whole, it was the proportion of subventions in the aggregate amount of federal transfers that posted the greatest pace of growth – from 14% in 2008 to 12.9% in 2009. The proportion of transfers was on the rise, too, - from 36% to 39%. In contrast, the proportion of subsidies slid from 40 to 36%, while the one of other interbudgetary transfers plunged by 4.6 p.p., to 5.9% of the aggregate amount of transfers.

Let us examine individual kinds of transfers out of the federal budget in a greater detail (see *Table 5* at the end of the present section). As already noted, their 2009 volume surged in real terms by 36% vs. the respective figures of the prior year. But the growth was fueled primarily by a substantial increase in transfers on getting the regional budgets balanced. While transfers on equalizing the budget sufficiency out of the Federal Fund for Financial Support of Regions increased in real terms just by 4.6%, the volume of the "balancing" transfers soared 3.8 times compared with 2008. Meanwhile, the proportion of the "balancing" transfers in the overall volume of transfers rose from 4% in 2008 to 13% in 2009. It should also be noted that a drastic increase in such transfers to regions fell on the second half 2009 (see *Fig. 3*).



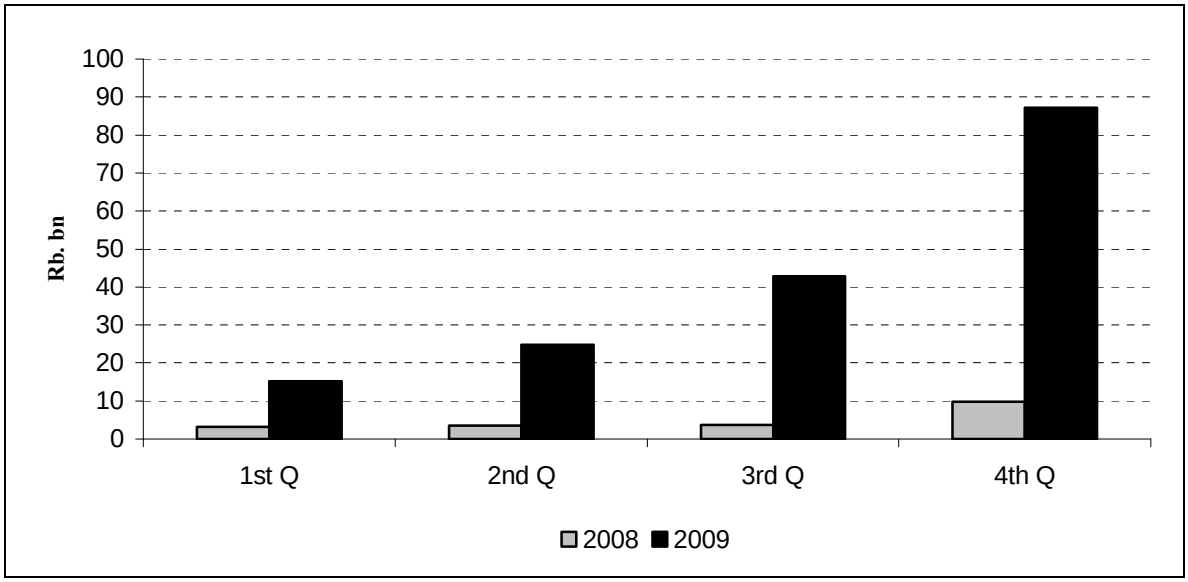
Source: the Federal Treasury, the IET calculations.

Fig. 3. Transfers on Support of the Regional Budgets' Balance in 2008–2009

On the one hand, the increase in transfers on getting the regional budgets balanced is partially justified by grave challenges the subfederal budgets were facing in 2009. On the other hand, as it was repetitiously noted in the earlier reviews, this particular kind of transfers forms one of the most opaque interbudgetary relations instruments and one of main sources of soft budget constraints in the national system of federalism.

Whilst considering the dynamic of budget loans disbursed out of the federal budget to regions in 2009, it is worth noting that it appears similar to the dynamic of the "balancing" transfers (see *Fig. 4*). Their biggest amounts once again fell on the second half-year, with

those allocated in the 4th quarter accounting practically for a half of the annual sum of the respective appropriations. It should be emphasized that since 2009 budget loans have become available for the term of up to three years. In 2009, the federal center extended a total of Rb. 170bn in budget loans vis-à-vis Rb. 20 bn disbursed in 2008. As a result, budget loans accounted for nearly 8% of the aggregate amount of financial aid to the RF Subjects. That said, the 2009 "balancing" transfers and budget loans combined were worth a total of Rb. 319bn, or 20% of the amount earmarked to the regional budgets (in 2008, the respective figure was just 5.2%).



Source: the Federal Treasury, the IET calculations.

Fig. 4. Loans Disbursed out of the Federal Budget in 2008-2009

As noted above, the 2009 volume of subventions out of the federal budget also posted a substantial growth vs. the one of 2008 (up by Rb 136.2bn). The greatest growth rates were registered across the following directions:

- On exercise of the Russian Federation's powers in the area of assistance to the population employment, including expenditures on the exercise of these powers (up by Rb 40bn, or more than twice);
- On provision of individual categories of citizens with housing, as per federal act of January 12, 1995 №5-FZ "On veterans" (up by Rb 31 bn, or more than thrice);
- On payment for housing and utilities to certain categories of citizens (up by Rb 18.4bn, or by 28%);
- On delivery to individual categories of citizens a social service in the form of an extra free medical assistance with regard to provision of medicines, medical items and specialized medical food products for disabled children (up by Rb 6.8bn, or by 27%).

So, it is the 'anti-crisis" subventions allocated to fund the employment measures and those on provision of housing to the GPW veterans due to celebration of the 65th anniversary of the victory in the Great Patriotic War (in compliance with presidential decree of May 7, 2008, № 714 ("On provision of housing to veterans of the Great Patriotic War 1941-1945") that posted the highest growth rates.

The volume of subsidies out of the federal budget was increased in nominal terms by Rb 104bn, or up by 20% compared with 2008. But by some directions the funding was curtailed substantially, while by other ones it was increased, thus giving rise to new kinds of subsidies of which the biggest ones became:

- Subsidies on implementation of additional measures aimed to mitigate the tension on labor markets of the RF Subjects (Rb 35.6bn);
- Subsidies on procurement of motor vehicles and communal equipment (Rb 19.7bn).

It was subsidies on the following directions that posted the greatest increase:

- On the government support to small- and medium-sized businesses, including agrarian (farming) enterprises (by Rb 15bn, or more than five-fold) ;
- On the government support of the agrarian sector (by Rb 21.4bn, or up 37%).

In parallel with that, cuts were made across a string of subsidies. They were most sizeable by the following directions:

- Subsidies on the road construction, maintenance and repair works not included in the federal target programs (Rb 12.6bn, or down 37%);
- Subsidies for allocation of sites with communal infrastructure for the purpose of house construction (by Rb 7bn, or down 90%).

2.3.3. Modifications in the federal law in the area of interbudgetary relations and subnational finance in 2009.

The challenges Russia's budget system has been facing between late 2008 and 2009 in the conditions of economic crisis have required certain amendments to the federal legislation, primarily to the Budget Code of the Russian Federation. Main modifications introduced with federal act № 310-FZ of December 30, 2008, "On introducing amendments to the Budget Code of RF and federal act "On introducing amendments to the Budget Code of RF with regard to regulation of budgeting and bringing individual legislative acts of RF in consistency with the budget law of RF" were analyzed in our 2008 review. But certain amendments were introduced in a number of articles of the Budget Code of RF in 2009, too.

More specifically, on April 9, 2008, federal act № 58-FZ "On introducing amendments to the Budget Code of RF and individual legislative acts of RF", which has modified a number of clauses of the Budget Code of RF, was promulgated.

First, the amendments concerned Art. 92.1 with regard to the provision that sets a cap on the amount of an RF Subject's budget deficit equaling 15% of the approved aggregate volume of revenues to the regional budget without regard to unrequited revenues. This provision was softened already in act № 310-FZ – the RF Subjects were permitted to excess the said cap by the sum of revenues from sales of stock and other forms of participation in capital, as well as by diminishing balances on accounts by accounting the regional budget's funds. Act № 58-FZ allowed an excess of the capped level of budget deficit by the amount of the balance of budget loans out of the federal budget. In contrast with the previous amendments, the effect of this provision is limited in time, with 1 January 2013 as the deadline. In a similar fashion, local self-governance bodies were allowed to excess the cap rate of the municipal budget deficit (10%) by the balance of budget loans out of the federal budget. In addition, requirements of Art. 107 that concern the ultimate size of the RF Subject (municipal entity's) debt were softened, too, and now it can excess the cap set by the Budget Code of RF by the size of budget loans attracted from other tiers of the budget system.

Secondly, caps which Art. 139.1 set on the amount of other interbudgetary transfers provided from the RF Subject's budget to local budgets, were modified, too. The volume of other IBTs may exceed 10% of the aggregate volume of transfers (les subventions) by the amount of transfers on support of measures on getting local budgets balanced.

Certain modifications were likewise introduced into clauses of the Budget Code of RF upon promulgation of federal act № 192-FZ of July 19, 2009 "On introducing amendments to the Budget Code of RF and Art. 45 of the federal act "On the Central Bank of the Russian Federation (Bank of Russia)". The act suspended the effect of a string of clauses of the BC of RF until January 1, 2010:

- the effect of clauses of Art. 53, 59 and 64 that require that acts affecting revenues to the budget system of RF should be promulgated prior to submission of draft budgets of the respective tier of government;
- for the year 2009 the timelines stipulated in Art. 131 and 133 were shifted for a month – the clauses hold federal agencies to complete until July 20 a check-up of original data necessary for allocating transfers on equalization of budget sufficiency and subventions for the next financial year; as well, the said provisions prohibited introduction any alterations into the data afterwards. For the year 2009 the timeline was shifted to August 20.

It is equally important to pay attention to the joint letter by the RF Ministry of Finance (№06-03-06) and the Federal Treasury (№42-7.4-05.5.0-251) of May 7, 2009, which clarifies procedures of use of balances of subsidies and subventions out of the federal budget to bridge the regional budgets' temporary cash gaps in the course of a financial year. The document reads that such a use of balances of federal funds does not conflict with provisions of the federal law in the event it does not result in growth in payables by expenditure directions, which should be funded at the expense of the said target transfers.

2.3.4. The federal act "On the federal budget for 2010 and the period through 2012 with regard to earmarking interbudgetary transfers to other tiers of the budget system".

The total amount of funds planned for transferring to regional and local budgets in 2010 roughly accounts for Rb 1,129bn. In nominal terms, this is down by 12.9% vs. the amount provided for by the act on the 2009 federal budget. That said, aggregate expenditures out of the federal budget should rise insignificantly in nominal terms (by 0.42%). Consequently, the proportion of interbudgetary transfers to other tiers of the budget system in the federal budget expenditures should fall from 13.2% in 2009 to 11.4%. Given that in late 1990s the proportion of transfers from the FFSR alone would account for 14% of the federal budget expenditures, and main revenue sources now concentrate in the federal budget, the exercise of cutting back the proportion of interbudgetary transfers to other tiers of the budget system in the federal budget expenditures can be questioned. But in all likelihood the problems with funding the pension system have left no room for maneuver for the government.

It should also be noted that the interbudgetary transfers system has remained a complex and confusing one. In a developed federative state, as a rule, there exist 1-3 largest transfers from the federal budget to territorial ones and 3-15 smaller size transfers. In Russian Federation, in compliance with the act "On the federal budget for 2010 and the period through 2012", the number of various transfers is over 87 (4 ones – in sub-section on transfers, 43 – in sub-section on subsidies, including the federal target programs, 21 – in sub-section on subventions, and 19 transfers – in sub-section on other interbudgetary transfers). The question is,

whether such a system is efficient. By analogy with taxation, the number of transfers should be acceptable for their efficient administration. The volume of financing by 35 directions does not exceed Rb 1bn, which means that funds earmarked to a Subject of the Federation by a string of directions can make up dozens or hundreds of thousands of Rubles. Clearly, given the target nature of most directions (subsidies and subventions), the costs associated with evaluation of the target nature of use of the expenditures can overweigh benefits from such appropriations. It appears necessary to conduct a thorough examination of the division of powers between the federal center and regions in order to fully assign a series of powers to regions and to return a part of them to the Federation's level.

An additional way to solve the problem of existence of a great number of minor target interbudgetary transfers and the need to improve the quality of management of allocated financial resources is their consolidation into block transfers (consolidated subsidies and subventions). The bottom line is that such block transfers give a possibility to spend financial resources consolidated into an interbudgetary transfer on several directions. Meanwhile, the level of government out of whose budget such bloc transfers are earmarked can set both the formula of their allocation and conditions of their spending by each direction of financing. The level of government that receives the bloc transfer in turn can on its own select proportions of use of the earmarked finds by each direction included in the bloc transfer.

The principal vehicle of financial aid to regional governments – that is, transfers on equalization of their budget sufficiency out of the **Fund for Financial Support of Regions** – will grow by 6% (vs. the 2009 figures) and account for Rb 397bn. It should be noted that the year of 2010 should see next attempt to overcome the tendency to contraction of the proportion the Fund holds in the overall volume of interbudgetary transfers – according to the 2010 draft budget, the FFSR's proportion in interbudgetary transfers to other levels of the budget system should grow up to 35% compared with 24% in 2009. But it is worth noting a huge gap between an original version of the budget and its ultimate execution. Sectoral ministries, as a rule, succeed in lobbying for a greater amount of subsidies and other interbudgetary transfers; meanwhile, the aggravation of the situation with regional finance triggers the growth in the "balancing" transfers and budget loans (should a budget loan be disbursed for the term of 3 years under the interest of ¼ of the refinancing rate, it in many ways becomes a substitute for a "balancing" transfer); by contrast, calculated by a certain formula, the volume of FFSR remains unchanged through the end of the year. It seems to us, while considering all kinds of interbudgetary transfers, priority should be given to FFSR, as its structure matches the best international practices and its funds are allocated following relatively transparent procedures.

Since 2005 the **Fund for Compensations** has accumulated resources on financing all the legislatively set, in an explicit form, federal expenditure mandates. The draft federal budget for 2010 and though 2012 provides for some growth in the proportion of the FC in interbudgetary transfers to other tiers of the budget system (from 17.6% in 2009 to 20.7% in 2010). The surge in subventions in interbudgetary transfers is conditioned by the "rigidness" of these obligations. The federal center, as a rule, has to index the obligations by the inflation rate.

With regard to **subsidies**, the draft 2010 budget projects their Rb 50.4bn decrease in nominal terms, down to Rb 356bn (by 14.6% compared with 2009). The main 2010 expenditure avenues in this regard are:

- the state program of development of the agrarian sector and regulation of agrarian markets, raw materials and foods for 2008-2012 - 24.7% of the aggregate amount of subsidies;

- implementation of additional measures aimed to alleviate the problems on the RF Subjects' labor markets – 10.5% of the aggregate amount of subsidies;
- the federal target program "The economic and social development of the Far East and Trans-Baikal region for the period through 2013" – 10.1% of the aggregate amount of subsidies;
- financial provision of delivery of an additional medical assistance by local physicians, pediatricians, and general physicians (family doctors) – 6.1% of the aggregate amount of subsidies.

The crisis has introduced substantial changes into the list of priority directions co-financed out of the federal budget. More specifically, subsidies for modernization of the transportation system were axed dramatically (by Rb 60.6bn), albeit such cuts may not always be recognized as a justifiable move. The fact of the matter is, subsidies out of the federal budget on the road sector and the federal target program "Modernization of Russia's transport system (2002-2010)" (currently – the federal target program "Development of Russia's transport system (2010-2015") have a great social importance from the perspective of securing the country's territorial and economic space and the population's spatial mobility. The respective obligations with regard to implementation of huge road-building repair and maintenance projects are fairly large, while in most cases subfederal (regional and local) budgets cannot fund them without a federal center's contribution. Hence, it appears appropriate to provide for an increase in appropriations on road construction for the sake of creation and development of urban agglomerations. As evidenced by experiences of developed and emerging nations[1], an economic crisis is the right time for public investment in infrastructure.

Meanwhile, the volume of subsidies on support of the agrarian sector will be increased unjustifiably (by nearly Rb 21.5bn). The transfer of powers to support the agrarian sector to the regional level results in a situation when the support is rendered most intensively in regions that enjoy the greatest financial capacity to pursue such a policy, rather than in those that have the most favorable natural and climatic conditions. Earmarking resources from the federal budget for these purposes on the co-financing principles just intensifies the tendency. More specifically, it results in backing the better-off financially regions in their "trade wars" with weaker counterparts for agrarian markets. That is why efficacy of such subsidies raises serious doubts. The problem can be resolved by centralizing the subsidies at the federal level along with minimizing regional expenditures on this direction. In parallel with this, the Federation should corroborate its role in financing expenditures on social development of rural territories.

Considerable resources are earmarked on implementation of measures aimed to diminish the stretching situation on the RF Subjects' labor markets and jolt small businesses; however, efficacy of the use of such funds greatly depends on performance of the RF Subjects' agencies.

Overall, it can be noted that the federal act "On the federal budget for 2010 and for the period through 2012" has preserved a whole string of substantial challenges typical of Russia's interbudgetary relations system, namely:

1) an insufficient volume of the FFSR and an unjustifiably low share of transfers in the aggregate volume of interbudgetary transfers;

[1] For more details, see: A. Siluanov, V. Nazarov – Vzaimodeystviye federalnogo tsentra I regionov pri provedenii antikrizisnoy politiki: mezhdunarodny opyt/Voprosy ekonomiki № 9, 2009

2) a fairly big number of subventions (including minor ones in particular), which compels one to question the efficacy of the current system of division of expenditure powers between different tiers of government;
3) an excessive number of subsidies and an insufficiently transparent and efficient system of their allocation.

Table 5

Financial Aid out of the Federal Budget to Consolidated Budgets of Subjects of the Federation in 1992–2009 (as % of GDP)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Financial aid to budgets of other levels				1.8	2.3	2.5	1.6	1.18	1.43	1.79	2.2	1.94	1.7	1.65	1.52	1.79	1.89	3.04
1.1. Federal target programs as well as subsidies to RF Subjects on support of the agrarian sector, water-economic measures, support of small-sized entrepreneurship, rehabilitation of children														0.05	0.15	0.39	0.54	0.62
1.2.Fund for co-financing of social expenditures											0.15	0.11	0.04	0.12	0.11	0.10	0.09	0.12
1.3. Fund for financial support of regions, including	0	0	0.36	1.17	1.04	1.22	1.12	0.99	0.96	1.14	1.36	1.3	1.05	0.88	0.94	0.79	0.79	0.96
transfers on equalization of the budget sufficiency level	0	0	0.36	0.86	0.68	0.86	1	0.99	0.96	1.14	1.36	1.3	1.05	0.88	0.94	0.79	0.79	0.96
state support of the "Northern Supplies"									0.06	0.08	0.08	0.07	–	–	–	–	–	–
transfers at the expense of the VAT	0	0	0	0.31	0.36	0.36	0.12	–	–	–	–	–	–	–	–	–	–	–
1.4. Transfers and subventions, including:	0	0.02	0.09	0.06	0.09	0.13	0.1	0.06	0.15	0.54	0.28	0.29	0.27	0.36	0.21	0.31	0.22	0.59
transfers on support of measures on provision of balance of budgets													0.11	0.24	0.16	0.17	0.11	0.49
1.5. Resources of the Fund for reforming regional and municipal finance										0	0.01	0.01	0.01	0	0.01	0.01	0.01	0.004
1.6. Other free and non-repayable transfers (subsidies and subventions)											0.01	0.01	0.01	0.01	0.08	0.17	0.19	0.42
1.7. The regional development financing fund									0.03	0.05	0.1	0.1	0.15	0.01	0.01	0.02	0.02	–
1.8. Resources transferred by mutual settlements	0.61	1.95	2.54	0.42	0.81	0.43	0.36	0.14	0.28	0.05	0.2	0.14	0.12	0.01	0.05	0.02	–	–
1.9.Loans and budget credits less those paid off to other tiers of the public administration *	0.09	0.03	0.02	0.04	0.23	0.64	–0.03	–0.1	–0.08	0.02	0.09	–0.01	–0.02	–0.03	–0.04	–0.01	0.03	0.33
2. Fund for compensations										0.37	0.38	0.36	0.34	0.17	0.30	0.43	0.51	0.80
3. Other interbudgetary transfers, of which:								0.18	0.11	0.4	0.45	0.54	0.35	0.33	0.34	0.36	0.27	0.22
State support to the road sector**								0.18	0.11	0.27	0.27	0.31	0.22	0.13	0.15	0.17	0.08	0.07
Funds transferred to budgets of other levels of government, total	**1.49**	**2.7**	**3.4**	**1.8**	**2.3**	**2.5**	**1.6**	**1.36**	**1.54**	**2.56**	**3.03**	**2.84**	**2.39**	**2.25**	**2.17**	**2.57**	**2.67**	**4.06**

*Since 2005 – only budget loans.
**presently, most of the transfers have been included in section 1.1.
Source: the Federal Treasury, the authors' calculations.

2.4. The Russian financial market in 2008-2009: trends, crisis mitigation measures, institutional issues

2.4.1. Crisis and recovery in the Russian market

At times of crisis, stock market behaviour generally foreshadows changes in the fundamental economic indicators. This time has been no exception: the drop in the RTS market index that started in June 2008, even prior to the slump in oil prices in GDP levels, stopped abruptly in February 2009 and gave way to renewed growth of the index. Meanwhile, industrial indicators for specific sectors and product categories resumed growth only starting from April 2009[1]. By the end of 2009, the RTS index had reached 58.7% of its pre-crisis peak, while the MICEX index reached 71.2%. Based on stock price and market index dynamics, the 2008-2009 crisis has been less significant in terms of extent and duration than the 1997 – 1998 crisis (see *table 1*). Nonetheless, it is yet too early to speak about a full recovery to pre-crisis levels.

Table 1

Quantitative indicators of the 1997–1998 and 2008-2009financial crises in Russia

	1997–1998 crisis	2008–2009 crisis
1. Decrease relative to peak		
1.1. Extent of drop, %		
RTS index	–91.3	–78.2
MICEX index	–73	–68.2
1.2. Duration, months		
RTS index	14	8
MICEX index	13	7
2. Recovery time, months		
RTS index	59	11
MICEX index	8	12

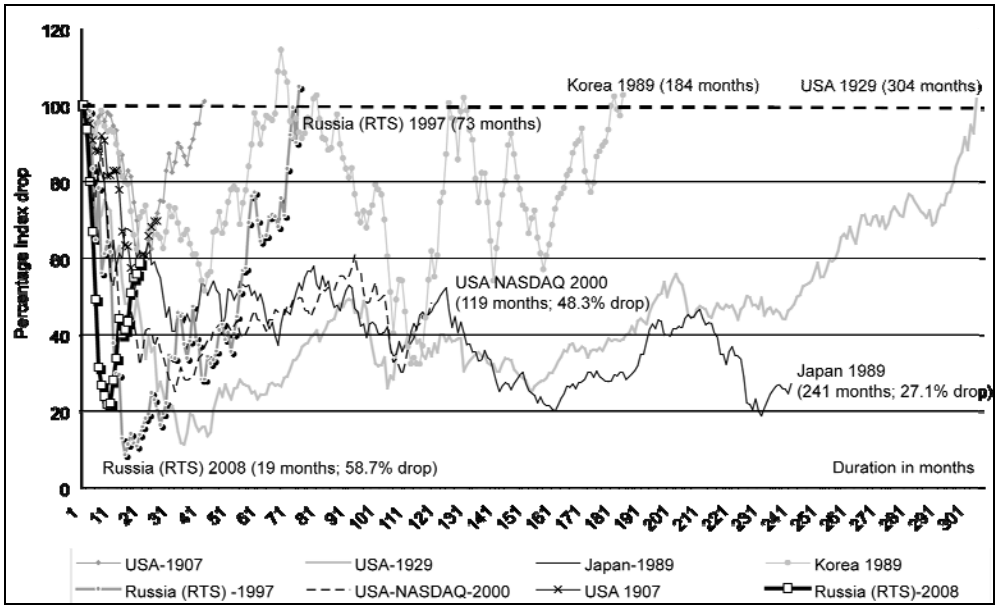
Source: RTS and MICEX data as of January 31, 2010.

The 1997-1998 crisis started in August 1997 and saw the RTS index fall for 18 months, with a total drop of 91.3%. During the current crisis, starting from June 2008, the fall in the RTS index lasted eight months and amounted to a 78.2% drop. Given the threefold devaluation of the ruble in 1998 and an oil price slump that lasted two years, it took 59 months for the RTS index to recover from the "bottom" to its pre-crisis peak. In 2009, such recovery of the RTS index took only 11 months.

Compared to the major financial crises in the past century (see *Fig. 1*), the 2008-2009 financial crisis in Russia is a clear example of a "V-shaped" crisis. In terms of the extent of the index drop, it has been less significant not only compared to the Russian 1997-1998 crisis that holds the absolute record for this indicator among the best known crises in the modern world, but also compared to the slump of the U.S. Dow Jones index during the great depression in 1929 – 1933 and to the slump of the Japanese Nikkei index in the late 1980s. The duration of the current stock market crisis in Russia that has so far lasted "only" 19 months is significantly less than the duration both of such past crises as the Russian 1997 – 1998 crisis (73

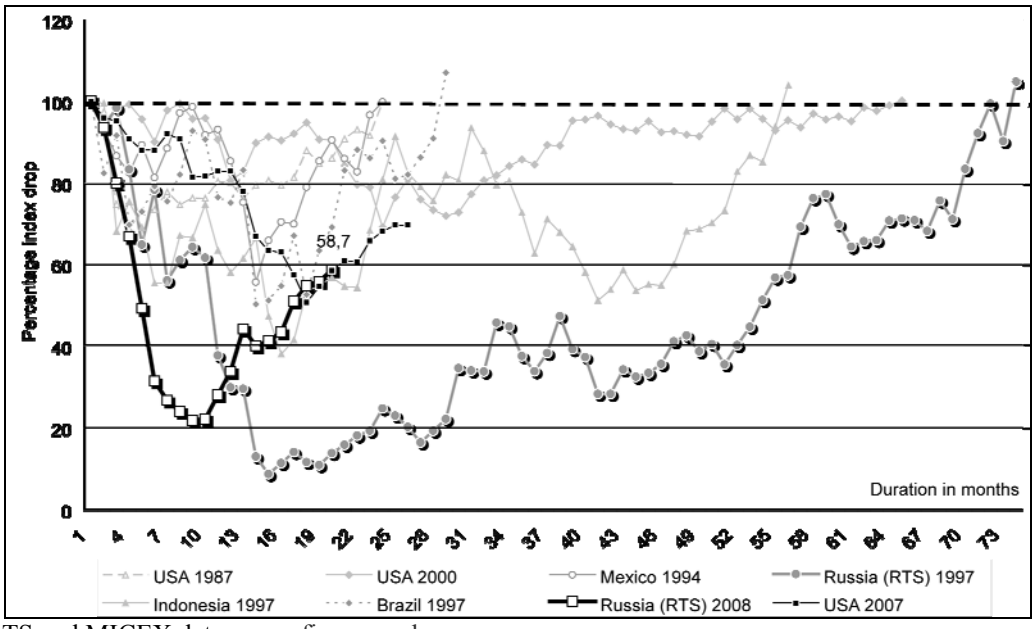
[1] *The Industry Experiences a Reluctant Recovery* by D. Butrin, Kommersant, January 25, 2010, page 2

months), the Korean 1989crisis (184 months), and the Great Depression in the U.S. (304 months) and of such continuing crises as the NASDAQ stock market crisis that has so far lasted 119 months since 2000 and the Japanese stock market crisis that began in 1989 and has so far lasted 241 months.



Source: RTS and MICEX data, www.finance.yahoo.com

Fig. 1. The extent and duration of long-term financial crises worldwide as of December 2009 (market peak = 100%)

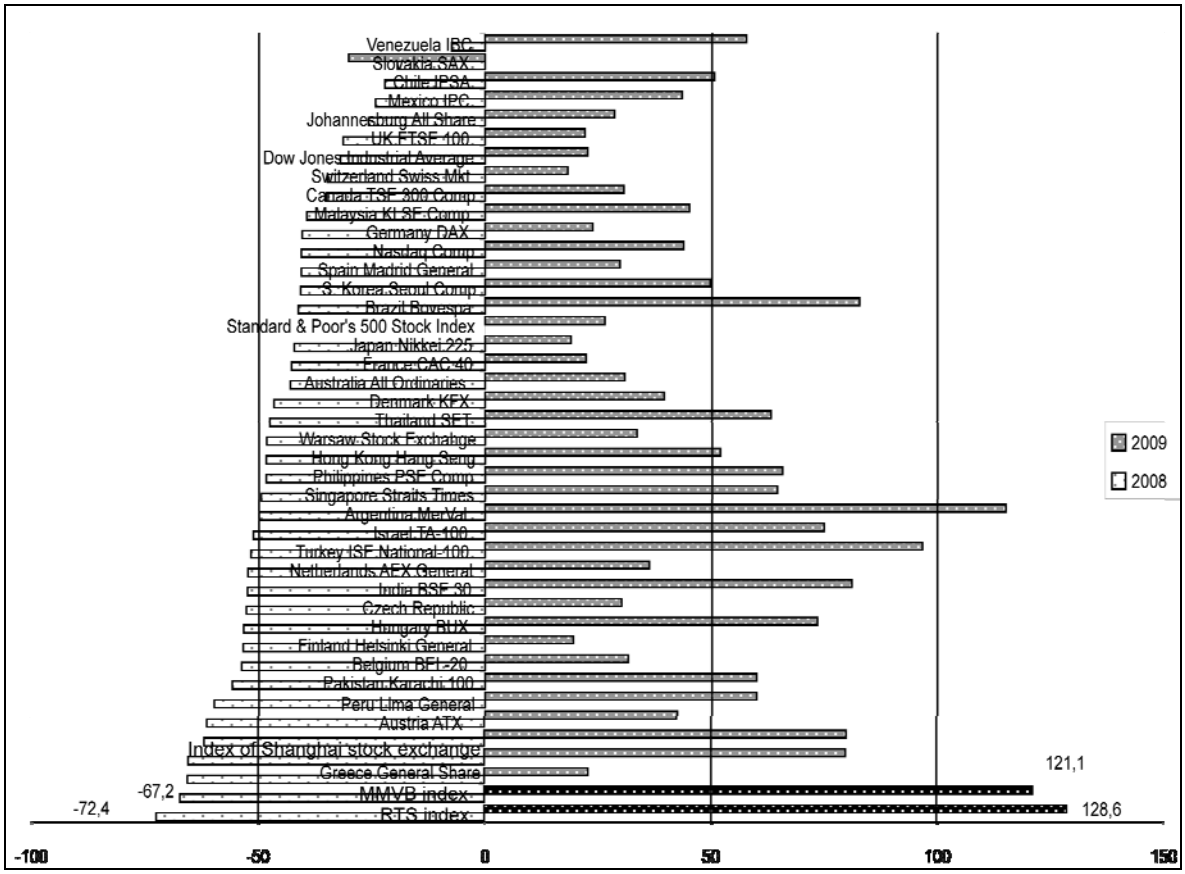


Source: RTS and MICEX data, www.finance.yahoo.com

Fig. 2. The extent and duration of short term financial crises worldwide as of December 2009 (market peak = 100%)

Seen against the most significant instances of short-term financial turmoil in the past decade, such as the "blue chip" crisis in the U.S. stock market in 1987 and 2007, the "Internet bubble" crash in 2000, the Mexican crisis in 1994, the Indonesian and Brazilian crises of 1997, the current Russian crisis is deeper than, but of medium duration compared to the above, as shown in *Fig. 2*.

The two-year crisis has confirmed the status of the Russian stock market as one of the riskiest worldwide. In 2008 the RTS and MICEX indices dropped by 72.4% and 67.2% respectively, outstripping the index drops in all other significant global stock markets. Conversely, in 2009 the Russian indices showed the highest yields, with the RTS index growing by 128.6% and the MICEX index growing by 121.1%. Such a rapid rate of recovery for Russian stock prices could hardly have been expected at the beginning of 2009 (see *Fig. 3*).

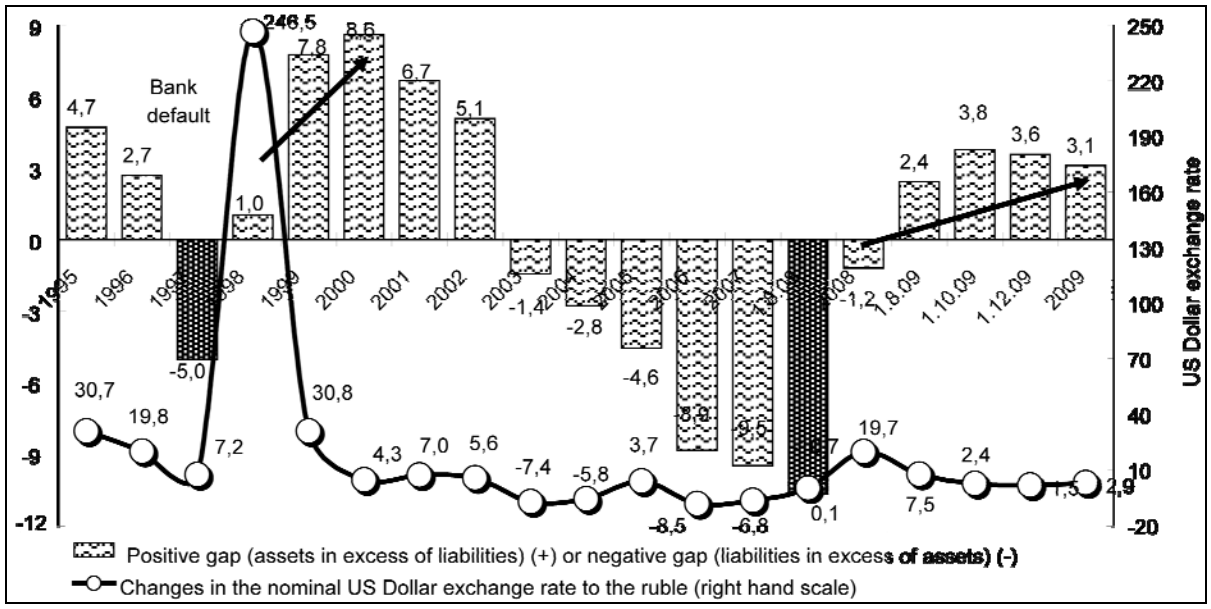


Source: RBC and the Global Stock Exchange Federation

Fig. 3. Global stock market index yields in 2008-2009 (%)

The market capitalisation of Russian companies amounted to 643 billion dollars in 2009, having grown by 62% relative to the previous year (see *Fig. 4*). Notwithstanding the 73.6% drop in market capitalisation in 2008 relative to 2007, trading volumes at Russian stock exchanges grew from 1,206 billion dollars in 2007 to 1,405 billion dollars in 2008, reflecting the large-scale sale of Russian corporate stocks in the first year of the crisis. At the same time, in the first half of the year, stock market transactions were concluded at the high pre-crisis prices. During market recovery in 2009, the growth in market capitalisation was coupled with

a significant decrease in trading volumes that fell to 900 billion dollars. The decrease in trading activity by market participants last year was due to the drop in investment volumes by portfolio investors in the Russian stock market and to the fact the stock prices for most issuers had not yet reached pre-crisis levels in 2009. The volumes of repo transactions likewise decreased due to the restrictions that were in force in the margin lending market up to the middle of June of 2009 (see below)[1].



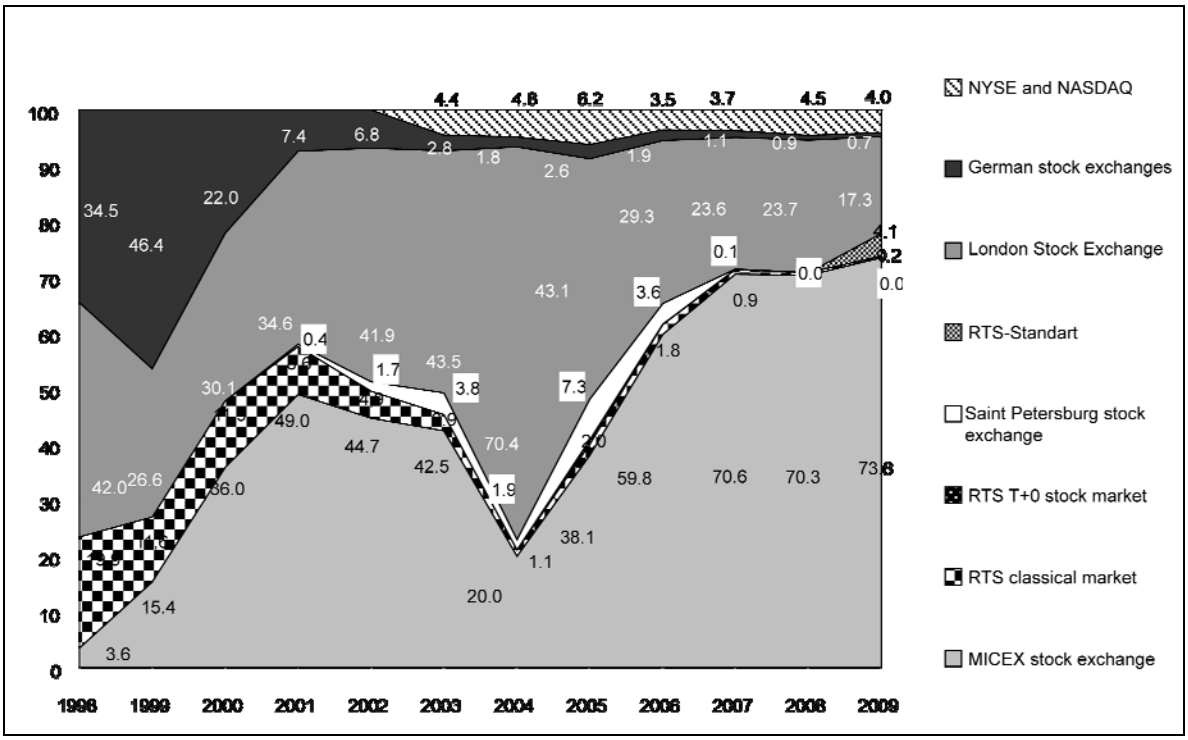
Source: RTS, S&P, IMF.

Fig. 4. Capitalisation, liquidity, and volatility of the Russian stock market

Similarly to the 1997–1998 crisis, the onset of the 2008-2009 crisis was accompanied by a significant increase in the volatility of stock yields. The standard deviation for the daily yield changes of the RTS index in 2008 amounted to 86.4% of the 1998 level, whereas in 2007 it had reached only 27.4%. In 2009, stock market volatility had decreased to 60.5% of the 1998 level. However, this is still above the risk level for 2003, the year by which the stock market had recovered from the first crisis.

In 2009, the Russian stock market was able to uphold and strengthen its position vis-a-vis its global competitors in terms of trading volume. This is evidenced by the data on the relative trading volumes for Russian corporate stocks and stock depositary receipts at national and international stock exchanges as shown in *Fig. 5*.

[1] The specifics of Russian stock market regulation determine the use of the repo transactions as the predominant instrument of margin lending to market participants.



Source: proprietary analysis based on stock exchange data

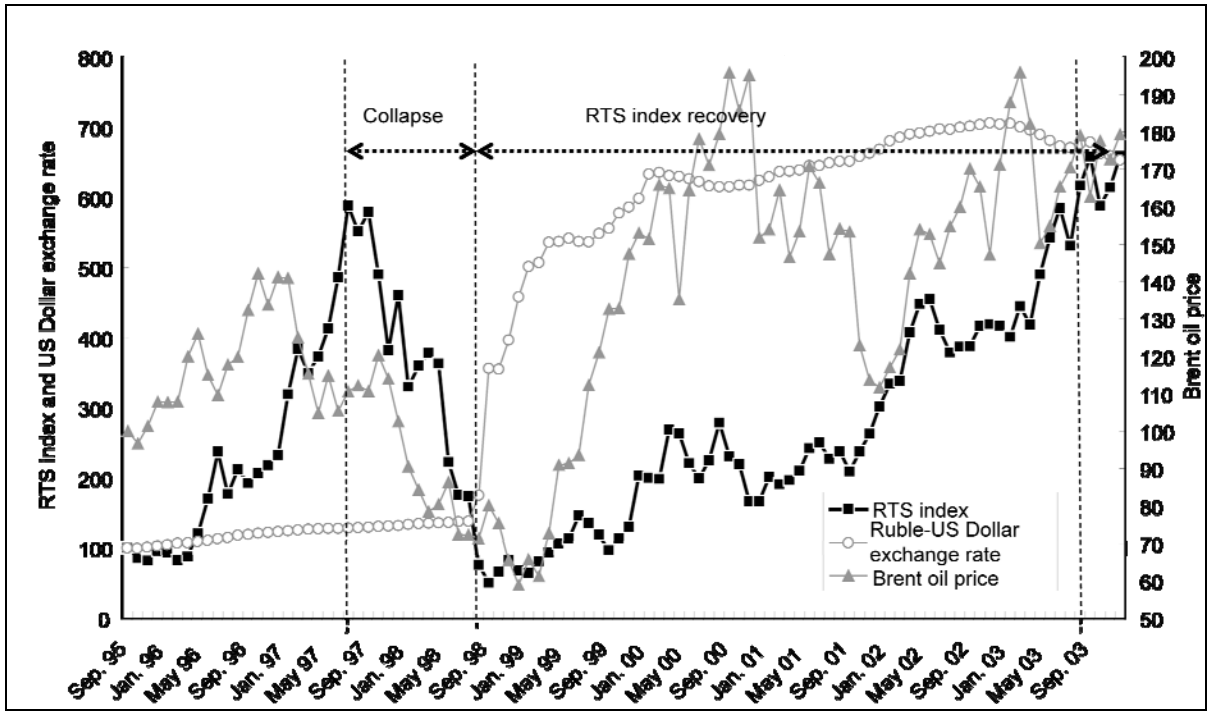
Fig. 5. Relative weight of stock exchanges in terms of Russian corporate stock trading volumes

The share of Russian stock exchanges in the total stock trading volumes had dropped to 23% in 2004, signifying a real risk of the pricing and liquidity hub for Russian corporate stocks moving outside of Russia, to the London Stock Exchange. However, this negative trend was reversed in subsequent years. Russian stock exchanges, above all MICEX, had strengthened their positions as the pricing and liquidity hubs for Russian corporate stocks. By 2009, MICEX was responsible for 73.6% of the total trading volume for Russian shares, while the Russian equity spot market was de facto based at MICEX. However, the RTS stock exchange was able to improve its competitive position with respect to the stock market in 2009 by introducing RTS-Standart(d), a new trading and settlement mechanism for stocks that allows to abandon the obsolete system of depositing securities prior to the start of trading and guarantees settlements by using a centralized clearing system. This innovation has enabled RTS to increase its share in trading Russian corporate stocks from nearly zero in 2008 to 4.3 percent in 2009.

2.4.2. Similarities and differences between the 1997–1998 and 2008–2009 crises

Assessing the effectiveness of government actions during the 2008-2009 crisis is best done by comparing the circumstances of its emergence and subsequent developments with the Russian crisis scenario of 10 years ago. The two crises had much in common in terms of their beginnings. The principal similarity is that both were caused by the cyclical nature of the Russian economy and by its strong dependence upon global raw material prices, above all oil and gas prices, as well as its dependence on the behaviour of foreign portfolio investors. This is

shown by an analysis of the scenarios of both crises in *Figs 6* and *7*. As oil prices fall, foreign investors show growing fears regarding a possible devaluation of the ruble, while the withdrawal of speculative capital in turn causes a stock market collapse. If the government is subsequently unable to manage the devaluation of the national currency, an unbalance emerges between the foreign currency assets and liabilities of banks and industrial companies with significant foreign currency borrowings, resulting in a growing threat of a banking crisis and debt defaults by real sector companies. If this is coupled with an unbalanced state budget, a default on government debt securities is also possible.



Source: RTS and IMF data.

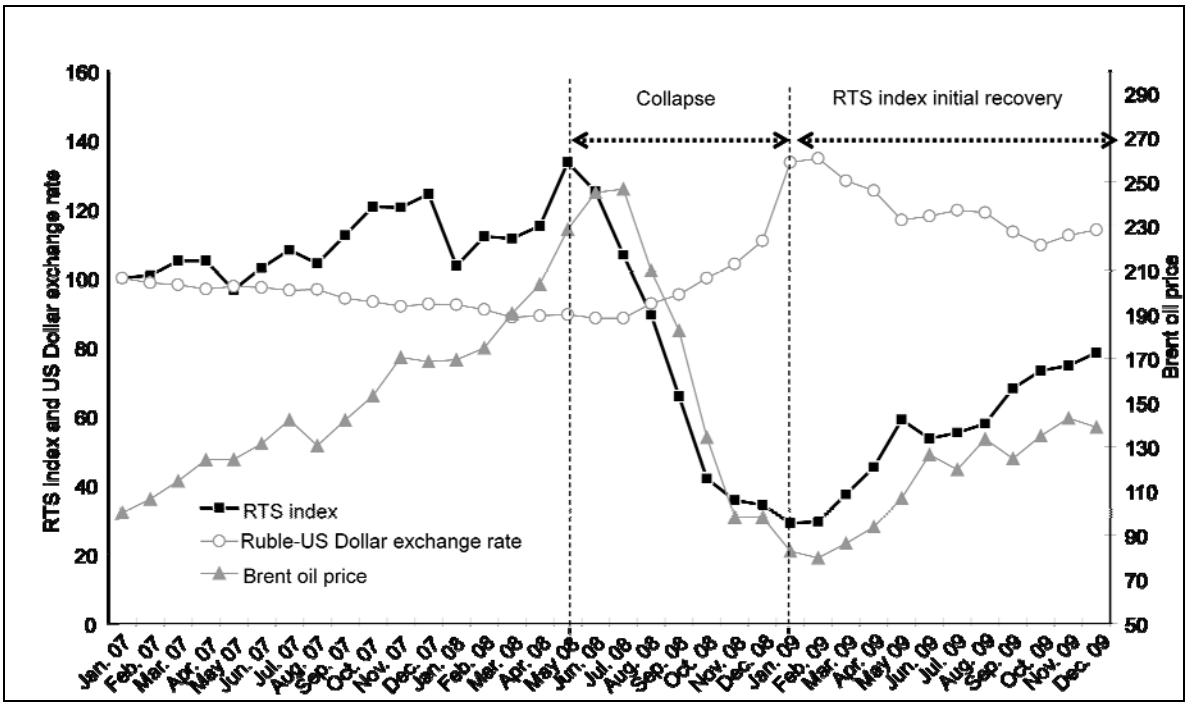
Fig. 6. Dynamics of the RTS index, Brent oil prices, and the ruble-US Dollar exchange rate (September 1995 = 100%)

RTS index and US Dollar exchange rate

The 1997-1998 crisis followed the worst-case scenario. The decrease in oil prices starting from January 1997 continued, with the Brent price falling from 23.47 dollars per barrel in December 2007 to 9.8 dollars per barrel in December 1998. The RTS index peaked at 506.45 in July 1997 before the stock market crash started in August 1997, and by January 1999 the RTS index had fallen to 55.12. The stock market collapse was caused by investor expectations regarding the increase in Russia country risk caused in turn by the dropping fuel prices and the expected devaluation of the ruble. The Russian stock market was seriously affected by the Asian stock market collapse in 1997 that had strengthened negative investor perceptions of emerging stock markets including Russia. A year after the stock market collapse, the crisis extended to the debt markets and to the banking system. In August 1998, faced with low oil prices and with the impossibility of increasing budget revenues by continuing placements of short-term government bills (GKO), the government announced a threefold devaluation of the ruble together with a default on ruble-denominated GKO securities. As the largest commer-

cial banks were unable to service their obligations to foreign and domestic creditors, the government also announced a moratorium on the fulfilment of commercial bank obligations to non-residents.

The onset of the 2008-2009 crisis followed a similar pattern (see *Fig. 7*). The factors contributing to the collapse of the Russian stock market were identical to those present in 1997 and included a drop in metal prices starting from May 2007 and in oil prices starting from July 2008, the withdrawal of foreign capital and growing risks against the background of an expected ruble devaluation. As a result, the stock market fell starting from June 2008, experiencing a real collapse in August of that year. However, on this occasion the crisis was countered by active crisis management government policies in the financial sector that were made possible by the foreign exchange reserves that had reached nearly 600 billion dollars.



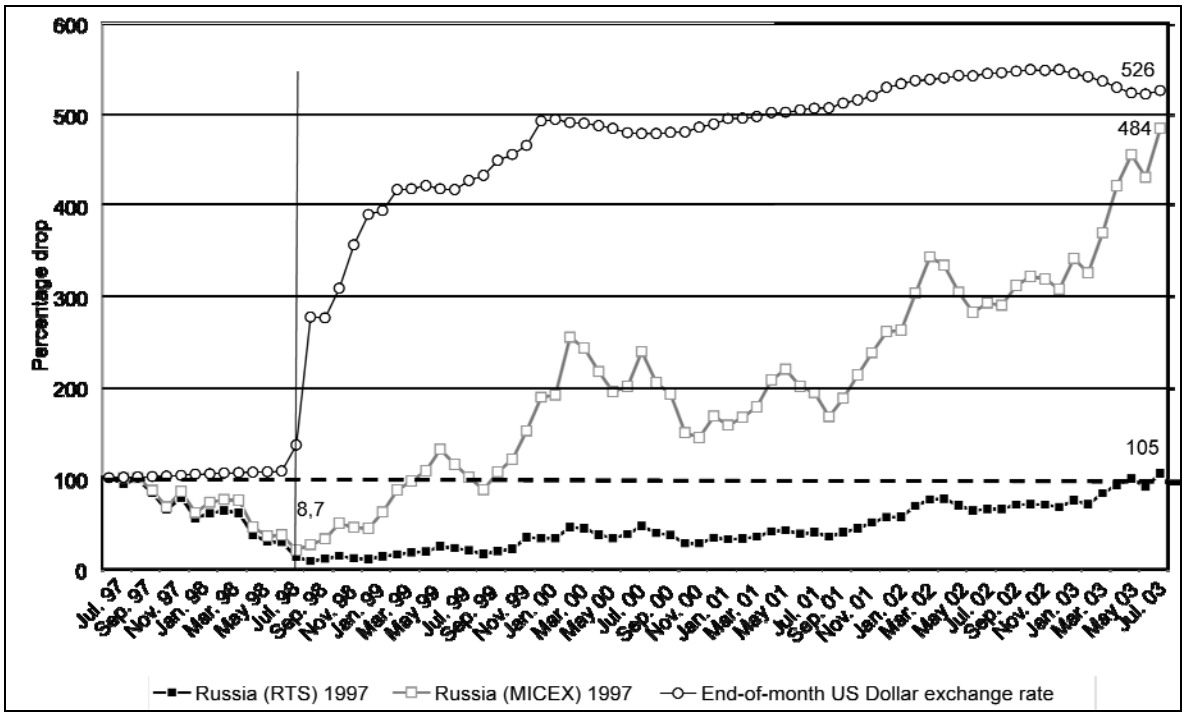
Source: RTS and IMF data.

Fig. 7. Dynamics of the RTS index, Brent oil prices, and the ruble-US Dollar exchange rate (January 2007 = 100%)

Given the decreasing raw material export revenues and the flight of short-term capital, a ruble devaluation was inevitable. However, as distinct from the events of ten years previously, the government did not delay tackling the issue until the last possible moment, initiating a devaluation starting from September 2008. Most importantly, the chosen method was of gradual rather than abrupt devaluation. This had several positive consequences in the financial sector. Banks and heavily indebted industrial companies received an opportunity to gradually restructure their foreign currency-denominated assets and borrowings from foreign creditors without resorting to a default on such borrowings. The general public was able to convert part of its ruble savings into foreign currency assets, avoiding the shock inherent in the sudden loss of savings in the national currency. However, a downside of the gradual devaluation was evident in the significant loss of foreign exchange reserves and their redistribu-

tion in the hands of a limited number of banking and industrial interests. Along with the gradual devaluation, the government made available significant debt financing to banks and to a number of key industrial enterprises, enabling them not only to avoid insolvency but also to prevent the transfer of significant equity stakes into the hands of foreign collateralised creditors. Thus the stock market collapse in 2008-early 2009 did not result in a systemic financial crisis. It should also be noted that unlike the first financial crisis where the drop in oil prices had continued for nearly two years, the 2008-2009 crisis, notwithstanding its global reach, saw oil prices dropping only slightly more than half a year, which is another reason why the duration of the current financial crisis is less than that of the 1997-1998 crisis.

Differences in the extent of the ruble devaluation during the two crises in question have resulted in the different recovery trends for the RTS and MICEX indices. MICEX stock portfolios are valued in rubles while RTS stock portfolios are valued in US Dollars, and as a result of this distinction, the MICEX index recovered faster than the RTS index notwithstanding the five-fold devaluation of the ruble[1] (see *Fig. 8*). The MICEX index had recovered to its pre-crisis peak by May 1999, a mere eight months after hitting "bottom" during the crisis, whereas the RTS index recovery took 59 months from the crisis low point.



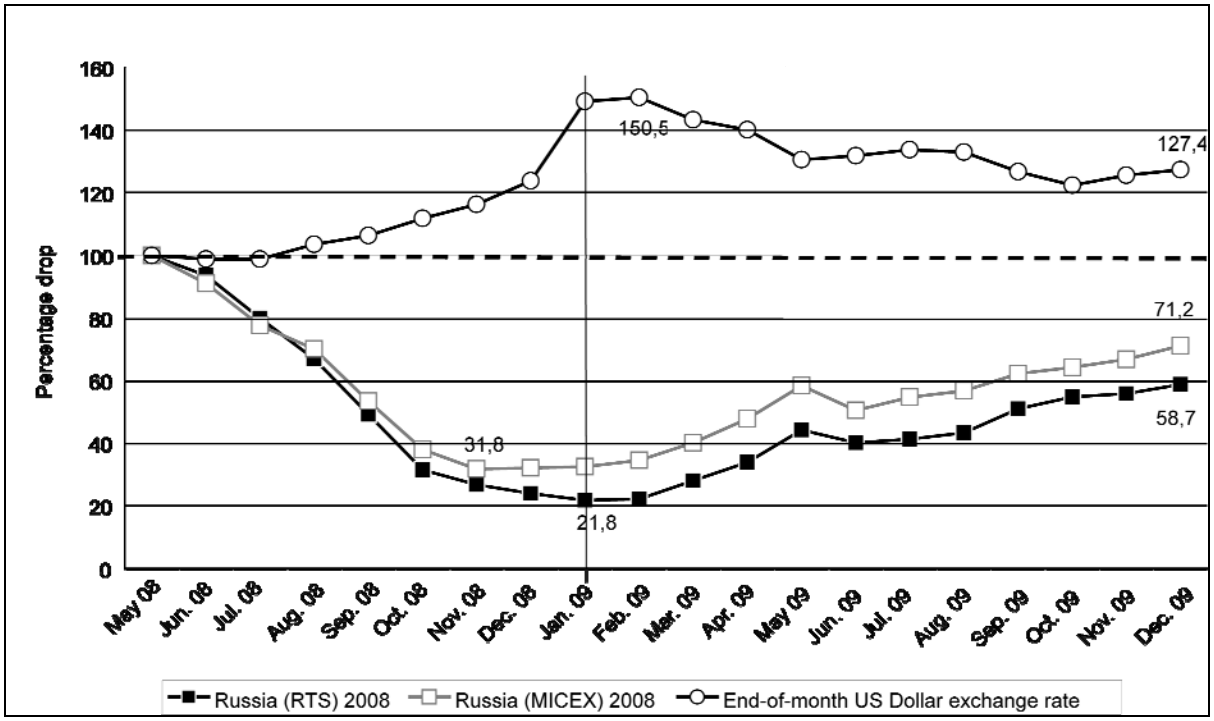
Source: RTS, MICEX Stock Exchange, the Bank of Russia.

Fig. 8. Trends in the US Dollar exchange rate, RTS index, and MICEX index during the 1997-1998 crisis (July 1997 = 100%)

The maximum extent of ruble devaluation during the 2008-2009 crisis equalled 50% (see *Fig. 9*) and was followed by the strengthening of the national currency. For this reason, the RTS and MICEX indices recovered at similar rates in the past months, with the MICEX index holding only a slight advantage in terms of recovery speed. By the end of 2009, the RTS in-

[1] From 1998 to 2003

dex had reached 58.7% of its pre-crisis peak registered in May 2008, while the MICEX index had reached 71.2% of its pre-crisis peak.



Source: RTS, MICEX Stock Exchange, the Bank of Russia.

Fig. 9. Trends in the US Dollar exchange rate, RTS index, and MICEX index during the crisis from May 2008 to December 2009 (May 2008 = 100%)

2.4.3. Government crisis mitigation support measures in the financial markets

Support to the financial system was the core element of the government crisis mitigation policies in 2008-2009. It is difficult to estimate the total amount of funding received by financial institutions due to the numerous instruments of support. Several of these instruments were based on lending principles or were offered indirectly. There is insufficient information transparency regarding the implementation of funding decisions for financial sector support. Due to these factors, the estimates of the total cost of crisis mitigation measures in the financial sector vary. On September 17, 2009, Reuters that quoted the Russian President Expert Department in stating that the total amount of financial support to companies, banks and individuals, considering the repayment of unsecured loans and the remittance of Ministry of Finance deposits, stood at RUR 7.4 trillion, or 240 billion dollars. The World Bank estimates the total amount of crisis mitigation measures financed from the state budget and aimed at supporting the Russian financial sector in 2008-2009 at RUR 1.4 trillion[1].

[1] World Bank report on the Russian economy No. 18, March 20089, page 15. Published at www.worldbank.org.ru

Government equity injections in bank capital

From the beginning of the crisis, the state demonstrated its readiness to take the most decisive measures to support the banking sector, including direct equity injections in the statutory capital of financial institutions, granting subordinated loans, as well as long-term targeted deposits. The principal instruments of such support are shown in *Table 2* and amount to a total of RUR 2.8 trillion.

Table 2

Key measures for strengthening the capital of financial institutions in 2008–2009

Measure	Amount, RUR billion
Equity injection into Vnesheconombank to support the financial system	75
Subordinated loan to Vnesheconombank to support the stock market	175
Long-term deposit for the purposes of foreign debt repayment by Russian companies and banks	1350
Funds granted to the Housing Mortgage Lending Agency to support mortgage financing	60
Funds granted to the Deposit Insurance Agency for bank restructuring	200
Long term subordinated loans to banks for improving their capital adequacy	950
Equity injection into Rosselhozbank	30
Total	**2840**

Other measures created the conditions for strengthening bank revenue bases by mobilising loan funds from the Bank of Russia, the state budget, government corporations, and private deposits. Related measures included the gradual devaluation of the ruble that enabled banks to redress the imbalance between their foreign currency denominated assets and liabilities. The decisions to lower mandatory reserve levels and the introduction of guarantees for private deposits in an amount up to RUR 700,000 at a given bank significantly contributed to improving bank stability.

Devaluation of the ruble and the currency gap in bank assets and liabilities

Foreign exchange reserves amounting to nearly RUR 600 billion at the beginning of the crisis enabled the government to prevent the spread of the crisis in the financial sector and in the lending market. Prior to the 2008-2009 crisis, similarly to the previous Russian crisis, the speculative carry trading strategies, when banks actively borrowed foreign currency funds in sophisticated international markets at low interest rates and then invested these funds in high yield ruble assets, were the main driver of bank growth. Prior to the 1998 crisis such assets were represented by short-term government bills (GKO), while prior to August 2008 they consisted of consumer loans, ruble-denominated corporate bonds, and loans to large corporates[1].

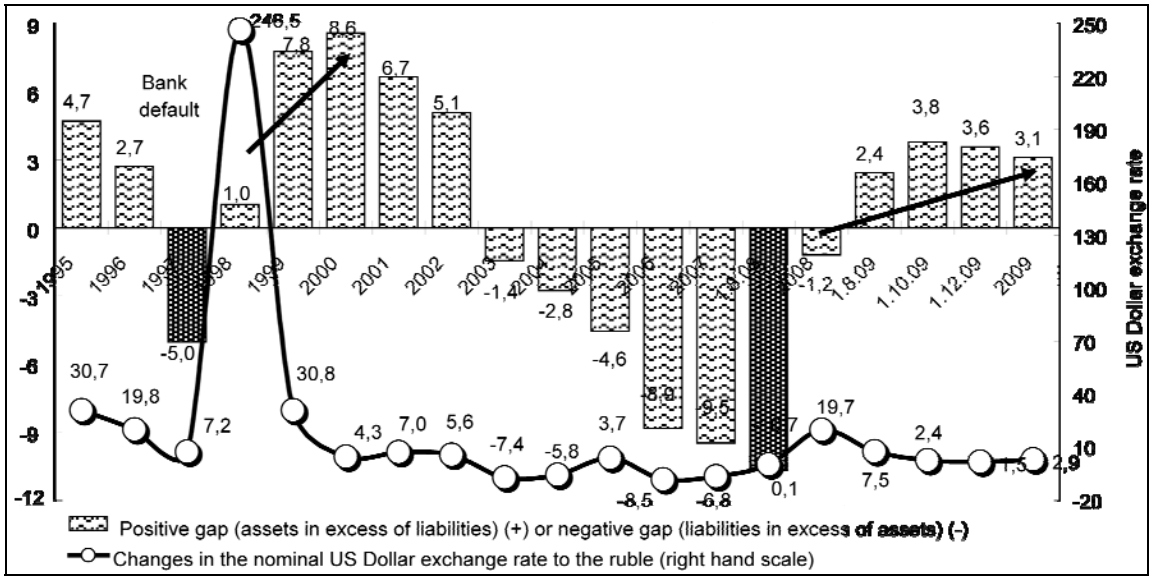
Martin Gilman, who worked as an IMF liaison with Russian authorities in the late 1990s, describes the business strategies of Russian banks on the eve of the 1998 crisis as follows: “they sought to take advantage of the exchange rate stability and make money using a seem-

[1] Carry trading strategies, their rationale and the related risks in the Russian financial markets were analysed in our earlier publications.// The Russian economy in 2008: trends and prospects, Issue No. 30, Moscow, IEPP, 2009, pages 524–534; The crisis economy in modern-day Russia: trends and prospects/ A.Abramov, E.Apevalova, E.Astafieva et al; edited by E.T. Gaidar, Moscow, Prospekt, 2010, pages 524–534.

ingly failsafe mechanism: taking cheap dollar borrowings, buying high yield government bills, buying dollars again with the ruble proceeds when the bills matured, and pocketing the difference. For more cautious non-resident investors who wanted extra insurance for their ruble-denominated investments in GKO bills, they entered into forward contracts to purchase dollars."[1]

Carry trading strategies are high-risk in nature: in case of devaluation of the national currency, the ruble-denominated assets of speculative traders immediately lose value while their foreign currency-denominated borrowings from non-residents become unserviceable. The bank is caught in the liquidity gap or becomes insolvent. According to IMF experts, the high involvement of emerging market banks in carry trading to fund the growth of consumer loans is one of the principal financial markets risks in these countries[2].

Watching the rapidly growing gaps in recent years between bank foreign currency denominated assets and their liabilities to non-residents prior to a financial crisis (see *Fig. 10*), one might wonder at the obvious disregard by the Central Bank of Russia of such core banking sector risks.



Source: Calculations based on Bank of Russia data.

Fig. 10. The positive (+) and negative (–) currency gap in bank assets and liabilities (percentage share relative to bank assets(liabilities))

The extent of bank involvement in carry trading strategies is clearly shown by the negative and positive currency gaps, i.e. the value of their foreign currency denominated assets compared to the value of non-resident claims on such banks as a percentage of total bank assets. In 1997, prior to the 1998 banking crisis, borrowings from non-residents exceeded banking assets by 5% of the total asset value of the banking system. The threefold devaluation of the ruble resulted in widespread bank insolvency. The balance was restored by bankrupting the top private Russian banks and by freezing (i.e. defaulting on) bank borrowings from non-

[1] *Гилман М.* Дефолт, которого могло не быть/ Пер. с англ. А.Багаева. М.: Время, 2009. С. 223.
[2] IMF. Global Financial Stability Report. Financial Market Turbulence: Causes, Consequences, and Policies. September 2007. P. 22–25.

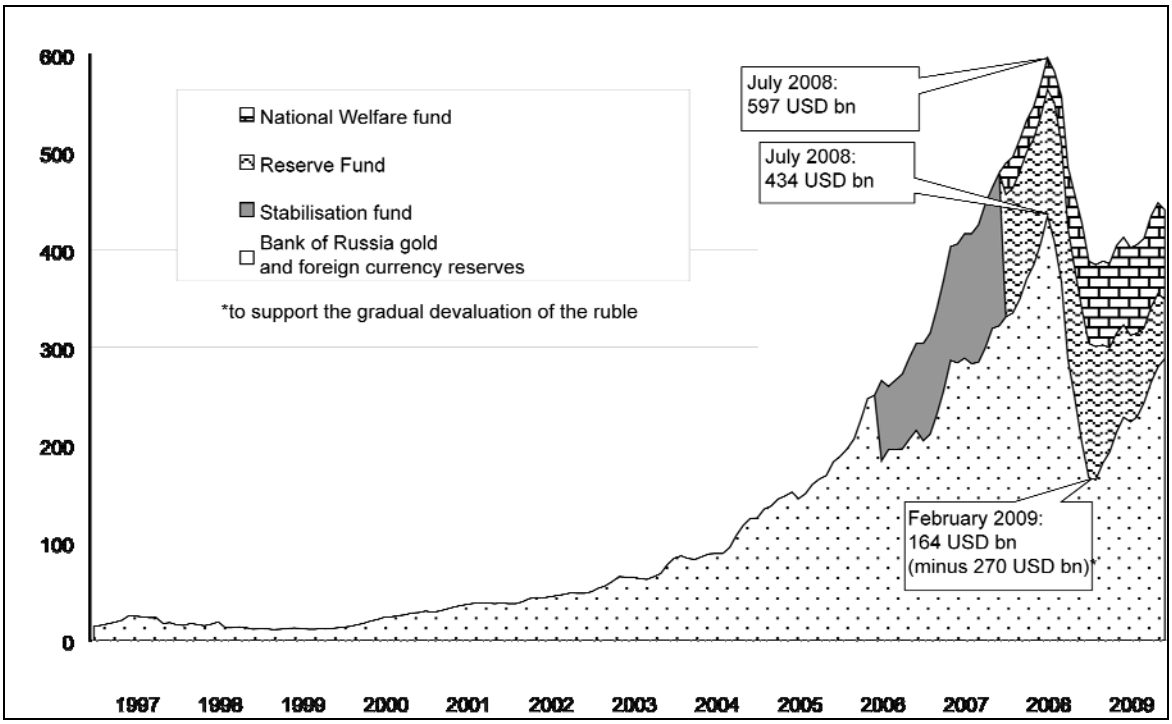
residents that the government was compelled to legalise by issuing a moratorium upon the repayment of bank obligations to non-residents. As a result, the balance between foreign currency denominated bank assets and liabilities was restored, and in 1998 the cumulative foreign currency gap in the banking system amounted to only 1% of total banking sector assets. However the international reputation of the national banking system was damaged for many years to come.

Prior to the 2008-2009 crisis, as of August 1, 2008, the currency gap between bank assets and liabilities amounted to 10.7% of the total banking sector assets, twice exceeding the level that preceded the August 1998 crisis. The period from early 2004 up through July 2008 saw the peak of carry trading strategies at Russian banks. The devaluation of the ruble starting from late 2008 that resulted to in a 50% drop in the value of the national currency (see *Fig. 9*), would have undoubtedly led to a repeat scenario of the 1998 banking system collapse if not for state support to banks. The provision of lending by the Bank of Russia and government regulators, as well as the gradual ruble devaluation policy, gave the banks the time and resources necessary to redress the balance between their foreign currency denominated assets and liabilities.

To minimize the time needed to close this currency gap, the Bank of Russia adjusted the mandatory reserve requirements for bank borrowings from non-resident banks and for other foreign currency denominated liabilities from pre crisis levels of 5.5% and 5.0% respectively of the total value of liabilities to 8.5% and 6.0% respectively for the period from September 1 to September 17, 2008[1]. Banks were compelled to partially repay foreign debts and convert ruble denominated assets into foreign currency. As a result, by the end of 2008, the currency cap that had previously amounted to RUR 2.4 trillion was largely closed, and as of January 1, 2010, the currency gap between bank assets and non-resident claims amounted to 3.1% of the total banking system assets. Our estimates put the effect of this measure on the Russian banking system at RUR 3.3 trillion (see *Table 3*).

All this was only made possible by the unprecedented government financial support to banks and key real sector companies. The scale of government support is evidenced by the decrease of Russia's foreign exchange reserves from August 2008 to February 2009, as shown in *Fig. 1*.

[1] However, starting from the second half of September 2008, these ratios began to decline to amount to only 2.5% each at the end of 2009.



Source: Bank of Russia and the Russian Ministry of Finance.

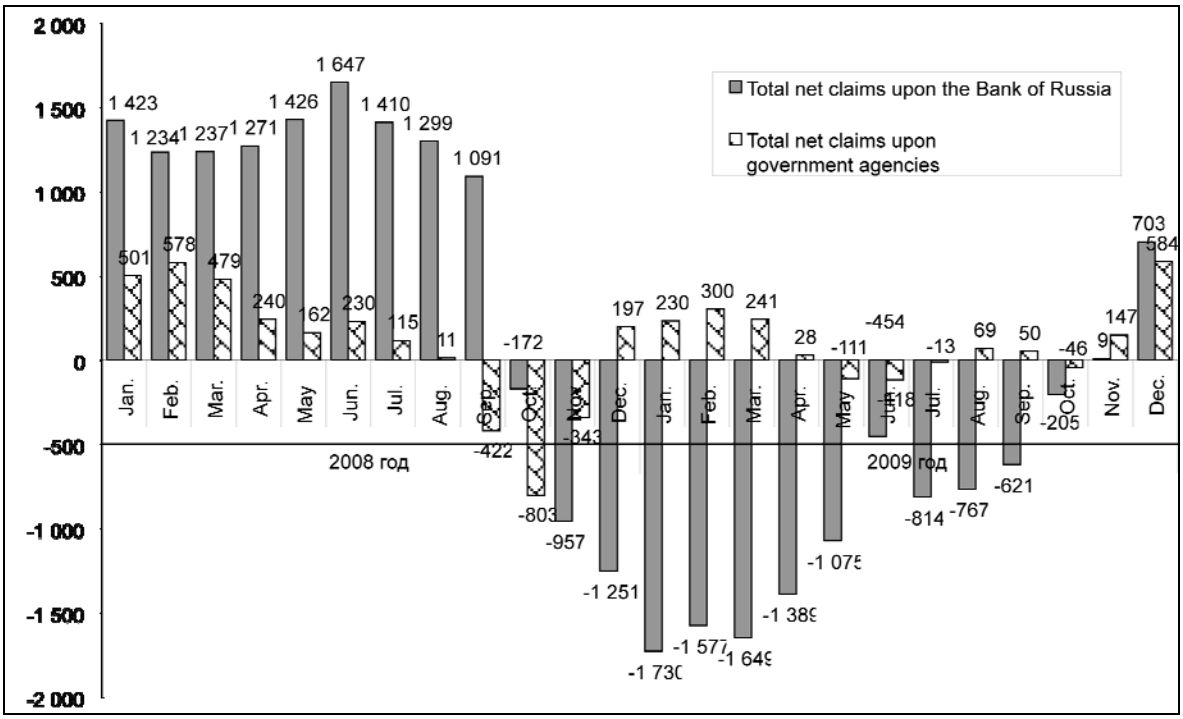
Fig. 11. Russian foreign exchange reserves (billions of dollars)

The national foreign exchange reserves consist of two parts, the Stabilisation Fund that was transformed into the Reserve Fund and the National Welfare Fund[1] in early 2008, and the Bank of Russia foreign exchange reserves. The Reserve Fund and National Welfare Fund are targeted funds for the financing of the federal budget deficit (Reserve Fund) and financing pension requirements (National Welfare Fund). *Fig. 1* shows that starting from the outset of the 2008 crisis, the portion of foreign exchange reserves administered by the Bank of Russia decreased from 434 billion dollars in July 2008 to 164 billion dollars in February 2009, i.e. by 270 billion dollars. After February 2009, as the oil prices rose, the Bank of Russia reserves were replenished. By the end of 2009, foreign exchange reserves had grown to 440.6 billion dollars, including 288.5 billion dollars of foreign exchange reserves administered by the Bank of Russia.

Lending to banks by the Bank of Russia and the government

The onset of the financial crisis and the resulting crisis of confidence signified the end of the carry trading model as a bank funding mechanism. However, from the start of the financial crisis in August and September 2008, Russian banks received massive support from the Bank of Russia and the Ministry of Finance. The carry trading funding model was replaced by a bank funding model that used borrowings from the state monetary authorities. Such support took the form of lending, whose volume can be estimated using net bank claims upon the Bank of Russia and government authorities that are shown in *Fig. 12*.

[1] These funds are known internationally as sovereign welfare funds.



Source: Bank of Russia banking sector review.

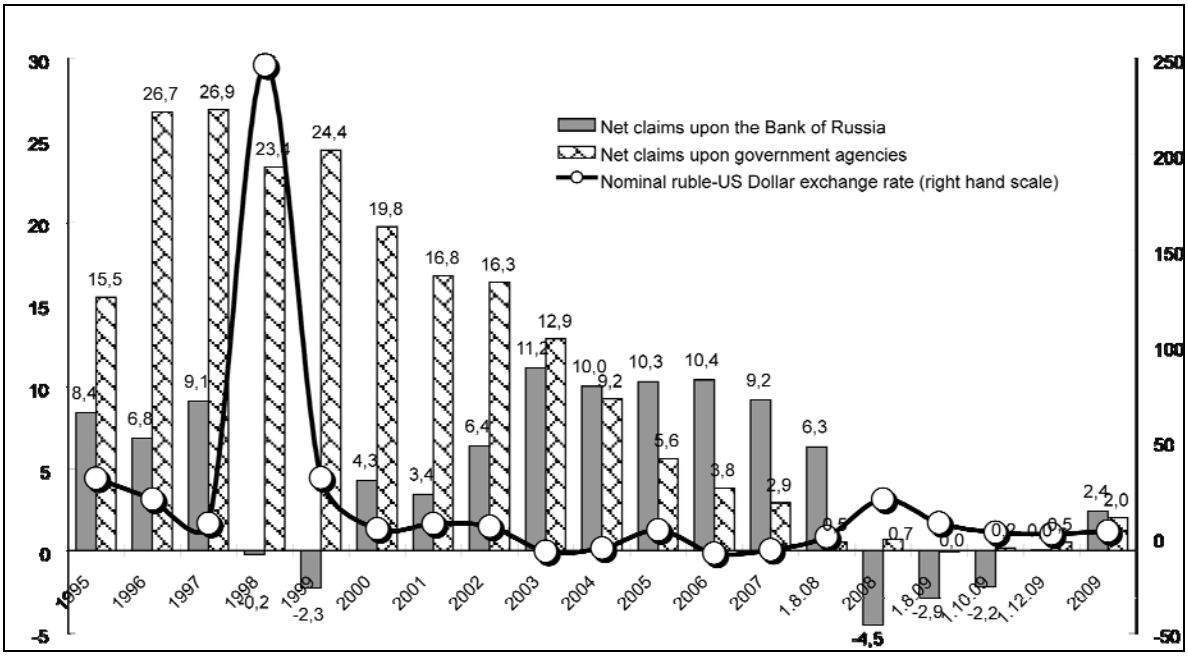
Fig. 12. Estimates of government support to banks (billion rubles)

In July 2008, net banking sector claims upon the Bank of Russia and government agencies totalled approximately 1.5 trillion rubles, i.e. until then banks had acted as creditors to the Central Bank and government authorities. The funds held by banks in deposits and correspondent bank accounts at the Central Bank of Russia and invested in Bank of Russia bonds and government securities exceeded the limited lending received from the Bank of Russia and deposits by government authorities by the above amount. The situation drastically changed starting from September 2008 when the Central Bank and government agencies became net creditors to the banking sector. At the start of the crisis, decisions were taken to lower the mandatory reserve requirements, to place the temporarily liquid funds from the state budget and government corporations in bank deposits, to promote lending to banks by the bank of Russia by way of direct repo transactions and later by way of unsecured loans and other types of lending. The principal emphasis was on lending to banks by the Bank of Russia. By November 2008, net bank borrowings from the Central Bank of Russia and government agencies amounted to 957 billion rubles, and reached 1.3 trillion rubles by December of that year. In January 2009 total net bank borrowings reached a maximum of 1.7 trillion rubles. Thus, from being net government creditors in an amount of 1.6 trillion rubles, banks became net debtors in an approximately equal amount of borrowings. Thus the total volume of government lending to banks was approximately 3 trillion rubles.

Starting from February 2009, i.e. from the beginning of Russian stock market recovery, the Ministry of Finance and the Bank of Russia implemented a policy of gradual withdrawal from the banking system. By December 2009 banks once more became net creditors to the Bank of Russia and government agencies in the respective amounts of RUR 703 billion and RUR 584 billion. While these amounts were below pre-crisis levels, they signified the end of net government lending to banks. As of January 1, 2010, total net banking sector claims upon gov-

ernment agencies had grown to 584 billion rubles from 115 billion rubles as of August 1, 2008 (see *Table 3*), i.e. by RUR 469 billion, pointing to the fact that these agencies had cut back on their lending to banks and had once more become net debtors. Within the same period, net banking sector claims upon the Bank of Russia had decreased from RUR 1,411 billion to RUR 703 billion, meaning that the cost of banking sector support by the monetary authorities by way of decreasing the amounts of bank funds used to finance the Central Bank equalled 708 billion rubles.

Fig. 13 shows the same data on net banking sector claims upon the Bank of Russia and government authorities as a percentage of total banking sector assets. It shows that the amount of government lending to banks was equal to the amounts foregone by these banks as a result of the forced abandonment of carry trading strategies. Earlier in *Fig. 10*, we could see that prior to the August 2008 crisis the amount of net lending to banks using the strategy equalled approximately 10.7% of total banking sector assets. The change in banking sector claims upon the bank of Russia from August to December 2008, was nearly identical in numeric terms, amounting to 10.8% of total banking sector assets (see *Fig. 13*).

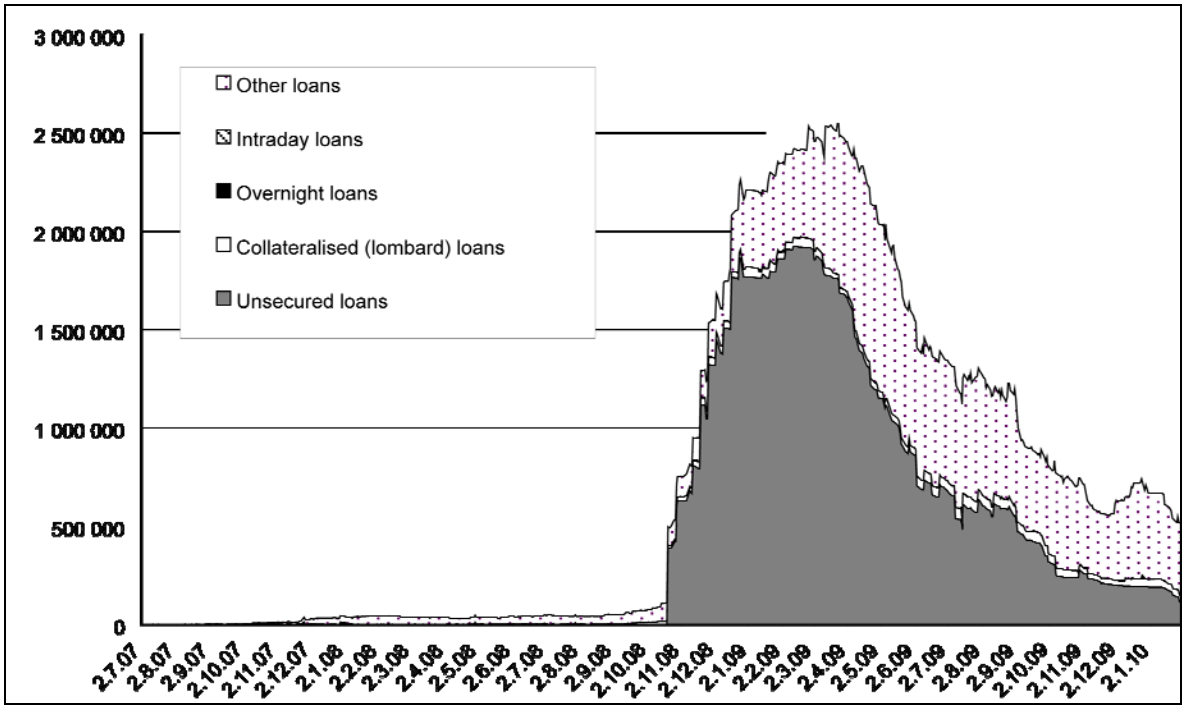


Source: Bank of Russia financial institution review.

Fig. 13. Net banking sector claims upon government authorities and the bank of Russia as a percentage of total assets (total liabilities)

Fig. 14 shows an analysis of the various forms of lending to the banking sector used by the Bank of Russia. During the crisis, unsecured loans were used as the principal instrument of support to banks starting from October 20, 2009. Such lending is not customarily used by central banks in other countries and implied a significant credit risk assumed by the Bank of Russia. Bank of Russia lending support to the banking system during the crisis did not typically link such lending to the size of bank loan portfolios, except in the case of loans collateralized by specific types of assets (see *Fig. 14*). This is the most likely reason for the limited growth of bank retail and corporate loan portfolios during the crisis, despite the substantial banking

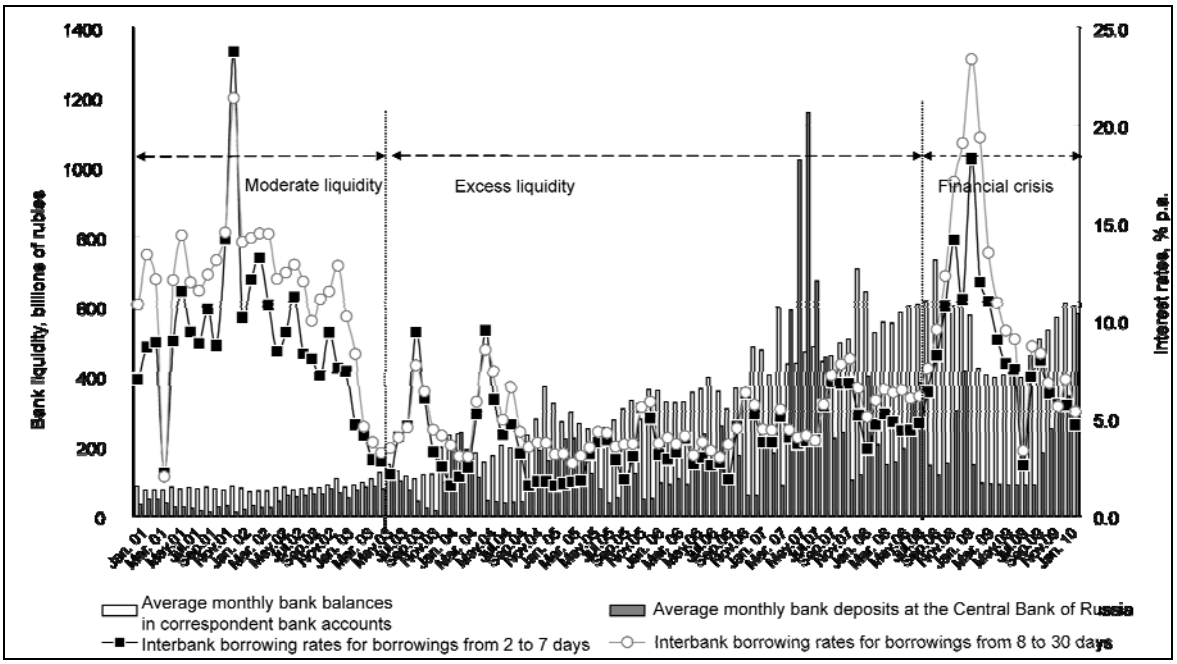
sector funding support by the Bank of Russia that had caused the latter to assume significant credit risk.



Source: Bank of Russia.
Note. The "internal lending volume" and "overnight loan exposure" amounts are close to zero and thus were excluded from the *Fig*.

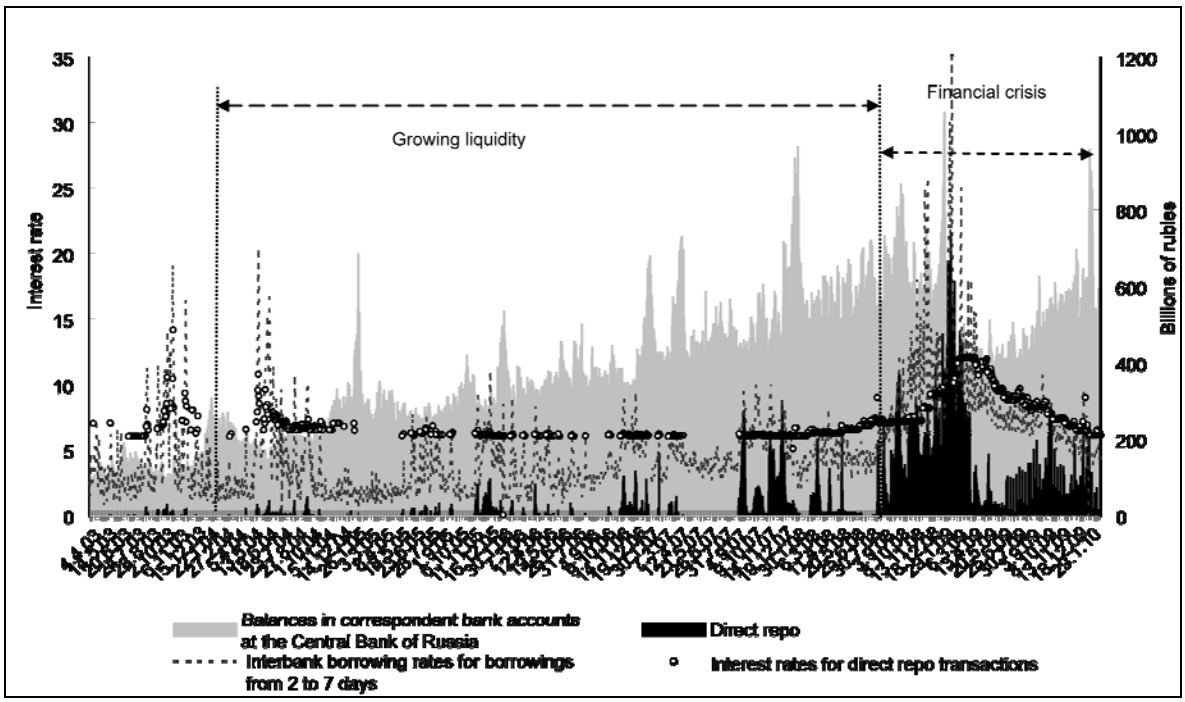
Fig. 14. Lending to the banking sector by the Bank of Russia (millions of rubles)

A more traditional instrument widely used by the Bank of Russia to enhance the stability of the banking sector during the crisis was short-term lending to banks using direct repo transactions. *Fig. 15* shows the three stages of Russian banking sector development defined by the predominant use of various funding sources to support bank liquidity. The first stage, from 2000 to 2003, was characterized by moderate liquidity and bang funding predominantly using internal sources, while interbank interest rates were relatively high. The second stage, from 2004 through July 2008, saw the peak of the carry trading strategies when banks were able to raise cheap funding abroad. The influx of cheap short-term foreign funding resulted in excess liquidity in the banking sector and low interbank borrowing rates. The third stage started from the outset of the current financial crisis (August 2008) and is characterised by the temporary cessation of carry trading strategies that in turn led to a rapid increase in interbank borrowing rates and the subsequent involvement of government agencies, whose funding temporarily substituted foreign borrowings and mitigated the situation in the interbank market.



Source: Bank of Russia.

Fig. 15. Monthly bank liquidity indicators and interbank borrowing rates, 2001 – January 2010



Source: Bank of Russia.

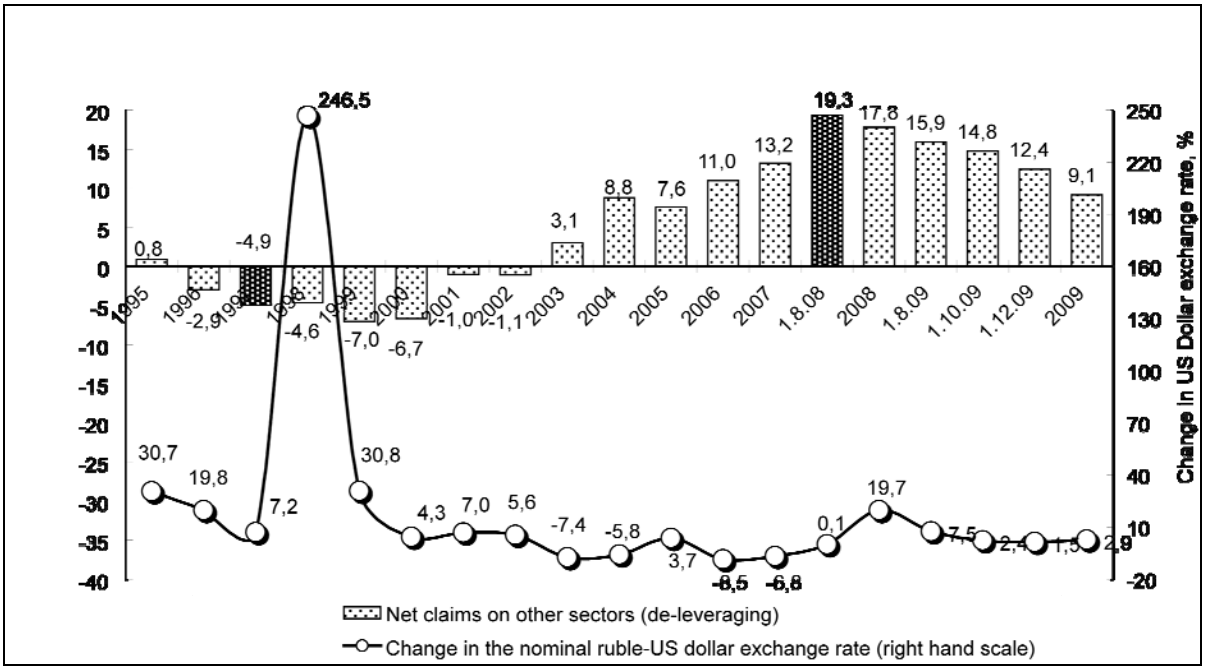
Fig. 16. The use of direct repo transactions to regulate banking sector liquidity in 2003-January 2010

*Fig. 16 s*hows the relationship between interbank borrowing rates and the use of the direct repo mechanism. At the time of growing liquidity, the bank of Russia used direct repo transactions only occasionally and on a limited scale. From the outset of the financial crisis, they were more widely used to stabilize the interbank lending market. Such transactions were concluded regularly in a daily basis, and their volumes had increased significantly from pre-crisis levels.

Growth of bank deposits and bank de-leveraging

Among the most effective crisis mitigation measures aimed at supporting the banking sector was the state undertaking to increase the amount of full guarantees for retail bank deposits from RUR 400,000 to RUR 700,000 for aggregate deposits by an individual at a single bank. Set against the flight of individual investors from high-risk assets such as corporate stocks, investment fund shares, and junk bonds, this ensured significant growth of retail bank deposits at a time of crisis. From August 1, 2008 to January 1, 2010, retail bank deposits grew from RUR 5,850 billion to RUR 7,485 billion, which resulted in an increase in the banking sector revenue base of RUR 1,635 billion (see *Table 3*).

The decrease in bank loan portfolios and the growth in retail deposits during the crisis resulted in a de-leveraging of the banking system (see *Fig. 17*), i.e. the decrease in the ratio of net banking sector claims upon retail and corporate borrowers relative to total banking sector assets, from 19.3% as of August 1, 2008, immediately prior to the crisis, to 9.1% as of January 1, 2010. Besides the decrease in loan portfolios, this ratio was also influenced by the limited availability of cheap foreign funding for banks.



Source: Bank of Russia.

Fig. 17. The ratio of bank loans to bank deposits as an indication of de-leveraging (percentage to total banking sector assets (liabilities))

Summary estimates of crisis mitigation support measures

The principal instruments of funding support to banks, as shown in *Table 3*, consisted of rebalancing bank assets and liabilities denominated in foreign currency, decreasing net banking sector claims upon the Bank of Russia, increasing bank capital by means of government and private owner equity injections, and increasing retail and corporate deposits. As of the end of 2009, the total amount of such support can be estimated at more than RUR 7 trillion. These measures have helped maintain the stability of the banking sector, however, they did not result in its increased efficiency or in the growth of bank loan portfolios during the crisis.

Table 3

Quantitative estimates of the effect of banking sector support measures, billions of rubles

	August 1, 2008	January 1, 2010	Cost	Effect
Net claims upon non-residents	–2377	905	3282	Rebalancing foreign currency-denominated assets and liabilities by way of a gradual devaluation of the ruble
Net claims upon the state	115	584	–469	Mobilizing funds for financing the government
Net claims upon the Bank of Russia	1411	703	708	Increasing bank liquidity by the Bank of Russia
Bank equity	3116	4120	1004	Increasing bank capitalization
Retail deposits	5850	7485	1635	Increasing deposit insurance to RUR700,000
Corporate deposits	4465	5467	1001	Increasing bank funding, including by way of state-owned company deposits
Total			**7161**	

Thus the main positive outcome of government crisis mitigation policies in 2008-2009 was the preservation of the banking sector. This had involved unprecedented measures, both in terms of scale and range of application in the Russian market, to ensure banking sector stability. The principal related issue is that, despite being able to maintain stability due to these measures, the banking system has remained inefficient and incapable of tackling the issues of large scale economic modernization, same as prior to the crisis. In terms of banking sector efficiency, in 2009 Russia ranked last among 55 countries whose financial market competitiveness was estimated by the World Economic Forum[1].

2.4.4. Measuring the effectiveness of crisis mitigation measures in the stock market

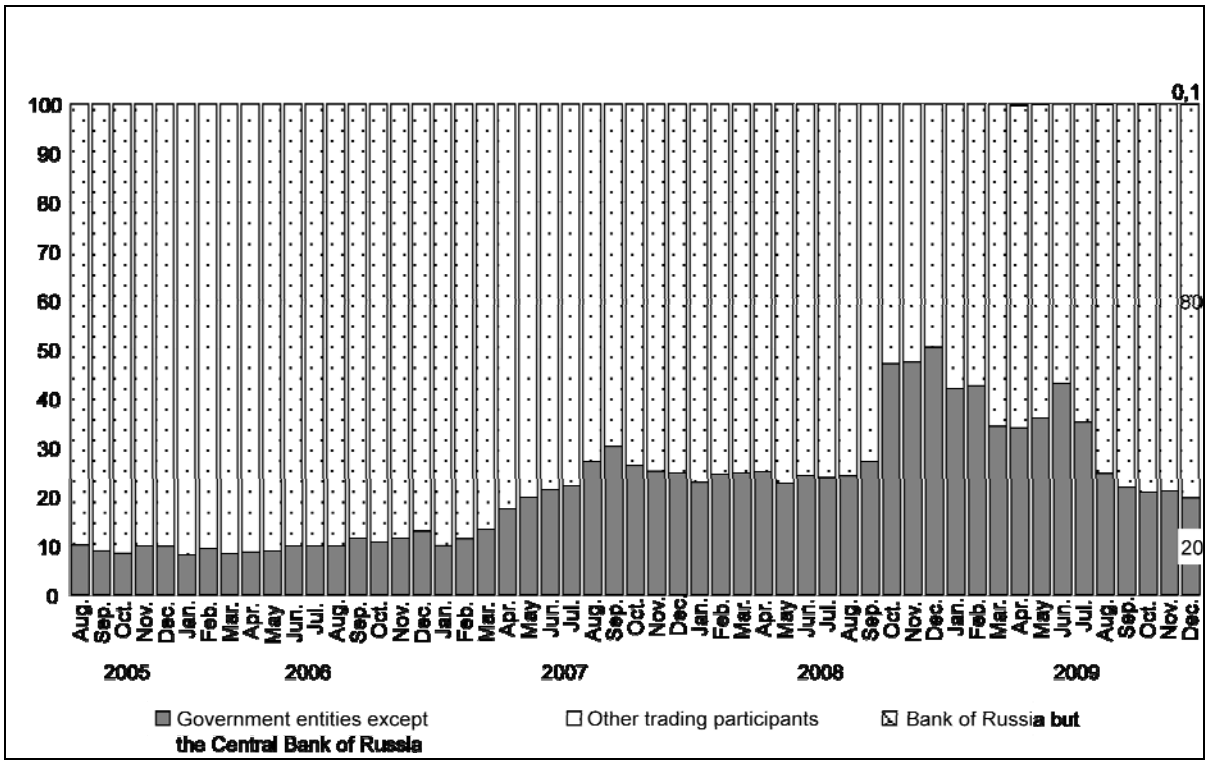
During the crisis, government support to the stock market involved the use of two principal channels, the subordinated loan of RUR 175 billion at 7% p.a. to Vnesheconombank from the National Welfare Fund for the purpose of supporting the Russian stock market, and a set of measures to support the ruble-denominated corporate bond market as an alternative to bank lending.

Vnesheconombank support to the stock market

Vnesheconombank received the subordinated loan at a 7% interest rate in October 2008 for the purposes of supporting the stock market and repaid it on December 15, 2009. The impact

[1] World Economic Forum. The Financial Development Report. 2009, page 210. Published at www.weforum.org.

of this loan on the trading activities of government banks and related entities is shown in *Fig. 18*. From October 2008 through July 2009, the share of government entities in the total trading volume at MICEX increased from the pre-crisis level of 25% to 34-50%, which suggests that this period witnessed active government interventions in the stock market. At the same time, from August to December 2009, the level of government trading at the stock exchange remained at pre-crisis levels, which raises doubts as to whether the stocks purchased using government funding were indeed sold on the 175 billion ruble loan was repaid by Vnesheconombank[1]. It is likely that Vnesheconombank used other sources to repay the loan to the Ministry of Finance.



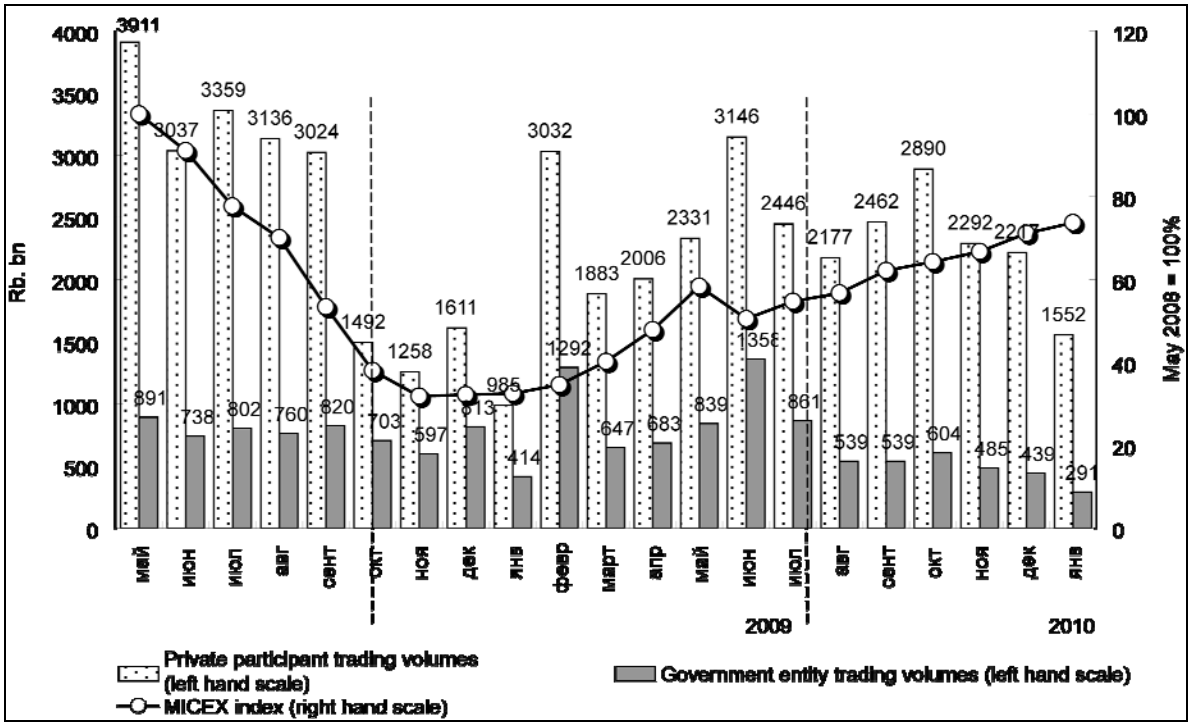
Note. Bank of Russia figures are close to zero and are not visible given the scale of the *Fig.*
Source: proprietary calculations using MICEX data.

Fig. 18. The share of private and state brokers in MICEDX trading volumes (%)[2]

The impact of using government funds upon the stock prices of Russian issuers is shown in *Fig. 19* that follows the MICEX index from its peak as of May 2008 to January 2010, juxtaposed against MICEX stock market trading volumes, shown separately for private trading participants and government entities. The drop in the MICEX index from June 2008 to January 2009 was largely caused by the decrease in the activity of private investors. Despite the increase in the share of government entities in stock market trading volumes from October 2008 to July 2009, such volumes remained at pre-crisis levels in terms of absolute numbers.

[1] The President of Vnesheconombank, V. Dmitriev, made the relevant statement during the Vesti news broadcast on December 21, 2009.
[2] Vnesheconombank, Vneshtorgbank, VTB Capital, VTB 24, Gazprombank, Sberbank, KIT Finance, Sviazbank and Bank of Moscow.

Similarly, the recovery in the MICEX index starting from February 2009 is more likely to have been due to the growth in private trading volumes than to government entity trading. It is possible that government support to the stock market using financial interventions has smoothed the market drop, but it is unlikely to have had any influence on the trend per se. Market recovery was mostly due to private investors.



Source: proprietary calculations using MICEX data.

Fig. 19. Index trends in trading volumes for public and private MICEX market participants from May 2008 to January 2010.

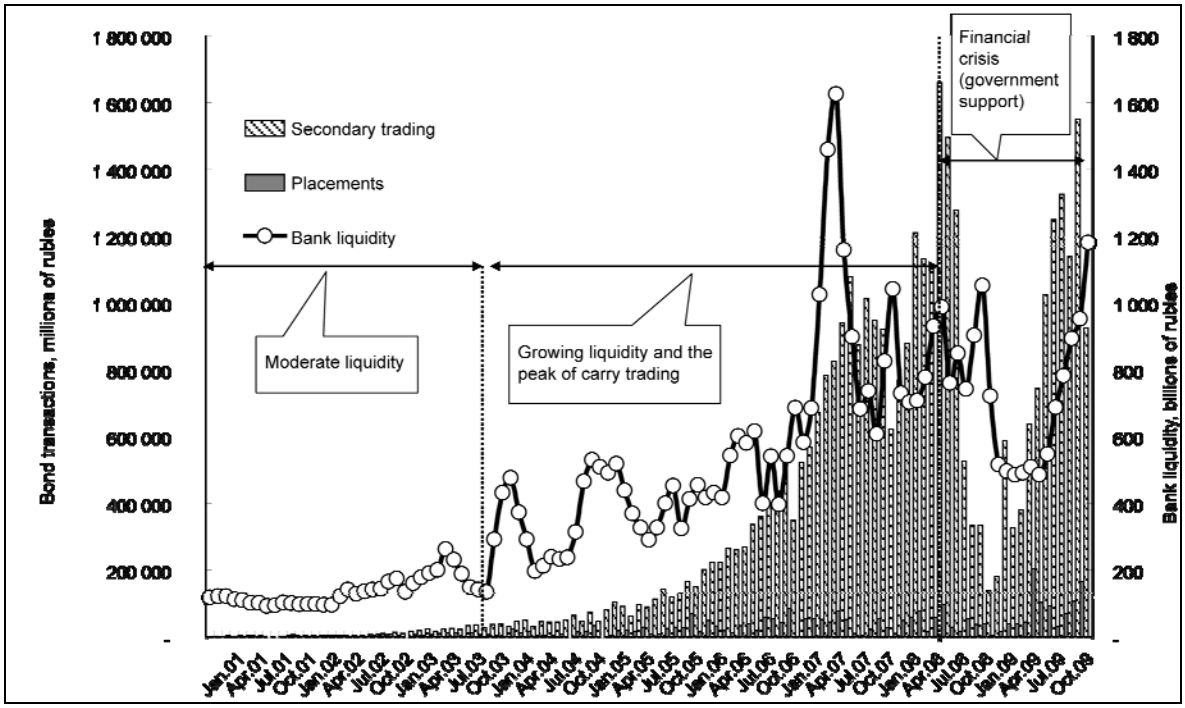
If the stock market is viewed as a zero sum game in terms of average yields for market participants whereby the profit made by certain investors signifies losses for other investors, it follows that the high yields from the equity investments made by Vnesheconombank using a fixed interest rate subordinated loan (where the bank estimates its profits from the transaction at 60% according to the analysis it published in late 2009), amount to a deduction from the profits of other investors that sold their stocks to it at the "bottom" of the market. In this case it is more appropriate to speak about a profitable "margin" transaction by government-owned bank using a loan granted on highly favourable terms (maturity and interest rate) than to claim effective government support to the stock market and to investors.

Government support measures for the ruble-denominated bond market

Fig. 20 shows monthly data on the issuance and secondary market trading volumes for ruble-denominated corporate boards at MICEX from 2001 to January 2010. The *Fig*. also shows data for bank liquidity measured by correspondent bank account and deposit balances for commercial bank deposits at the Bank of Russia. It can be seen from the *Fig*. but that the start of the financial crisis in August 2008 led to a significant decrease in bank liquidity, in stock

exchange trading volumes, and in corporate bond placement volumes. The stock market crisis that started in May 2008 and was exacerbated by investor panic and the global markets following the Lehman Brothers investment bank bankruptcy announcement in September 2008 then threatened to spread to the ruble-denominated bond market. In September 2008 MICEX experienced a temporary crisis due to the lack of a risk management system for repo transactions that led to a default on such transactions by several key market participants. However, the timely intervention by the Bank of Russia, an improvement of settlement procedures, and the restructuring of insolvent banks have resulted in the avoidance of a systemic crisis in the bond market.

The decrease in trading volumes in the Russian corporate bond market continued until February 2009. The market experienced massive defaults on offers, coupon payments, and principal repayments by second tier issuers. However, starting from February 2009, secondary market trading volumes started an unexpectedly rapid recovery, and starting from June, high-volume corporate bond issues resumed. As a result, for 2009 as a whole, the volume of corporate bond placements in the domestic Russian market totalled 917 billion rubles compared to 398 billion rubles in 2008 and 457 billion rubles and 2007. Secondary market trading volumes for bonds in 2009 amounted to 9282 billion rubles, which is somewhat below the respective figures of 11349 billion rubles in 2008 and 9489 billion rubles in 2007.

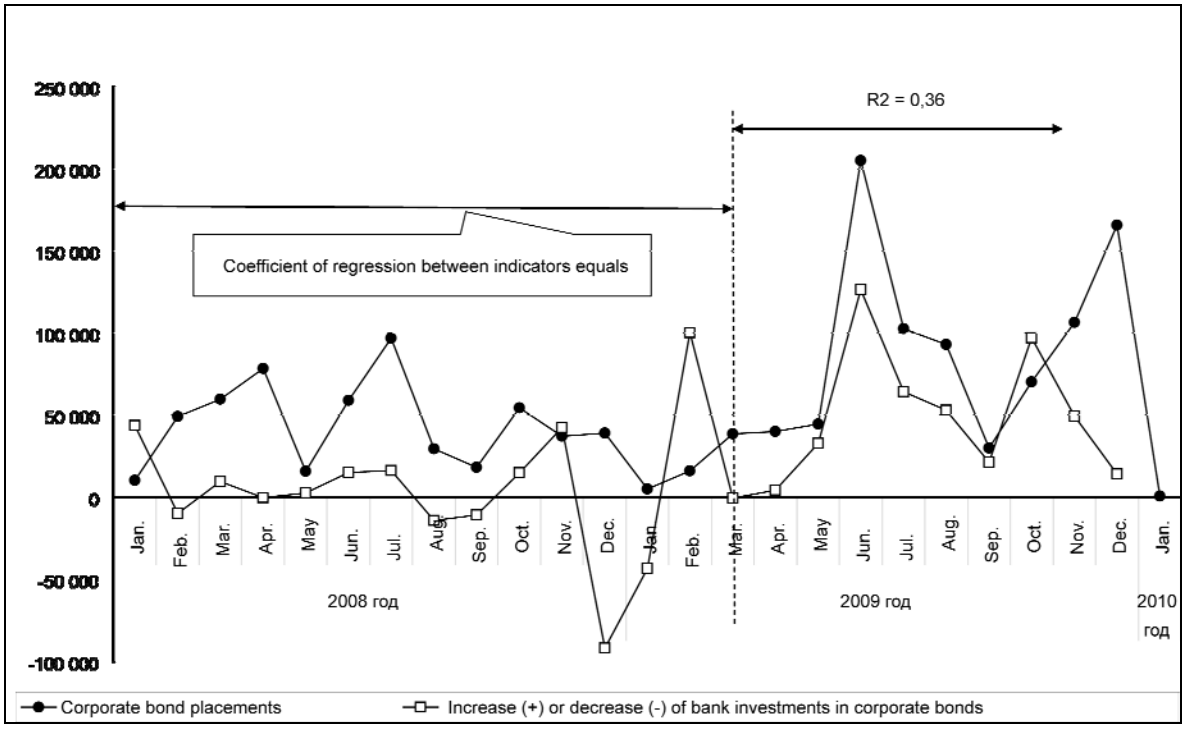


Source: Bank of Russia, MICEX stock exchange.

Fig. 20. Corporate bond trading and bank liquidity in 2001- January 2010

The recovery in the corporate bond market in 2009 even in the absence of carry trading strategies that had been continuously used since 2004 was made possible due to the use of Central Bank resources and liquid funds within the state budget to maintain liquidity in the banking system. *Fig. 21* shows that starting from February-March 2009, banks became the principal buyers of ruble denominated bond placements. Prior to the start of the financial cri-

sis there was no clear link between the growth in bank portfolios of corporate bonds and the placements of such bonds, with an R2 regression ratio of zero. However, in March – December 2009, the ratio increased to 0.4, pointing to correlation between the two sets of data[1].



Source: Bank of Russia, MICEX stock exchange.

Fig. 21. Correlation between corporate bond placement volumes and bank investment in such placements (millions of rubles)

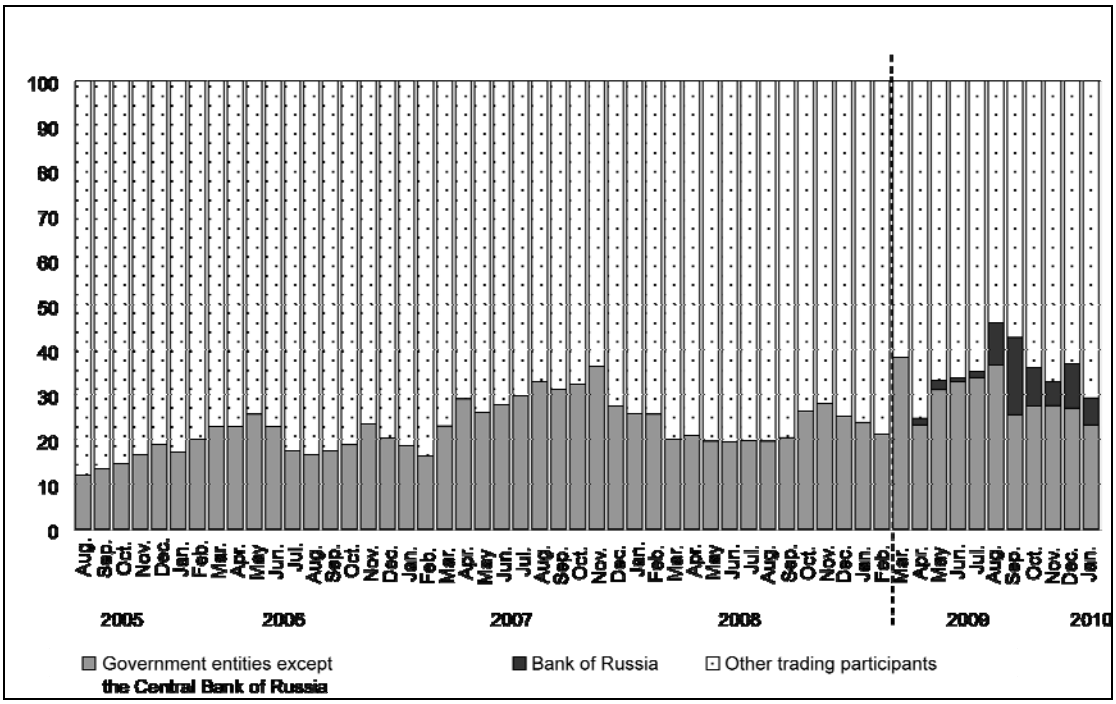
The reason for bank preference for purchasing corporate bonds rather than increasing loan portfolios given sufficient banking sector liquidity in 2009 is that unlike lending, corporate bonds are liquid instruments. Their liquidity was supported by the government both directly, with the Bank of Russia using direct repo transactions with government bonds to lend to the banking system and indirectly, by shoring up the liquidity of state banks that traditionally acted as creditors in the market of interbank borrowings collateralised by such bonds. By repeatedly using the bonds as collateral for repo transactions, banks are able to use 1:1 or 1:2 leverage, i.e. raise 1-2 rubles of funding in the form of loans collateralized by bonds for each ruble invested in underlying bonds.

Fig. 22 shows the percentage share of various trading participant groups (private financial companies, government entities[2], and the Bank of Russia) in the MICEX market trading volumes for corporate bonds for all types of transactions, including open market transactions, over the counter transactions, and repo transactions. The share of government entities in corporate bond trading significantly grew starting from March 2009, while the Bank of Russia

[1] From March to November this ratio equaled 0.7. It was only in November and December 2009 that other players, most likely pension system funds managed by Vnesheconombank, increased their participation in corporate bond placement activities.

[2] Government entities are listed in the footnote to *Fig 18*.

joined the market in April as a major and liquidity provider by means of repo transactions and other transactions.[1] From April 2009 until January 2000, the share of the Bank of Russia in corporate bond trading volumes at MICEX ranged from 0.7% to 17.3%.

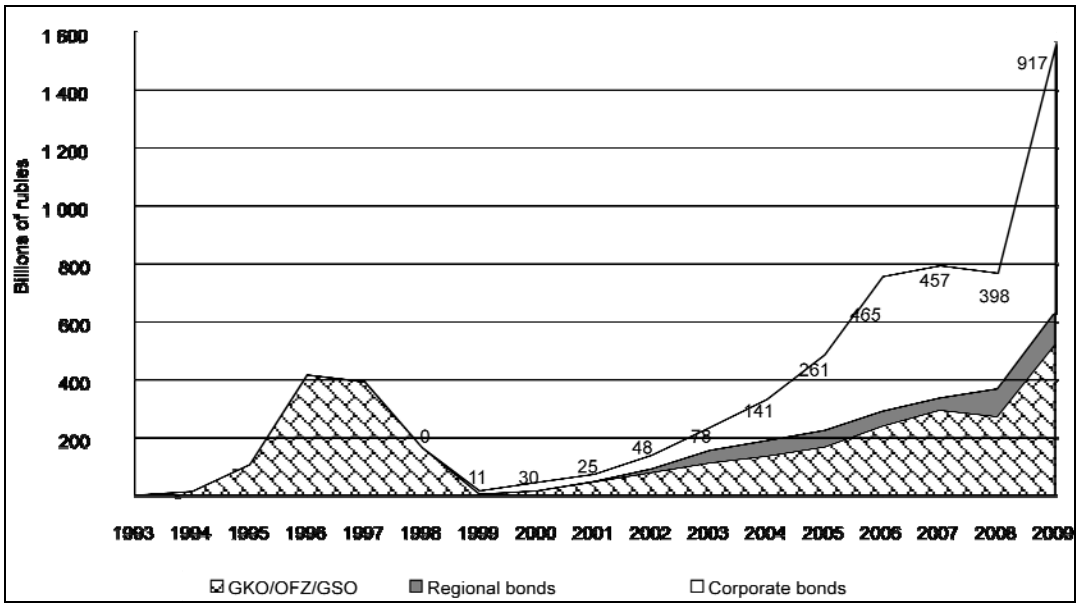


Source: MICEX stock exchange.

Fig. 22. The share of private and public entities in MICEX corporate bond trading volumes (%)

Fig. 23 shows an analysis of placement volumes not only for corporate bonds but also for ruble-denominated bonds issued by regional and federal governments. The placement volumes for federal and regional bonds in 2009 were considerably lower than corporate bond issues; however, these volumes set a record for the 2000s. Issues of Federal Borrowing Bonds (OFZ) and State Savings Bonds (GSO) increased from RUR 294 billion in 2007 and RUR 271 billion in 2008 to RUR 519 billion in 2009. The reasons for the increase in federal bond issues that was concentrated in the second half of 2009 are linked to the active policy measures by the Ministry of Finance aimed at mopping up excess liquidity in the banking sector that had increased due to the stalled growth of loan portfolios, including doing so by offering higher yields for such bonds compared to previous years. Regional bond placements grew from RUR 42 billion in 2007 and RUR 97 billion in 2008 to RUR 112 billion in 2009. The increased attractiveness of regional bonds for investors in 2009 was due to government support measures, similarly to corporate bonds.

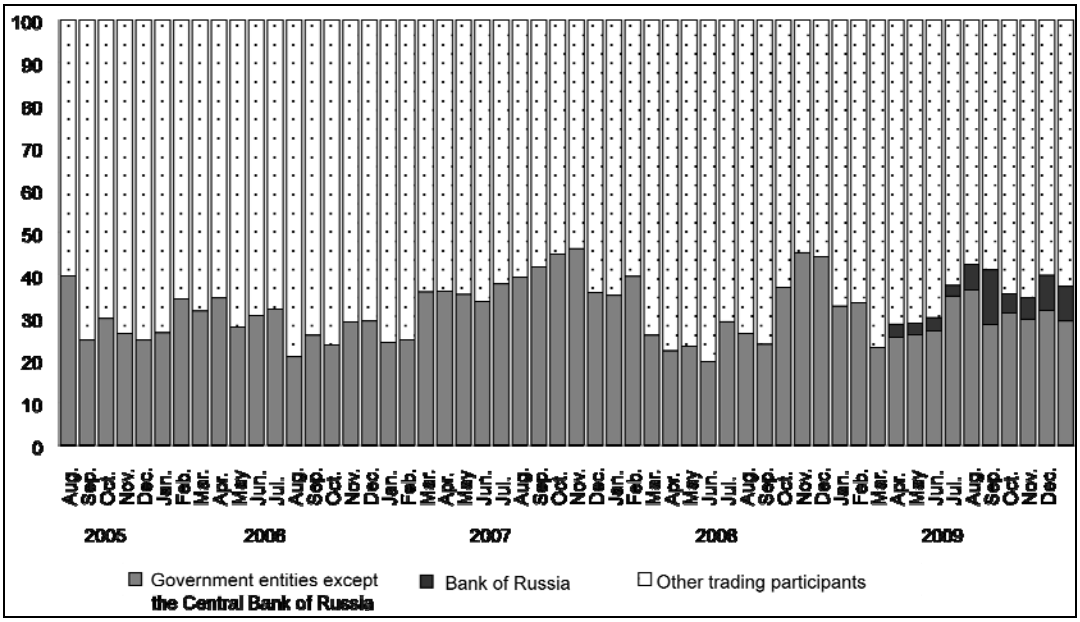
[1] The data on trading activity by the Bank of Russia shown in *Fig. 22*, exclude over-the-counter direct repo transactions by the Bank of Russia with corporate bonds.



Source: RTS trading system, IMF.

Fig. 23. Ruble-denominated bond placement volumes

Fig. 24 shows the share of government entities and the Bank of Russia in market trading volumes for regional bonds. Although the market share of government entities from the Bank of Russia was relatively unchanged from August 2008 to January 2010, it is obvious that a preservation of the share at level approximately 40% of the total volume of regional bond transactions was an important factor in supporting this bond market segment.



Source: MICEX stock exchange.

Fig. 24. The share of private and public entities in MICEX regional bond trading volumes, %

An effective mechanism of supporting the ruble-denominated corporate and regional bond market in 2009 was provided by the adoption of legislative amendments concerning the pension system that allowed to invest a proportion of pension system savings in non-government bonds. The Federal Law No 182-ФЗ, On Amendments to the Federal Law on Non-government Pension Funds and the Federal Law On Investing the Funds for Financing the Savings Portion of Labour Pensions in Russia both came into effect on July 18, 2009. According to the provisions of these laws, the state management company, whose duties are carried out by Vnesheconombank, is now able to invest the public pension savings into a broader investment portfolio that includes corporate bonds by Russian issuers, government guaranteed bank deposits denominated in rubles or foreign currency, mortgage securities, and bonds issued by international financial institutions. As of October 2009, data about the structure of the Vnesheconombank investment portfolio published at the Russian pension fund web site, showed that the portfolio did not contain corporate bonds. However, it is likely that the presence of the savings portion of the pension system in the non-government bond market increased in late 2009 – early 2010[1].

On the supply side, the growth in the ruble-denominated corporate bond market was driven by major state-owned companies. This was largely due to changes in the securities market legislation that facilitated the issue of traded bonds by using a simplified procedure for registering securities issues at stock exchanges instead of the Russian Federal Financial Markets Service. To promote greater stability in the corporate bond market, the allowed maturity for traded bonds was extended from one to three years. Bond issues were permitted not only for open joint stock companies but also for other business entities and state corporations.

Table 4 shows corporate bond placement data by issuer. Widespread defaults resulted in the bond market being effectively closed to second tier issuers. Principal corporate bond issuers in 2009 included natural monopolies (Russian Railways, Transneft, Gazprom), state corporations, Vnesheconombank, Atomenergoprom, and major private and state owned companies (LUKoil, AFK Sistema, VTB, Gazpromneft, MTS, the Novolipetsk Steel Mill, Severstal, MMK, etc). For many of these, the domestic bond market became a temporary substitute of foreign borrowings made difficult by the crisis of confidence in this market segment.

The crisis mitigation measures planned by the Russian government for 2009 envisaged the development of a mechanism of government guarantees for so-called infrastructure bonds to support the implementation of large scale development projects. However, the mechanism of such guarantees was not developed and consequently, no such bond guarantees were granted by the Ministry of Finance. It is most likely that the major companies and corporations sought to meet their domestic funding needs by way of issuing corporate bonds by reaching working agreements with state owned banks at top management level.

[1] According to media reports, the initial placement of corporate bonds in 2010, i.e. the 23rd tranche of the Russian Railways bonds with a total value of RUR 15 billion and maturing in 15 years, the largest purchaser that bought RUR 1 billion worth of bonds was believed by trading participants to be Vnesheconombank using pension savings funds. A. Mazunin, Bonds significantly in debt// Kommersant, February 5, 2010, page 10.

Table 4

Key ruble-denominated corporate bond issuers in 2009

	Issuer	Placement volume, millions of rubles	Market share, %
1	Russian Railways (RZhD)	145	15,8
2	Transneft	135	14,7
3	Vnesheconombank	60	6,6
4	LUKoil	50	5,5
5	Atomenergoprom	50	5,5
6	Bashneft	50	5,5
7	AFK Sistema	39	4,3
8	MTS	30	3,3
9	Housing Mortgage Lending Agency	28	3,1
10	VTB (VTB 24)	23	2,5
11	Sibmetinvest	20	2,2
12	Gazpromneft	18	2,0
13	VTB Leasing Finance	15	1,6
14	Mechel	15	1,6
15	MMK	15	1,6
16	Gazprom	15	1,6
17	Novolipetsk Steel Mill	15	1,6
18	Severstal	15	1,6
19	NIA VTB 001	14	1,6
20	Petrokommerz Bank	11	1,2
21	MBRR	10	1,1
22	Rosbank	10	1,1
23	Rosselhozbank	10	1,1
24	Vimpelkom Invest	10	1,1
25	Other issuers	113	12,3
	Total	**916**	**100**

Source: www.cBonds.ru, MICEX stock exchange.

Crisis mitigation measures taken by the Russian Federal Financial Markets Service to minimise stock markets risks

The current financial crisis gave rise to a number of innovations in the area of government stock market regulation. Due to the increased market volatility, the Federal Financial Markets Service imposed a ban on brokers for entering into unsecured (short sale) transactions on September 18, 2008. The ban was lifted on September 26, 2008 but was then reinstated on September 30 and remained in force until June 15, 2009.

Starting from September 25, 2008 the Federal Financial Markets Service limited the use of debt leverage for margin transactions[1] by brokerage clients. Prior to this restriction, brokers

[1] Margin transactions are securities purchase transactions by brokerage clients using borrowed funds. Unlike short sale transactions that are used to derive short term profits in a falling market, margin trading strategies are generally used in a growing stock market to derive incremental profits from using debt leverage.

were able to lend funds to their clients in an amount equal to the amount invested by such clients (1:1 leverage). Qualified investors, i.e. liquid and experienced brokerage customers, were able to borrow up to three times the amount of their investment from brokers. The above sanction by the regulatory body limited debt leverage for margin transactions for all types of investors to a ratio of 1:1. The right to use 1:3 leverage for qualified investors was reinstated with a number of additional restrictions starting from June 15, 2009.

The regulatory rationale behind the measures to ban short sales and limit margin trading was apparently to prevent speculative traders from exacerbating the market slump by short sales (where market participants sell securities borrowed from a broker using falling market expectations), as well as to limit the risk of a new market bubble and to protect the investors using margin trading strategies from significant losses. The introduction of such restrictions requires the effective and constant monitoring of all broker operations by the Federal Financial Markets Service, which is still missing[1]. Despite sanctions imposed on two major brokerage companies, Brokercreditservice and Finam that breached the short sales ban while it was in effect, and despite their managers and owners having their market participant qualifications annulled, there can be no certainty that all other market participants followed these regulations. These restrictions on the debt leverage that could be made available to brokerage clients could also be legally sidestepped.

The question remains as to the appropriateness and effectiveness of these measures in the stock market. The restriction on margin trading had little sense in a falling market, as such strategies are only profitable for investors in growing markets. Therefore, the 1:1 leverage restriction for margin trading for all market participants did not hinder the operations of most participants and may have aided certain less experienced investors in avoiding losses. During the acute phase of the crisis up to February 2009, as well as later, most market participants avoided margin transactions of their own account due to fears of a crisis relapse. This in turn significantly affected broker revenues that are mostly made up of interest income on margin loans to clients. A. Shemetov, Director General of ATON, one of the leading brokerages, whereas 60-70% of pre-crisis broker revenues derived from margin lending, and the rest was made up of brokerage commissions, during the acute phase of the crisis the situation was reversed, with brokerage commissions accounting for 60% of revenues. [2]

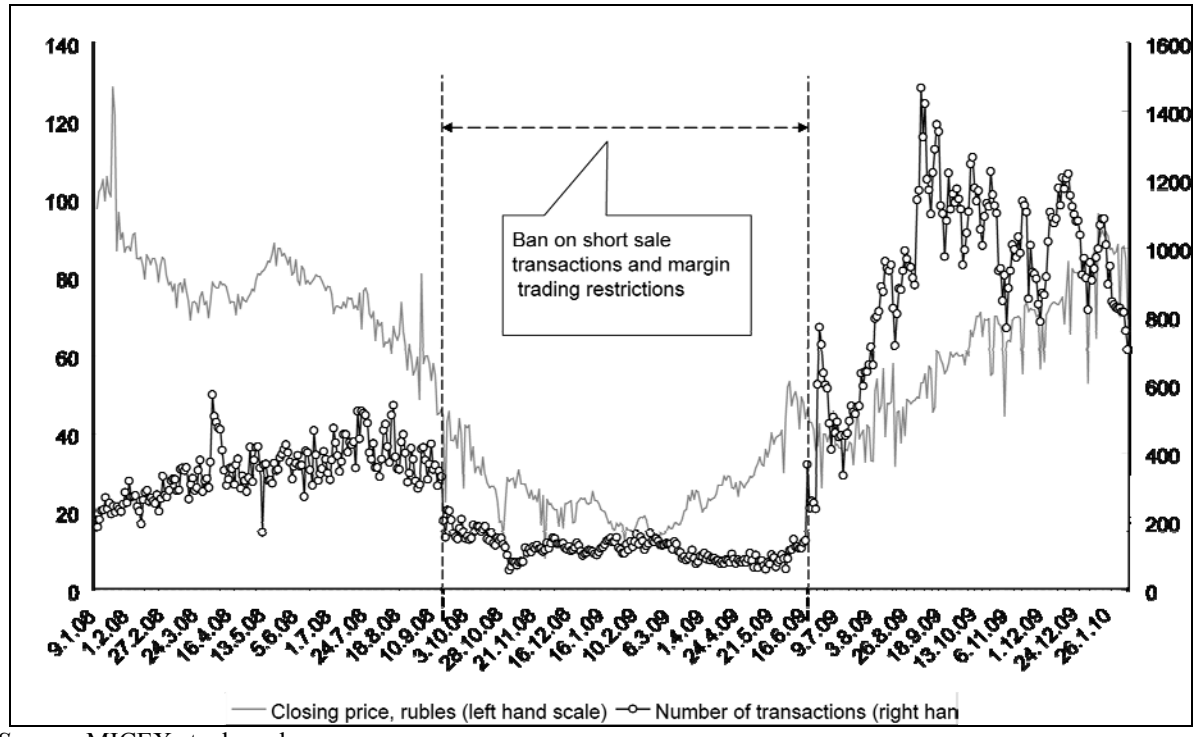
Indirect confirmation of general market participant compliance with margin lending restrictions starting from mid-September 2008 until the middle of June 2009 is provided by the date are shown in *Fig. 25* regarding the number of repo transactions involving Sberbank ordinary shares that are the most liquid traded instrument at the MICEX stock exchange. Repo transactions involving shares are a popular instrument used by brokers at MICEX to raise

[1] The authors of the Report on the results of the 2008 study of the effectiveness of the legislative and regulatory framework for financial market and securities market operations with a view to stabilising the financial system, carried out at the Federal Financial Markets Service and the Ministry of Finance (upon request) by the Audit Chamber of the Russian federation, "there is no analysis being systematically carried out with regards to monitoring and evaluating the stock market situation by government agencies, while the stock market activities of large financial institutions are not being monitored or analyzed, which leads to the absence of comprehensive and accurate information concerning the situation in the Russian stock market for the Russian government and top officials. Audit Chamber Bulletin, No. 1, 2010, page 100. Published at http://www.ach.gov.ru/userfiles/bulletins/05-buleten_doc_files-fl-1855.pdf

[2] V. Kudinov, Short sales transactions are coming back, Vedomosti, June 15, 2009.

funding in the financial markets for further on-lending to fund margin transactions by their clients.

By way of evaluating the impact of regulatory measures on trading activity for the most liquid MICEX traded stocks as exemplified by Sberbank shares that were the most actively traded blue chip stock at MICEX in 2009, *Fig. 25* shows that while the restrictions on margin lending remained in effect from September 16, 2008 to June 15, 2009, the number of repo transactions in the stock market was significantly lower than in other periods.



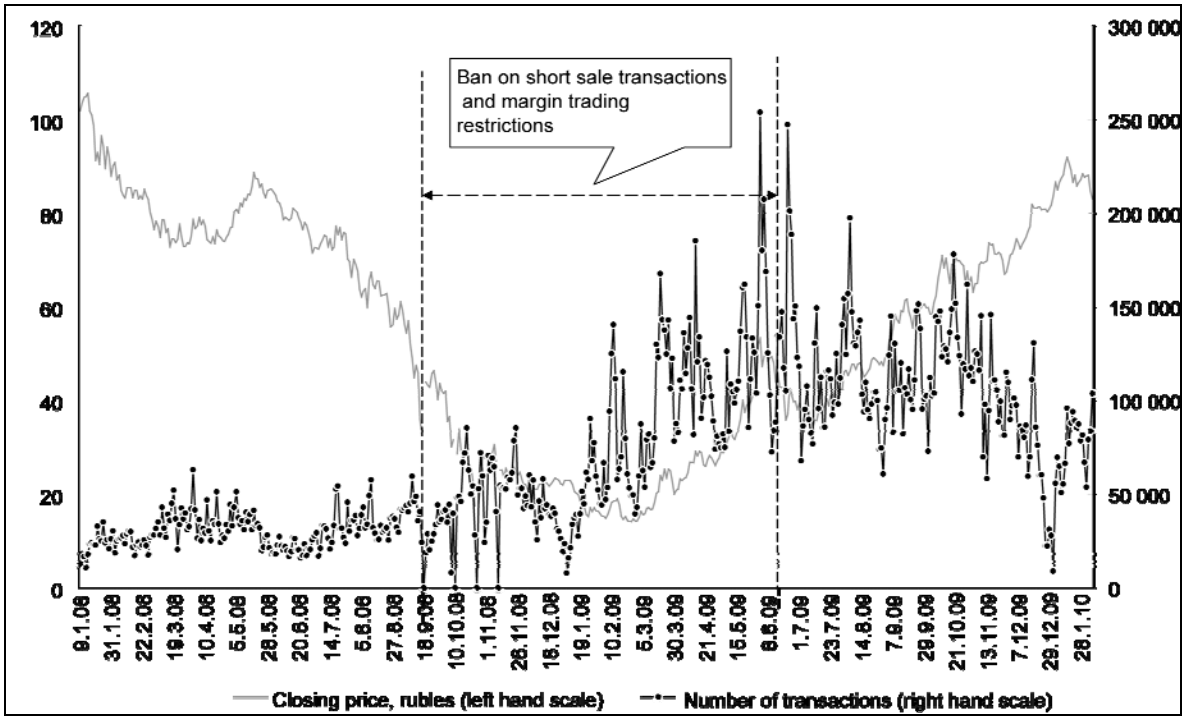
Source: MICEX stock exchange.

Fig. 25. Repo transactions with Sberbank ordinary shares

The issue of appropriateness of the short sale transaction ban is less clear. Unlike margin trading, interest in which naturally dropped in the falling market, short sale transactions were in demand by market participants at that time. Short sale transactions and are investors to derive profits from a falling market. Playing on falling market expectations entails natural limitations for investors in terms of managing risks, which limits their potential of further exacerbating the market drop. For this reason, regulator fears that such trading strategies could seriously affect the extent of the Russian stock market downfall have questionable grounds. The above downfall was primarily caused by the flight of short-term foreign investors from the Russian market that was not affected by the restrictions imposed by the Federal Financial Markets Service.

The economic expediency of short sale transactions set against a weak regulatory background led to frequent breaches of such restrictions, as evidenced by the sanctions imposed on the top managers of two major brokerages mentioned above. Such breaches are also indirectly evidenced by the number of market transactions involving Sberbank shares at MICEX prior to the introduction of the ban on short sale transactions, during its validity, and following its lift-

ing (*Fig. 26*). The imposition of the ban on short sale transactions in mid-September 2008 had no impact on the number of transactions with the most liquid securities. Moreover, that number grew steadily up through the middle of June 2009 when the ban was lifted. In all likelihood, market participants found other legal means of enabling their clients to enter into short sale transactions.



Source: MICEX Stock Exchange.

Fig. 26. Market transactions with Sberbank ordinary shares

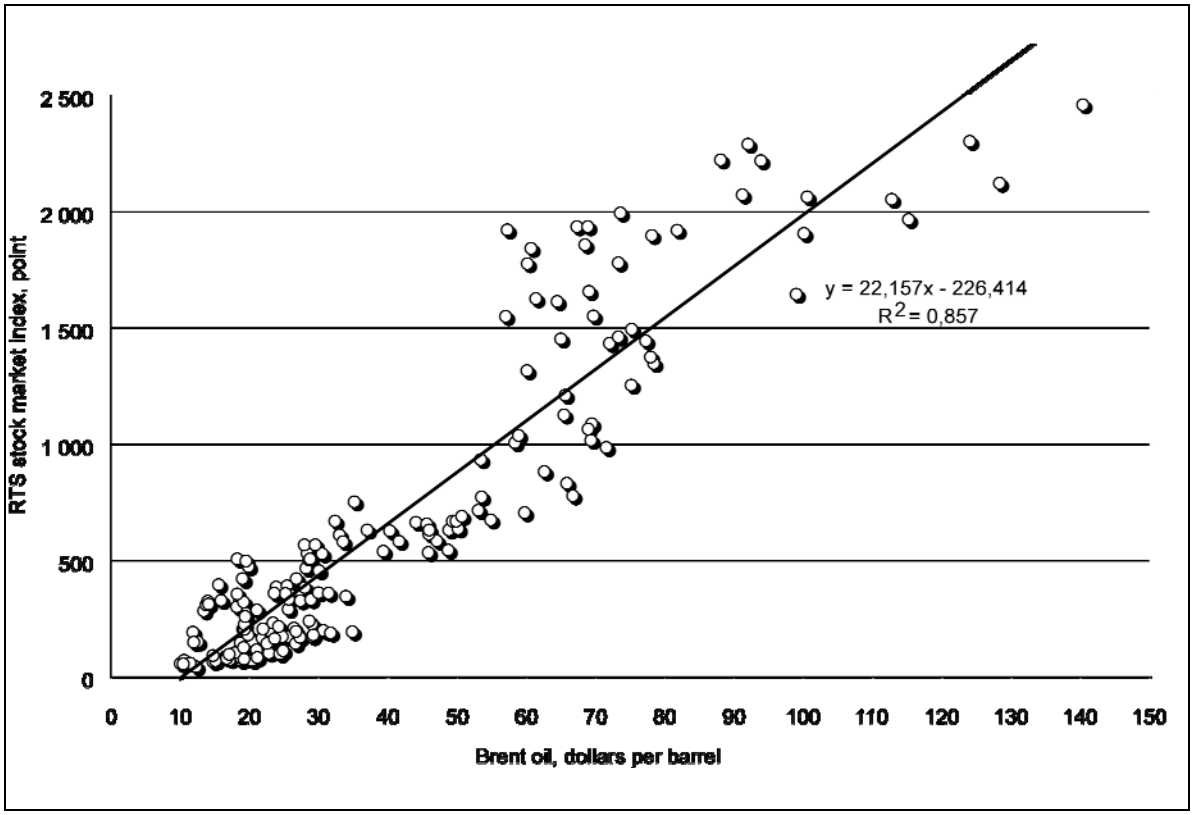
2.4.5. Principal financial market risks

Based on the outcome of the 2008-2009 crisis so far, principal financial market risks are to do with the excessive dependence of the economy and stock market on oil prices; the growth of new market bubbles in the stock market and ruble-denominated bond market due to excess liquidity, fast rates of growth for foreign borrowings by banks and real sector companies, risks of foreign capital flight, devaluation of the ruble, growth of forward market trading volumes given insufficient transaction coverage, growing risks in the repo market, and the low capacity of the financial services market that stands in the way of increasing the capitalisation of financial intermediaries.

Dependence of the stock market on oil prices

Similarly to the economy as a whole, the Russian stock market is highly dependent on oil prices. This is clearly shown in *Fig. 27* that traces the correlation (R2 regression ratio) between absolute monthly RTS index values and Brent oil prices throughout the existence of this stock market index and up to December 2009. The R2 ratio between these sets of data equals 0.86, which points to a close correlation between these parameters. Given the low di-

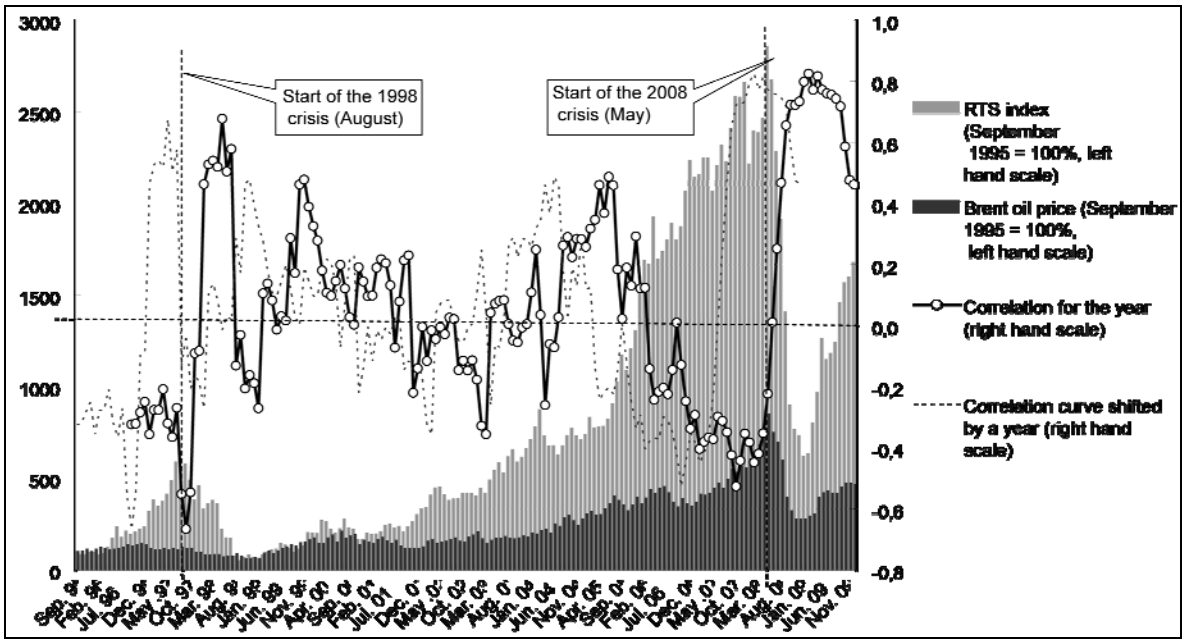
versification in the economy, the oil price plays a key role in determining the prices of Russian blue chip stocks and thus the value of portfolios underlying stock market indices.



Source: calculations based on IMF IFS and the RTS trading system

Fig. 27. Correlation between the RTS stock market index and Brent oil price from September 1995 to December 2009

The link between oil prices and stock market indices is also evidenced by data in *Fig. 28* that shows the changes in the correlation coefficient between the relative monthly changes in the RTS index and Brent oil prices in a 12-month period. The sliding correlation curve is characterized by the 12-month delay in showing the strengthening or weakening of the link between the two indicators. However, superimposing various data on the data sets in *Fig. 28* shows additional relationships. Immediately preceding the peak index values prior to the 1997-1998 and 2007-2008 financial crises, the correlation coefficient fell sharply, to reach -0.67 in September 2007 and -0.53 in October 2007. After reaching bottom in October 2007, the correlation coefficient rose abruptly to reach near-maximum levels (approaching 1). Thus with the onset of a crisis, stock market indices and oil prices move simultaneously and in the same direction. The correlation ratio then decreases several months later as the stock market recovers.



Source: calculation using IMF IFS and RTS trading system data.

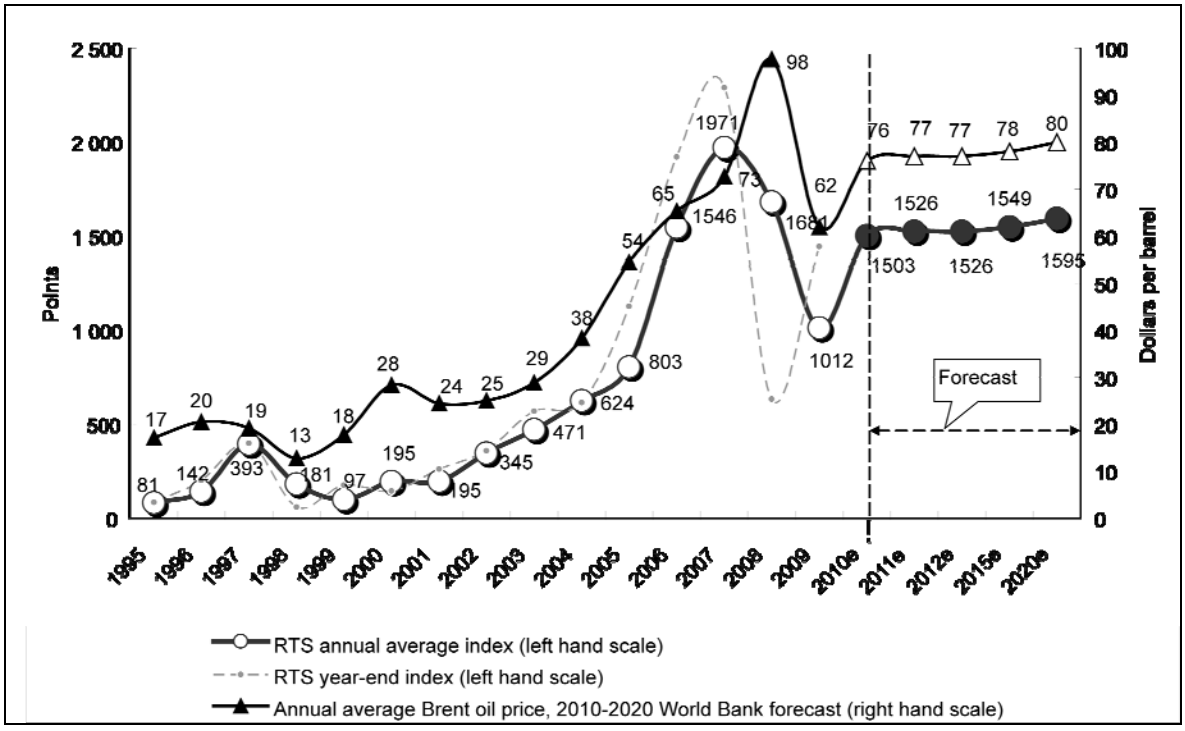
Fig. 28. Correlation between RTS stock market index changes and Brent oil price changes from September 1995 to December 2009

The above cyclical fluctuations of the sliding correlation curve are due to economic reasons. RTS index values are largely determined by the oil price. Furthermore, the Russian market is highly sensitive to the behavior of short-term foreign investors. The onset of a financial crisis is generally preceded by euphoria on the part of such speculative investors. Several years of Russian stock market growth fueled by oil prices tend to lead to the mass influx of foreign portfolio investments (see *Fig. 34* below for more details), which in turn leads to rapid growth in stock prices and high yields that attract yet more investors. Stock market growth accelerates regardless of oil price dynamics. In this case the sliding correlation curve moves into the negative zone. The market per se lacks the prudence to stop the growth euphoria, and a strong external impulse is needed to stop the investor rally, which is effectively provided by the oil price shock. Faced with falling oil prices, foreign investors become aware of the Russian economy and the stability of the national currency are anchored on energy sector export revenues. Speculative capital flees the country, and the close relationship between oil prices and the RTS stock market index is restored until the next instance of foreign portfolio investor euphoria.

The current level of Russian stock market dependence on oil prices is one of the principal risk factors for investors. Estimates by international financial institutions, in particular the World Bank and the IMF, shown in *Fig. 29*, do not foresee significant growth in oil prices similar to that seen in the 2000s. World Bank data estimate oil prices at 76 dollars per barrel in 2010, 77 dollars per barrel in 2011-2012, 78 dollars per barrel in 2015, and 80 dollars per barrel in 2020. Based on the regression equation describing the relationship between the RTS

index and annual oil prices, it is possible to determine the average annual values of the RTS index for the coming decade. [1]

In this case, average annual values of the RTS index (see *Fig. 1*) shall remain at their present level of 1,500-1,600 points for several years, which means that, unless the Russian economy undergoes modernisation and becomes more diversified, the internal stock market will stagnate for 10 years, which does not rule out high volatility. In this case, the recovery of the RTS index, unlike the present "V-shaped" scenario, can take place under an "L-shaped" scenario lasting several years, similar to that for the DJIA index following the Great Depression, the Japanese Nikkei 225 index after its collapse in 1989, or the NASDAQ index after the Internet bubble crash in the early 2000s.



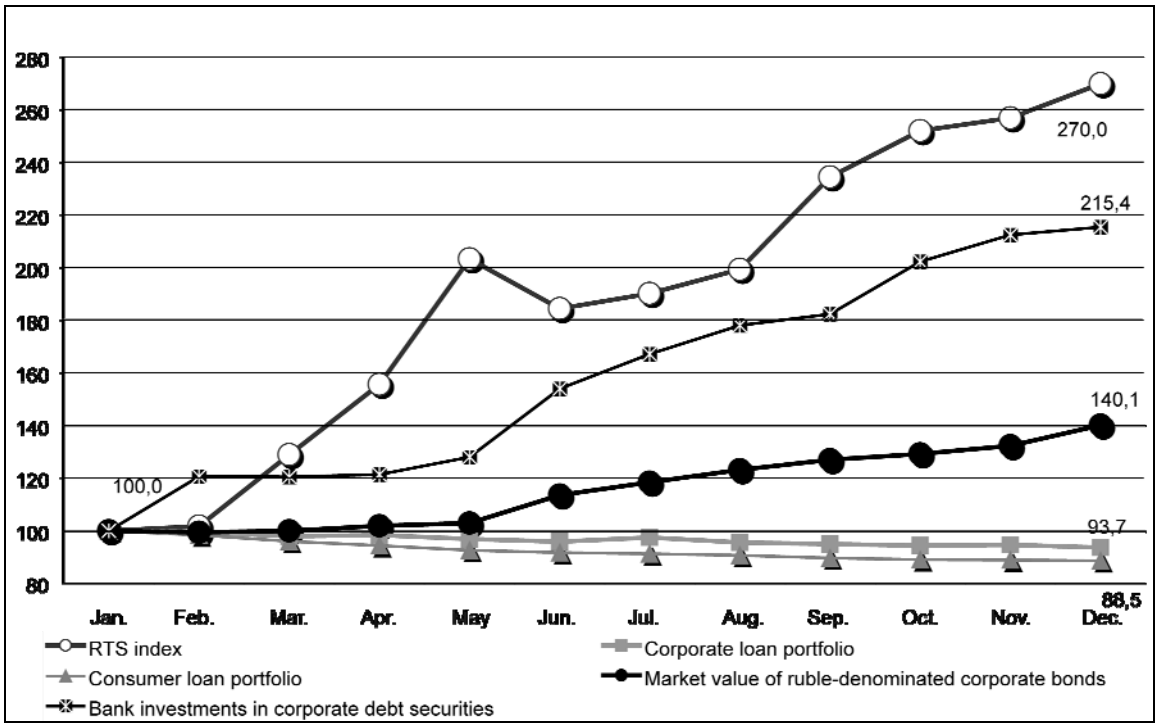
Source: calculations based on price change forecasts for goods published at the World Bank web site www.worldbank.org, and RTS trading system data.

Fig. 29. RTS index forecast up to 2020 based on World Bank oil price forecast
Emergence of new market bubbles in the stock market and ruble-denominated bond markets due to excess liquidity in Russia and globally

Another risk in the Russian stock market that may lead to the emergence of new market bubbles in the stock market and ruble-denominated bond markets despite the expected oil price stagnation forecast by international financial institution experts is represented by the excess liquidity accumulated in financial markets. The principal reasons for its accumulation in the domestic market include the funds injected into the banking system by government crisis mitigation policies have not yet been channelled into lending, as well as the renewal of foreign funding for domestic stock market operations using carry trading strategies.

[1] Provided that the Russian economy does not become more structurally diversified the relationship between oil prices and the indices remains unchanged

Fig. 30 shows the growth rates for equity market capitalisation and corporate bond market value indicators compared with the trends in bank loan portfolios. From January to December 2009, the RTS index grew by 170.0% and the aggregate market value for ruble-denominated corporate bonds increased by 40.1%. At the same time, bank corporate loan portfolios decreased by 6.3% over the same period and consumer loan portfolios decreased by 11.5% while bank investments in corporate bonds grew by 115.4%.



Source: calculations based on Bank of Russia and RTS trading system data

Fig. 30. Trends in the RTS index, loan portfolios, and the corporate bond market in 2009 (January 2009 = 100%)

According to Goldman Sachs analysts, Russia belongs to a small group of countries that tightened rather than relaxed their monetary and lending policies as a response to a financial crisis. [1] There was a certain logic behind the decision, since the government feared widespread payment defaults. At the peak of the crisis, from December 1, 2008, to April 23, 2009, the Bank of Russia established a base refinancing rate of 13%, one of the highest among G20 countries, that de facto put a stop to bank loan refinancing. Only starting from April 2009, the Bank of Russia began gradually lowering the rate to its current level of 8.75%. The high refinancing rate was meant to deter banks from the temptation of using government funding to finance ex-ante doubtful loans. In our opinion, this measure served more as protection against fraud than as a barrier to real lending, since even if the rate had remained low throughout the crisis, high demand for funding from responsible entrepreneurs would have been unlikely due to their uncertainty regarding the return on future investment projects. For this reason the ma-

[1] D. Butrin, Russian monetary policy does not follow BRIC standards //Kommersant, February 9, 2009, page 2.

jority of countries, with the exception of China, experienced similar lack of loan portfolio growth despite their refinancing rates being close to zero.

The greatest challenge faced by the Bank of Russia after the crisis is to convince entrepreneurs of the need for increased borrowings and of the likelihood of investing borrowed funds in effective investment projects[1].

If entrepreneur expectations remain unchanged and demand for borrowed funds is not restored, the banking system will continue accumulating excess liquidity that may channelled into the stock and corporate bond markets. Moreover, as the markets for foreign borrowings recover, banks and foreign hedge funds may revert to the use of carry trading strategies to raise funds for investments in ruble-denominated bonds. According to IMF experts, the involvement of emerging market banks in carry trading to fund consumer lending is one of the principal financial market risks in these countries. [2].

Unlike banking sector loan portfolios, bank investments in corporate bonds have experienced rapid growth. In our opinion, this is due not only to the greater liquidity of bonds compared to loans but also to a number of negative factors, such as less stringent material and moral liability standards for bond market operators compared to lenders, as well as the lack of professionalism among bank staff. Corporate lending requires thorough knowledge of the current financial condition and business prospects of the lenders on the part of bankers. In this case, there exists responsibility personal for the bank specialists who carry out borrower due diligence and approve lending decisions. In the case of bonds, the process is simplified. Bank employees do not need to perform in-depth financial analysis of issuers. Under the provisions of the securities market legislation, bond issuers are required to disclose all relevant information to all potential investors. This largely absolves bankers of the responsibility for the accuracy and completeness of the relevant information considered in investment decisions. Meanwhile, many issuers default on their bonds, and many investors incur losses, during crises. The responsibility of specific financiers within issuer companies defaulting on bonds and of bank employees who took investment decisions with respect to such bonds is diluted among many people. The greater the number of people involved, the more difficult it is to establish individual material and moral liability. This issue that became evident during the past crisis is no less significant than the «too big to fail» issue with respect to avoiding the bankruptcy of the largest banks that attract retail deposits.

Ruble devaluation risk

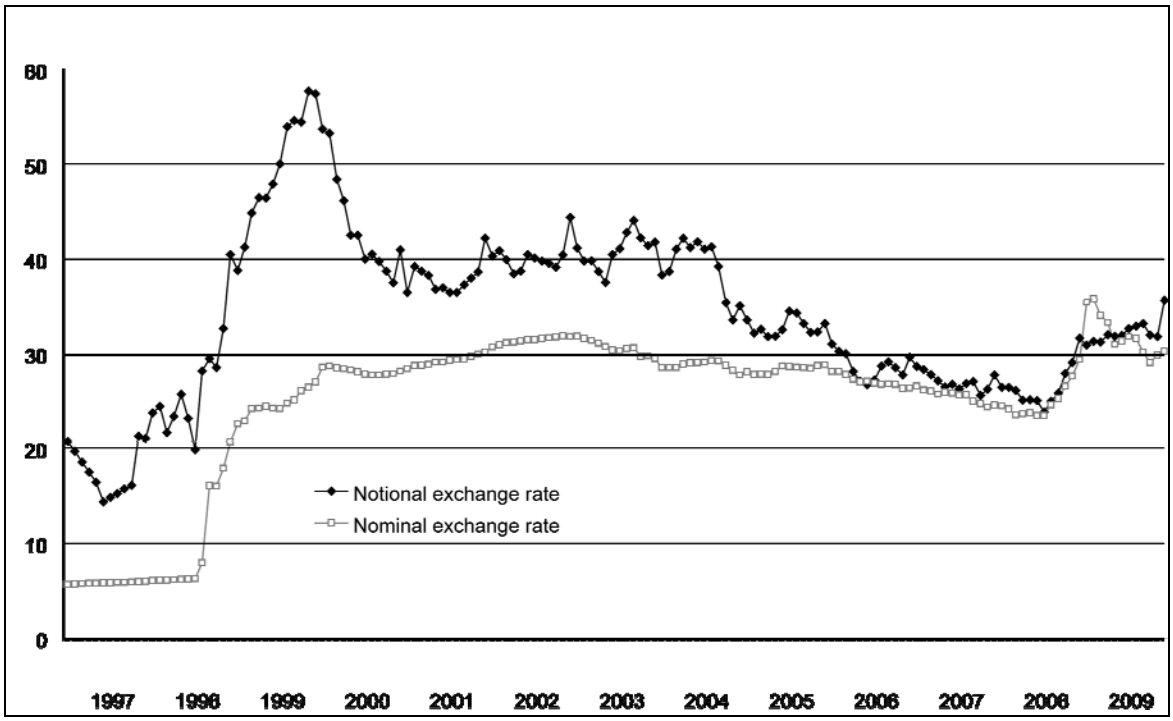
The devaluation of the ruble is a continuing risk in the Russian financial market. The data shown in *Fig. 31* lead to the assumption that for the past several years, monetary authorities in Russia have followed an informal rule that the nominal exchange rate of the ruble to the US Dollar be in line with its notional exchange rate estimated by dividing the M2 money supply aggregate by the amount of foreign exchange reserves [3]. This rule in essence is reminiscent of

[1] The Governor of the Bank of Russia stated in his speech to bank representatives on February 4, 2010, that given the recent trends for increasing stability of the national currency, its moderate volatility and the growth of the M2 money supply aggregate in the economy, bank loan portfolios are expected to grow by 20% in 2010. Moreover, "a lending rally is expected by the end of the year that may even need to be curtailed in the interests of combating inflation". S. Dementieva, Russia's glorious rally// Kommersant, February 5, 2010, page 1

[2] IMF. Global Financial Stability Report. Financial Market Turbulence: Causes, Consequences, and Policies. September 2007 P. 22–25.

[3] The author has not encountered admissions by officials with regards to following this rule.

the "foreign exchange reserve standard" whereby the ruble money supply must be backed by a certain amount of gold and foreign exchange reserves. In cases when the public initiates large-scale purchases of US Dollars, the exchange rate in rubles is in line with the coverage of the ruble money supply by such gold and foreign exchange reserves; thus in these situations, an increase in the notional dollar exchange rate is an early indication of an impending ruble devaluation.



Source: calculations based on Bank of Russia and Ministry of Finance data.

Fig. 31. Relationship between the nominal and notional (calculated) US Dollar exchange rates

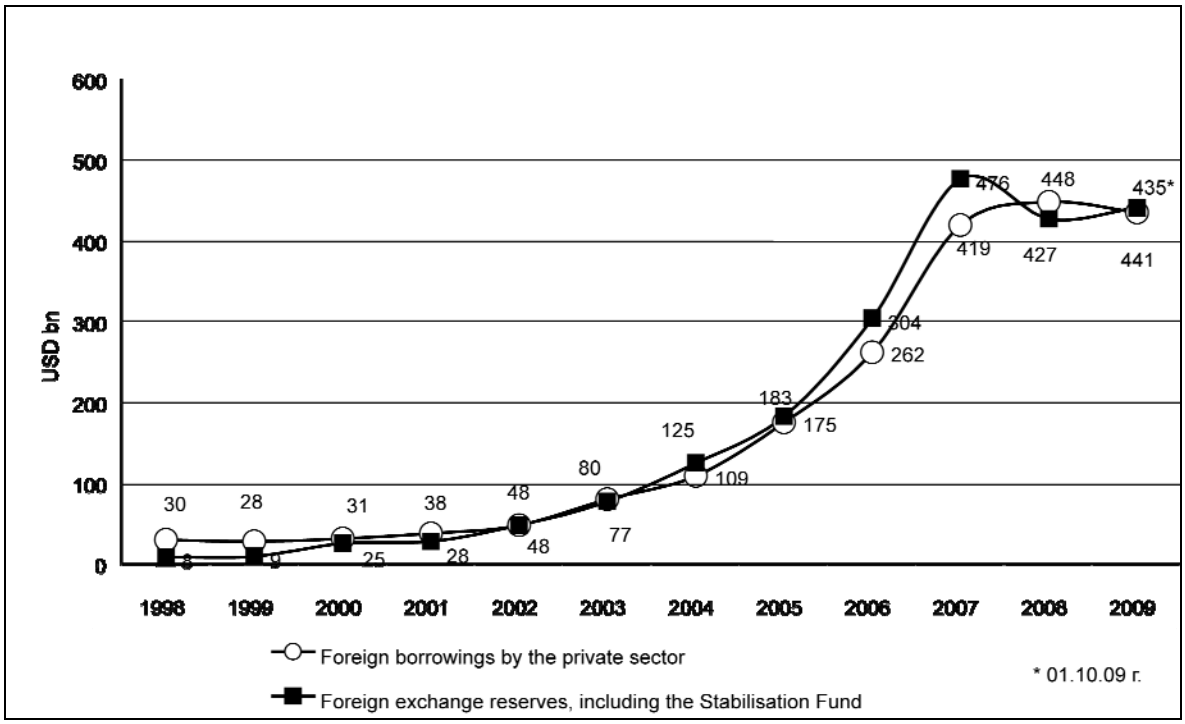
In late 2009 the growth rate of the notional dollar exchange rate significantly exceeded that of the nominal exchange rate, with the former rate reaching 35.6 rubles in December 2009 versus the official nominal exchange rate of 30.24 rubles. This was due to the faster growth rate of the M2 money supply indicator, especially in December 2009 due to increased pension payments, the customary year-end completion of construction projects and payments for government contracts, the attempts of entities financed from the state budget to fully utilise their annual budget allocations, and year-end bonus payments at private companies. These factors jointly contributed to the significant growth of ruble cash in public hands and on bank deposits. The likelihood of increased state spending from the Reserve Fund as a way of financing pension payments, the expected increasing monetisation of the GDP, the slower growth of oil prices, all point to the growth rate of the notional dollar exchange rate continuing to outstrip the growth rate of the actual nominal rate, which in turn translates into a higher ratio between the ruble money supply and the foreign exchange reserves and will push government in the direction of further devaluation of the ruble.

In addition, the policy of weakening the ruble exchange rate is advantageous for the state from the point of view of fostering the growth of value-added sectors of the economy and re-

stricting the influx of speculative foreign capital. For these reasons the gradual devaluation of the ruble in the post-crisis period is considered highly probable.

Risk of excessive foreign borrowings by banks and real sector companies

The foreign indebtedness of the private sector is practically equal to Russia's total foreign exchange reserves (see *Fig. 32*) and remains a significant risk for the national financial system. The fact that the amounts of foreign exchange reserves and foreign corporate borrowings have practically coincided throughout the 2000s points to a relationship between these categories. On the one hand, the concentration of a portion of value added created by business in foreign exchange reserves creates a necessary safety cushion for the financial system and checks the excessive strengthening of the ruble. On the other hand, the removal of such funds from business revenues in the global economic context has a negative impact on and creates complications for sustaining and fostering the national businesses that generate such revenues. To keep their operations at a sustainable level, entrepreneurs need to compensate for the deductions channelled into the national foreign exchange reserves by obtaining foreign borrowings. Therefore, despite the crisis and government pressure to decrease the foreign borrowings by large state-owned companies, it has so far been impossible to bring about a significant reduction in foreign borrowing volumes.

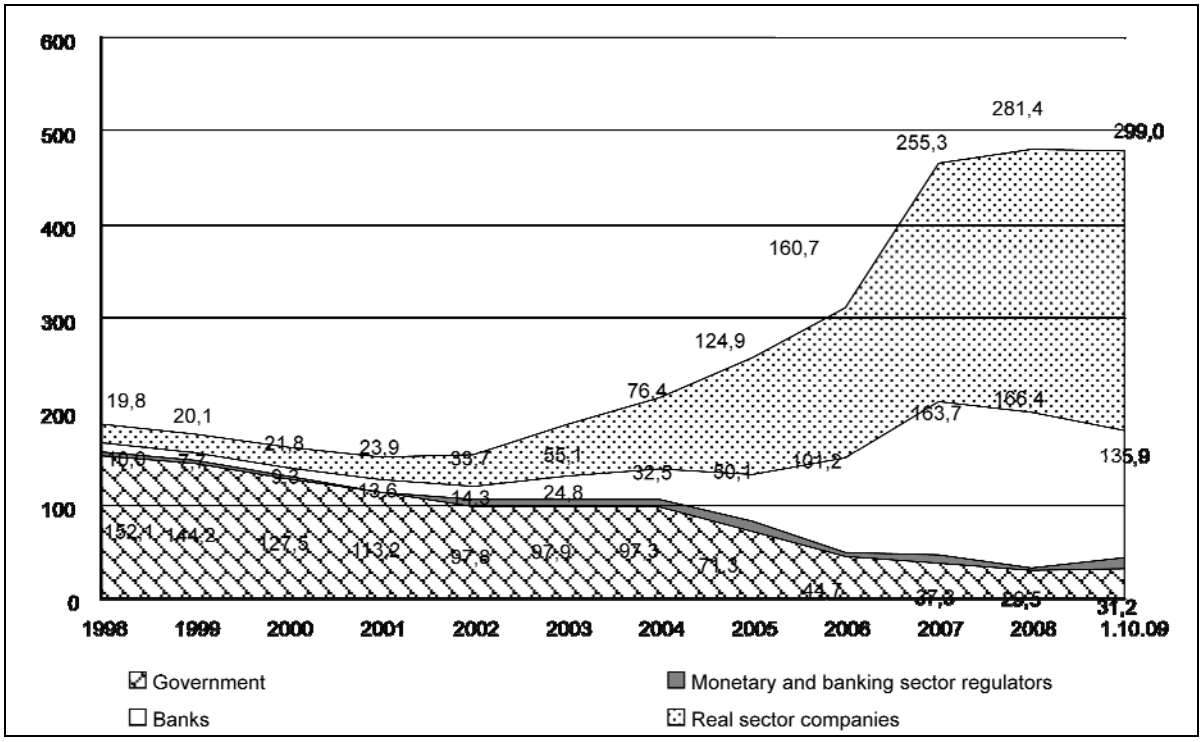


Source: balance of payments data.

Fig. 32. Growth in private sector borrowings and state reserves

Fig. 33 shows separate data for foreign borrowings by banks and corporates. As of September 2009, foreign borrowings by banks decreased from US$166.4 billion to US$135.9 billion, while corporate foreign debt increased from US$281.4 billion to US$299.0 billion. As shown previously in *Fig. 10* and *Table 3*, the decrease in foreign bank borrowings was only

made possible by substantial lending to the banking sector by the Bank of Russia, the Ministry of Finance, and Vnesheconombank, and by the gradual devaluation of the ruble. In other words, foreign bank debt was partially repaid and replaced by borrowings ultimately derived from the foreign exchange reserves. Unfortunately, it is unlikely that the Russian financial sector will be able to raise of cheap funding in volumes sufficient for its development from the state or from retail deposits. The principal hopes of private banks in this regard are for the resumption of carry trading, which will in turn translate into renewed growth of foreign borrowings by the banking sector.



Source: balance of payments data

Fig. 33. Foreign debt of the Russian Federation, 1999-2009 (January through September 2009), billions of dollars

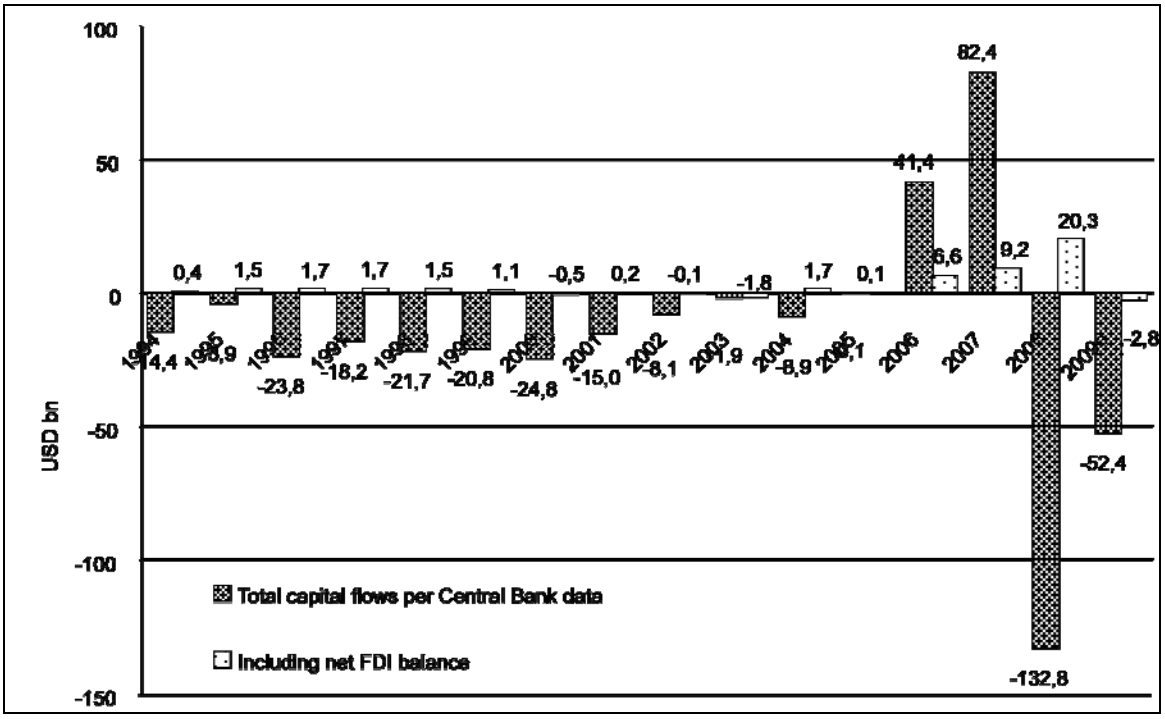
The principal risks related to the increase in corporate foreign borrowings are related less to the short-term debt service in the next 1-2 years and more to the long-term perspective. If the assumption that the national foreign exchange reserves are the "reverse side of the coin" of foreign private sector borrowings is true, it means that in the medium term, banks and corporates will be unable service their foreign debt independently, without recourse to foreign exchange reserves. Meanwhile, channelling reserve funds for these purposes can significantly weaken the ruble and cause other problems in the financial system.

Risk of foreign capital flight

The Russian financial market is still highly dependent on short-term foreign capital movements. Capital flight may be triggered by expectations regarding devaluation of the ruble, weak macroeconomic indicators, the decrease in national foreign currency revenues due to

lower prices for raw material exports, and budget and monetary policy restrictions in international financial markets.

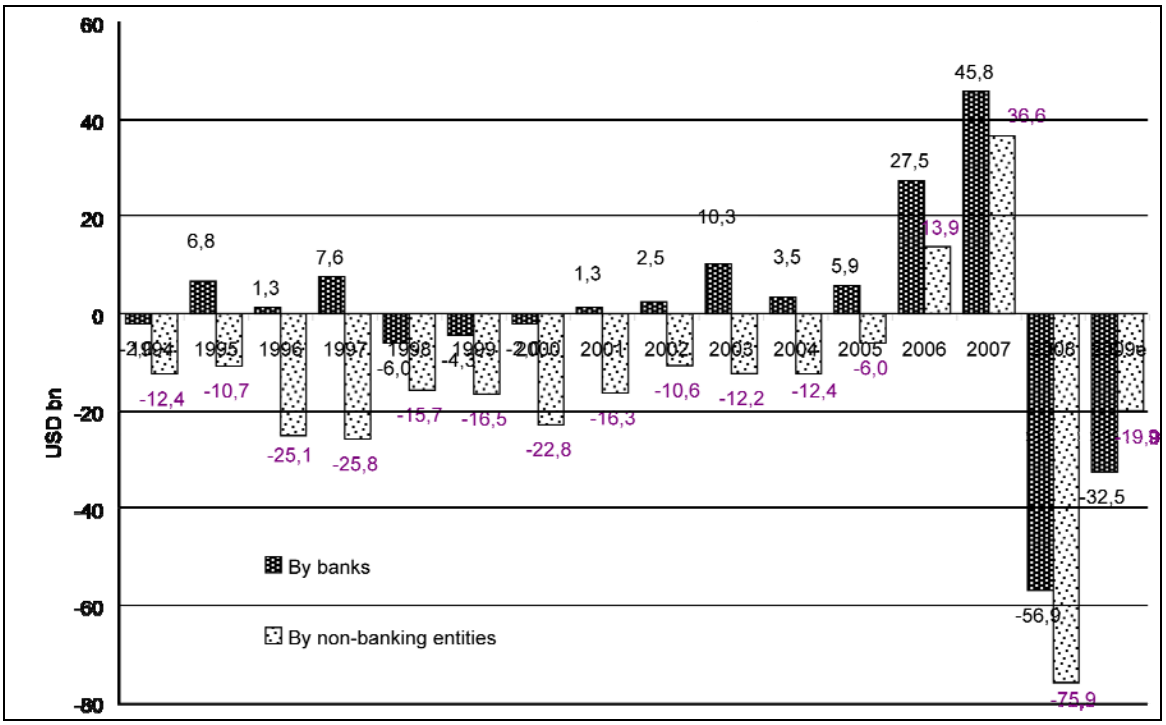
As shown in *Fig. 34*, capital flight from Russia in 2008 amounted to US$132.8 billion. Since the foreign direct investment (FDI) balance was positive at US$20.3 billion, the actual amount of short-term investments withdrawn from Russia stood at US$153.1 billion. The Bank of Russia estimates capital flight from Russia at US$52.4 billion in 2009, including US$2.8 billion in FDI.



Source: Bank of Russia.

Fig. 34. Capital inflows and outflows: total flows and FDI flows

Considering that servicing the needs of short-term foreign investments is an integral component of Russian bank carry trading strategies, it is unlikely that such investments will disappear or will be significantly reduced in the near future. *Fig. 35* shows that in 2009, banks channelled the bulk of the outflow of short-term investment amounts. This in turn means that the Russian stock market will continue to remain highly volatile. A more complex challenge for the Russian economy and financial sector is the attraction of foreign direct investments and of portfolio investors by conservative foreign investors (mutual funds, pension funds, insurance companies, investment funds, etc.)



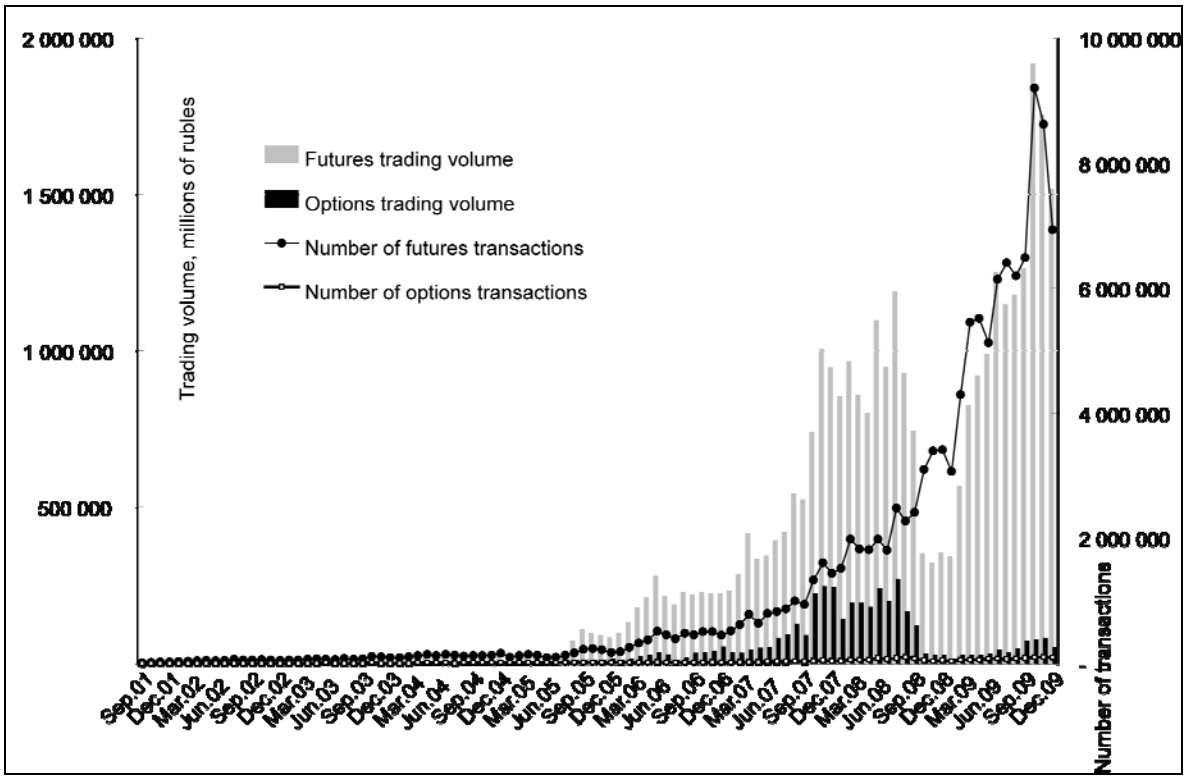
Source: Bank of Russia.

Fig. 35. Capital inflows (+)/outflows (–) by market segment

Attracting FDI and the funds of large instituttional investors requires diligent efforts in improving the institutional environment and business climate and in modernising the economy. Russian banks and private equity funds could be of great help in this undertaking; however, at present that are not in a position to adequately tackle these challenges (see Section 8 for more details).

Risk in the Russian forward market

As shown in *Fig. 36*, similarly to the stock market (see *Fig. 9*) and the ruble-denominated corporate bond market (see *Fig. 20*), the Russian forward market that is primarily concentrated in the RTS trading system has seen a drop in aggregate traded value from August 2008 to February 2009, but has started a fast recovery beginning from March 2009. Moreover, the crisis had virtually no impact on the number of futures and options transactions and the temporary drop in aggregate value was due purely to the decrease in the value of underlying assets. The forward market plays an increasingly important role in the overall context of financial markets, not only allowing to broaden the range of assets traded but also offering market participants an opportunity ho hedge risks related to the decrease in the market value of underlying assets.

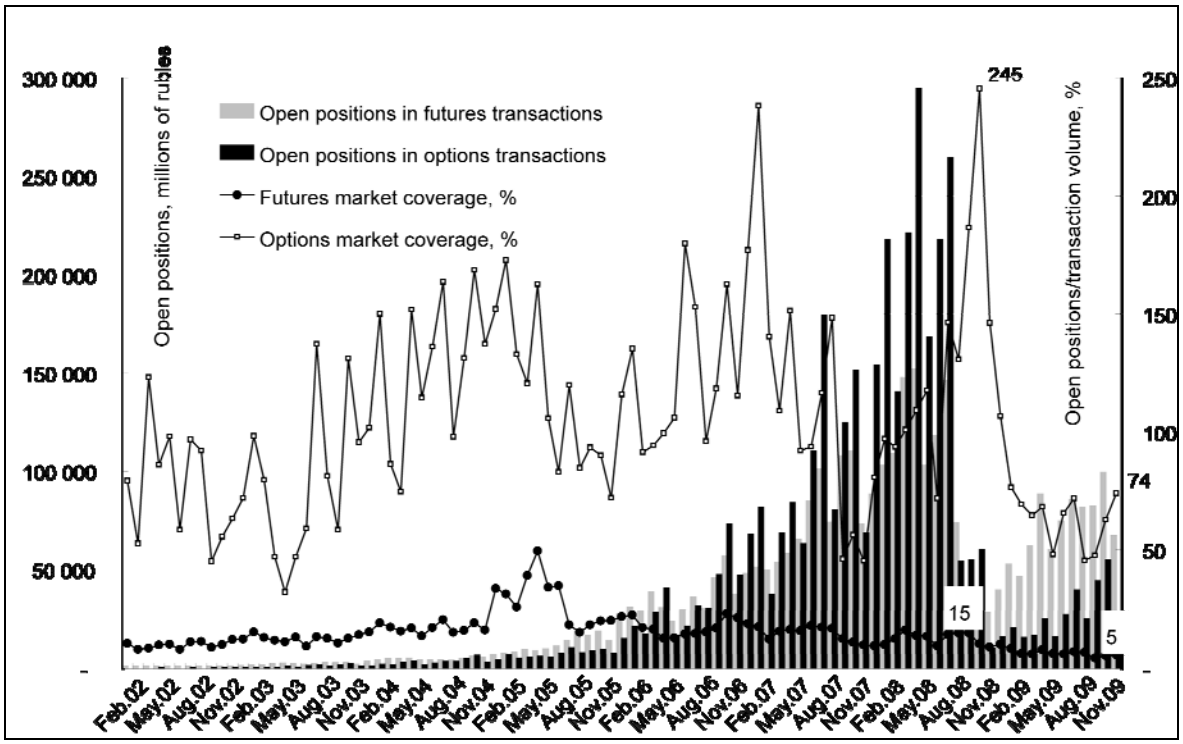


Source: RTS trading system.

Fig. 36. Trading volumes and number of transactions at the RTS forward market from Septemeb 1, 2001, to December 31, 2009

However, we see a cause for concern in the development of the forward market as evidenced by the decrease in coverage of futures and options contracts, as shown in *Fig. 37* that contains data on open positions in the futures and options markets, as well as data on transaction coverage in each market segment that is calculated as the ratio of average monthly open position volumes by the average monthly trading volume for the respective forward contracts. The recovery in forward market trading volumes starting from March 2009 was accompanied by a decrease in coverage levels for futures transactions from 10% of the trading volumes in December 2008 to 5% in December 2009, while the options market saw a decrease from 146% to 74% over the same period.

The rapid development of the financial crisis in the stock market starting from August 2008 also brought about a crisis in the repo markets when several major market participants were unable to service their repayment obligations. It was only possible to avoid a system-wide default by involving the Bank of Russia in the settlement process that helped solve the problem of mutual defaults. The crisis was caused by the lack of a guarantee mechanism for the execution of the second stage of repo transactions, i.e. the repayment of funds by the debtor, for repo transactions concluded at MICEX. The financial community in general derived appropriate lessons from this experience; MICEX announced the prospective creation of a transaction execution guarantee system for repo transactions and the transition to a system of transaction settlements using a single clearing agent.



Source: RTS trading system

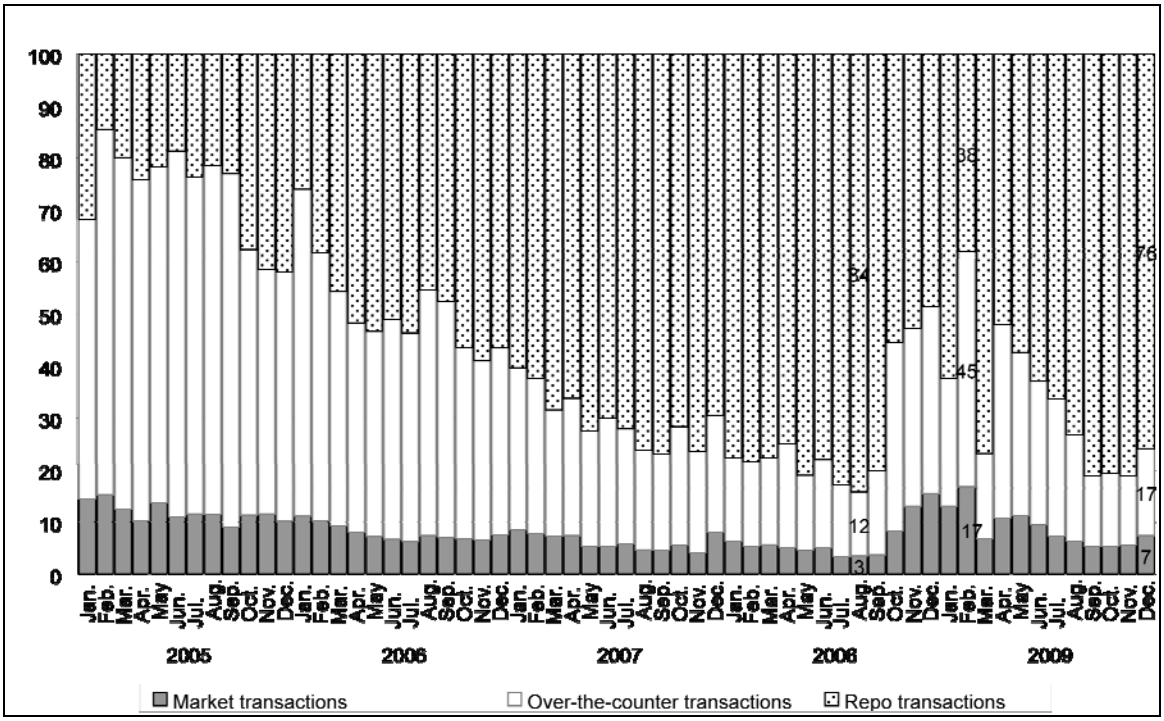
Fig. 37. Open positions and transaction coverage in the RTS forward market from February 1, to December 31, 2000

Risk in repo transactions

However, improving the settlement and guarantee systems for repo transactions leaves open the issue of the risks related to excessive development of this market segment. *Fig. 38* shows the structure of stock exchange transactions with corporate bonds at MICEX. From early 2005 to August 2008, the share of repo transactions grew rapidly, reaching 84% of the stock exchange trading volume. The crisis in the repo market in September 2008 – February 2009 resulted in a significant decrease of this share, however, it started growing again as the market recovered to reach 76% in December 2009. The share of market transactions is only 7%.

The fast growth rates for repo transactions have an economic basis as these transactions are an important instrument of refinancing the banking system by the Bank of Russia and by commercial banks with excess liquidity. However, as previously noted in the comments to *Fig. 21*, banks tend to use this refinancing mechanism rather aggressively, increasing their investments in bonds in a pyramid scheme fashion by continuously entering into repo transactions. Thus investments in long-term bonds are frequently funded by short-term borrowings. The increasingly narrowing segment of market transactions with bonds does not allow for the determination of their real market value. For this reason, repo transactions use highly conditional methods of bond valuation. All this increases the systemic risks of investments in ruble-denominated bonds that can result in a system-wide default in case of a sudden default by one or a group of major issuers that may be impossible to manage even for a specialized clearing

agent. It may be advisable for the Bank of Russia to consider developing other methods of refinancing the banking system alongside the repo market.

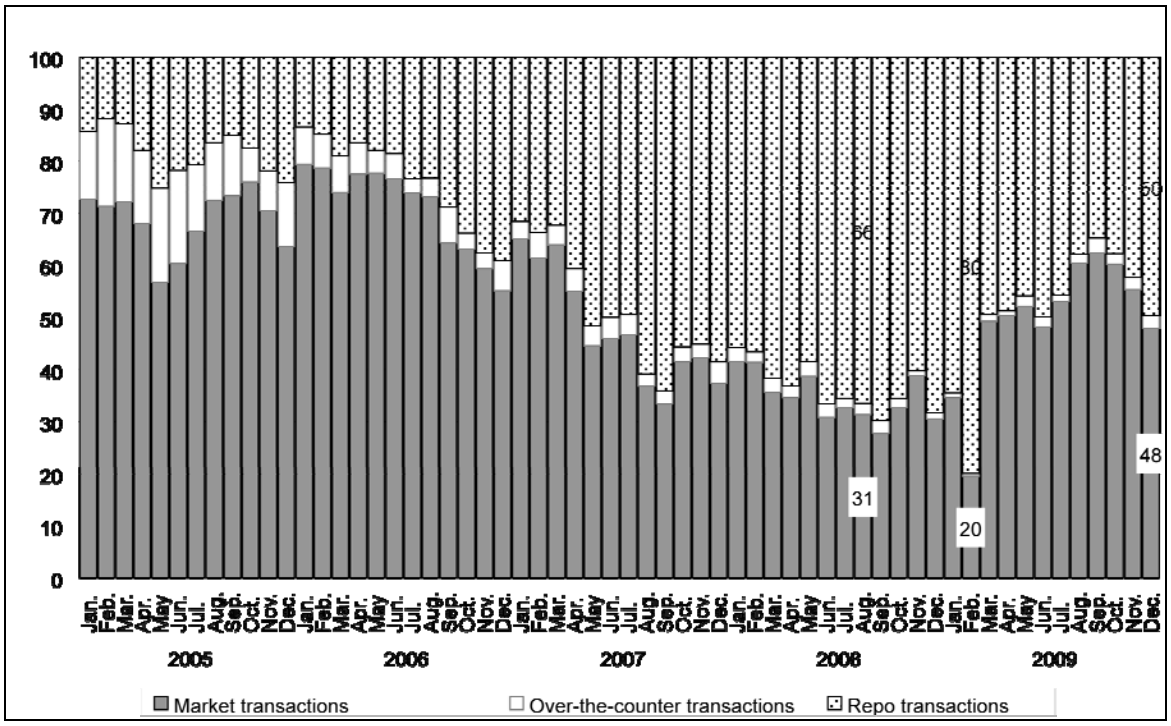


Source: RTS trading system.

Fig. 38. The structure of corporate bond transactions at MICEX (%)

Fig. 39 shows data on the evolution of the structure of equity transactions at MICEX. These also showed a clear trend towards the growing share of repo transactions in 2005-2009 that was briefly interrupted in early 2009 but appeared to have resumed by the end of the year[1]. The nature of equity repo transactions is significantly different from that of the similar market segment for ruble-denominated bonds. Equity repo transactions are predominantly used by brokerage companies to raise funds for subsequent margin lending to their clients. The share of repo transactions in the equity market fluctuates between 50% and 66% of the market stock trading volume. In our opinion these levels do not yet represent substantial grounds for risk fears. However, is this share grows, market participants and regulators may need to jointly consider ways of decreasing the dependence of broker margin lending funds on short term borrowings.

[1] The figure for February 2009 is distorted by the inclusion in the overall trading volume of 16 transactions with ordinary shares of Gazprom in the total amount of RUR 1,620,880 million rubles that were erroneously executed by a trader on February 2, 2009, as equity repo transactions and were later ruled invalid following a ruling of the MICEX arbitration committee on February 18, 2009.



Source: RTS trading system

Fig. 39. The structure of equity transactions at MICEX (%)

Low capacity of the domestic financial services market

For Russian financial intermediaries to be competitive and to be able to provide financial services at a global level, it is necessary for their capitalization, i.e. their net asset value, to approach that of similar international entities. Thus, as of February 8, 2010, the capitalization of nonbank financial holdings in the USA specializing in the provisional Financial Services to the general public, such as Charles Schwab Corp. (SCHW), TD Ameritrade (AMTD) и E*Trade Financial Corp. (ETFC), amounted respectively to US$21 billion, US$10 billion, and US$2.8 billion. The major investment fund managers have the following market values: Prudential Financial Inc. (PRU) that of US$22.5 billion, BlackRock Inc. (BLK) of US$39.4 billion, Invesco Ltd. (IVZ) of US$8.0 billion, Janus Capital (JNS) of US$2.18 billion. American bank holdings that function primarily as investment banks, such as Goldman Sachs Group Inc. (GS) and Morgan Stanley (MS), have a capitalization of US$83.7 billion and US$37.1 billion respectively. The market value of US universal banking holdings was US$129 billion for Bank of America Corp. (BAC) and US$91.7 billion for Citigroup Inc. (C).

The majority of Russian Financial intermediaries, except select major banks whose shares are traded at MICEX and RTS, are not publicly traded and do not publish Consolidated Financial accounts. In the apparent understanding that the provision of competitive financial services in the domestic market is impossible without radically changing the operations of brokers, investment banks, managing companies, and other intermediaries, the Russian Federal Financial Markets Service adopted a decision in 2009 to significantly raise the minimum capital requirements for professional securities market participants. A directive by the Russian Federal Financial Markets Service, No. 09-29/пз-н dated July 30, 2009, On amendments

to the capital adequacy ratios for professional securities market participants, investment fund managing companies, Mutual Investment funds, and private pension funds that were previously established by the Federal Financial markets service directive No. 07-50/ПЗ-Н dated April 24, 2007, the minimum capital adequacy requirements were raised from RUR 5 million to RUR 35 million starting from July 1, 2010 and to RUR 50 million starting from July 1, 2011 for brokerages; from RUR 10 million to RUR 35 million and RUR 50 million respectively for dealers and securities trust managers, and from RUR 60 million to RUR 80 million starting from July 1, 2011 for collective investment vehicle managing companies.

However, in our opinion, these measures will be inadequate to solve the problems of low capitalization and of the ensuing low efficiency of Russian financial intermediaries. Developing this business segment is seriously hindered by the low capacity of the financial service market in Russia. In other words, the measures taken by the authorities in the areas of pension reform, social support to the public, developing the financial market, etc., will not translate into significant growth in the assets brought by domestic investors to the stock market either at present or in the short term perspective.

Within the subject study of nonbank financial intermediary economics that was taught at the Higher School Of Economics state university in 2009, we sought to estimate the capacity of the Russian financial market in 2009-2014.[1] Using various sources and interviews with experts, asset values were estimated for the assets held by various categories of individual and institutional investors in brokerage accounts or transferred into trust management, including investments in mutual funds. The size of the market for investment services was also estimated for the placements of various securities and for conducting merger and acquisition transactions. This was followed by estimating the annual revenues of financial intermediaries from offering these non-banking financial services, which finally enabled the potential business valuation of investment banks, brokerages, and trust managers using a discounted cash flow model. Our estimates show that the business value for financial services providers in Russia is approximately US$6 billion for intermediaries servicing retail investors and US$13 billion for intermediaries servicing issuers and institutional investors, totalling US$19 billion. Approximately half of the total capitalisation is taken up by non-resident institutions or their Russian subsidiaries that successfully compete with Russian institutions in servicing high net worth individuals with net asset values in excess of US$1 million and in the investment banking services market for foreign bond placements by Russian corporates, equity IPOs and SPOs, and mergers and acquisitions.

Thus the total business value for Russian investment banks, brokerages, and trust managers is approximately US$10 billion, which prevents the appearance in this market of institutions that could effectively compete with foreign financial institutions. Despite the superficially favorable indicators of market trading volumes, of the capitalization of Russian companies, of IPO and merger and acquisition transaction volumes, the competitiveness of Russian providers of nonbank financial services is questionable not only at present but also in the near future. This per se carries greater risks for investors, issuers, and the economy as a whole. Addressing this challenge will require government authorities and private businesses to make breakthroughs in the areas of strategic management, innovation, incorporating Russian financial institutions into global value chains in international financial markets, and taking deci-

[1]For more details, see the study results published in the NAUFOR bulletin, No.3 (March) 2010.

sions that can have a real impact on significantly increasing the capacity of the domestic financial market.

Despite the gradual recovery in the stock market, unprecedented liquidity indicators and ruble-denominated bond placement volumes in 2009, the inherent risks of the Russian financial market remain, and the market remains vulnerable to both external shocks and internal risk factors.

2.4.6. The prospects of resuming carry trading operations

The Russian stock market has two principal external growth drivers: oil prices (see *Fig. 28*) and short-term foreign capital (see *Fig. 34*). As shown previously (see *Fig. 29*), there are fundamental grounds to believe that the oil prices will not grow significantly in the next 10 years. In this case, stock prices will come under increasing pressure from movements in foreign portfolio investments and thus will be increasingly influenced by carry trading strategies.[1]

Prior to the crisis, such strategies were a principle growth driver for the banking sector, giving banks cheap funds for onlending and investing in fixed income instruments. The scale of their use is evidenced in *Fig. 10* that shows the currency gap between bank assets and liabilities denominated in foreign currency. During the crisis, borrowings from non-residents were replaced by borrowings from the state. However, the Bank of Russia and the Ministry of Finance consistently withdrew from the banking sector in late 2009, once again transitioning from net creditors to net debtors of the banking system (see *Fig. 12*). Despite the growth of bank deposits, one must bear in mind that such funding is expensive for banks and its use for lending results in a low net interest income margin of 3-5%. For this reason, it is highly likely that the use of carry trading in banking will resume in the post crisis period.

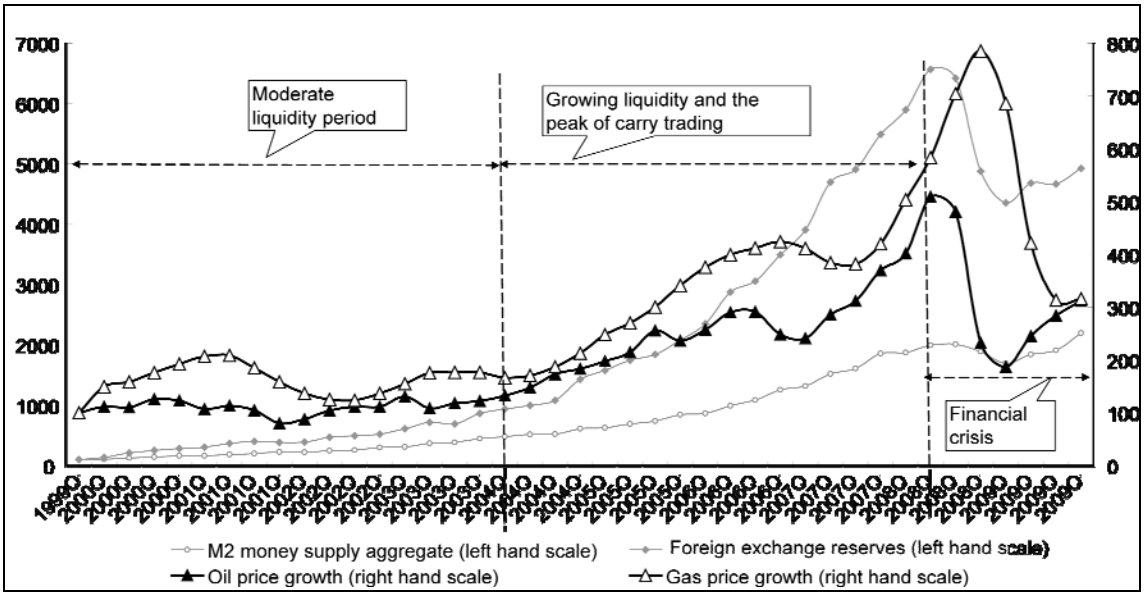
Moreover, banks remain as the principal investors in the ruble-denominated bond market. As shown in *Fig. 20*, the rapid growth of transaction volumes in the ruble-denominated corporate bond market from early 2004 to July 2008 was made possible predominantly by the use of carry trading strategies by Russian banks and foreign hedge funds. It is difficult to derive a quantitative estimate of the share of this strategy in the total funding sources for investments in ruble-denominated bonds. For example, Greenwich Associates estimates that hedge funds accounted for 45% of the trading volumes for emerging markets issuer bonds in 2006.[2]

At the start of the global financial crisis, mutual mistrust by banks led to the failure of carry trading strategies. To answer the question regarding the timing of its resumption, one must look into the preconditions for its existence. There are three such prerequisites: a drop in the value of the borrowing currency, low interest rates in the country of borrowing, and the existence of a liquid and relatively stable foreign exchange market and of financial assets denominated in national currencies. *Fig. 40* shows data for the evolution of oil and gas prices, as well as for the growth of the M2 money supply indicator and of foreign exchange reserves. These data show that in 2009 the market reached its bottom for all of the above indicators, which was followed by their resumed growth. This provides reasons to believe that Russia's

[1] The essence of the strategy is straightforward: attracting funds in foreign borrowings in the currency of countries with low interest rates (borrowing currency) for the purpose of this subsequent investment in the financial instruments of countries with relatively the high national currency interest rates (investment currency).

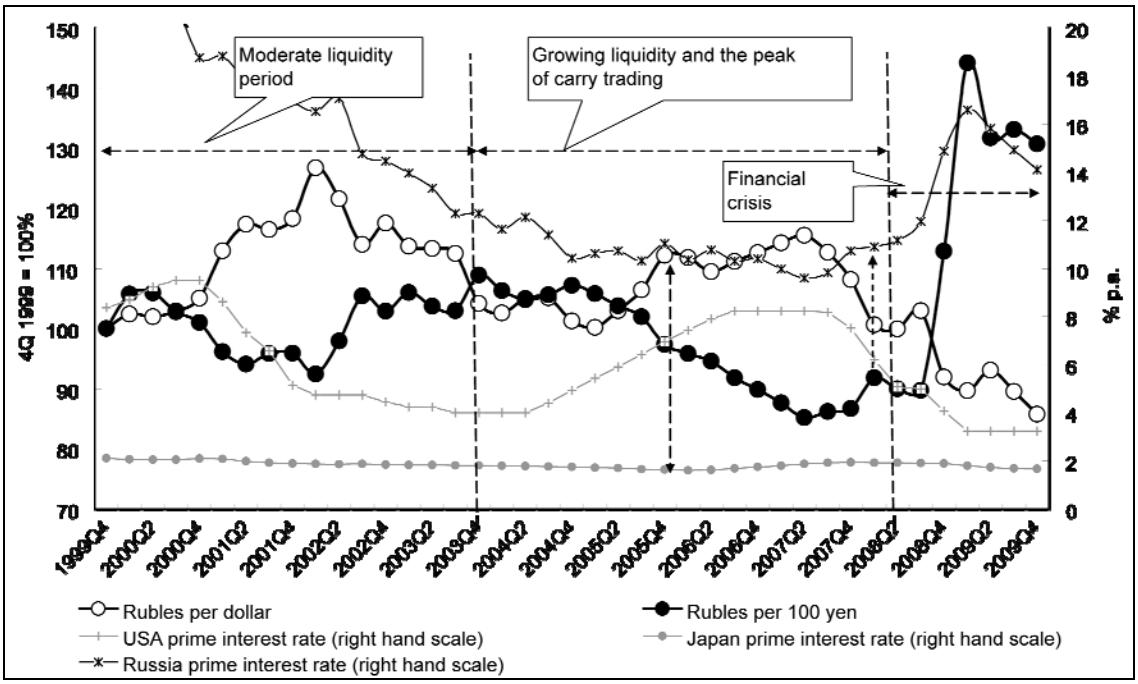
[2] Key findings have been published in The Wall Street Journal on August 30, 2007. See also OECD Financial Markets Trends. Volume 2007/1. No.92, page 42.

financial condition shall remain stable in the short to medium term, which will have a favorable effect on all the preconditions for the resumption of carry trading.



Source: calculations based on data from the IMF Financial Statistics Database.

Fig. 40. Growth of energy prices and of excess liquidity in Russia (4Q 1999 = 100%)



Source: calculations based on data from the IMF Financial Statistics Database.

Fig. 41. Preconditions for carry trading in Russia

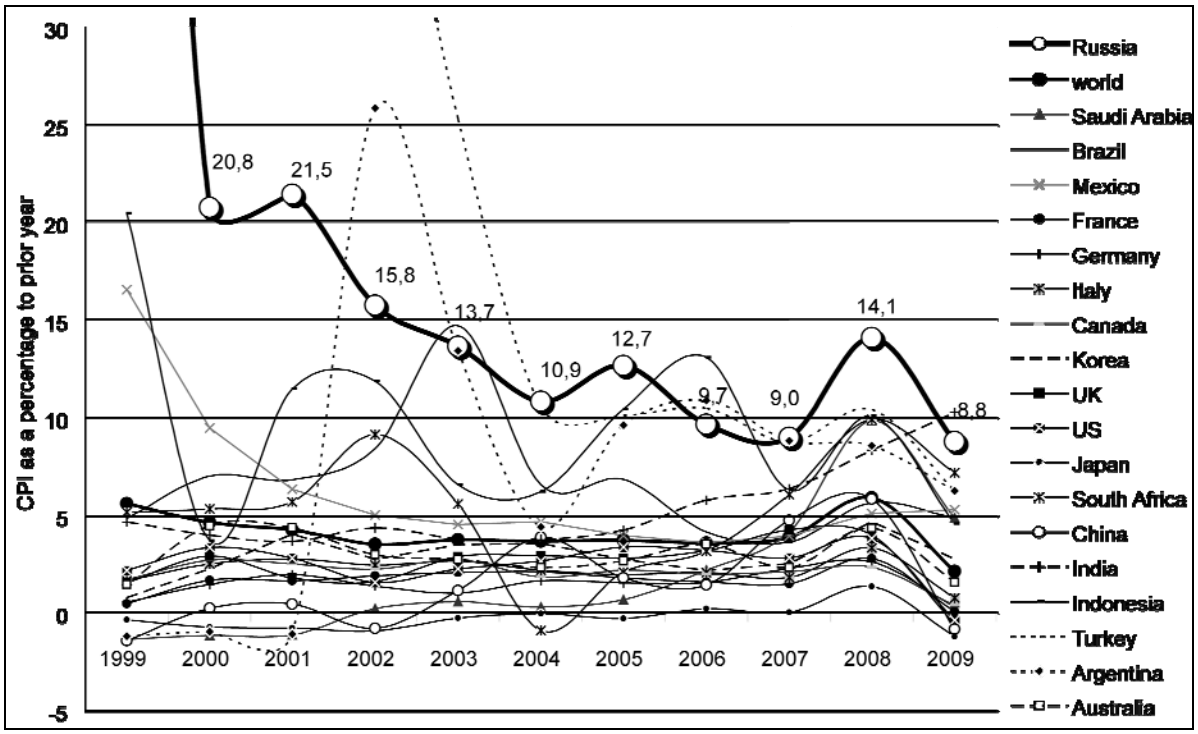
The prerequisites for a renewal of carry trading from the point of view of exchange rate policies and the cost of funding are analysed in *Fig. 41*. Despite the current strengthening of the ruble exchange rate to the yen and the dollar, the instability of the ruble significantly increased during the financial crisis. The ruble was devalued relative to the dollar and, to an even greater extent, relative to the yen. This instability of the ruble continues to be an obstacle to carry trading. Moreover, as was shown in *Fig. 31*, the so-called notional ruble exchange rate grew much faster than the nominal exchange rate in December 2009 due to the significant growth in the M2 indicator set against a decrease in the foreign exchange reserves which, in our opinion, is indirect evidence of the expected devaluation of the ruble.

As regards the difference between the interest rates in Russia, Japan, and the USA (see *Fig. 41*), it remains significant despite the fact that Russia in 2009 kept inflation at a moderate level of 8.8% and continued lowering the refinancing rate. This means that the second precondition for carry trading is being met. The same can be said of the third precondition, i.e. the existence of a liquid and relatively stable foreign exchange market and of financial assets denominated in national currencies.

Thus the majority of the preconditions for the renewal of carry trading in Russia are being met. However, such a renewal remains limited by the relative instability of the ruble. Another important obstacle to carry trading activities is the remaining lack of confidence in the global financial markets.

Their risks of carry trading for Russia are several. First, such strategies leave few stimuli for the financiers to make riskier and often less profitable investments in the real sector. It is much easier and more profitable to raise short term funds than to take upon oneself the risks of economic modernization. Second, such strategies imply a huge inherent risk for the banking system, ultimately leading, as has already been seen prior to both financial crises, to a currency gap between bank assets and liabilities denominated in foreign currency that entailed a bank liquidity crisis. Third, carry trading needs to the emergence of bubbles in the ruble-denominated corporate bond market and leads to "overheating" in the consumer lending segment. Fourth, this strategy leads to the "securitization" of financial relationships that transforms banks from "smart lenders" and investors in the bond market into "lending factories" where lender due diligence is performed by computers instead of people. The banking sector loses credit appraisal skills that require high professional qualifications of staff and an in-depth knowledge of the borrowers' business. As a result, the bank's potential for aiding economic modernization is lost. Finally, carry trading undermines the domestic savings system, making investments in ruble denominated bonds unprofitable for the borrowers that use ruble funding (general public, mutual investment funds, private pension funds, insurance companies, etc), due to the fact that such investments often have negative real rates of return.

The state must decisively oppose carry trading. The greatest effect in this respect can be achieved by measures to curtail inflation. The higher the domestic inflation, the higher the spread between domestic ruble borrowing rates and the cost of raising funding abroad, the more effective carry trading strategies are for speculators. *Fig. 42* shows data on inflation levels in Russia compared to other G20 countries. It is obvious that, despite inflation being lowered from 14.1% in 2008 to 8.8% in 2009, its level remains practically the highest among G20 countries. This in turn points to the need to combat inflation and, above all, to combat the factors contributing to its domestic growth as one of the key priorities for the government and for the Bank of Russia.



Source: IMF data and national statistics.

Fig. 42. Inflation in G20 countries in 1999–2009

2.4.7. Attracting conservative institutional investors

The Russian stock market remains unattractive for the most highly capitalized and conservative investors, above all for foreign pension funds. In order to understand the reasons for this, we can use the experience of the largest U.S. pension fund, the California Public Employees' Retirement System (CalPERS), with reserves of approximately US$200 billion. For many years until 2007, CalPERS rated emerging markets as potential investment targets for its assets. The CalPERS methodology was publicly disclosed and based on studies by authoritative agencies such as Freedom House, the World Economic Forum, Oxford Analytica, The Heritage Foundation, Wall Street Journal and many other research bodies.

The CalPERS methodology involved an assessment of emerging markets investment attractiveness based on two groups of indicators, country risks and the inherent risks of specific financial markets.

Country risks were evaluated by CalPERS according to the following criteria:

- Political stability, i.e. the state of civil liberties, the extent of independence of the judicial system, and political risk;
- Information transparency, including freedom of the press, disclosure of information on the monetary policy and budget, quality of stock exchange listings, and the effectiveness of application of International Financial Reporting Standards (IFRS)
- The compliance of labor legislation with the international standards that regulate labour relations, such as the ratification of the ILO convention, the compliance of labour legislation with ILO standards, the effectiveness of law enforcement..

In other words, evaluating country risks entailed an assessment of the investment climate and investment institutions as the foundation for financial markets.

The second group of indicators entailed the assessment of quantitative and qualitative parameters of emerging capital markets, including the following indicators:

- Stock market liquidity and volatility, the assessment of market capitalisation and its growth rates, the ratio of monthly trading volumes to market capitalisation, the growth in the number of listed companies, stock market volatility and the risk/return ratio;
- assessing the effectiveness of banking supervision and legal practices in the stock market, the degree of protection of creditor and shareholder rights;
- Assessing the degree of openness of the economy to foreign investment, bank and financial institution regulatory regimes, restrictions on the purchase of securities;
- Assessing the effectiveness of the stock market settlement mechanisms and the levels of transaction costs, predominantly tax expenses, related to securities market transactions and to the remittance of profits to beneficiary owners.

The maximum score for any market equals 3. Countries that scored 2 and above were included in the list of markets approved for investing CalPERS assets. Otherwise a country market was considered off limits for investment by CalPERS.

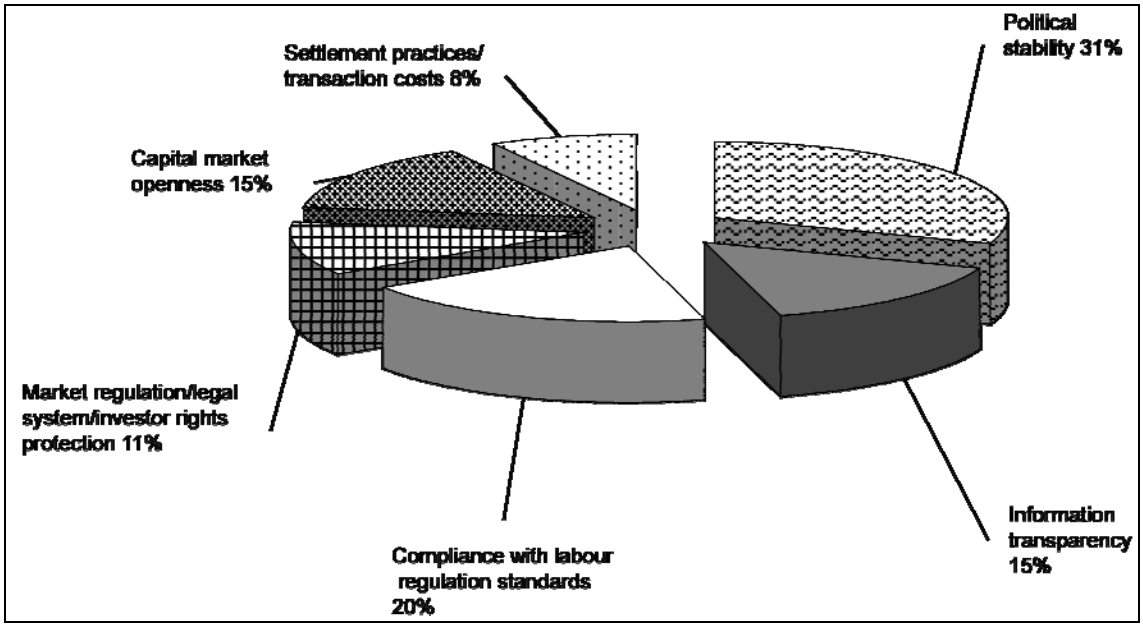
In 2007 CalPERS modified its decision taking methodology with regard to investments in emerging markets. Portfolio managers were given the right to independently choose emerging markets companies as investment targets taking into account the inherent risks of different countries and stock markets. However, even given the changes in the investment decision process in 2007-2009, CalPERS never invested in Russian securities. This means that the de facto approach taken by this fund to analyzing the Russian stock market has remained unchanged and is still relevant for understanding the deficiencies of this market from the point of view of conservative foreign investments.

In 2007, the Russian stock market received the CalPERS score of 1.91, i.e. below the investment threshold score of 2, which precluded CalPERS from investing in this market. *Fig. 43* analyses the principal obstacles that prevented the Russian market from obtaining the maximum score according to CalPERS methodology.

Country risk factors, including political stability, information transparency, and compliance of the labor laws with international standards together accounted for 66% of the missing score for Russia. Political stability in the country received a score of one out of three. The principal reasons for such scores are the low assessment of civil liberties, of the independence of the judiciary system, and the degree of protection of ownership rights, as well as political system stability. The level of information transparency in Russia received a score of two, sufficient for the market to be designated as an investment target. Within this category, the higher scores for information disclosure concerning monetary policy, the budgetary system, and stock market listing were counterbalanced by low scores for freedom of the press in the effectiveness of applying IFRS (IAS or US GAAP). The degree of compliance of labour laws with ILO standards received a score of 1.7 out of three.

Against this background of conservative assessment of the effectiveness of institutional factors, the quantitative and qualitative characteristics of the Russian stock market appear quite adequate. However, Russia still failed to reach the threshold score of two by 34% for this indicator. The quality of market regulation of the banking sector and stock markets received the average rating of two; a higher score was made impossible by the insufficient effectiveness of banking supervision and legal practices in the stock market, as well as deficien-

cies in the protection of creditor rights. Capital market openness received a low score of 1.7 Dees the entry barriers for banks and insurance companies.



Source: www.calpers.ca.gov

Fig. 43. Obstacles that prevented the Russian market from obtaining the maximum score according to CalPERS methodology (USA) in 2007

The Russian market received a relatively high score of 2.3 for settlement efficiency and the level of transaction costs. Settlement efficiency and the securities market in particular received the top score of 3.0, even despite the absence of a central depository and of a system of settlement guarantees without the ex ante securities deposits.

Changes in the Russian economy and political system in 2008-2009, even apart from the crisis, exacerbated the situation in the areas where Russia had received the lowest CalPERS scores. This is evidenced by *Table 5* that shows the scores for the relevant areas assigned by the agencies whose ratings were used by CalPERS, or, if firsthand information was not available, alternative assessments by authoritative agencies, over the past three years.

Table 5

Changes in the problem areas of Russian economic and political life as seen by conservative foreign investors, 2007–2009

	CalPERS scores							Subsequent scores			
	Information source	Weight, %	2003	2004	2005	2006	2007	Information source	2007	2008	2009
1. Political stability		16,7	1,0	1,0	1,0	1,0	1,0				
• Civil liberties	Freedom House		1,0	1,0	1,0	1,0	1,0	Freedom House***	5,0	5,0	5,0
• Independence of the judicial system and legal protection	Global Competitiveness Report		1,0	1,0	1,0	1,0	1,3	Global Competitiveness Report*	106	109	116
2. Transparency (openness)		16,7	1,0	3,0	2,0	2,0	2,0				
• Freedom of the press	Freedom House		2,0	2,0	1,0	1,0	1,0	Freedom House	75	78	80

	CalPERS scores							Subsequent scores			
	Information source	Weight, %	2003	2004	2005	2006	2007	Information source	2007	2008	2009
• Transparency of monetary and fiscal information	Oxford Analytica		1,0	2,0	2,0	2,0	2,0	Global Competitiveness Report*	118	119	114
• Compliance with IFRS	eStandards Forum				2,0	1,5	1,5	Global Competitiveness Report*	95	108	119
3. Compliance of labor laws with international standards	Verite	16,7	1,0	1,0	1,0	1,7	1,7	Global Competitiveness Report*	33	27	43
4. Investor rights protection	Разное	12,5	2,0	2,0	2,0	2,0	2,0	Global Competitiveness Report*	45	67	71
5. Openness of capital markets	The Heritage Foundation's Index of Economic Freedom	12,5	1,0	1,0	1,0	1,3	1,7	The Heritage Foundation's Index of Economic Freedom **	49,8	50,8	50,3
• Trade barriers	The Heritage Foundation's Index of Economic Freedom		1,0	2,0	2,0	1,5	2,5	The Heritage Foundation's Index of Economic Freedom **	44,2	60,8	68,4
• Foreign investment	The Heritage Foundation's Index of Economic Freedom		2,0	2,0	1,0	1,5	1,5	The Heritage Foundation's Index of Economic Freedom **	30,0	30,0	25,0
• Banking and finance	The Heritage Foundation's Index of Economic Freedom		1,0	1,0	1,0	1,5	1,5	The Heritage Foundation's Index of Economic Freedom **	40,0	40,0	40,0
• Stock market openness ****	S&P Global Stock Markets Factbook		2,0	2,0	2,0	2,0	2,0	Global Competitiveness Report*	129	127	120

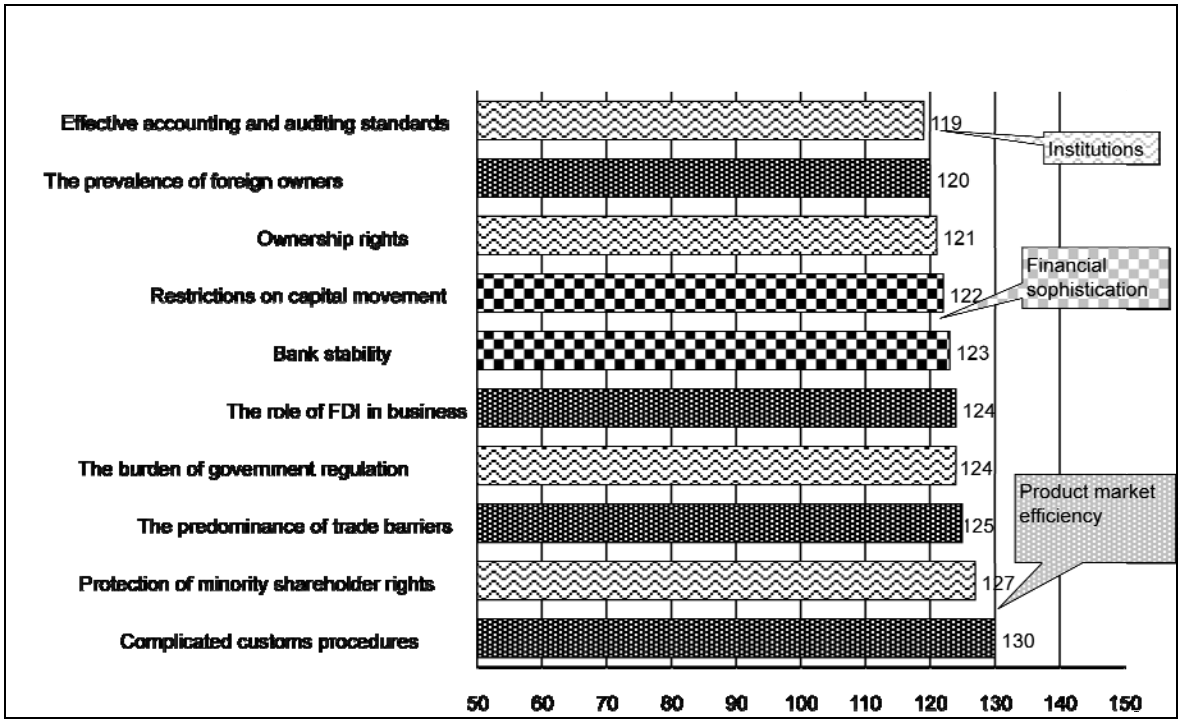
* Russia's ranking among 125 countries in 2007, 134 countries in 2008, and 133 countries in 2009 according to the global competitiveness index.
** using a maximum score of 100. In 2010, of Russia ranked 143rd among 183 countries in terms of the index of economic freedom and confirmed its status as an "non-free economy".
*** using a reverse score of 7; the higher the score, the worse the civil liberties situation. Russia has the status of an "non-free country".
**** the maximum participation of foreign investors in corporate equity in general, and in the equity of insurance companies and banks. .
Source: calculations based on CalPERS data and ratings by the World Economic Forum www.weforum.org, Heritage Foundation www.heritage.org/index/ and Freedom House www.freedomhouse.org/

The vast majority of the Russian economic and political areas analysed are witnessing either a deterioration of the scores or the persistence of low scores. Thus the unfavourable institutional environment, labor laws that are out of compliance with international standards, especially as regards hiring qualified foreign staff, the low level of investor rights protection, barriers to trade and capital movements, and a weak financial system of the main reasons that prevent the influx into Russia of the long-term funds of major international institutional investors.

Fig. 44 shows the top 10 problem areas in the Russian economy according to the global competitiveness index issued by the World Economic Forum in 2009-2010[1]. The principal

[1] The figures in *Fig 44.* signify Russia's ranking for each of the scoring criteria among the 133 countries rated.

obstacles to Russia's competitiveness belong to three main groups: product market inefficiencies (complicated customs procedures, high trade barriers, the low level of foreign direct investment and a significant number of restrictions on foreign property ownership); the unfavourable institutional environment (infringement of minority shareholder rights, the heavy burden of government regulation, insufficient protection of property rights, and the limited application of International Financial Reporting Standards); and weakness of the financial system (bank instability and restrictions on capital movements). It is obvious that most of the above factors that detract from the competitiveness of the Russian economy according to the World Economic Forum coincide with the low score areas in the Russian financial market according to CalPERS.

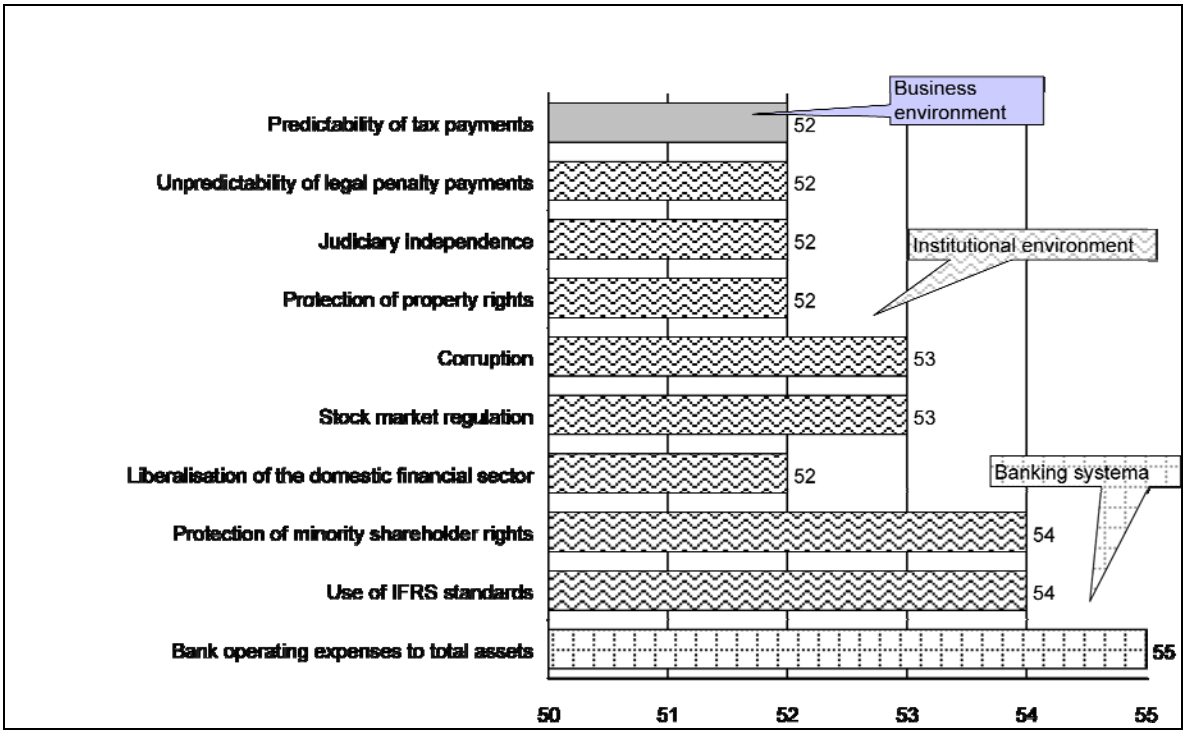


Source: Calculations based on World Economic Forum ratings (www.weforum.org)

Fig. 44. The 10 principal shortcomings of Russia measured by the global competitiveness rating in 2009-2010 (aggregate 63rd position among 133 countires scored)

Fig. 45 shows the scorecard for a more specialised World Economic Forum rating that was published in late 2009 and assessed the financial system in 55 countries with the largest financial markets. In this list Russian ranked 14th out of 55 countries. *Fig. 45* also shows the 10 worst score is received by Russia under this rating. Three groups of issues can be distinguished, including, once again, the unfavourable institutional environment as demonstrated by the limited application of international financial reporting standards, the infringements of minority shareholder rights at joint stock companies, weak stock market regulation (due to the presence of the bank of Russia among the owners of one stock exchange), corruption, barriers to entry of foreign entities into the financial markets, lack of independence in the judiciary system, difficulties in law enforcement, and breaches of property rights. Another issue of the

Russian financial system is the weakness of banks, where Russian ranks last among the 55 participant countries. Finally, the third issue is to do with the restrictive tax administration.



Source: calculations based on World Economic Forum ratings (www.weforum.org).

Fig. 45. Russia's ten principal drawbacks under the Financial Development Index, 2009–2010 (aggregate 40th position among 55 participants)

The events of 2009 leave a contradictory impression regarding the readiness of Russian authorities to radically change the investment climate in the country. On the one hand, the Russian president, D.A. Medvedev, has initiated an appeal for modernization of the society, read regearing the economy to developing value added sectors, and promoting innovation. This appeal translated into changes in the structure of government agencies, in the legislation, in decisions taken regarding the allocation of government finances.

The government opened dialogue with foreign investors regarding amendments to the Federal Law On Foreign Investment aimed at mitigating the restrictions for the access of foreign capital to strategic sectors and simplifying the procedure for approving investments into companies in these sectors[1]. The President of Russia has instructed the government to develop an action plan for improving the investment climate in Russia in 2010, including the simplification of customs procedures, the privatization of significant government stakes in state owned companies, changes to the tax legislation aimed at promoting innovation. [2].

On the other hand, civil society and foreign investors are increasingly perplexed by the legal proceedings in the Yukos case. The death of the chief legal counsel of the Hermitage Capital Management hedge fund has triggered a strong international reaction. Crimes against

[1] A. Gudkov, the Government has disappointed foreign investors // Kommersant, February 4, 2010.
[2] P.Netreba,. the Investment climate is to change in the spring// Kommersant, February 12, 2010.

journalists are pervasive, the opposition is repressed, the situation of small and medium enterprises continues worsening, the activities of state-owned companies and corporations are becoming less and less transparent.

The issue of the degree of modernisation of society that may be required by modernisation of the economy remains open. We can only stress here that an indication of the resolution of this issue will be shown by the readiness of foreign portfolio investors and other large investors involved in FDI to change their attitude to the Russian financial market by investing large amounts of long-term funds, as well as making technology investments in the country. This "miracle" failed to happen in 2009

2.4.8. The role of the stock market in economic modernisation and promoting innovation

The current crisis revealed significant problems and contradictions within the Russian economy, demonstrating its lack of readiness to the challenges of globalisation. By the end of 2009, the government and the public as a whole adopted the focus on economic modernisation. The financial market must play a crucial role in the implementation of these plans, however, the question remains of whether it is ready to tackle the challenge.

Financial crises always result in increased risks and uncertainties for entrepreneurs regarding future investment projects, in the lack of trust between creditors and debtors. For these reasons it would be unrealistic to expect effective results from the financial market at the peak of the crisis. However, an analysis of financial market functioning prior to and during the crisis gives us grounds to believe that the domestic financial market is not yet prepared to fully tackle the issues of economic restructuring, accelerating innovation, and providing social support to the public.

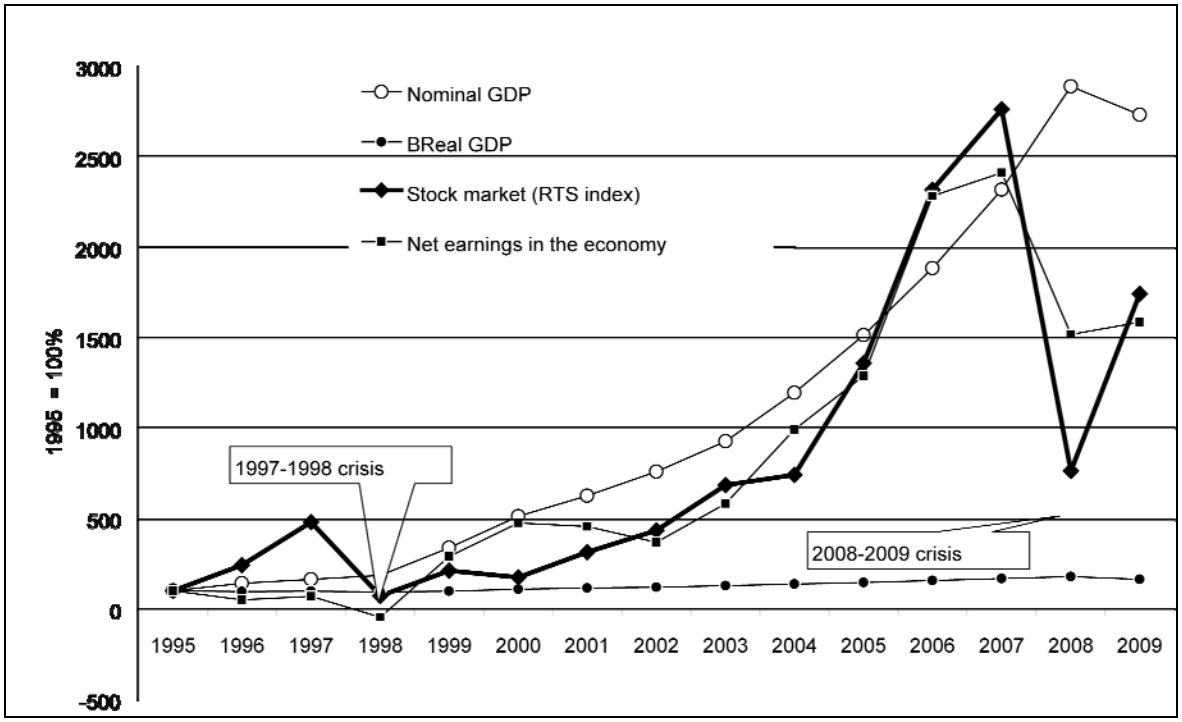
This is due to a number of reasons. First, within the current regulatory framework, the return on investment from pursuing speculative strategies in the financial market, such as carry trading or using debt leverage in repo transactions, is higher than the return on investment in new production facilities. Second, the refocusing on many banks away from lending into investments in corporate bonds results in the loss by such banks of project financing skills in the real sector, while the ruble denominated bond market that allows to attract short-term investment funds cannot serve as a means of the replenishing real company capital. The banking system is weak and incapable of large-scale lending to the economy. Third, the Russian market does not have the traditional innovation vehicles such as private equity funds and venture capital funds. Finally, the system of mobilizing long-term retail savings does not function in Russia. The low effectiveness of the domestic financial markets is exacerbated by the unfavourable investment climate for attracting foreign direct investment and long-term portfolio investment.

The return on financial and non-financial investments

In the long term, stock market growth follows the trends in fundamental indicators, such as net company earnings and gross domestic product (GDP). For example, the author's estimates of the relationship between stock market growth and the key economic indicators in 12 developed capital markets over the past 50 years shows that the average growth rates of stock mar-

ket indices are generally in line with the average nominal GDP growth rates[1]. In emerging markets, stock market growth rates tend to outstrip nominal GDP growth rates due to attracting foreign portfolio investments.

Fig. 46 Shows the relationship between the growth rates for the RTS index, GDP, and the earnings of Russian companies. It demonstrates that prior to both Russian crises the stock market index growth rates differed significantly from GDP growth rates. As markets recovered, stock market indices sought to catch up with industrial production and earnings indicators.



Source: RTS and Russian Statistics Committee data.

Fig. 46. Stock market index growth compared to fundamental indicators

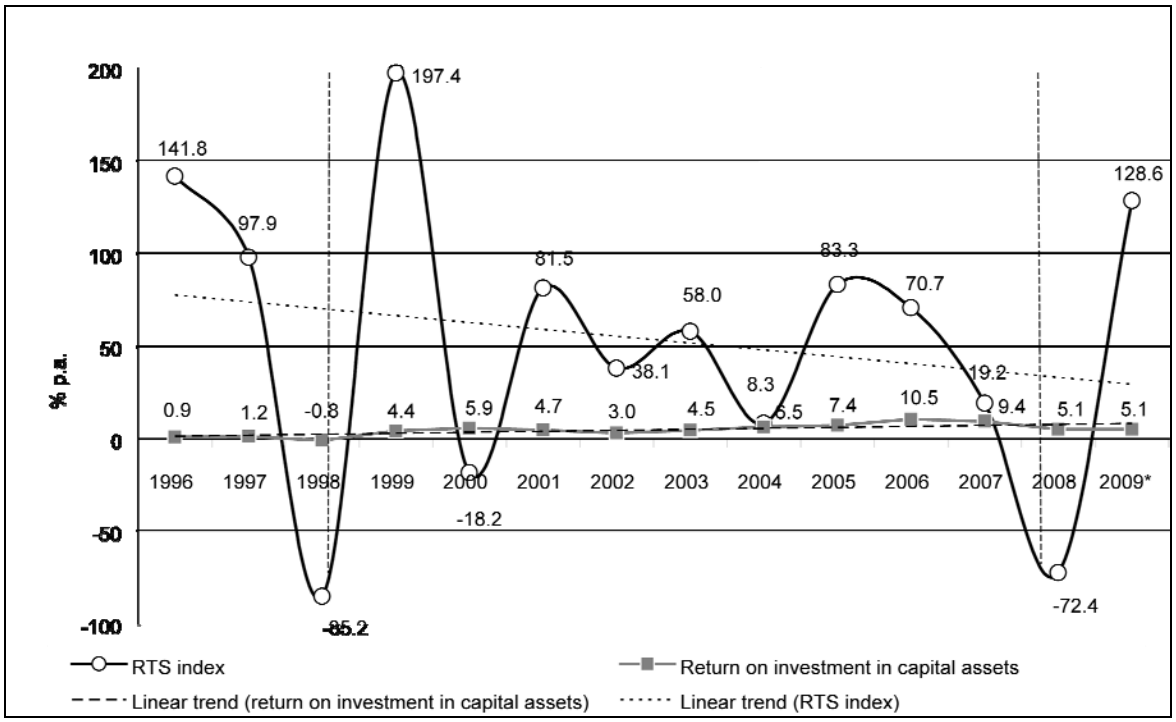
The greatest issue in the Russian stock market is the fact that the return on financial investments substantially exceeds the return on investments in industrial assets, both capital assets and working capital. As a result, instead of attracting investments in new industrial capacity, the securities market periodically functions as a "pump" funneling resources away from the real economy. The high return on investment in this market is ensured primarily by the influx of new investor funds rather than by the growth in issuer earnings. Meanwhile, in underlining the relationship between investment and economic growth, Economics Nobel Prize laureate Paul Samuelson, follower of the Neo-Keynsian model, noted that "investments… are only made by and real capital is being created". [2] In other words, real capital

[1] NAUFOR report, Section 1.3. The Russian stock market and the creation of an international financial hub. The ideal long-term development model for the Russian stock market (through 2020) Moscow, 2008. Published at www.naufor.ru

[2] Paul E. Samuelson, William D. Nordhouse, Economics /Translated from English , 16th edition. Williams publishing house, 2005, page 389.

serves as the driver of economic growth, but the Russian stock market does little to promote the accumulation of such capital.

Fig. 47 shows data regarding the return on investment in equities as exemplified by an RTS index portfolio and the return on investment in industrial capital assets, which can be used as a proxy criterion for taking investment decisions based on the return on investment in incremental industrial capacity.



Source: proprietary calculations based on RTS and Statistics Committee data

Fig. 47. The return on investment in equities and in economic assets.

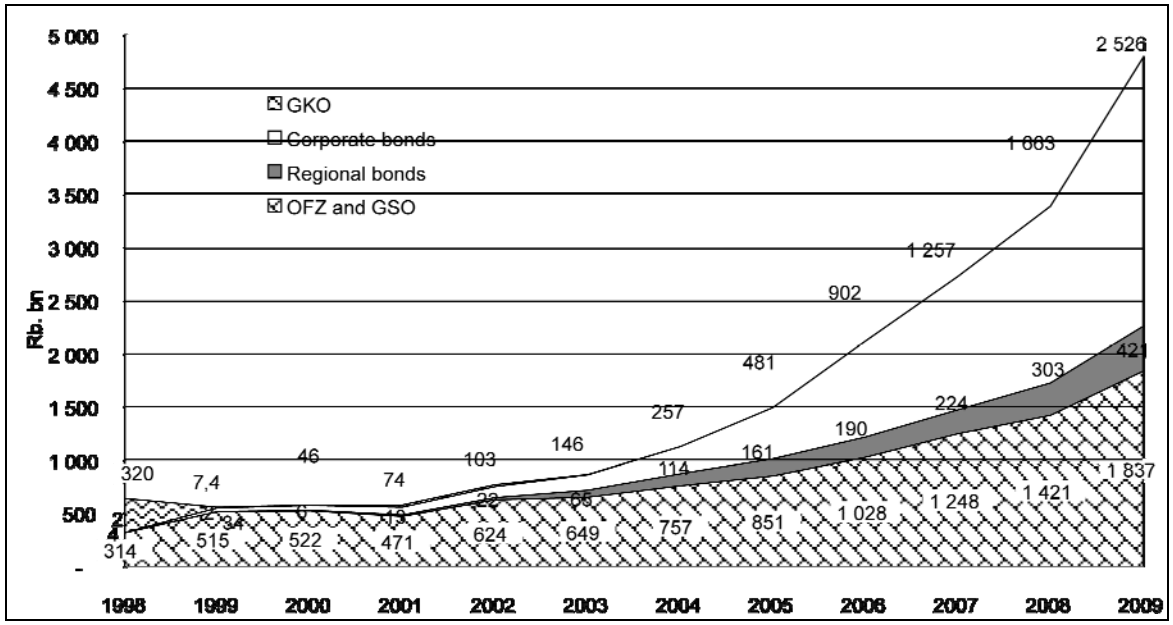
In the 14-year period from 1996 to 2009, only three years (1998, 2000, and 2008) saw substantially lower rates of return for investments in equities compared to investments in capital assets. [1] Despite the fact that the linear trends for the rate of return in the RTS index and the rate of return in production assets are getting closer, the gap between these indicators remains significant, which creates a substantial risk of the flight of domestic capital from the real economy into short-term financial market investments. This risk is also evidenced by the higher growth rates for bank investments in bonds compared to corporate loans (see *Fig. 30*).

Issues in the corporate bond market

The development of the ruble-denominated bond market was a surprising phenomenon in the 2000s (see *Fig. 48*). The total value of the ruble-denominated corporate bond market grew

[1] R.K. Vardanian, the founding manager of one of the major Russian companies, the Troika Dialog investment banking group, comments on the rate of return of financial markets operations as follows: "Frankly, it was excessive in Russia; in our sector, rates of return of 30-35% were considered the norm …" P. Rushailo, R. Vardanian: we must expect high volatility in the absence of significant growth // Kommersant Dengi, No. 6 (February15—21, 2010), page 16.

8.2 times in ten years, from RUR 0.6 trillion in 2000 to RUR 4.9 trillion in 2009. Of all ruble denominated bonds, the corporate bond market segment showed the highest growth rates. Their total market value grew 54.3 times, from RUR 46 billion in 2000 to RUR 2.5 trillion in 2009.



Source: Russian Ministry of Finance, Cbonds.ru.

Fig. 48. Ruble-denominated bond volumes

The rapid growth of the corporate bond market was due to both internal and external growth mechanisms. As shown earlier in *Figs 15*, *16*, and *20*, the basis for this growth from early 2004 to July 2008 was provided by carry trading strategies used by Russian banks and foreign hedge funds. Starting from August 2008 until now, the growth of the ruble-denominated bond market is due to the excess liquidity accumulated by banks as a result of government support measures during the crisis given the lack of loan portfolio growth. The market for direct repo transactions involving the Bank of Russia and of interbank repo transactions, which enabled the banks to borrow short term funds for long-term investments in bonds, played a significant role in the growth of the ruble-denominated bond market starting from the mid-2000s.

Most corporate bond issues have featured an issuer guarantee by way of an offer that gave bondholders the right to present these bonds to the issuer for early retirement 1-3 years following placement. Such offers de facto altered the nature of long-term bonds, converting them into short-term Financial Instruments. The funds raised by bond issues were used by issuers to finance merger and acquisition transactions, refinance loans, expand business, and fulfill other relatively short-term objectives. Due to this relatively short-term character of bond financing and the low rates of return for investments in new capital assets and other productive assets, the role of bonds in financing capital assets has been, and still is, minimal.

Table 6 shows the key indicators for the ruble denominated corporate bond market in 2000–2009, expressed in dollar terms. Despite the fast growth of corporate bond placement volumes, from US$1.1 billion in 2000 to US$29.2 billion in 2009, the amounts channelled

into capital asset financing were very low. Thus, of the total bond placement volume of US$29.2 billion in 2009, only US$0.1 billion, or 0.27% of the total placement volume, was used to finance capital asset acquisitions. The overall share of corporate bond placement volumes used to finance capital assets ranged from 0% to 3.43% throughout the 2000s.

Table 6

Market indicators for ruble-denominated corporate bonds (billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total market value	1,6	2,5	3,3	4,8	8,9	17,0	33,2	49,2	67,0	80,5
Secondary market, including repo transactions	0,2	1,1	2,3	8,2	14,7	44,2	134,9	371,1	457,4	295,8
Placements	1,1	0,8	1,5	2,6	4,9	9,2	17,1	17,9	16,1	29,2
Investments in capital assets	0,0	0,0	0,1	0,1	0,1	0,3	0,1	0,2	0,2	0,1
As a percentage of total market value	0,00	0,00	1,67	2,32	1,63	1,86	0,18	0,49	0,26	0,10
As a percentage of placement volume	0,00	0,00	3,59	4,33	2,98	3,43	0,36	1,34	1,10	0,27

Source: proprietary calculations using data from MICEX, cBonds, the Bank of Russia, and the Statistics Committee.

The impact of equity IPOs on the economy

Compared to corporate bond issues, equity IPOs and SPOs are a more effective instrument of raising funds for capital asset financing. This is due to the longer-term nature of IPO proceeds. *Table 7* shows market indicators for the Russian equity market that point to the peak of IPO activity in 2006 and 2007, when companies were able to raise US$17.0 billion and US$33.0 billion respectively. In 2006, 18.6% of IPO and SPO proceeds were used by companies to finance capital assets, a ratio that declined to 11.1% in 2007. In some years, the proportion was much higher: thus in 2008, 89.7% of IPO proceeds were used for capital asset financing, next to 61.7% in 2005 and 51.2% in 2009. However, in these years the total amounts of IPO proceeds were insignificant, equal to US$1.9 billion, US$5.2 billion, and US$1.7 billion respectively. The bulk of resources raised in the stock market were used to buy out previous business owners, refinance debt, and service merger and acquisition transactions, including the purchase of large blocks of shares.

Thus it is premature to speak about a significant part equity placement and especially of corporate bond placement proceeds being used for promoting economic modernization and economic growth. Moreover, the amounts raised by companies through equity and corporate bond placement and subsequently used for capital asset acquisition is a tiny part of the overall funding for investments in capital assets, as shown in *Fig. 49* detailing the funding sources for investments in capital assets.

Table 7

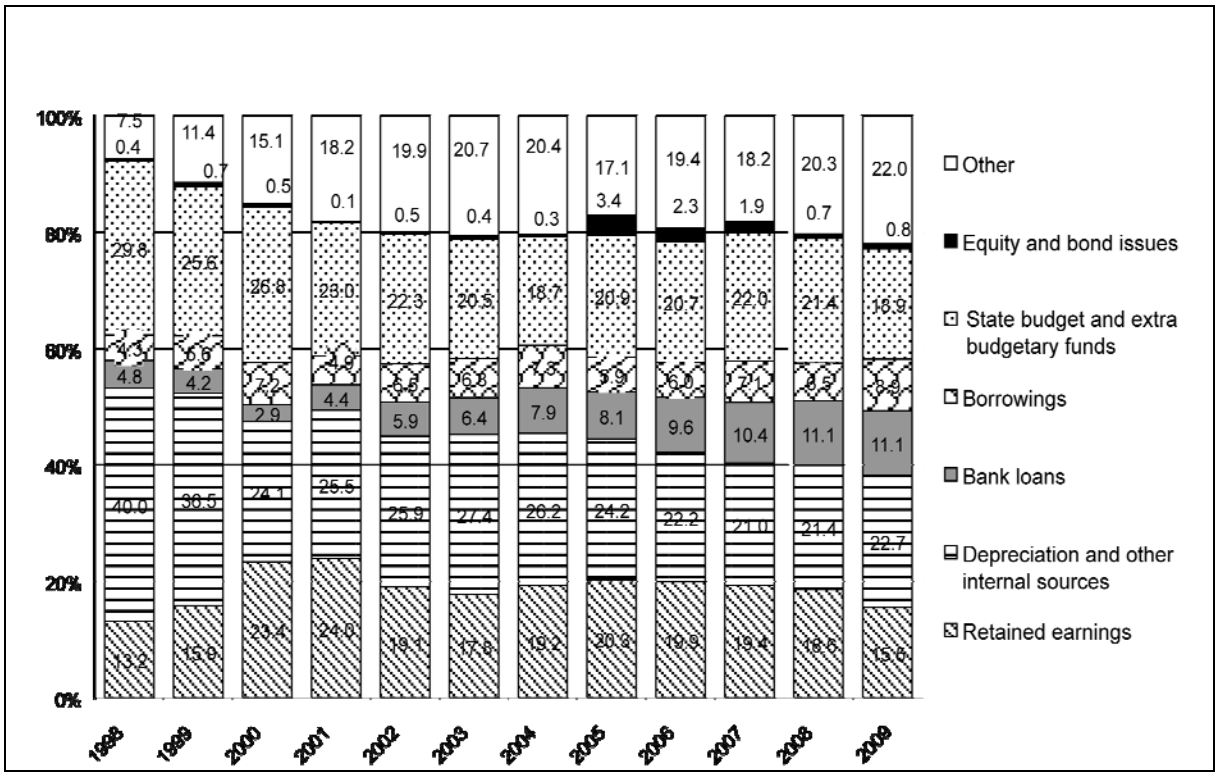
Russian equity market indicators (billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Market capitalization	40,7	74,6	105,5	176,3	230,0	549,0	1057,0	1503,0	397,0	642,8
Secondary market, including foreign stock exchanges	46,7	49,4	86,8	188,3	541,3	374,0	914,2	1687,1	1982,5	1155,7

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Equity IPOs	0,5	0,2	1,3	0,6	3,0	5,2	17,0	33,0	1,9	1,7
Investments in capital assets	0,2	0,1	0,2	0,2	0,1	3,2	3,2	3,6	1,7	0,9
As a percentage of market capitalization	0,4	0,1	0,2	0,1	0,1	0,6	0,3	0,2	0,4	0,1
As a percentage of IPO volume	36,1	26,9	12,6	24,6	4,0	61,7	18,6	11,1	89,7	51,2
Merger and acquisition transaction volume	5,0	12,4	17,9	32,3	27,0	60,4	61,9	125,9	110,4	38,1*

* Estimate.

Source: proprietary calculations using data from MICEX, the Bank of Russia, the Statistics Committee, www.mergers.ru



Source: calculations using Statistics Committee data.

Fig. 49. The funding structure of investments in capital assets

The principal sources of funding for capital assets financing by real sector companies are retained earnings, government funds, extra budgetary funds, and bank loans that together accounted for 68% of all funding sources for capital asset investments in 2009. Throughout the 2000s, the share of funds raised by equity and bond placements among the total capital asset funding sources ranged from 0.1% in 2001 to 3.4% in 2005. In 2007 and 2008, it stood at 0.7 and 0.8% respectively.

The prospects of private equity funds and venture capital funds

The prospects of the Russian economy with regards to modernization are hindered by the weakness of the private equity fund and venture capital fund market segment. These funds working with Russian corporates can be divided into those created in offshore zones abroad (Svarog Capital Advisors, Russia Partners, Delta Private Equity Partners, Baring Vostok Capital, etc.), and closed-type unit investment trusts operating in accordance with the Federal Law On Investment Funds. As of mid-2009, Finance magazine estimated the net asset value of the first group of funds at approximately US$3 billion[1], while the National Fund Managers League estimated the net asset value of the second group of funds at approximately RUR 75 billion[2].

The reasons for the week development of private equity funds in Russia are indicated by the interview results from the city of 72 global private equity fund investors conducted by KPMG from December 2008 to February 2009[3]. In answering the question was a Russia appeared more attractive than other BRIC countries, 58% of respondents gave it a negative answer. Among the main reasons preventing these funds from operating in Russia in 2009-2010, investors claimed macroeconomic instability (89% of respondents); legal and regulatory restrictions (30% of respondents); unrealistic vendor price expectations (23% of respondents); political risks (16% of respondents); and the shortage of qualified fund managers (16% of respondents). It can only be added that the market for private equity transactions is at present in the hands of "monopolies" controlled by large oligarch corporations, which hinders the entry of independent market players, including major global private equity funds, and artificially limits both competition in this area and the mobilization of cutting-edge global technologies.

As regards closed type unit investment trusts investing in private equity, that growth prospects are still doubtful. In accordance with the legislation on investment funds, any information on private equity unit investment trusts is intended only for qualified investors and thus was removed from the public domain at the end of 2009. In accordance with the requirements of the Russian Federal Financial markets service, stock exchanges must create specialized trading sections for qualified investors, were participants will have access to information about such funds. It is unclear in this situation how potential investors who do not have the status of qualified investors, such as foreign investors, will be able to learn about existing and new private equity unit investment trusts. Such funds have found themselves outside of the scope of review by analysts and academics. In our opinion, the artificial information barriers introduced by the Russian Federal Financial markets service regarding the activities of private equity unit investment trusts will only result in the decrease of potential investor interest in such funds, which will have a negative impact on the growth prospects for such funds in Russia.

The creation and development of private equity funds and venture capital funds in Russia is also hindered by the lack of a government innovation development policy. At present, according to the ministry for education and science, more than 80 "technology parks" are regis-

[1] A. Golovin, Drrect investments comatose // Finance, No. 27-28 (310-311), July 27 – August 16, 2009.

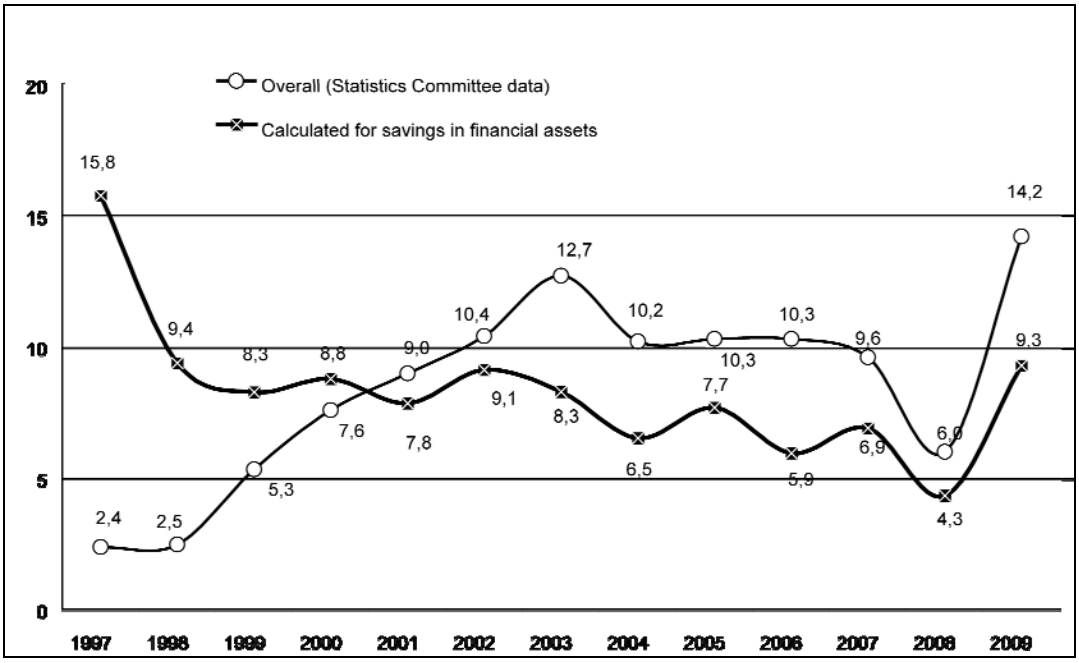
[2] At present, in accordante with the requirements of the Russian Federal Financial Markets Service, closed type unit investment trusts that invests in private equity classified as funds for qualified investors that cannot be advertised publicly. For this reason, the public information sources and unit investment trusts, www.nlu.ru and www.investfunds.ru , have stopped publishing statistics for this category of unit investment trusts.

[3] A. Golovin, Drrect investments comatose // Finance, No. 27-28 (310-311), July 27 – August 16, 2009.

tered in Russia, along with a greater number of innovation and technology centers, more than 100 technology transfer centers, 10 national innovation and analytics centers, 86 scientific and technical information centers, more than 120 business incubators, 15 innovation consulting centers, as well as a number of other innovation infrastructure entities.[1] This multitude of innovation entities is hardly justified. Further development of the innovation framework calls for the creation of centralised entities with regional representation that would undertake coordination functions with respect to the efforts of numerous local entities for the promotion of new technologies in the economy, as well as promote the dissemination of information about the capabilities of innovation organisations for enterprises in various sectors.

2.4.9. The impact on of the crisis on the domestic savings system

The financial crisis was a serious test for the savings system for individual investors. As expected, the crisis resulted in a significant growth of the public propensity for savings (a share of income allocated to savings annually), as evidenced by the data shown in *Fig. 50*. The public propensity for savings, including investments in financial assets and real estate, was estimated by the Statistics Committee to have grown from 6.0% of individual incomes in 2008 to 14.2% in 2009. The indicator of public savings in financial assets[2] that we have calculated separately has grown from 4.3% to 8.3% over the same period.



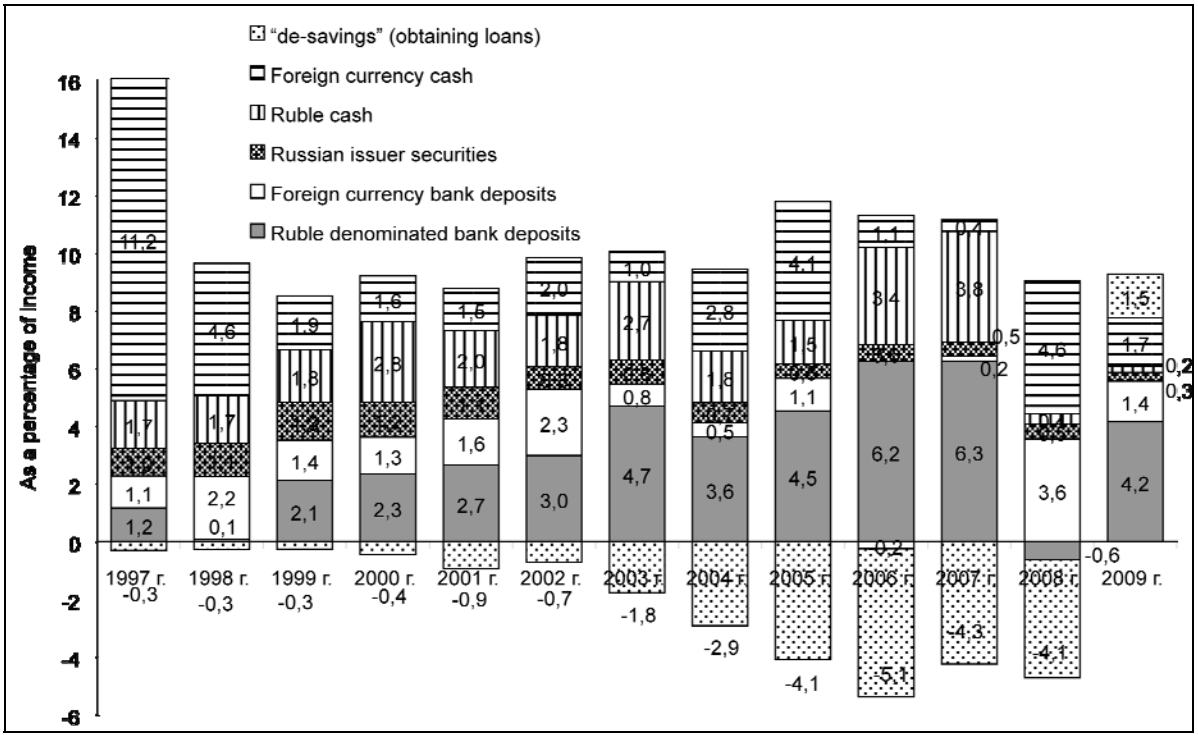
Source: calculations based on Bank of Russia and Statistics Committee data.

Fig. 50. Public propensity for savings, 1997–2009 (%)

The structure of public savings in financial assets is shown in *Fig. 51*. The 2008-2009 crisis has substantially changed the structure of public savings. At the start of the crisis, as a re-

[1] Venture Capital Investing. Business Guide // Kommersant, December 15, 2009.
[2] Including public savings in ruble denominated in foreign currency deposits, foreign currency and ruble cash, and securities less the increase in consumer lending.

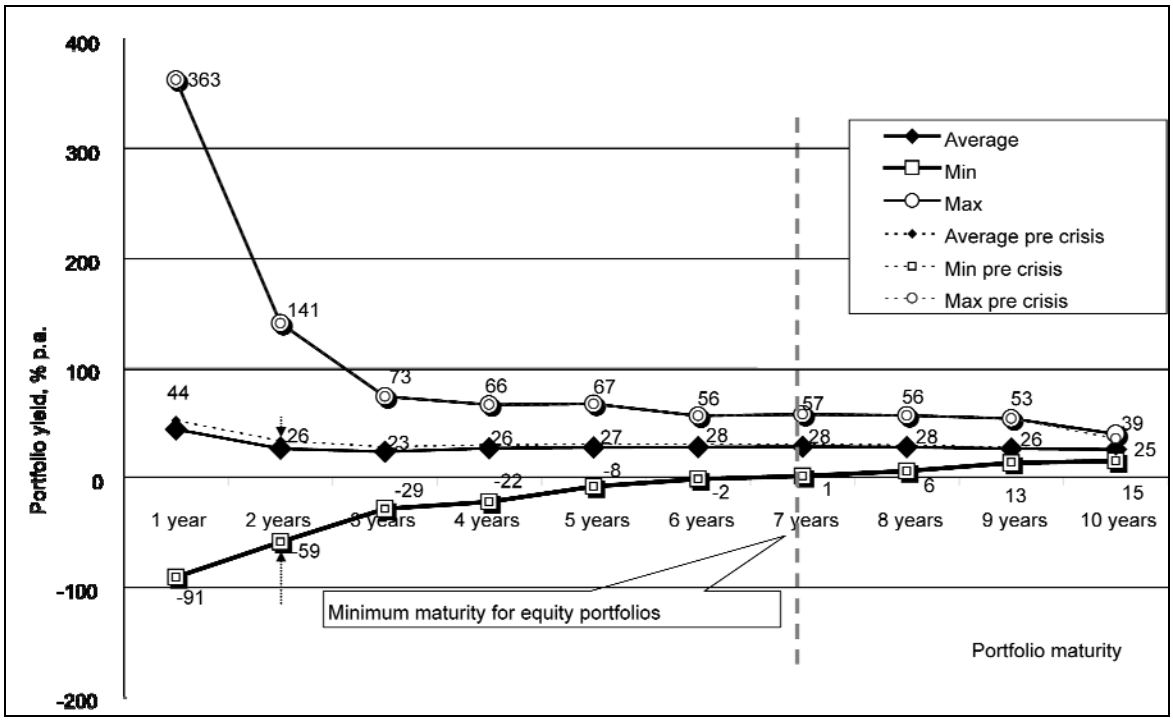
sult of the stock market slump and the ruble devaluation, the public decreased its cash savings and even decreased savings in ruble-denominated bank deposits, while savings in foreign currency cash and foreign currency deposits have substantially grown. In 2009, the public restructured their savings. As the devaluation stopped and the ruble continued to strengthen, savings in ruble-denominated bank deposits substantially increased, and the propensity for savings in foreign currency deposits and foreign currency cash decreased. For the first time during the 2000s, the savings indicators were positively influenced by the significant reduction of public indebtedness for consumer loans. The propensity for savings in securities did not experienced a significant change even during the crisis, remaining at a minimum level of 0.3 – 0.5% of individual incomes.



Source: calculations based on Bank of Russia and Statistics Committee data.

Fig. 51. Public propensity for savings in 1997–2009

For public savings to become a real catalyst of domestic market growth, it is necessary not only for millions of people to enter the market, but also for most of them to have real confidence in the potential of long-term savings strategies of 10, 20, 30 and more years. So far fewer believe it's such strategies, despite the fact that unlike speculative transactions, they can bring the greatest return to inexperienced investors. *Fig. 52* shows data on the minimum, maximum, and average portfolio yields for RTS index portfolios of different maturities from September 1995 through December 2009. For comparison purposes, the respective curves for the period from September 1995 through July 2008, i.e. up to the point preceding the latest financial crisis, are shown as dotted lines.



Source: calculations based on RTS data.

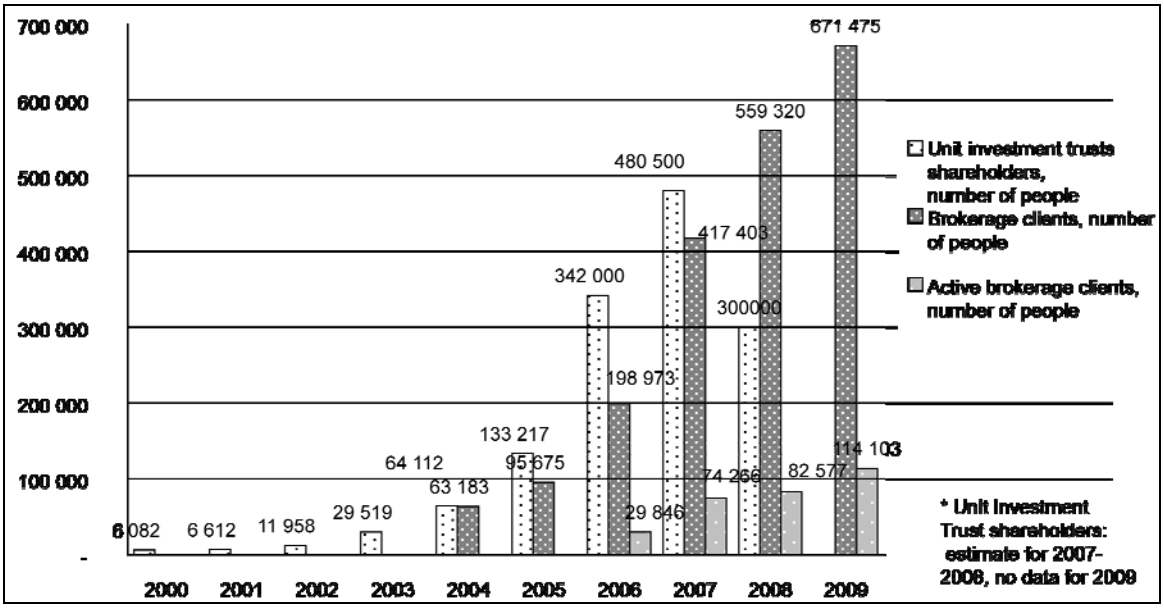
Fig. 52. Annual portfolio yields (% p.a.) for RTS index portfolios of various maturities from September 1995 through December 2009

The riskiest portfolio among the above is the one-year RTS index portfolio. In the 15-year observation period, the maximum yield for these portfolio amounted to 363% per annum, while the minimum yield amounted to a 91% drop in portfolio value. On average, investments in one-year portfolios yielded 44% over the investment period. As seen from the *Fig*., as portfolio maturity increases, the average annual yields stabilise, and the gap between the highest and lowest portfolio yields narrows. For investments in a seven-year portfolio for investors in the RTS index, minimum yields become positive at 1% per annum. Thus, only investments in the RTS index over seven years or more allow investors to avoid the diminution in the market value of their portfolio. For this reason, the minimum prudent term of investment in a diversified equity portfolio in the Russian market must amount to seven years or more. Moreover, as seen in *Fig. 52*, the yield curves for similar portfolios over the period preceding the 2008-2009 crisis practically coincide with the yield curves that extend into the crisis period, meaning that the current crisis had no impact on the minimum investment maturity for equity investments in the Russian market or on the long-term portfolio yield indicators.

Unfortunately, these advantages of long term lending in the Russian market are not sufficiently used at present. The bulk of investors focus on relatively short-term strategies. When signing agreements with financial intermediaries for brokerage services and trust management services in the securities market, the minimum acceptable investment terms for individual investors in high risk instruments are disregarded.

Fig. 53 shows available data on the number of individual investor accounts at brokerages and the number of registered accounts of unit investment trust shareholders. Unfortunately, at present NLU (the National League of Managers) does not disclose the number of unit investment trusts shareholders in a timely manner. However, assuming that this number in 2009 did

not experience a significant decrease compared to 2008, it may be estimated that the number of individual investors entering into securities transactions directly or through collective investment vehicles reached 1,000,000 in 2009.



Source: calculations based on MICEX, NAUFOR; and NLU data.

Fig. 53. The number of retail clients of fund management companies and brokerages

However, our estimates put the number of investors with a real investment potential at a much lower figure. Of the 671,000 brokerage clients in 2009, only slightly more than 25%, or about 170,000, had such investment potential. Among unit investment trusts shareholders, only about 100,000 individual investors have investment potential. The absence of a clear action plan for the pension system, high volatility in the Russian stock market, and uncertainty in the area of economic policy are likely to result in brokerage accounts and trust management accounts being unable to function as a means of accumulating long-term public savings in the foreseeable future. If the current situation continues, the growth in the client base of financial intermediaries is more likely to be due to the involvement in stock market operations of a greater number of investors prepared to risk small amounts for the sake of short term profits.

* * *

2009 became a period of unexpectedly fast recovery for the Russian stock market. The faster recovery compared to the 1998 crisis was due to the shorter duration of the oil price slump, which lasted only a quarter of the time compared to 1997-1998. With the huge foreign exchange reserves at its disposal, the state was able to prevent the spread of the financial crisis to the banking sector and to the lending market.

The financial market survived the 2008-2009 crisis. The government and the Bank of Russia showed considerable creativity in using various instruments to support banks, from offering unsecured loans to direct investments in bank equity. It is equally important to note that the bulk of funds were granted to banks on a temporary basis, and by the end of 2009 the Bank of Russia and the Ministry of Finance had effected a 50% withdrawal from the banking

sector. However, the banks were preserved in their pre-crisis shape. The multi-trillion support amounts had no effect on increasing the efficiency of banking operations. In terms of banking sector efficiency and its ability to lend to the real economy, Russia is a clear outsider in the international economic and financial sector competitiveness rankings. It is obvious that the existing banking sector is incapable of tackling the challenges of national economic modernization. As the government cuts back on its crisis mitigation support measures to banks, the absence of a clear outlook on the part of banks in terms of funding sources becomes ever more apparent. Domestic funds are too expensive, carry trading has not yet resumed, and foreign direct investment does not reach the banking sector. As the crisis nears its end, the government is increasingly facing the challenge of banking sector reform that it has tried to avoid throughout the 2000s.

The crisis has revealed equally serious problems in the stock market. It has become apparent that the rapid growth of stock prices, high liquidity, low borrowing rates for bond market issuers, and successful equity IPO and SPO placements were largely due to the growth in energy prices and to the influx of speculative portfolio investments from abroad, while there was still no steady inflow of foreign direct investment. The Russian stock market continues to be viewed as unsuitable for major conservative foreign investors. The pension savings system is not functioning. Public confidence in securities is very low. Collective investment lose value, and the effectiveness of this sector is significantly below that of foreign counterparts not only in established markets but also in other BRIC countries.

The crisis mitigation support measures used in the stock market in 2008-2009 were considerably more modest than those used in the banking sector. Moreover, the effectiveness of many such measures is doubtful. Thus, the use of RUR 175 billion to support the stock market in October 2008 – December 2009 should be considered as a highly favorable state margin loan to Vnesheconombank rather than an effective measure to support stock prices. It is also unlikely that tangible results were achieved by the restrictions on short sale transactions and margin lending. At the same time, the Bank of Russia and the Federal Financial Markets Service made considerable efforts only to maintain the stability of the ruble-denominated bond market in 2009 but also to enable it to reach record corporate bond placement volumes that, during the time of lending "blockage", became the vehicle for investing excess bank liquidity.

As the financial crisis subsides, the financial market is being faced with the increasing challenges of economic modernisation and financing innovations. It is obvious that neither the banking sector nor the domestic stock market in the current shape are capable of tackling these challenges. The system of financial intermediation in Russia developed during the 2000s with a view to servicing short-term speculative strategies. The low rates of return for investments in capital assets and a high rate of return of financial investments increased the distance between financial intermediaries and the real economy. An unsuccessful attempt at pension reform and the concentration of domestic savings in sovereign welfare funds, forcing companies and banks to resort to large scale foreign borrowings did not allow the transformation of domestic savings into a growth engine for Russian banks and investment companies. Russian banks and other financial intermediaries are becoming increasingly less competitive compared to global players.

In this situation, the key issue is not so much the strengthening of the role of Russian financial institutions in economic modernisation as a deep modernisation of the financial institutions themselves. This should be aimed at the creation of banks, nonbank financial holdings, pension funds and insurance companies that would be competitive not only in the domestic

market but also in the global market. Another option would be to develop a strategy of incorporating Russian financial intermediaries into the value chains of global financial institutions while ensuring the high level of local expertise in the rendering of financial services in Russia by such global intermediaries.

To achieve positive results in these endeavours to develop financial intermediation, new instruments of effective government presence in the domestic financial markets must be found. Accelerating innovation, not only in the financial markets but also in the real economy, is a typical "market gap" where the "invisible hand" of the market per se is unable to tackle the issue. This would require government involvement in the economic process and the establishment of an effective partnership between the state and private business. However, this requires a fundamentally new type of service by the government as well as the understanding by it of the contemporary business context, the modern strategic planning and marketing approaches at a sector and economic area level. In order to have globally competitive banks and financial holdings, the regulators must leapfrog from the current situation when the legal practices and efforts to increase the competitiveness in the domestic market are average at best to proactive supervision and prudent and effective interventions in business development strategies.

Five-year strategic development plans for the financial sector may be used as a transformation instrument. Unlike the current stock market development strategy that has been defined up to 2020, such five-year sector strategies must resemble company-level plans and contain specific targets for each year within that period, as well as a description of the objectives, tasks, and approaches, a detailed analysis of the market and market segments, the supply and demand of financial services, and data on the aggregate revenues and capitalisation of financial intrermediaries. The legislative, financial, and structural initiatives at sector level must be evaluated in terms of their impact on the five-year plans. In other words, the approaches to strategic planning that are increasingly used at company level must also be applied at sector level.

Another priority that would increase the role of financial markets in economic modernisation could be the gradual creation of a centralised innovation framework, whereby the effects of various financial institutions seeking to invest in the companies and sectors of the new economy could be coordinated.

2.4.10. Investment of pension savings in the mandatory pension insurance system

In 2009, the value of assets in the funded component of the mandatory pension system was displaying a rather uneven dynamics. In Q I 2009, their value less the amount of insurance contributions accumulated in the Pension Fund of the Russian Federation (PFR) continued to decline, having first demonstrated this trend in the autumn 2008. As seen from the data presented in *Table 1*, the drop amounted to 1.7 % (381.6 against 387.8 bn Rb)[1]. In Q II, the dynamics of this index once again became positive. The growth of asset value over than quarter was 38 % (526.6 against 381.6 bn Rb). The highest contribution to this upward dynamics resulted from the transfer, towards the very end of the quarter, of accumulated insurance contributions from the PFR – which was done after the receipt from the RF Ministry of Finance of

[1] Hereinafter, the data published by the PFR, the Federal Service for Financial Markets (FSFM), and *Vneshekonombank* are applied.

compensation for the declining value of the bonds issued within the framework of federal loans, in which these monies were invested. Net inflow of funds from the PFR to the asset managers in Q II amounted to 112.5 bn Rb out of 145 billion rubles (the sum of asset growth). Thus, by the mid-year 2009 the value of assets in the funded component of the mandatory pension system was by 31.6 % higher than its highest pre-crisis level achieved in mid-2008. In Q III 2009, asset value continued to increase, the growth rate amounting to 2.2 %.

Table 1

Value of assets in the mandatory funded pension system, 2007 - 2009 (bn Rb)*

Date	Value of assets in which pension savings transferred to asset managers were invested			Pension savings accumulated in IPF	Total
	subtotal	including in GAM	including in PAM		
01.01.2007	276.2	267.1	9.2	9.96	286.2
01.01.2008	375.1	362.9	12.2	26.8	401.9
01.04.2008	360.7	348.7	12.1	42.6	403.3
01.07.2008	366.0	353.7	12.3	43.1	409.1
01.10.2008	360.6	350.1	10.6	39.9	400.5
01.01.2009	352.2	343.1	9.1	35.5	387.8
01.04.2009	334.8	325.7	9.1	46.9	381.6
01.07.2009	459.3	446.6	12.7	67.3	526.6
01.10.2009	466.6	452.5	14.1	71.7	538.3

***** Less the amount of insurance contributions to the funded part of pension savings in the PFR.
Source: The indices of asset managers represent value of net assets as estimated on the basis of data published on the PFR's website www.pfrf.ru. The indices of IPF are based on the Summary Data on the activities of the IPF posted by the Federal Service for Financial Markets (FSFM) to its website www.fscm.ru

The share of the government asset manager (GAM), whose functions are performed by *Vneshekonombank (VEB)* in the asset value of the funded component of the mandatory pension system (less the amount of insurance contributions to the PFR) continued to decline, dropping over three quarters from 88.5 % to 84.1 %. **The share of the Independent Pension Fund** (IPF) over the same period increased from 9.2 % to 13.3 % (see *Table 2*). The main cause of this changed ratio was the switchover of insured persons from the PFR to the IPF. In spite of the financial crisis, the rate of that process altered only slightly – in Q I 2008 the share of the IPF in the assets constituting the funded component of the mandatory pension system increased by 3.9 p. p. (from 6.7 to 10.6 %), while its growth in the same period of 2009 amounted to 4.1 p. p. The share of pension savings transferred by the PFR to private asset managers (PAMs) demonstrated some growth, but still remained at a level lower than it had been prior to the onset of the crisis (2.6 % as of the end of Q III 2009, as compared to 3.0 % in the first half-year 2008).

Table 2

The distribution of assets between asset managers and the IPF within the funded component of the mandatory pension system, 2006 – 2009 (%)

	1.1.2006	1.1.2007	1.1.2008	1.1.2009	1.4.2009	1.7.2009	01.10.2009
Share of assets held by GAM	95.9	93.3	90.3	88.5	85.3	84.8	84.1
Share of assets held by PAMs	3.0	3.2	3.0	2.3	2.4	2.4	2.6
Share of assets held by IPF	1.1	3.5	6.7	9.2	12.3	12.8	13.3

	1.1.2006	1.1.2007	1.1.2008	1.1.2009	1.4.2009	1.7.2009	01.10.2009
Total	100	100	100	100	100	100	100
Including share of PAMs and IPF	4.1	6.7	9.7	11.5	14.7	15.2	15.9

Source: the indices of asset managers represent value of net assets as estimated from the data published on the PFR's website pfrf.ru; the indices of the IPF are based on the Summary Data on the activities of the IPF posted by the Federal Financial Markets Service to its website fscm.ru.

Investment of pension savings by asset managers.

The structure of investments by the GAM and of the aggregate investment portfolio of the PAMs that were investing pension savings under their agreements with the PFR is shown in *Fig. 1 – 8*. respectively.

As seen from these diagrams, the structure of the investment portfolios of asset managers as of the end of Q II 2009 was strongly influenced by the transfer of the pension contributions for the year 2007 from the PFR, which as of the reporting date remained on the bank accounts of the asset managers because the latter had had no time to invest these monies in securities. The share of securities dropped technically both in the GAM's and the PAMs' investment portfolios, while the share of monies kept with credit institutions exceeded the then existing limit of 20 % of the investment portfolio established by the law. Later on, in Q III, the share of monies kept by PAM in bank accounts dropped to 3 %, while the share of monies kept by the GAM remained close to the upper limit (18.8 % as of the end of Q III).

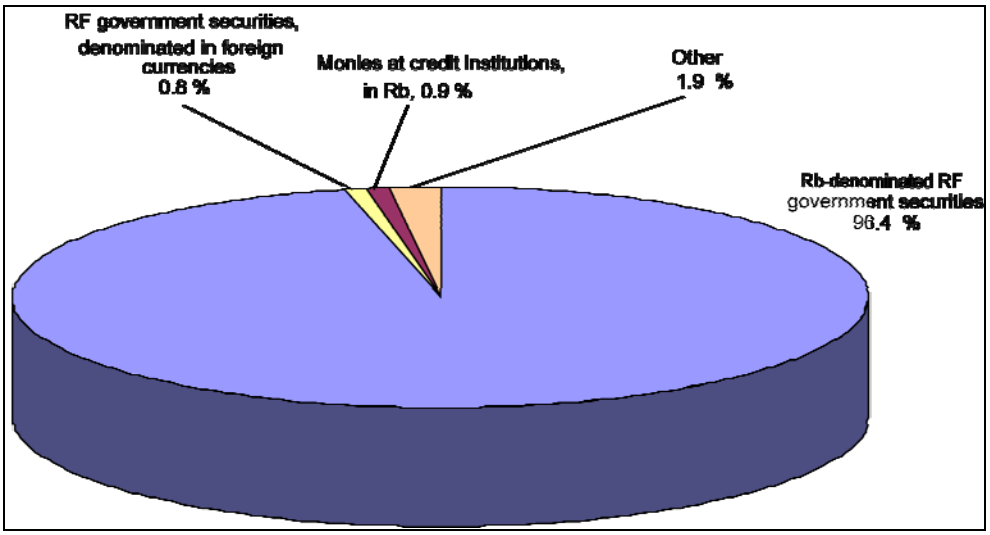


Fig. 1. The structure of the investment portfolio of the GAM (Vneshekonombank), as of the end of 2008.

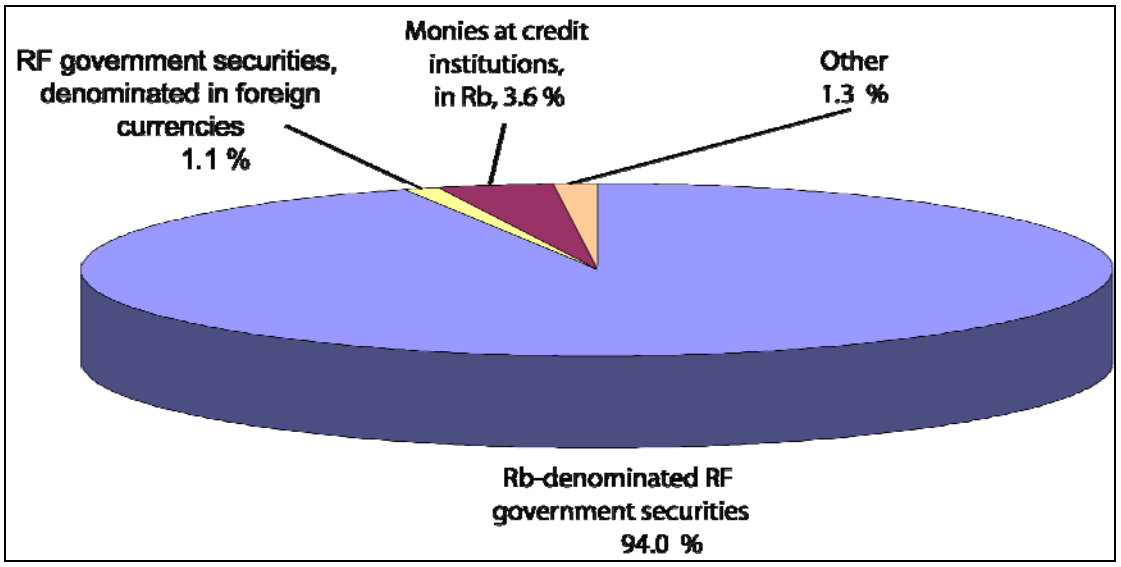


Fig. 2. The structure of the investment portfolio of the GAM, as of the end of Q I 2009.

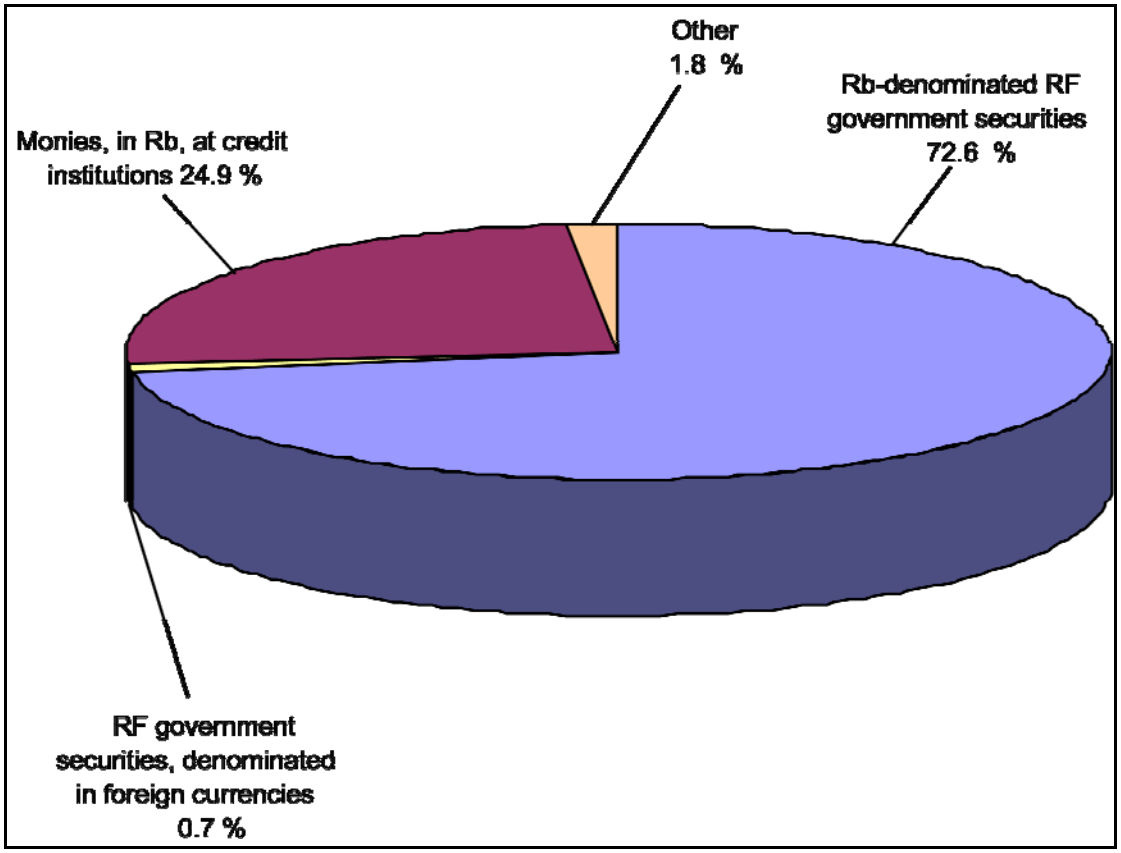


Fig. 3. The structure of the investment portfolio of the GAM, as of the end of Q II 2009.

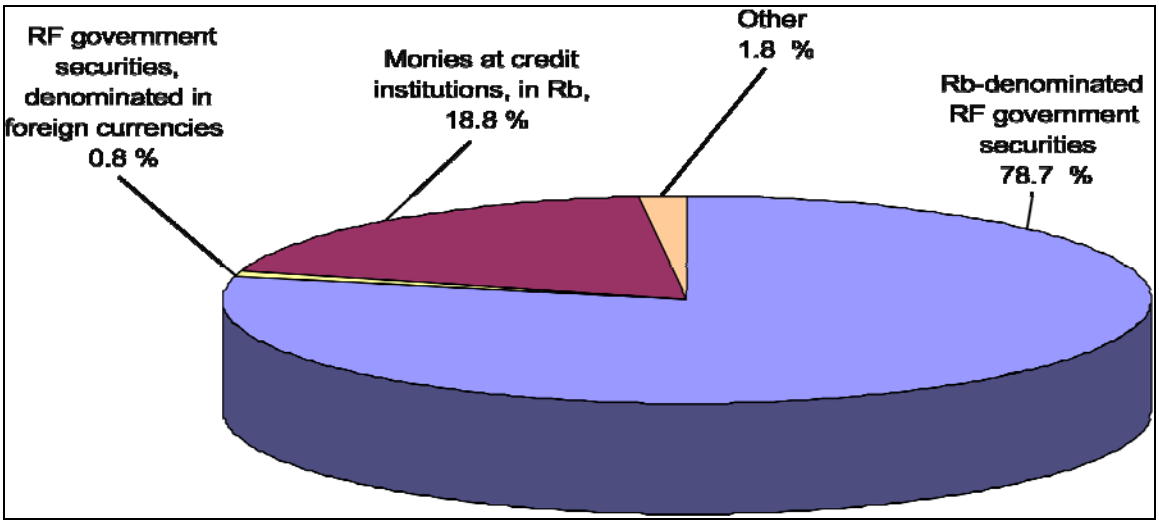


Fig. 4. The structure of the investment portfolio of the GAM, as of the end of Q III 2009

Investments by the GAM. The share of investments in RF external loan bonds in the GAM's investment portfolio during the year 2009 ied between 0.7 and 1.1 %. The share of the main instrument in which the GAM invests pension savings (RF domestic government loan bonds) dropped from 96.4 % at the year's beginning to 78.7 % as of the end of Q III.

From the point of view of the pension saving investment pattern displayed by the GAM, Q IV was the most interesting period - as in Q III the normative base for investing pension savings had undergone a few changes. Some amendments were made to FZ-111 "On the Investment of Funds to Finance the Funded part of the Labor Pension in the Russian Federation", whereby the set of instruments available for investing pension savings was expanded, including the investment of pension savings created in the name of those insured persons who had not made their choice of an asset manager.

The pension savings held in trust management by the GAM were divided into two portfolios: the default option; and the more conservative option – for those related persons who wish to limit their investments by government securities. They had to submit the applications to this effect before the end of September. Due to absence of any large-scale campaign aimed at explaining the details of such an arrangement, the number of actually submitted applications was small, and so less than 1 bn Rb was transferred to the GAM's conservative investment portfolio. Thus, the bulk of pension savings was concentrated in the default investment portfolio (the so-called general portfolio), the choices of permitted types of instruments for which have been expanded from November 2009 onwards.

By the end of 2009 the expanded investment portfolio continued to be dominated by government securities: their share amounted to 80.5 %. The share of the new instruments was approximately 6 % (the bonds of Russian economic societies – 1.6 %, mortgage bonds – 2.1 %, Rb-denominated bank deposits – 1.4 %). At the same time, the share of while the share of monies kept on credit institutions' accounts declined only slightly by comparison with the end of Q III and amounted to approximately 12.8 %.

Investments by PAMs. The dynamics of the Russian stock market in 2009 was on the whole favorable for investing pension savings. As shown by the MICEX index, growth over the year amounted to 122 %. During Q I 2009, growth on the share market as demonstrated

by the MICEX 10 index[1] was 23 %, which was to have a positive impact on the dynamics of the value of assets held by those PAMs that had a relatively high percentage of shares in their investment portfolios, and so decided not to register their losses. However, in the aggregate investment portfolio of PAMs the percentage of shares increased at a far lower rate than it would have been in the event of the asset managers preserving shares in their portfolios. If the data shown in *Fig. 5* and 6 are compared, it can be seen that the percentage of shares in their aggregate investment portfolio during that period increased by only 1.2 p.p.

Among the fixed income instruments, the most substantial drop over Q I 2009 was demonstrated by the share of corporate bonds (from 43.2 to 40.8 %), the share of subfederal bonds also declined. At the same time, asset managers increased their investments in ruble-denominated RF government securities, the share of which on the average grew from 4.8 to 5.2 %. However, the greatest growth was demonstrated by the share of 'other assets', the bulk of which is constituted by monies kept in broker accounts. The share of bank deposits dropped in Q I by 1.3 p.p.

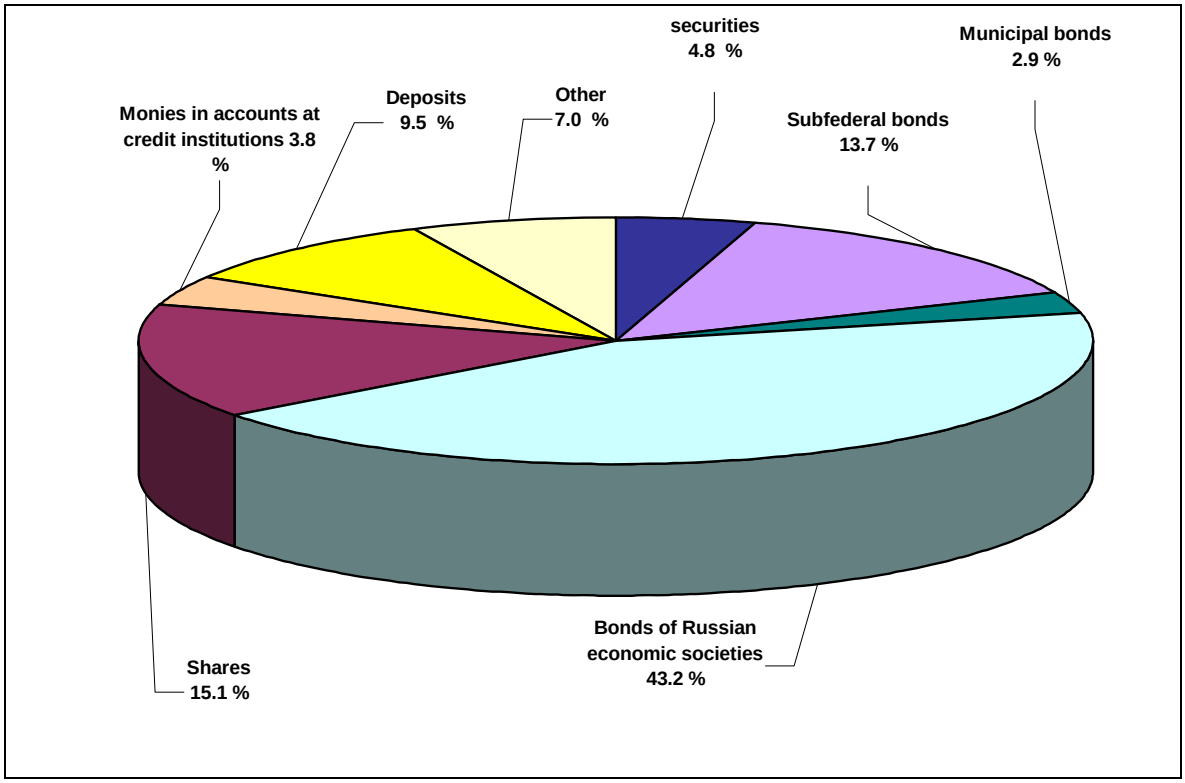


Fig. 5. The structure of the investment portfolios of private asset managers, as of the end of 2008

[1] The MICEX 10 index, while being a more narrow parameter of the stock market's dynamics (MICEX and RTS indices), is nevertheless – due to its composition – better suited to reflect the changes in prices of those shares in which pension savings can be invested. Besides, in contrast to the RTS index, it is estimated on the basis of ruble-denominated prices. However, not all of the companies encompassed by this index are included in the top quotations lists of Russian stock exchanges, and so some of them are not available for investing pension savings in.

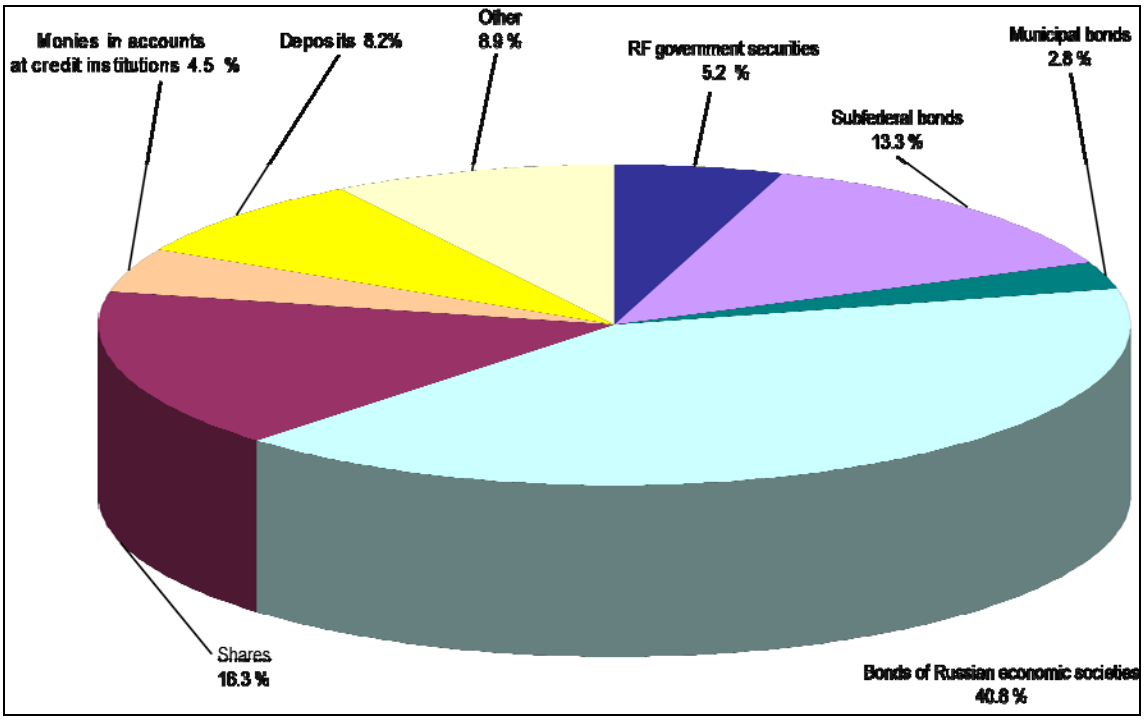


Fig. 6. The structure of the investment portfolios of private asset managers, as of the end of Q I 2009.

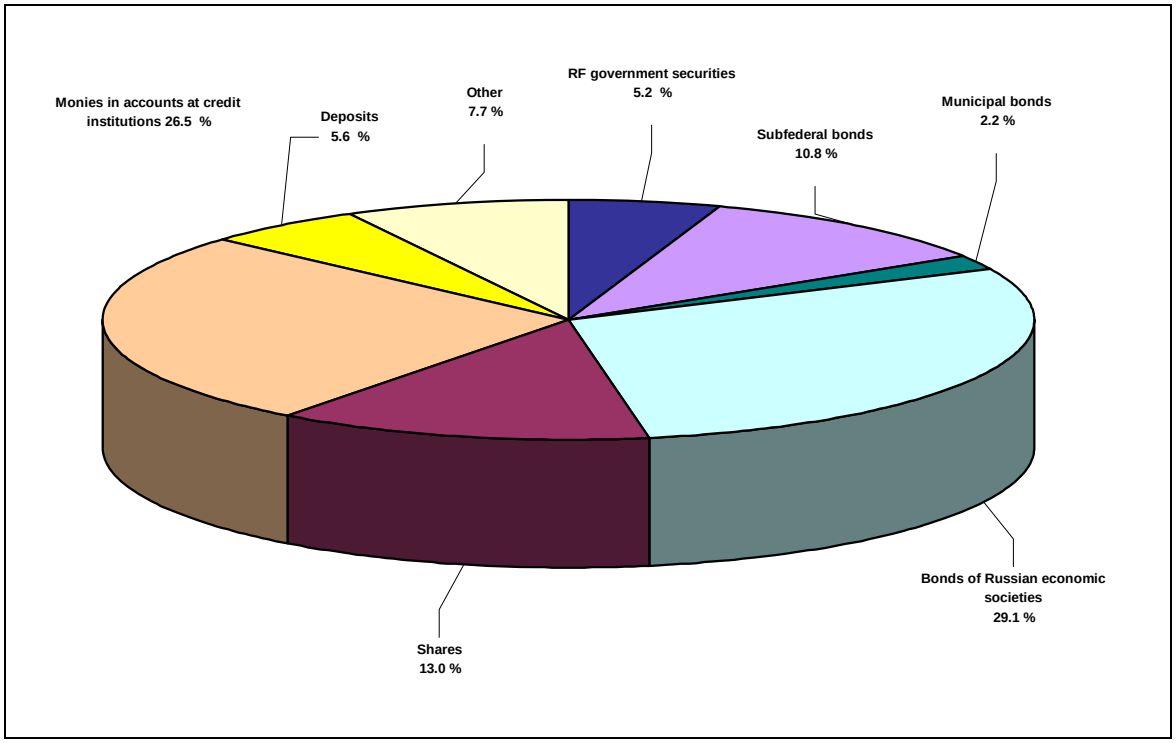


Fig. 7. The structure of the investment portfolios of private asset managers, as of the end of Q II 2009

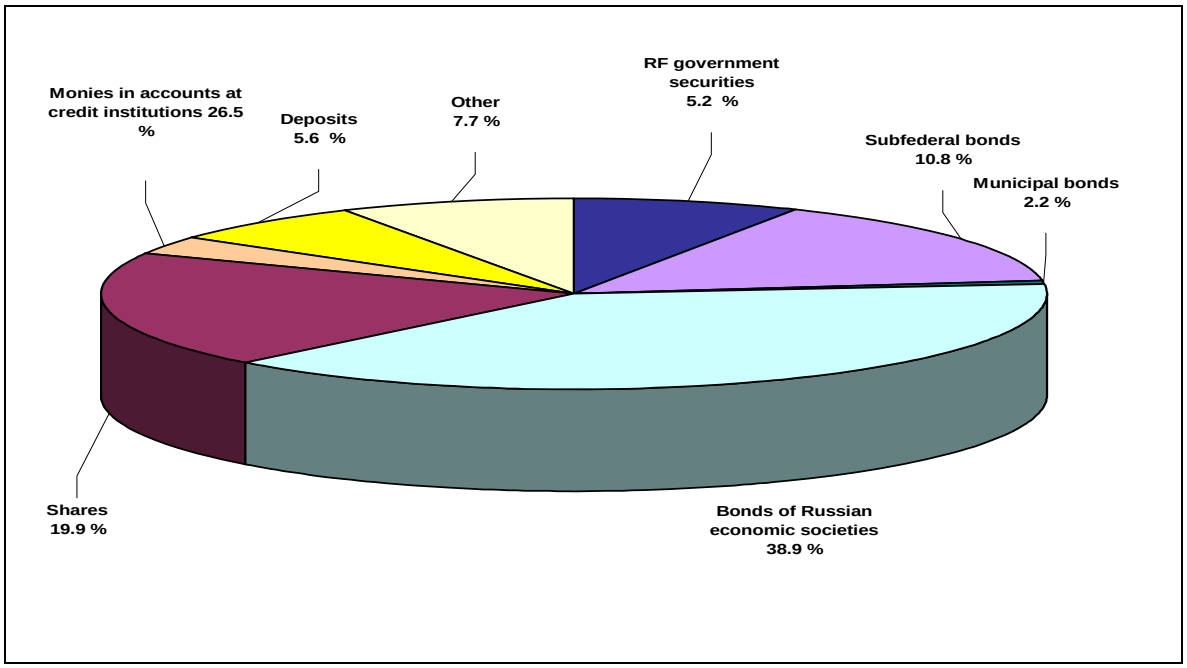


Fig. 8. The structure of the investment portfolios of private asset managers, as of the end of Q III 2009

By the end of Q III the share of equities in the aggregate investment portfolio held by PAMs increased to 19.9 % (against 15.1 % at the year's beginning). Simultaneously, PAMs continued to increase their investments in federal debt bonds (whose share over three quarters rose from 4.8 to 7.7 %). At the same time, the share of corporate bonds somewhat declined (from 43.2 to 38.9 %), as did that of bank deposits (from 9.5 to 6.2 %).

At the year's end, the structure of the investment portfolios held by PAMs began to be influenced to a certain extent by the alterations introduced in legislation on investing pension savings in Q III – IV 2009 (*Table 3*).

Table 3

Permitted assets and the upper limits established for the investment portfolio of an asset manager selected by an insured person

Assets	Restriction on percentage of assets, upper limit
Government securities of the Russian Federation	No
Government securities of subjects of the Russian Federation and municipal bonds	40
Bonds of Russian economic societies	80
Shares of Russian issuers	65
Mortgage securities issued under legislation on mortgage securities	40
Deposits and monies in bank accounts	80
Stakes (equities, shares) in index investment funds that invest in securities of foreign issuers	20
Bonds of international financial institutions	20

Other quantitative limits

Assets	Restriction, upper limit
Securities of one issuer or a group of related issuers, with the exception of government securities of the Russian Federation, securities issued against government guarantees of the Russian Federation, and mortgage securities	10 % of assets
Deposits with credit institutions and securities issued by those credit institutions	25 % of assets
Securities issued by entities affiliated with the asset manager and the specialized depositary	10 % of assets
Deposits with credit institutions affiliated with the asset manager	20 % of assets
Shares of one issuer	10 % of issuer capitalization
Bonds of one issuer, with the exception of government securities of the Russian Federation, securities issued against government guarantees of the Russian Federation, and mortgage securities	20 % of aggregate volume of issuer's bonds in circulation
Securities of one issuer in the aggregate investment portfolio, with the exception of government securities of the Russian Federation, securities issued against government guarantees of the Russian Federation, and mortgage securities	50 % of aggregate volume of one issuer's securities in circulation

Rate of return on investments

By the results of Q I 2009, the rate of return on the pension savings invested by the GAM was found to be negative (– 7.2 %), which can be explained mainly by the unfavorable dynamics of prices for RF domestic loan bonds during that period. However, if a longer period is looked at, the overall rate of return on the pension savings invested by the GAM remained positive. The maximum period for which the PFR's published data are available is three years. Over that time, the mean annual rate of return on the GAM's investments was 2.9 %. A higher result over the same period could be demonstrated only by six of the PAMs' investment portfolios.

By the results of Q II 2009, the rate of return, in nominal terms, on the pension savings by the GAM once again became positive (3,2 % per annum in the half-year), mainly due to the favorable dynamics of prices for RF domestic loan bonds over that period. Reevaluation of securities yielded in Q II a sum of 9.5 bn Rb, coupon income on OFZ amounted to 1.6 bn Rb.

The rate of return on the GAM's investments over the three first quarters of last year amounted to 4.1 % per annum, and over three years – to 3.4 %. Thus, VEB was pushed to 21st place among the investment portfolios of the asset managers investing pension savings under trust management agreements with the PFR (by the results of the year 2008, VEB was the 8th by this index, having demonstrated a rate of return of 3.7 %).

By the results of Q III 2009, PAMs mainly demonstrated a higher rate of return on their investments than the GAM did. By the results of Q I, negative rates of return were shown by only three PAMs, one of which (FB *AVGUST UK*) had only just begun to operate as a trust manager of pension savings. The rates of return displayed by the others varied from 7 to 88.7 % per annum. The mean index was 32 % per annum[1].

The rate of return on the investments made by PAMs in the first half-year 2009 was on the average 34.4 % per annum. As seen by the results of the three-year period, 33 PAMs once again displayed a positive rate of return in nominal terms. In Q III 2009, the results of invest-

[1] Relative to the average value of net assets as estimated in accordance with the requirements stipulated in Article 16 of the Federal Law "On the Investment of Funds to Finance the Funded Part of the Labor Pension in the Russian Federation" .

ing by PAMs changed only slightly. In the period from the year's beginning, for 36 companies their negative results of the previous three years were replaced by positive results. It should be noted that the investment portfolios of the leaders by the rate of return levels belonged to the category of medium-sized and small (while the average sum of managed assets as of the end of Q III was 231 mln Rb, the size of assets in the investment portfolios displaying the highest rates of return over the three previous years varied from 124 mln Rb (UK *Portfel'nye investitsii* [Portfolio investments] to 3 mln Rb (the 'conservative' investment portfolio of *Trinfiko*) (*Fig. 4*).

Table 4

The asset managers with the highest rates of return on pension savings investments

Place held by results of first three quarters of 2009	Asset manager	Rate of return on pension savings investments, % per annum		
		over 3 years (Q IV 2006 – Q III 2009)	over Q III 2009	over 12 months (Q IV 2008 – Q III 2009)
1	*Otkrytie*	11.44	30.38	20.64
2	*Portfel'nye investitsii*	9.82	94.08	41.45
3	*Trinfiko*, long-term growth IP*	8.99	135.16	57.7
4	*TrinfikoK*, balanced IP	8.85	71.22	38.97
5	*TRINFIKO*, 'conservative' IP	7.4	21.73	13.71
21	*Vneshekonombank*	3.41	4.08	1.09

* IP – investment portfolio.

2.4.11. The Market for Municipal and Subfederal Borrowing

The Dynamic of the Advancement of the Market

Russia's 2009 consolidated regional budget and budgets of the territorial government extrabudgetary funds combined posted a Rb. 329.3bn deficit equaling 0.84% of GDP. When compared with the 2008 figures, the amount of the regional consolidate budget deficit surged relative to GDP seven-fold (the 2008 deficit of the territorial budgets accounted for Rb. 48.7 bn, or 0.12% of GDP).

The RF Subjects' 2009 budgets combined reported a Rb.276.9 bn deficit, urban entities – a 39.7bn- worth deficit, the intracity urban entities of the city of Moscow and St. Petersburg – 0.07bn, budgets of municipal districts – 18.9 bn., while budgets of urban and rural settlements posted a surplus of Rb 6.2bn. The respective figures of the year of 2008 were: for the RF Subjects – deficit of Rb. 38.2bn, for urban entities – deficit of 13.2 bn, the city of Moscow and St. Petersburg – surplus of 0.1bn, municipal districts – deficit of 2.7 bn, urban and rural settlements – surplus of 5.2bn.

Table 1

Surplus (Deficit) of Territorial Budgets to Budget Expenditure Ratio (as %)

Год	Consolidated regional budget	Regional budgets*
2009	–5.3	–5.3
2008	– 0.7	– 0.7
2007	0.8	0.6
2006	3.7	4.4
2005	1.6	2.3
2004	1.1	1.6
2003	–2.6	–2.3
2002	–2.7	–3.0

* With account of the government extrabudgetary funds.
Source: calculations by IET on the basis of the Russian Ministry of Finance data.

Table 2

Surplus (Deficit) of Territorial Budgets to Budget Expenditures Ratio in 2007–2009 (as %)

Year	Budgets of the intracity urban entities of the city of Moscow and St. Petersburg	Budgets of urban entities	Budgets of municipal districts	Budgets of urban and rural settlements
2009	–0.63	–3.32	–1.88	2.63
2008	– 1.47	1.09	–0.26	2.72
2007	5.34	1.23	–0.04	2.34

Source: calculations by IET on the basis of the RF MinFin data.

As of January 2010, as many as 61 Subjects of RF reported deficit of their consolidated budgets (in 2008 – 45 regions) worth a total of Rb. 377.9 bn, or 7.8% of the revenues part of the respective budgets (in 2008 – 132.7 bn., or – 3.1%).

The median level of the budget deficit accounted 6.4% to revenues to a respective budget. The greatest budget deficit to the revenue part of the budget ratio was noted in Astrakhan oblast – 16.7%, Vologda oblast – 16.1%, Nizhny Novgorod oblast – 15.2%, Republic of North Ossetia (Alania) – 14.9%, the city of Moscow – 14.4%. Over a half (53.4%) of the aggregate deficit fell on 5 Subjects of the Federation: the city of Moscow – 38.6%, or Rb 145.7 bn, Krasnoyarsk Krai – 4.4%, or 16.5bn., Nizhny Novgorod oblast – 3.9%, or 14.8bn, Moscow oblast – 3.7%, or 12.4bn, and Republic of Tatarstan - 3.2%, or Rb12,1 bn. (*Table. 5*).

In 2009, as many as 22 Subjects boasted a surplus of their consolidated budgets (vis-avis 39 ones in 2008) The aggregate volume of the budget surplus in these regions accounted for Rb. 48.6bn, or 3.9% of the amount of the revenue part of their budgets (in 2008 – Rb. 84.0bn, or 3,9% pf the revenue part of their budgets). The median level of the budget surplus made up 1.8% of the revenue part of the budget.

The greatest surplus-to-revenue-level ratio was registered in Chukotka AO – 22.9%, Yamal-Nenetsky AO – 13.7%, Primorsky Krai – 12.7%. Nearly three-fourths (72.6%) of the aggregate surplus of the consolidated regional budget was secured by 4 Subjects of RF: Yamal-Nenetsky AO – 25.0%, or Rb 12.1bn., Primorsky Krai – 24.9%, or 12.1bn, Irkutsk oblast - 12.5%, or Rb 6.0bn, Chukotka AO – 10.3%, or Rb5.0 bn.

Change in the Structure of the Accumulated Debt

The amount of the debt accumulated by the consolidated regional budget by current borrowings in 2009 rose by Rb.289, 632.6 mln, or 0.74% GDP (*Table 3*), while the regional con-

solidated budgets' external debt shrank at Rb. 61.3mln and the domestic one rose at Rb289, 693.9 mln

Table 3

Net Borrowings by Regional and Local Budgets (в % ВВП)

Год	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Borrowings by subfederal and local governments, including	0.33	0.15	–0.29	–0.04	0.47	0.37	0.26	0.09	0.21	0.17	0.29	0.74
Repayable loans from budgets of other levels	–0.09	–0.11	–0.03	0.04	0.12	–0.1	–0.02	–0.03	–0.04	–0.01	0.03	0.33
Subfederal (municipal) bonds	–0.01	–0.05	–0.27	–0.07	0.16	0.31	0.29	0.09	0.14	0.08	0.17	0.24
Other borrowings	0.43	0.31	0.01	–0.02	0.19	0.6	…	0.03	0.11	0.10	0.09	0.17

Source: calculations by IET on the basis of the RF Ministry of Finance data

Structure of borrowings

The 2009 aggregate volume of borrowings by the regional consolidated budget accounted for Rb. 634, 384.2 mln, including external borrowings amounting 716.9 mln. Like in 2008, the sole recipient of external loans once again became Republic of Bashkortostan.

The aggregate volume of domestic borrowing by regions and municipalities accounted for Rb. 633, 667.3bn. The largest borrowers on the domestic market were: the city of Moscow – Rb. 128.4 bn, Moscow oblast – 86.1 bn, Republic of Tatarstan – 37.7 bn, Nizhny Novgorod oblast – 31.1bn, Omsk oblast – 26.1 bn, whose share combined accounted for 48.8% of borrowings. When compared with 2008, the volume of domestic borrowing in nominal terms soared by Rb. 224, 588.9 mln, or at 54.9% (54.5% in real terms).

The proportion of securities issuances in the overall volume of the domestic borrowing was 24.9%, while that of loans disbursed from higher-tier level budgets was 26.9%, and another 48.2% fell on other borrowings (primarily bank loans).

It was a relative rise in the interbudgetary borrowing that became the most significant change in the structure of the regional budgets' borrowings. Specifically, the proportion of budget loans soared from 5.0% up to 31.5% of borrowings by the Subjects of the Federation. Meanwhile, the proportion of issuances of securities slid from 51.9% to 28.5% (*Table 4*).

Table 4

Structure of the Subnational Budgets' Domestic Borrowing (as %)

	2009			2008			2007		
	Regional consolidated budget	Regional budgets	Municipal budgets	Regional consolidated budget	Regional budgets	Municipal budgets	Regional consolidated budget	Regional budgets	Municipal budgets
Securities issuances	24.9	28.5	4.4	43.7	51.9	1.9	32.1	39.5	7.1
Budget loans	26.9	31.5	0.4	5.0	5.9	0.2	3.8	4.9	0.1
Other kinds of borrowings	48.2	40.0	95.3	51.4	42.6	97.8	64.2	55.6	92.8

The greatest net-borrowings-to-budget-revenues ratio was demonstrated by Vologda oblast – 13.3%, Kostroma oblast – 12.6%, Tver oblast – 12.4%, Nizhny Novgorod oblast – 12.3%, the city of Moscow – 10.6%, Moscow oblast – 10.1%, Arkhangelsk oblast – 10.1% (*Table 5*).

The largest net borrowers became the city of Moscow – Rb.107.5 bn, Moscow oblast– 31.8 bn., Republic of Tatarstan – 13.5 bn.

The following regions to a maximum extent reduced their debt: Irkutsk oblast – by Rb 3.7 bn., Chukotka AO –2.3 bn, Kamchatka Krai –1.2 bn, Republic of Buryatia –1.2 bn.

Table 5

Execution By Subjects of the Federation of their 2009 Consolidated Budgets

	Budget revenues (as Rb. Thos)	Budget deficit (surplus) (as Rb. Thos)	Deficit (surplus)/revenue, as %	Attracted borrowings/revenues, as%	Net borrowing/revenues, as%	Expenditures on debt repayment/ revenues, as%	Net borrowing/deficit (surplus), as %
The Central Federal Okrug							
Belgorod oblast	55 738 185 303.83	4 141 897 456.85	7.43	11.39	6.51	4.88	70.96
Bryansk oblast	31 387 002 926.04	751 373 767.42	2.39	20.32	5.22	15.10	–619.57
Vladimir oblast	40 718 207 912.09	82 561 357.90	0.20	0.77	0.16	0.61	–18.36
Voronezh oblast	59 451 332 291.40	2 706 629 885.81	4.55	7.32	4.51	2.81	125.77
Ivanovo oblast	28 425 263 857.34	1 353 777 363.99	4.76	6.67	3.72	2.95	79.64
Tver oblast	45 786 911 371.16	5 704 309 284.79	12.46	20.95	12.43	8.53	153.77
Kaluga oblast	31 141 992 450.89	–178 932 348.10	–0.57	6.37	–0.69	7.06	–11.03
Kostroma oblast	18 415 962 648.28	2 314 160 317.79	12.57	33.54	12.59	20.96	79.21
Kursk oblast	30 979 830 613.95	431 742 233.15	1.39	1.41	1.34	0.06	56.31
Lipetsk oblast	36 493 848 633.88	77 425 825.09	0.21	2.26	0.20	2.07	2.53
Moscow oblast	314 250 834 941.90	4 732 199 172.27	1.51	27.39	10.12	17.27	249.97
Orel oblast	20 033 044 293.12	463 251 675.32	2.31	2.77	1.75	1.02	56.89
Ryazan oblast	31 841 054 833.59	2 775 178 399.94	8.72	36.26	9.39	26.87	87.68
Smolensk oblast	24 785 738 746.23	2 472 960 106.67	9.98	23.23	9.86	13.37	150.52
Tambov oblast	30 799 195 183.46	254 460 126.62	0.83	10.90	0.98	9.92	–55.98
Tula oblast	40 522 277 745.69	3 345 337 177.76	8.26	21.18	7.43	13.75	103.76
Yaroslavl oblast	52 085 863 047.90	1 258 676 839.39	2.42	23.89	1.39	22.51	431.50
The city of Moscow	1 010 681 522 136.46	131 955 702 354.54	13.06	12.70	10.63	2.07	73.75
Total	**1 903 538 068 937.21**	**164 642 710 997.20**	**8.65**	**15.50**	**8.74**	**6.75**	**89.15**
North-Western Federal Okrug							
Republic of Karelia	25 759 648 044,26	2 305 402 787,29	8.95	20.72	8.44	12.28	63.92
Komi Perublic	45 363 728 617.86	2 850 722 228,58	6.28	6.83	6.25	0.58	269.50
Arkhangel oblast	49 264 374 992.61	5 011 886 155,35	10.17	27.01	10.14	16.87	77.78
Vologda oblast	40 127 334 567.89	5 451 558 165,63	13.59	15.92	13.31	2.61	82.70
Kaliningrad oblast	42 059 247 911.19	–307 246 060,73	–0.73	5.40	0.68	4.72	–10.77
Leningrad oblast	62 356 683 976.42	1 566 942 046,21	2.51	1.71	1.55	0.16	21.29
Murmansk oblast	46 315 152 524.15	4 126 113 121,82	8.91	11.56	8.75	2.81	158.06
Novgorod oblast	23 657 894 733.01	1 008 244 977,70	4.26	6.51	4.13	2.38	59.04
Pskov oblast	19 824 310 562.43	55 545 966,46	0.28	0.65	0.17	0.49	4.39
St. Petersburg	319 796 900 044.13	6 721 153 341,07	2.10	0.51	0.50	0.01	24.82
Nenetz AO	9 463 669 651.52	54 183 204,47	0.57	0.34	0.34	0.00	5.09
Total	**683 988 945 625.47**	**28 844 505 933,85**	**4.22**	**5.87**	**3.40**	**2.47**	**74.63**
Southern Federal Okrug							
Republic of Dagestan	64 422 824 659.08	–105 389 478.46	–0.16	0.47	–0.31	0.78	–6.29
Kabardino-Balkar Republic	22 532 343 177.94	–481 387 007.70	–2.14	4.07	–2.63	6.70	282.27
Republic of Kalmykia	9 517 889 145.16	258 982 513.48	2.72	6.56	2.70	3.86	42.15
Republic Northern Ossetia (Alania)	17 100 779 668.73	1 059 717 500.84	6.20	21.68	5.84	15.84	39.29
Republic of Ingoushetia	14 525 128 927.17	17 498 284.00	0.12	0.41	0.41	0.00	9.18

	Budget revenues (as Rb. Thos)	Budget deficit (surplus) (as Rb. Thos)	Deficit (surplus)/revenue, as %	Attracted borrowings/revenues, as%	Net borrowing/revenues, as%	Expenditures on debt repayment/ revenues, as%	Net borrowing/deficit (surplus), as %
Krasnodar Krai	152 407 324 750.44	2 061 944 122.13	1.35	3.39	1.10	2.28	83.42
Stavropol Krai	65 431 602 771.45	4 525 768 989.04	6.92	7.33	6.88	0.45	66.27
Astrakhan oblast	28 601 743 867.17	2 810 981 780.17	9.83	52.51	9.75	42.76	58.42
Volgograd oblast	69 188 124 673.82	4 061 254 191.06	5.87	16.94	5.57	11.37	72.39
Rostov oblast	112 416 246 536.20	3 033 842 816.80	2.70	2.34	2.34	0.00	52.74
Republic of Adygeya (Adygeya)	12 278 164 926.59	476 407 531.90	3.88	7.20	3.45	3.75	39.68
Karachai-Cherkess Republic	12 330 470 530.69	316 130 455.82	2.56	8.27	2.52	5.76	84.42
Chechen Republic	65 258 784 941.45	1 395 900 000.00	2.14	3.44	3.21	0.23	23.83
Total	**646 011 428 575.89**	**19 431 651 699.08**	**3.01**	**7.60**	**2.91**	**4.69**	**45.99**
Volga Federal Okrug							
Republic of Bashkortostan	114 095 746 177.27	1 048 294 370.17	0.92	4.25	2.88	2.00	97.62
Republic of Mary El	17 100 732 333.60	683 851 463.21	4.00	15.16	3.56	11.60	106.79
Republic of Mordovia	28 438 902 589.61	463 766 776.33	1.63	5.77	1.08	4.69	–154.66
Republic of Tatarstan (Tatarstan)	140 636 971 609.40	13 859 096 321.09	9.85	26.80	9.59	17.22	111.50
Republic of Udmurtiya	41 325 619 958.27	3 869 225 490.95	9.36	13.92	8.42	5.50	99.67
Chuvash Republic – Chuvashiya	33 717 656 115.22	1 374 597 048.24	4.08	9.29	3.30	5.98	126.08
N. Novgorod oblast	97 391 066 292.50	12 050 201 127.91	12.37	31.91	12.31	19.60	81.13
Kirov oblast	38 790 861 575.24	1 951 208 953.44	5.03	11.72	4.80	6.92	57.72
Samara oblast	100 869 798 357.36	11 266 416 099.43	11.17	6.95	4.70	2.25	50.97
Orenburg oblast	64 436 217 155.39	317 724 805.41	0.49	0.63	0.29	0.34	–110.91
Penza oblast	36 635 622 192.36	1 849 468 483.76	5.05	17.77	4.99	12.78	65.80
Perm Krai	94 754 274 520.18	9 521 684 835.07	10.05	0.42	–0.73	1.15	–12.85
Saratov oblast	66 219 939 658.84	6 120 478 998.35	9.24	21.93	9.28	12.66	86.45
Ulyanovsk oblast	35 935 296 937.92	1 037 769 724.21	2.89	5.93	2.72	3.22	–616.66
Total	**910 348 705 473.16**	**65 413 784 497.57**	**7.19**	**13.43**	**5.42**	**8.09**	**78.96**
Ural Federal Okrug							
Kurgan oblast	26 609 955 616.41	278 494 439.00	1.05	4.13	1.00	3.13	236.13
Sverdlovsk oblast	139 547 962 746.17	4 566 949 161.57	3.27	4.21	3.07	1.15	101.32
Tyumen oblast	125 986 129 061.88	9 069 466 515.23	7.20	0.02	0.01	0.00	0.22
Chelyabinsk oblast	88 251 628 590.05	3 198 267 307.95	3.62	5.05	3.51	1.53	63.33
Khanty-Mansy AO	152 434 194 732.71	8 100 391 235.13	5.31	5.25	4.88	0.36	–422.45
Yamal-Nenetsky AO	88 833 384 569.03	–266 527 432.49	–0.30	0.17	–0.10	0.27	0.74
Total	**621 663 255 316.25**	**24 947 041 226.39**	**4.01**	**3.15**	**2.42**	**0.74**	**421.54**
Siberian Federal Okrug							
Republic of Buryatiya	40 589 657 386.54	–1 184 997 912.19	–2.92	7.80	–2.98	10.78	179.23
Republic of Tyva	15 709 466 795.90	32 967 603.45	0.21	0.23	0.20	0.04	4 314.94
Altay Krai	65 513 407 539.48	1 878 131 229.90	2.87	3.05	–0.09	3.14	–8.49
Krasnoyarsk Krai	155 429 378 758.06	10 253 929 464.12	6.60	9.87	6.44	3.43	60.71
Irkutsk oblast	88 570 706 990.67	–3 683 909 020.37	–4.16	10.89	–4.15	15.04	60.83
Kemerovo oblast	100 372 700 771.87	4 908 780 065.61	4.89	8.86	5.60	3.27	95.11
Novosibsrk oblast	87 021 307 853.39	1 513 384 203.57	1.74	7.31	1.28	6.03	27.52
Omsk oblast	53 936 075 350.84	4 216 251 116.18	7.82	48.45	7.81	40.64	110.41
Tomsk oblast	39 355 954 683.63	–262 992 335.63	–0.67	27.21	–0.81	28.01	–226.36

	Budget revenues (as Rb. Thos)	Budget deficit (surplus) (as Rb. Thos)	Deficit (surplus)/revenue , as %	Attracted borrowings/revenues , as%	Net borrowing/revenues , as%	Expenditures on debt repayment/ revenues , as%	Net borrowing/deficit (surplus), as %
Republic of Altay	13 455 207 734.57	435 512 296.17	3.24	7.30	2.99	4.31	–56.02
Republic of Khakassia	17 329 509 170.82	809 185 150.66	4.67	5.41	4.61	0.80	111.81
Trans-Baykal Krai	40 786 572 406.14	442 092 269.18	1.08	6.02	1.03	4.99	–141.18
Total	**718 069 945 441.91**	**19 358 334 130.65**	**2.70**	**12.07**	**2.41**	**9.65**	**72.13**
Far-East Federal Okrug							
Republic of Sakha (Yakutiya)	92 687 661 919.53	–508 119 447.75	–0.55	2.74	–1.64	4.38	75.82
Primorskky Krai	95 290 220 866.21	1 018 820 122.19	1.07	1.64	0.79	0.85	–6.26
Khabarovsk Krai	62 797 548 838.51	1 984 986 218.15	3.16	2.95	2.54	0.42	56.92
Amur oblast	40 216 389 681.58	1 469 911 098.08	3.66	7.13	3.22	3.91	132.28
Kamchatka Krai	38 529 006 297.27	–887 766 604.30	–2.30	14.37	–3.23	17.60	174.88
Magadan oblast	19 235 725 132.52	238 777 374.59	1.24	5.80	0.77	5.03	–17.60
Skhalin oblast	61 255 013 640.17	681 905 507.12	1.11	4.28	1.20	3.08	–30.23
Jewish AO	8 655 027 425.94	–48 699 734.43	–0.56	0.00	–0.37	0.37	12.43
Chukotka AO	21 916 647 109.90	–4 229 502 807.13	–19.30	13.00	–10.43	23.43	45.49
Total	440 583 240 911.63	–279 688 273.48	–0.06	4.75	–0.13	4.88	2.86
Russian Federation, total	**5 924 203 590 281.52**	**322 358 340 211.26**	5.44	10.70	4.89	5.82	87.96

Source: calculations by IET on the basis of the Russian Ministry of Finance data.

Domestic Bond Issues

In 2009, as many as 10 Subjects of the Federation and 5 municipal entities registered their bonded issue prospectuses (the 2008 figures were 24 regions and 7 municipal entities, respectively).

The 2009 total volume of issued bonds accounted for Rb. 158.1 bn vis-à-vis 178.6 bn in 2008 (down by Rb. 20.5 bn in nominal terms, or 18.6% in real terms). The volume of issued sub-federal and municipal bonds over the year slid from 0.43 to 0.41% of GDP (*Table 6*).

Table 6

The Volume of Issued Subfederal and Municipal Bonds (as % to ВВП)

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Issue	0.63	0.77	0.47	0.31	0.19	0.17	0.27	0.46	0.47	0.37	0.28	0.26	0.43	0.41
Redemption	0.47	0.56	0.48	0.36	0.46	0.23	0.10	0.15	0.19	0.28	0.14	0.18	0.26	0.16
Net financing	0.16	0.22	–0.01	–0.05	–0.27	–0.07	0.16	0.31	0.29	0.09	0.14	0.08	0.17	0.24

Source: calculations by IET on the basis of the Russian Ministry of Finance data.

In 2009, the Russian Ministry of Finance registered issue prospectuses by the Republic of Chuvashia, Republic of Karelia, Krasnoyarsk Krai, the city of Moscow, Volgograd, Nizhny Novgorod, Tver, Samara oblasts, Khanty-Mansy AO, city of Krasnoyarsk, city if Volgograd, city of Kazan, town of Elektrostal (Moscow oblast).

The biggest bond issuers became the city of Moscow – Rb.115.5bn, or 73.0% of the territories' aggregate bond issue, Krasnoyarsk Krai – 10.4bn, or 6.6%, Khanty-Mansy AO – 6.0bn , or 3,8%, Moscow oblast– 3.4 bn, or 2,2%. Thus, the proportion of the 4 largest issuers combined accounted for 85.5% of the overall volume of regional and municipal bonds issues. As well, large issuers were Tver oblast – Rb. 3.5bn, Nizhny Novgorod – 3.0bn, Tomsk

oblast – 2.8 bn, Volgograd oblast – 2.4bn, Republic of Tatarstan – 2.0bn, Yaroslavl oblast – 1.9bn (*Table 7*).

Table 7

Placement of Subfederal and Municipal Bonds in 2009

Subject of the Federation	Volume of issue (as Rb. Thousand.)	The issuer's share on the total volume of issue (as %)	Issue volume to domestic borrowings (as %)
Central Federal Okrug			
Belgorod oblast	538 633.2	0.3	8.5
Tver oblast	3 000 000.0	1.9	31.3
Kostroma oblast	1 222 109.2	0.8	19.8
Moscow oblast	3 431 367.4	2.2	4.0
Yaroslavl oblast	1 861 822.0	1.2	15.0
The city of Moscow	115 420 335.5	73.0	89.9
North-Western Federal Okrug			
Republic of Karelia	1 000 000.0	0.6	18.7
Southern Federal Okrug			
Kalmyk Republic	74 094.0	…	11.9
Volgograd oblast	2 446 680.0	1.5	20.9
Volga Federal Okrug			
Republic of Tatarstan (Tatarstan)	2 000 000.0	1.3	5.3
Republic of Udmurtia	919 740.0	0.6	16.0
Nizhny Novgorod oblast	3 000 000.0	1.9	9.7
Samara oblast	2 425 000.0	1.5	34.6
Ural Federal Okrug			
Khanty-Mansy AO	6 000 000.0	3.8	75.0
Siberian Federal Okrug			
Krasnoyarsk Krai	10 369 900.0	6.6	67.6
Irkutsk oblast	1 566 640.0	1.0	16.2
Tomsk oblast	2 837 713.0	1.8	26.5
Russian Federation, total:	**158 114 034.3**	**100**	**25.0**

Source: calculations by IET on the basis of the Russian Ministry of Finance data.

It has been chiefly the largest issuers that demonstrated the highest degree of securitization of their debt. More specifically, the respective rate of the city of Moscow is 89.9%, Khanty-Mansy AO -75.0%, Krasnoyarsk Krai – 67.6%.

The 2009 aggregate volume of net borrowings on the market accounted for Rb. 97.9bn, or 24.9bn (23.3%) up in real terms vs. the 2008 figures. Meanwhile, the volume of redeemed municipal bonds was at Rb. 2.5bn greater that the volume of newly placed ones (*Table. 8*).

Table 8

Volume of Net Borrowing on the market for Sub-federal and Municipal Bonds, as Rb. thousand	Consolidated regional budget	Regional budgets	Municipal budgets
2009			
Net borrowing	95 457 576.8	97 916 509.1	–2 458 932.3
Attracted capital	158 114 034.3	153 992 570.1	4 121 464.2
Redemption of the principal debt	62 656 457.5	56 076 061.0	6 580 396.5
2008			
Net borrowing	68 851 271.9	72 984 947.8	–4 133 675.9
Attracted capital	178 565 731.4	177 324 359.3	1 241 372.1
Redemption of the principal debt	109 714 459.5	104 339 411.5	5 375 048.0
2007			
Net borrowing	25 867 011	23 691 970	2 175 041
Attracted capital	84 159 197	79 889 761	4 269 436
Redemption of the principal debt	58 292 185	56 197 791	2 094 394
2006			
Net borrowing	36 489 742	35 161 627	1 328 115
Attracted capital	73 288 653	66 524 832	6 763 820
Redemption of the principal debt	36 798 911	31 363 205	5 435 706
2005			
Net borrowing	20 887 596	16 939 894	3 947 703
Attracted capital	81 220 540	75 016 756	6 203 783

Volume of Net Borrowing on the market for Subfederal and Municipal Bonds, as Rb. thousand	Consolidated regional budget	Regional budgets	Municipal budgets
Redemption of the principal debt	60 332 944	58 076 863	2 256 081
2004			
Net borrowing	47 880 300	44 470 128	3 410 172
Attracted capital	79 436 708	74 995 965	4 440 743
Redemption of the principal debt	31 556 408	30 525 837	1 030 571
2003			
Net borrowing	41 908 199	40 043 511	1 864 688
Attracted capital	61 712 635	59 012 901	2 699 734
Redemption of the principal debt	19 804 436	18 969 390	835 046
2002			
Net borrowing	17 696 530	17 153 760	542 770
Attracted capital	29 141 777	28 169 158	972 619
Redemption of the principal debt	11 445 247	11 015 398	429 849
2001			
Net borrowing	6 601 447	6 667 592	–66 145
Attracted capital	15 123 785	14 226 931	896 854
Redemption of the principal debt	8 522 338	7 559 339	962 999
2000			
Net borrowing	–1 877 328	–2 286 175	408 847
Attracted capital	13 042 220	10 090 208	2 952 012
Redemption of the principal debt	14 919 548	12 376 383	2 543 165

Source: the RF Ministry of Finance

Most regions that regularly issue bonds continued doing so in 2009. More specifically, the Republic of Chuvashia has regularly issued bonds since 1999, Volgograd oblast- since 2000, Irkutsk oblast – since 2001, Krasnoyarsk Krai- since 2003 (*Table 9*).

Table 9

Registration of Prospectuses of Issues of Subfederal and Municipal Bonds in 1999–2009

Issuer	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Subjects of the Federation											
Republic of Chuvashia	*	*	*	*	*	*	*	*	*	*	*
Volgograd oblast	*	*	*	*	*	*	*	*	*	*	*
Irkutsk oblast			*	*	*	*	*	*	*	*	*
Krasnoyarsk Krai					*	*	*	*	*	*	*
Republic of Karelia						*	*	*	*	*	*
Nizhny Novgorod oblast						*	*	*	*	*	*
Tver oblast				*	*		*	*	*	*	*
Samara oblast					*		*	*	*	*	*
The city of Moscow	*	*	*	*	*	*	*	*		*	*
Khanty-Mansy AO				*	*						*
St. Petersburg	*	*	*	*	*	*	*	*	*	*	
Tomsk oblast		*	*	*	*	*	*	*	*	*	
Moscow oblast				*	*	*	*	*	*	*	
Republic of Sakha (Yakutia)				*	*	*	*	*	*	*	
Yaroslavl oblast					*	*	*	*	*	*	
Lipetsk oblast						*	*	*	*	*	
Kaluga oblast						*		*	*	*	
Penza oblast								*	*	*	
Republic of Udmurtia							*		*	*	
Ulyanovsk oblast									*	*	
Republic of Komi		*	*	*	*	*	*	*		*	
Belgorod oblast				*	*		*	*		*	
Kurgan oblast								*		*	
Stavropol Krai			*							*	
Republic of Bashkortostan			*	*		*	*	*	*		
Voronezh oblast						*	*	*	*		

Issuer	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Irkutsk oblast								*	*		
Novosibirsk oblast	*				*	*	*		*		
Kostroma oblast				*	*		*		*		
Krasnodar Krai						*			*		
Ivanovo oblast									*		
Republic of Kalmykia									*		
Tula oblast								*			
Khabarovsk Krai				*	*	*	*				
Kabardino-Balkar Republic		*					*				
Leningrad oblast			*	*	*	*					
Yammal-Nenetsk AO					*	*					
Bryansk oblast						*					
Murmansk oblast				*	*						
Republic of Mordovia				*							
Sakhalin oblast				*							
Kursk oblast				*							
Primorsky Krai		*									
Municipalities											
Krasnoyarsk					*	*	*		*	*	*
Volgograd	*	*	*	*	*		*	*		*	*
Kazan							*	*	*		*
Elektrostal (Moscow oblast)									*		*
Smolensk											*
Tomsk					*	*		*	*	*	
Lipetsk								*	*	*	
Magadan								*	*	*	
Bratsk										*	
Novorossiysk										*	
Yekaterinburg		*	*	*	*	*	*	*	*		
Klinsky district, Moscow oblast							*	*	*		
Noginsly district, Moscow oblast						*		*	*		
Blagoveshchensk								*	*		
Cheboksary	*						*		*		
Balashikha (Moscow oblast)									*		
Novosibirsk					*	*	*	*			
Odinstovsky district (Moscow oblast)							*	*			
Astrakhan								*			
Bryansk								*			
Voronezh								*			
Orekhovo-Zuevo, Moscow oblast								*			
Yaroslavl								*			
Yuzhno-Sakhalinsk					*	*	*				
Novocheboksarsk	*		*			*	*				
Angarsk							*				
Vurnarsky district, Republic of Chuvashia							*				
Shumerlya, Republic of Chuvashia							*				
Ufa				*	*	*					
Barnaul						*					
Perm						*					
Nizhny Novgorod				*							
Kostroma	*	*									
Arkhangel'	*										
Dzerzhinsky	*										

Source: MinFin RF.

Credibility of the Territorial Governments

Credit Rating

Russia's 2009 sovereign rating by forex-denominated obligations granted by Standard&Poor's and Fitch Ratings remained unchanged at the level of BBB. Meanwhile, both agencies raised the rating dynamic forecast from "negative" to "stable". In the first half 2008, the country's rating was BBB+ (positive forecast).

In 2009, having raised Russia's credit rating, Standard&Poor's also raised those of the city of Moscow, St. Petersburg and Tomsk oblast to "stable". At the same time the agency lowered its credit rating forecasts to "negative" for Volgograd and Vologda oblasts, Krasnoyarsk Krai, Novgorod oblast, Novosibirsk, Samara oblast, Republic of Sakha (Yakutia), Tver oblast and suspended Moscow oblast's credit rating and revoked those of Kaluga oblast, Republic of Tatarstan, the city of Bratsk, the town of Balashikha, Klinsky district, and Omsk. (*Table. 10*).

Table 10

Standard&Poor's Ratings in the 1st Quarter 2010

Issuer	Denominated in foreign exchange /Forecast	In the domestic currency/ Forecast
Sovereign ratings		
Russian Federation	«BBB»/Stable/	«BBB+»/Stable/
Regional and local government ratings		
Bashkortostan	BB+/Stable/	BB+/Stable/
Bratsk	revoked	
Volgograd oblast	BB–/Negative/	BB–/Negative/
Vologda oblast	BB–/Negative/	BB–/Negative/
Urban district Balashikha	revoked	
Dzerzhinsk	B–/Stable/	B–/Stable/
Irkutsk oblast	B/Stable/	B/Stable/
Kaluga oblast		evoked
Klinsky district		evoked
Krasnodar Krai	BB/Stable/	BB/Stable/
Krasnoyarsk Krai	BB+/Negative/	BB+/Negative/
Lenigrad oblast	BB/Stable/	BB/Stable/
City of Moscow	BBB/Stable/	BBB/Stable/
Moscow oblast	suspended	
Nizhny Novgorod	BB–/Stable/	BB–/Stable/
Novgorod oblast	B/Negative/	B/Negative/
Novosibirsk	BB–/Negative/	BB–/Negative/
Omsk	revoked	
Samara oblast	BB+/Negative/	BB+/Negative/
St. Petersburg	BBB/Stable/	BBB/Stable/
Sakha (Yakutia)	BB–/Negative/	BB–/Negative/
Sverdlovsk oblast	BB/Stable/	BB/Stable/
Stavropol Krai	B+/Stable/	B+/Stable/
Surgut	BB–/Stable/	BB–/Stable/
Tatarstan	revoked	
Tver oblast	B+/Negative/	B+/Negative/
Tomsk oblast	B–/Stable/	B–/Stable/
Ufa	BB–/Stable/	BB–/Stable/
Khanty-Mansy autonomous okrug	BBB–/Negative/	BBB–/Negative/
Yamalo-Nenetsky autonomous okrug	BB+/Stable/	BB+/Stable/

Source: Standard&Poor's.

2.5. The Scenarios of Social and Economic Development of the Russian Economy in the 2010–2012 period

Prerequisites

For the purpose of analyzing the stability of the budgetary system of the Russian Federation, the main three scenarios of development of internal and external economic processes in the mid-term prospect (the 2009-2012 period) are considered herein. The above period can be unambiguously defined as the period of exit from the crisis. It should be noted right away that in all the scenarios the main principles of the economic policy of the Russian government irrespective of the dynamics of economic indices, situation on foreign markets and the course of the election campaign in 2011 and 2012 are assumed to be unchanged.

The most probable scenarios include the following:

1. The scenario of inertial exit from the crisis;
2. The scenario of rapid exit from the crisis;
3. The scenario of delayed exit ("the second wave") from the crisis.

1. The Scenario of inertial exit from the crisis corresponds in its main preconditions to the base scenario of social and economic development of the Russian Federation developed by the Ministry of Economic Development of Russia as the basis of the draft federal budget of the Russian Federation in 2010 and planned for 2011 and 2012.

It is assumed, in particular, that the economies of the leading countries are likely to overcome the crisis in the year 2011, while in Russia due to its high dependence on global commodity markets the sustained economic growth may start even later. The adopted crisis exit strategies will ensure a smooth switchover (without a new distress) from the aggressive anti-crisis policy pursued by many states to a reduction of the debt burden accrued during the crisis and a "disposal" of nationalized capital assets and financial assets. In 2010, the global economic growth will not exceed 0.5–1% (mostly due to high growth rates in China, India, Brazil and other developing countries, while in the USA and the EU states growth rates are low, but positive), while in 2011-2012 it will amount to 2.5–3.0% a year. In other words, in the period under review the global economic growth will be slower than that which was observed prior to the 2008 crisis.

The forecast of smooth exit by the world's leading economies from the crisis without serious changes in the structure of the global economy made means that exchange rates of the world's leading currencies will remain practically unchanged. It is expected, in particular, that despite problems of some countries in the Euro zone (primarily in Greece, Spain and Portugal) the Euro currency will remain stable, and within the framework of this scenario the USD/Euro exchange rate is expected to be at the level of 1.35–1.4 in the 2010-2012 period.

Accordingly, oil prices on the world market will remain practically unchanged; additional demand in oil and petrochemicals due to economic growth in China and developing countries in the above period can be compensated by OPEC and other oil-producing countries' return to its former production volumes (since summer 2008 OPEC has repeatedly passed decisions on reduction of oil production quotas). As in the updated scenario prepared by the Ministry of Economic Development of Russia, it is assumed that in 2010 the price of oil (Urals) will amount, on average, to 65 USD/barrel, while in the 2011-2012 period, to 70 USD/barrel.

Due to such a level of oil prices on the world market, there are no reasons to believe that new oil and gas fields in Russia are developed and put on production soon. It means that volumes of production and, probably, export of hydrocarbon materials from Russia will go down.

Though metals prices rose by 25-60% in the first six months of 2009 they will be below the pre-crisis level in the period under review. By the end of 2012, the growth in prices on ferrous and non-ferrous metal products is expected to be within the range of 10–15%. However, the situation in the Russian iron and steel industry is likely to improve as the global volume of demand (in physical terms) in metals will increase as compared to that which was observed at the end of 2008 and in 2009.

Stabilization in the financial sector of the world's leading economies with interest rates gradually rising there will result in a new stage of global invertors' activities in developing countries. However, it is believed that due to slow rate of economic recovery and weak trends in the leading international commodity markets a renewal of foreign capital inflow to Russia is only possible as late as 2011. In 2010, the influx of direct foreign investments will be compensated by Russian investors' greater activities in purchasing of such assets abroad as have fallen in price during the crisis, while new private loans are spent primarily on repayment of the existing debts. Thus, the net capital outflow from the private sector is expected to be followed by capital inflow only late in 2011 and 2012.

As regards domestic conditions and trends in development of the Russian economy, the scenario in question points to the prospect of rather slow exit from the crisis. It is evident that pre-crises indices (that is, those which prevailed prior to 2008) as regards the volume of real GDP, industrial output, investments in capital assets, retail sales, households' real income will not to be achieved by the end of 2012.

As regards the fiscal policy, the year 2009 and the year 2010 are expected to be rather difficult. With fixed expenditure of the federal budget remaining at the level determined in the draft federal budget in the year 2010 and planned for 2011 and 2012 and oil prices, within the range provided for in the scenario in question, the federal budget is likely to be in deficit in 2011 and 2012. As the Reserve Fund is only sufficient enough to cover the deficit of the federal budget till the end of the first half of 2010, the Ministry of Finance of Russia is expected to borrow actively both on the international capital market (in 2010) and the Russian capital market (throughout the entire period). Accordingly, in 2010 the above policy will permit to reduce somewhat capital flight from the Russian Federation. However, in any case a substantial pressure on interest rates is expected on the domestic market which situation holds back the demand by Russian private investors in borrowed ruble funds and, thus, slows down the renewal of the volume of investments in this country.

The forecasts stated herein regarding the level of prices on oil and metals are unlikely to ensure in the period under review a sustained current account surplus. Taking into consideration the forecast regarding changes in the capital flow balance, fast accumulation of international reserves by the Bank of Russia and respective issuing activity by it are not expected. If the budget deficit is financed on market terms it means that such a tough monetary policy is carried out as makes it possible to ensure a sustained reduction in the inflation rate to a single-digit value.

2. The scenario of rapid exit from the crisis. This scenario is partially similar to the "oil" scenario of the Ministry of Economic Development of Russia and is based on the idea of successful and fast implementation of crisis exit strategies in all the leading states. Under the scenario in question, in 2010 the global economic growth is expected to be at the level of at least

2.5% a year, while in the 2011-2012 period, at that of 3.5-4.5% a year. It means that the above indices will be close to the pre-crisis ones.

Such an explosive growth of the global economy is likely to trigger a new rise in prices on global commodity markets (both through expansion of the demand (in physical terms) and due to participants' growing expectations). It is believed that in the scenario in question oil prices in 2010 may grow to 80 USD/barrel (Urals), while in the 2011–2012 period, to 100 USD/barrel. By the end of 2012, prices on metals will go up by at least 15–30% on the mid 2009 level.

In such a situation, it is expected that (as in the first scenario provided that the fixed expenditure remains the same as in the federal budget passed by the law) the federal budget deficit will be observed only in the 2009-2010 period, while in the 2011–2012 period the federal budget is drawn up with a surplus again.

It is evident that the above scenario entails preservation of such main global structural problems, including those in the primary sector and financial sector as well as threats as existed before the crisis. However, it is believed that such threats (a new serious financial and economic crisis of the global economy) may only come true beyond the horizon of the period under review (after 2012).

Within the framework of the scenario in question, it is assumed that the existing global capital which is being withdrawn from low-income 'reliable' assets in developed countries will be more actively transferred (than in the case of the scenario of inertial exit from the crisis) to emerging markets, including Russia. As a result, as early as 2010 Russia may have a zero capital flight balance, while in the 2011–2012 period a double surplus of the balance of payments is likely to be observed again. Such a situation will result in nominal and actual appreciation of the ruble and slow reduction in the rate of inflation.

In our opinion, appreciation of the ruble, high nominal interest rates (because of the inflation rate) on loans in rubles as well as prevailing conservative expectations of Russian economic agents (in a situation where dependence on trends in the global market is becoming greater than before) do not permit to expect fast recovery of growth rates in the real sector to the pre-crisis level within the framework of the scenario in question. The main imbalances in the Russian economy which existed before the crisis will inhibit the rate of economic recovery despite high prices on hydrocarbon materials and other main Russian export commodities. However, in the period under review accelerated growth in GDP will be observed both in the global economy in general and in Russia, in particular, while negative trends may arise only after the year 2012.

3. The scenario of delayed exit from the crisis ("the second wave" of the crisis). Within the framework of that scenario, a downbeat development of both the global economy and the Russian economy is considered. The scenario in question is based on the idea that either the second wave of the crisis may arise in the global economy or some developments may cause greater uncertainty in the world (that is, provoke a new crisis). Such factors include the following:

1. Such mistakes in realization of the crisis exit strategy as were made by economic authorities of developed countries, for instance, a premature sharp increase in base interest rates, governments' inability to resist further build-up of the budget deficit and other;

2. Such hidden risks in the economy of the USA and Europe as may come into life: a further growth in the rate of unemployment, crisis in the commercial real property sector, new wave of writings-off by financial institutions of toxic assets and other;

3. Ceasing of the effect produced by fiscal stimulus measures in the economy of China which factor in a situation of stagnating demand may result in a dramatic slowdown of the Chinese economy with eventual adverse social and political implications to follow.

Irrespective of the specific factors behind the protracted crisis, under the scenario in question it is believed that recession of the global economy will be observed in 2010 as well, while in 2012 economic growth amounts to maximum 1.5–2%.

As regards the Russian economy, it means the following:

- Prices on Russian main export commodities will go down. In 2010 and 2011, price on oil (Urals) will drop to 40 USD/barrel, while in 2012 it does not exceed 50 USD/barrel. Metal prices will be at the level which prevailed in winter 2008–2009, that is, 30% below the level of the second half of 2009. Accordingly, irrespective of the price factor there are no factors behind an increase in the Russian export in physical terms;
- Russia like other developing countries will be considered as a zone of higher risks for global financial players. Accordingly, in 2010 and 2011 a negative capital flight balance will be observed (to finance the deficit of its federal budget the Russian Federation as a sovereign borrower will experience borrowing limitations on the foreign market as well), while in 2012 a zero balance as regards that component of the balance of payments is quite possible.
- It is unlikely that the Government of Russia is able to finance in full the declared nominal volumes of expenditure at the expense of domestic and foreign market borrowings. Due to the above, the balance of payments and the monetary and fiscal balance can be supported only through depreciation of the ruble nominal exchange rate.

The forecast of the dynamics of macroeconomic and financial variables, as well as indices of the federal budget of the Russian Federation are based on the structural econometric model of the Russian economy developed at the Institute for the Economy in Transition.

Calculations by the Scenario

It is to be noted that for the purpose of limitation of subjective interpretation of quality changes in the economy and behavior of economic agents (for instance, a dramatic change in expectations in a situation of a steep fall in oil prices, volatile nominal fluctuations of the exchange rate and other) and due to use of the academic economic and mathematical tools technique for quantitative estimation of the scenarios, such responsible and efficient behavior of economic agents as is impossible in practice is anticipated, that is, in each scenario such an equilibrium is received for those specific conditions of variables as is impossible in practice with the specified criteria set. It concerns, in particular, the scenario in which a fall in oil prices is anticipated.

The outputs of calculations of the main macroeconomic and financial indices for the above scenarios are shown in *tables 42–44*.

Table 42

The scenario of inertial exit from the crisis

	2007	2008	2009	2010	2011	2012
Oil price (Urals, USD/barrel)	72.52	93.9	60.7	65	70	70
Real GDP growth rate, %	8.10	5.60	–7.90	4.30	3.00	3.70
Nominal GDP (billion rubles)	33103	41256	39016	44142	48604	53675
GDP deflator, %	13.92	18.02	2.68	8.47	6.90	6.49
Nominal GDP (billion USD, at the average annual rate)	1295	1664	1232	1549	1736	1897
Growth rates of fixed investment, %	21.10	9.90	–16.20	–4.50	3.10	3.80
Rates of growth in households' real income, %	10.40	1.90	2.30	6.20	1.10	2.50
Rates of growth in real retail sales, %	15.20	13.50	–5.50	1.50	2.10	3.50
Federal budget revenues (% GDP)	23.50	22.48	18.80	17.00	16.50	16.20
Federal budget revenues (billion rubles)	7779	9276	7337	7504	8020	8695
Federal budget expenditure (% GDP)	18.07	18.35	25.34	22.40	19.32	18.04
Federal budget expenditure (billion rubles)	5983	7571	9887	9887	9390	9681
Surplus / deficit (–) of the federal budget (% GDP)	5.43	4.13	–6.54	–5.40	–2.82	–1.84
Balance of the Reserve Fund as of the year end (billion rubles)		4028	1831	0	0	0
Balance of the National Welfare Fund of the Russian Federation as of the year end (billion rubles)		2584	2769	2736	2848	2975
Export (billion USD)	354	472	303.3	321	338	344
Import (billion USD)	225	293	192.7	235	264	288
Trade balance (billion USD)	129	179	111	85	73	56
Current account balance (billion USD)		102	47.5	42	30	10
Capital account balance (billion USD)	72.3	–138.8	–45.2	–15.0	0.0	30.0
Balance of payments (billion USD)	173	–45	–3.4	16.5	25.3	40.3
Private sector' foreign debt (billion USD)	400	451.9	425.4	410.4	410.4	440.4
Private foreign debt/GDP ratio, %	30.9	27.2	34.5	26.5	23.6	23.2
International reserves of the Central Bank of Russia (billion USD)	476	427	439.0	466	496	536
Change in the USD/Rb nominal exchange rate, %	–5.93	–3.01	27.74	–10.04	–1.75	1.07
Nominal Rb/USD exchange rate (Rb/USD)	25.57	24.80	31.68	28.50	28.00	28.3
Euro/USD exchange rate (USD/Euro)	1.371	1.468	1.39	1.35	1.4	1.4
Nominal RUR/Euro exchange rate (Rb/Euro)	35.06	36.41	44.13	38.48	39.20	39.62
Bicurrency basket exchange rate (Rb)	29.84	30.02	37.28	32.99	33.04	33.39
Change in real effective ruble exchange rate, %	4.20	5.10	–5.60	8.92	3.74	2.53
Index of real effective ruble exchange rate (June 1998 = 100)	112.7	118.5	111.9	121.8	126.4	129.6
Interest rate on loans in rubles (% annually)	10.0	12.2	15.3	9.7	8.0	7.8
Growth rates of consumer price index, %	11.9	13.3	8.8	7.4	6.9	6.6
Wide monetary base (as of the year end (billion rubles)	5513	5579	6467	7406	8423	9551
Growth rates of wide monetary base, %	33.74	1.19	15.93	14.51	13.74	13.39
M2 as of the year end (billion rubles)	13272	13493	15698	17989	20576	23453
M2 growth rates, %	47.54	1.67	16.34	14.60	14.38	13.98
Money multiplier	2.41	2.55	2.43	2.43	2.44	2.46
Monetization of GDP (M2/GDP) , %	40.1	32.7	40.2	40.8	42.3	43.7

Table 43

The scenario of rapid exit from the crisis

	2007	2008	2009	2010	2011	2012
Oil price (Urals, USD/a barrel)	72.52	93.9	60.7	80	100	100
Real GDP growth rate, %	8.10	5.60	–7.90	5.50	4.20	3.20
Nominal GDP (billion rubles)	32987	41668	39016	45024	50434	55739
GDP deflator, %	13.53	19.62	1.67	9.38	7.50	7.09
Nominal GDP (billion USD, at the average annual rate)	1290	1680	1232	1637	1889	2152
Growth rates of fixed investment, %	21.10	9.80	–16.20	–1.30	5.50	6.80
Rates of growth in households' real income, %	10.40	6.50	2.30	6.50	2.00	3.00
Rates of growth in real retail sales, %	15.20	11.00	–5.50	2.10	3.50	4.30
Federal budget revenues (% GDP)	23.58	22.26	18.80	17.70	17.00	16.50
Federal budget revenues (billion rubles)	7779	9276	7337	7969	8574	9197
Federal budget expenditure (% GDP)	18.14	18.17	25.34	21.96	18.62	17.37
Federal budget expenditure (billion rubles)	5983	7571	9887	9887	9390	9681
Surplus / deficit (–) of the federal budget (% GDP)	5.44	4.09	–6.54	–4.26	–1.62	–0.87
Balance of the Reserve Fund as of the year end (billion rubles)		4028	1831	0	0	0
Balance of the National Welfare Fund of the Russian Federation as of the year end (billion rubles)		2584	2769	2703	2803	2879
Export (billion USD)	354	472	303.3	360	412	419
Import (billion USD)	225	293	192.7	253	299	351
Trade balance (billion USD)	129	179	111	107	114	68
Current account balance (billion USD)		102	47.5	63	71	22
Capital account balance (billion USD)	72.3	–138.8	–45.2	0.0	20.0	40.0
Balance of payments (billion USD)	173	–45	–3.4	53.1	85.7	61.8
Private sector' foreign debt (billion USD)	400	451.9	425.4	425.4	445.4	485.4
Private foreign debt/GDP ratio, %	31.0	26.9	34.5	26.0	23.6	22.6
International reserves of the Central Bank of Russia (billion USD)	476	427	439.0	502	593	655
Change in the USD/Rb nominal exchange rate, %	–5.93	–3.01	27.74	–13.19	–2.91	–3.00
Nominal RUR/USD exchange rate (Rb/USD)	25.57	24.80	31.68	27.50	26.70	25.9
Euro/USD exchange rate (USD/Euro)	1.371	1.468	1.39	1.35	1.4	1.4
Nominal RUR/Euro exchange rate (Rb/Euro)	35.06	36.41	44.13	37.13	37.38	36.26
Bicurrency basket exchange rate (Rb)	29.84	30.02	37.28	31.83	31.51	30.56
Change in real effective ruble exchange rate, %	4.20	5.10	–5.60	12.92	5.52	7.20
Index of real effective ruble exchange rate (June 1998 = 100)	112.7	118.5	111.9	126.3	133.3	142.9
Interest rate on loans in rubles (% annually)	10.0	12.2	15.3	10.6	8.5	8.6
Growth rates of consumer price index, %	11.9	13.3	8.8	8.3	7.5	7.2
Wide monetary base (as of the year end (billion rubles)	5513	5579	6467	7919	9158	10742
Growth rates of wide monetary base, %	33.74	1.19	15.93	22.45	15.64	17.30
M2 as of the year end (billion rubles)	13272	13493	15698	19234	22383	26377
M2 growth rates, %	47.54	1.67	16.34	22.53	16.37	17.84
Money multiplier	2.41	2.55	2.43	2.43	2.44	2.46
Monetization of GDP (M2/GDP) , %	40.2	32.4	40.2	42.7	44.4	47.3

Table 44

The scenario of delayed exit from the crisis

	2007	2008	2009	2010	2011	2012
Oil price (Urals, USD/barrel)	72.52	93.9	60.7	40	50	50
Real GDP growth rate, %	8.10	5.60	–7.90	–4.10	2.00	2.20
Nominal GDP (billion rubles)	32987	41668	39016	40965	44709	48797
GDP deflator, %	13.53	19.62	1.67	9.48	7.00	6.79
Nominal GDP (billion USD, at the average annual rate)	1290	1680	1232	1241	1424	1569
Growth rates of fixed investment, %	21.10	9.80	–16.20	–8.70	–1.90	0.80
Rates of growth in households' real income, %	10.40	6.50	2.30	2.10	0.50	1.70
Rates of growth in real retail sales, %	15.20	11.00	–5.50	–0.50	–1.40	–0.30
Federal budget revenues (% GDP)	23.58	22.26	18.80	15.80	15.50	15.00
Federal budget revenues (billion rubles)	7779	9276	7337	6472	6930	7319
Federal budget expenditure (% GDP)	18.14	18.17	25.34	24.14	21.00	19.84
Federal budget expenditure (billion rubles)	5983	7571	9887	9887	9390	9681
Surplus / deficit (–) of the federal budget (% GDP)	5.44	4.09	–6.54	–8.34	–5.50	–4.84
Balance of the Reserve Fund as of the year end (billion rubles)		4028	1831	0	0	0
Balance of the National Welfare Fund of the Russian Federation as of the year end (billion rubles)		2584	2769	2949	3017	3120
Export (billion USD)	354	472	303.3	245	278	282
Import (billion USD)	225	293	192.7	169	202	226
Trade balance (billion USD)	129	179	111	76	76	55
Current account balance (billion USD)		102	47.5	32	33	9
Capital account balance (billion USD)	72.3	–138.8	–45.2	–35.0	–10.0	5.0
Balance of payments (billion USD)	173	–45	–3.4	–12.5	18.3	14.3
Private sector' foreign debt (billion USD)	400	451.9	425.4	390.4	380.4	385.4
Private foreign debt/GDP ratio, %	31.0	26.9	34.5	31.4	26.7	24.6
International reserves of the Central Bank of Russia (billion USD)	476	427	439.0	437	460	474
Change in the USD/RUR nominal exchange rate, %	–5.93	–3.01	27.74	4.17	–4.85	–0.96
Nominal RUR/USD exchange rate (Rb/USD)	25.57	24.80	31.68	33.00	31.40	31.1
Euro/USD exchange rate (USD/Euro)	1.371	1.468	1.39	1.35	1.4	1.4
Nominal RUR/Euro exchange rate (Rb/Euro)	35.06	36.41	44.13	44.55	43.96	43.54
Bicurrency basket exchange rate (Rb)	29.84	30.02	37.28	38.20	37.05	36.70
Change in real effective ruble exchange rate, %	4.20	5.10	–5.60	–4.05	7.00	4.86
Index of real effective ruble exchange rate (June 1998 = 100)	112.7	118.5	111.9	107.3	114.8	120.4
Interest rate on loans in rubles (% annually)	10.0	12.2	15.3	12.4	10.7	10.8
Growth rates of consumer price index, %	11.9	13.3	8.8	8.4	7.0	6.9
Wide monetary base (as of the year end (billion rubles)	5513	5579	6467	6599	7292	8098
Growth rates of wide monetary base, %	33.74	1.19	15.93	2.04	10.49	11.06
M2 as of the year end (billion rubles)	13272	13493	15698	16049	17862	19967
M2 growth rates, %	47.54	1.67	16.34	2.24	11.30	11.79
Money multiplier	2.41	2.55	2.43	2.43	2.45	2.47
Monetization of GDP (M2/GDP) , %	40.2	32.4	40.2	39.2	40.0	40.9

In case of **the scenario of inertial exit from the crisis,** the received quantitative values of the dynamics of the main indices of the social and economic development of Russia and those of the monetary field point to the fact that positive rates of growth in real GDP will not exceed 3.5–4.5% until the end of 2012. The higher rates of growth in real GDP (4.3%) are observed in 2010 (to a great extent due to a lower base in 2009), however, the economic growth will slow down later. By the end of 2012, the real GDP of Russia will exceed the 2008 level

by the mere 2.5%. At the same time, with the growth of the ruble real exchange rate and decline of the population of the Russian Federation taken into account per capita GDP in Russia (at the current rate) will exceed the 2008 level by 15–20% in 2012.

Renewal of the economic growth is ensured both by stable oil prices within a range that is comfortable for the Russian economy and a renewed influx of foreign capital to Russia which situation permits financing Russian companies' investment needs.

According to the forecast, in the 2010-2011 period growth of the domestic consumer demand will lag behind investment activities. It can be explained by the fact that unlike the situation which prevailed before the 2008-2009 crisis the level of employment in the economy is expected to go down as industries in the period of exit from the crisis seek to raise labor efficiency by reducing the number of their personnel or hiring new workers at a slow rate, and, thus, increase production capacities. In our opinion, substantial growth of demand in labor and, as a consequence, growth of real wages and consumer activities is possible only starting from the year 2012.

At the same time, in the 2010-2011 period households' real wages will not only be preserved, but also increase by 8.3% which situation is related to a substantial growth in pensions and households' savings.

Though oil prices are expected to be at a quite "comfortable" (but not high enough) level (it will not cause a currency or financial crisis) the situation in public finances within the framework of the scenario in question remains rather complicated. With the above precondition regarding preservation of fixed expenditure of the federal budget in the amount determined by the Federal Law on the Federal Budget in the Year 2010 and Planned for 2011 and 2012 Period observed, the federal budget will remain in deficit within the entire period under review. The Reserve Fund is sufficient enough to finance the federal budget deficit only in 2010.

As resources from the National Welfare Fund are not expected to be used for financing the budget deficit, accumulations in the National Welfare Fund will amount to 6–6,5% of GDP.

An important condition of renewal of both positive growth rates of investments (in real terms) in capital assets and real growth of GDP is a return by Russian companies and banks to the international capital market, as well as maintaining of sustained influx of direct foreign investments to the Russian Federation. According to the calculations, to ensure the preset rates of growth in investments a sustained net influx of foreign capital to Russia should begin not later than in the second half of 2011 and it should be in the amount of up to 15-20 billion rubles a year.

It is to be noted that in the period under review growth in negative balance of the services account, as well as factor payments and interest payments is anticipated. Accordingly, in the 2011–2012 period reduction in the current account surplus of the Russian Federation to USD 10-30 billion is expected.

As it is believed that in switching over to the inflation targeting regime the Central Bank of Russia will reduce its participation in the foreign exchange market the international reserves of the Bank of Russia will grow rather slowly. By our estimate, by the end of 2012, the volume of such reserves will amount to USD 530–540 billion, which value is below the maximum level registered in the 2007–2008 period.

The balance of payments surplus in the period till the year 2012 will ensure stability of the ruble exchange rate to the currency basket (preservation of the USD/Euro ratio in the bicurrency basket at the level of 0.55: 0.45 is expected). Changes in exchange rates of USD and

Euro to the ruble are determined mainly by a change in mutual quotations of the reserve currencies on the international market. Growth in volatility of the ruble exchange rate to USD and Euro as a result of weakening of the Bank's of Russia impact on the exchange rate has no effect on the overall annual values of the exchange rate as alternate fluctuations offset one another.

At the same time, reduction in the annual growth rate of the consumer price index to 6.5–7.0% will permit to slow down to a great extent the rates of real appreciation of the ruble. In particular, by the end of 2012 the real effective ruble exchange rate will appreciate by maximum 10% and 17% on the figure registered at the end of 2007 and that at the end of 2008, respectively. Accordingly, the positive dynamics of Russian export volumes is expected to be preserved in a situation of stagnating prices on raw materials on international markets. Imports will grow faster than exports throughout the entire period under review. However, due to a lower level of consumer activities import volumes in 2012 are unlikely to exceed the 2008 record high figures.

The model suggests serious changes in the monetary field of the Russian economy. Firstly, as was stated above the model points to a substantial reduction (below the double digit value) in the rate of inflation to 6.5–7.0%.

Secondly, change in the regime of the Bank's of Russia monetary policy means that the Bank of Russia will be more active on the government securities market (it can be explained by the fact that apart from resources from the Reserve fund and external borrowings the Bank of Russia will need more funds to finance the federal budget deficit), in refinancing commercial banks against securities it will acquire in its portfolio (for instance, corporate bonds) and in provision of long-term secured loans (with a maturity of minimum one year) to commercial banks.

Change in the main methods of the monetary authorities' policy is to result in growth in real interest rates in the economy. In the 2010–2012 period, the real interest rate on loans (with a maturity of up to one year) to non-financial private sector will be within the range of 1.5–2.0%. Meanwhile, the money multiplier (the ratio of M2 to the reserve funds) is anticipated to be preserved at the current level of around 2.45. In other words, in the period under review no such active growth in credit expansion of the banking sector as was observed prior to the 2008 crisis is expected.

Summing up the outputs of the analysis of **the scenario of inertial exit from the crisis**, it is important to point out its specific features which are as follows:

1. Renewal of the volume of real GDP and investments (in real terms) in capital assets up to the pre-crisis level is possible only at the end of 2012.

2. Ensuring of such volumes of investments in capital assets as would be relevant to the respective GDP growth is possible in as situation of stable oil prices in the range of at least 60-65 USD/barrel and in case of return by Russian companies to the international capital market.

3. Mandatory switchover to new mechanisms that ensure the Central Bank's of Russia money supply is required as well as growth in real value of money in the economy.

4. Factors behind the federal budget deficit still prevail; the Reserve Fund will be spent up completely, while accumulations in the National Welfare Fund grow at a very low rate.

5. The inflation rate will substantially go down in a situation where the real effective ruble exchange rate slowly appreciates and the money supply and monetization of the Russian economy grow fast.

Taking into account the actual situation in the first quarter 2010, **the scenario of rapid exit from the crisis** is quite probable though the scenario of inertial exit from the crisis has been selected as the base one so that direct comparisons against the scenario of the Ministry of Economic Development of Russia and federal forecasts for 2010 and 2012 could be made.

Increase in average prices on oil (Urals) to 80 USD/barrel in 2010 and 100 USD/a barrel in the 2011–2012 period (in the fourth quarter 2009 and the first quarter 2010 oil prices amounted to about 70–75 USD/barrel) will permit the Russian economy to grow by 5.5% as early as 2010, while in the 2011–2012 period growth in real GDP is to amount to 3.5–4.5% a year (though growth rates will eventually slow down). By the end of 2012, real GDP will be 5% higher than that in 2008. In 2012, per capita GDP (expressed in USD at the prevailing exchange rate) will increase up to USD 15,000, that is, a 20–25% increase on the 2007 figure.

As regards dynamics of investments in capital assets, households' real income and retail sales, the scenario in question does not differ much by the main trends from that of inertial exit from the crisis, however, in the 2010–2011 period the overall growth rates of all the indices will be substantially higher.

Under this scenario, despite higher prices on international commodity markets, the federal budget revenues are insufficient for the planned expenditures to be financed in full, either. In the 2011–2012 period, the federal budget deficit will decrease to about 1–1.5% of GDP, however, replenishment of the Reserve Funds will not take place even in a situation of higher prices on oil (100 USD/barrel).

A favorable foreign economic situation within the framework of the scenario in question permits to ensure stability of the balance of payments of the Russian Federation. Throughout the entire period under review, the balance of payments as well as its both components are in surplus. In particular, the balance of payments is in the range of USD 70–90 billion a year, while the annual influx of private capital to the Russia amounts to USD 55 billion.

Under the scenario in question, the Bank of Russia cannot escape a substantial growth in international reserves as result of a return to the policy of containment of ruble nominal appreciation. Thus, by the end of 2012 international reserves of the Bank of Russia will amount to USD 650–660 billion and surpass the 2008 level.

In the в 2010–2012 period, the nominal Rb/USD exchange rate will appreciate to 26.0–27.0 rubles for a USD, that is, a 15-20% increase on the level registered at the end of 2009. At the same time, though the inflation rate (according to the consumer price index) keeps going down it is still higher (7.0–7.5%) than that in the scenario of inertial exit from the crisis. As a result of that, there will be a sustained real appreciation of the ruble, and by the end of 2012 the real effective exchange rate of ruble will exceed by nearly 25% the 2008 level.

As in the scenario in question the Central Bank of Russia is expected to switch over to the inflation targeting regime and use of interest rates as a main operating instrument (though a particular attention will still be paid to the foreign exchange market), the real value of money in the economy will grow as well. By our estimate, the real interest rate on loans with a maturity of one year to the non-financial sector will amount to 1.5–2.0%. At the same time, monetization of the economy will increase to 47.3% of GDP.

Thus, the main difference between **the scenario of rapid exit from the crisis** from that of **inertial exit from the crisis** is as follows:

1. The scenario in question is closer both to the actual situation which was observed in the past two quarters and current trends than that of inertial exit from the crisis;

2. Renewal of the real volume of GDP and investments in capital assets is faster;

3. There is a favorable situation as regards the balance of payments and its components as well as fast accumulation of international reserves;

4. The federal budget remains in deficit, and there are no accumulations in the Reserve Fund;

5. The inflation rate goes down slowly, while the ruble exchange rate appreciates fast in a situation of higher growth rates of money supply and monetization of the Russian economy;

6. The central Bank of Russia has a limited potential to carry out a switchover to the inflation targeting regime. It has to pay more attention to the situation on the foreign exchange market.

Under **the scenario of delayed exit from the crisis**, negative growth rates of investments in capital assets still prevail in the 2010–2011 period, while in 2012 they slightly exceed the zero level (0.8%). Real GDP decreases in 2010 (a 4.1% decrease), however, in the 2011–2012 period there is positive growth in real GDP (around 2% a year) due to the effect of a low base (on the basis of the results in 2009-2010 period) and adjustment of the Russian economy both to lower prices on oil and lower real ruble exchange rate. Thus, by the end of 2012 the real GDP will be nearly 10% lower than that in 2008.

Calculations within the framework of the scenario in question point to the fact that with oil prices below 50 USD/ a barrel (Urals) consumer activities will keep decreasing up to the year 2012 included which situation precludes to a great extent a renewal of positive GDP growth rates. Some growth in households' real income (by 0.5–1.5% a year) can be explained by increase in social transfers from the budget and wage indexation in the public sector.

The federal budget deficit does not drop below 4.5% of GDP which factor poses a serious threat to stability of the entire financial system of the Russian Federation. It is believed that with given oil prices there is still limited potential to finance the federal budget deficit through external financing, while domestic borrowings in the amount of up to 15% of GDP create within a period of three years a situation which is similar to that in the 1996–1998 period where the government securities market virtually became a financial pyramid and the only market which attracted capital inside Russia. Thus, as regards the fiscal policy the scenario in question points to the fact that the main parameters of the federal budget expenditure need be reviewed for the sake of fiscal stability.

Under the scenario in question, the net private capital flight from Russia is observed up to 2012. Thus, the balance of payments surplus can be ensured only by an increase in the current account surplus which factor with the given oil prices suggests a reduction in imports through depreciation of the ruble exchange rate.

By our estimate, if the Bank of Russia gives up the idea of active interventions on the foreign exchange market (within the limits of a switchover to inflation targeting regime) stabilization of the balance of payments is possible with a nominal devaluation of the ruble to the level which was observed in the first half of 2009 (that is, 37–38 rubles for the bicurrency basket). It is to be noted that the model does not take into account possible "swings" in the exchange rate, and greater fluctuations towards depreciation of the ruble exchange rate are quite possible within each year limits. The model points to the fact that in 2012 some nominal appreciation of the ruble is possible, however, it will still be 5–10% below the level registered at the end of 2009.

Under the scenario in question, the inflation rate remains quite high, that is, in the range of 7.0–8.5%, as the Bank of Russia (even after it has minimized its participation in the foreign exchange market) is unable to give up both support to the banking system and indirect financ-

ing (through operations on the secondary market) of the federal budget deficit. In addition to the above, the exchange rate will have an impact on the prices. Thus, the model points to the fact that nominal depreciation of the ruble will be completely offset by inflationary pressure, while by 2012 the real effective ruble exchange rate remains at the 2008 level.

In a volatile situation, the precondition regarding use by the Bank of Russia of interest rates as the main instrument results in growth in real value of the money in the economy. By our estimate, under the scenario in question the real interest rate on bank loans will not fall below 4%. Accordingly, banks' lending activities will be low, while monetization of GDP remains at the level of 40% of GDP.

Summing up the outputs of the analysis of **the scenario of delayed exit from the crisis**, it is to be noted that in the scenario in question the Russian Federation is not expected to exit from the crisis in 2010–2012 period which can be characterized as a period of protracted stagnation. Though the year 2012 is characterized by some positive developments it is a turning point from stagnation to growth, while the period of sustained growth may begin starting from 2013 provided that relevant external scenario conditions are in place.