

## Section 3. Financial markets and financial institutions

### 3.1. Post-recession stock market recovery

#### 3.1.1. Comparing the parameters of two crises in Russia

By January 2014 the Russian market recovered but its stock indices were still below the highest ones recorded shortly before the crisis in 2008. Unlike the crisis in 1997–1998 after which the market saw a V-shaped recovery, the dynamics of the RTS Index after 2008 showed a W-shaped trend, to be more precise. The RTS Index passed through a second downtrend phase within this contour in 2013, declining from 2044,2 points in March 2011 to 1301,0 points in January 2014.

The crisis in 2008–2009 resembled the crisis in 1997–1998 in depth and duration of tumbling stock indices (see *Table 1*). At the end of the 1990s, the RTS Index declined 91.3% while the MICEX Index slid down by 73.0%; in the period of 2008 thru 2009 both stock indices dropped as deep as 78.2% and 68.2% respectively. In 1997–1998 the RTS Index was falling within 14 months, while the MICEX Index within 13 months; in the period of 2008 thru 2009 both indices were falling within 8 and 6 months respectively.

*Table 1*

**Financial crises in Russia in 1997–1998 and 2008–2009 and subsequent market recovery (as of January 31, 2014)**

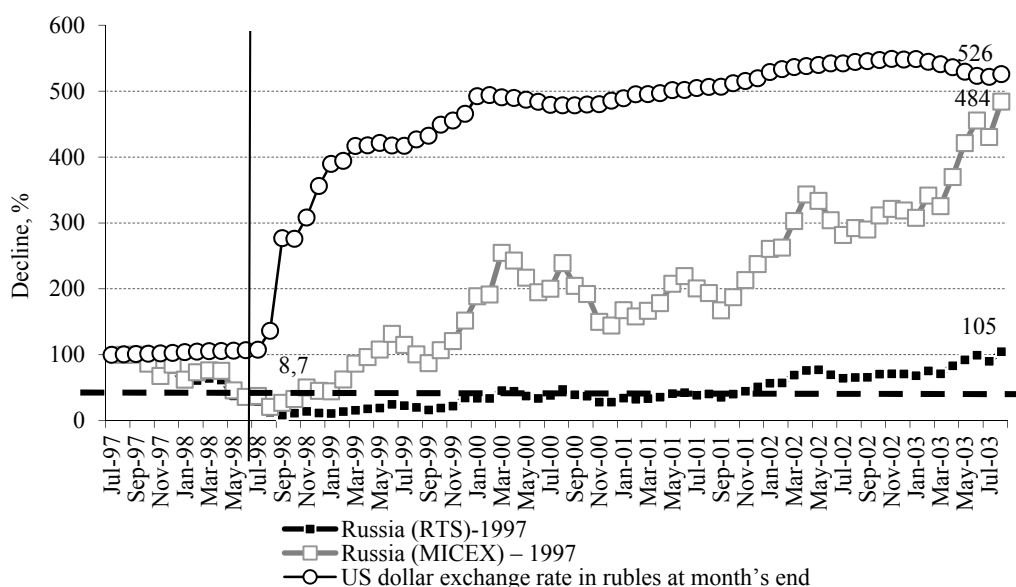
	1997–1998 crisis	2008–2009 crisis
1. Fall from peak		
1.1. Depth, %		
RTS Index	-91.3	-78.2
MICEX Index	-73.0	-68.2
1.2. Duration, in months		
RTS Index	14	8
MICEX Index	13	6
2. Recovery, in months		
RTS Index	58	60
MICEX Index	8	62

*Source:* based on the data supplied by the Moscow Exchange.

However, because of a fivefold devaluation of the ruble after 1998 it took just eight months for the MICEX Index to recover to its peak pre-recession value while the RTS Currency Exchange Index recovered within 58 months. The ruble devalued only by 50% after the crisis in 2008. The currency exchange rate in the period of May 2008 thru January 2014 saw a W-shaped trend, thereby making the RTS and MICEX indices follow the same dynamics. As a result of “controlled” devaluation in the period of May 2008 thru February 2009 the US dollar

got stronger against the ruble, from Rb 23,74 to Rb 35,72, or by 50.5%. As the financial system subsequently recovered, the ruble strengthened against the US dollar, reaching Rb 27,50 per US dollar in April 2011. Devaluation of the ruble has recovered since May 2011. In January 2014, the ruble-to-dollar exchange rate reached Rb 35,24 per US dollar, increasing 48.4% above the exchange rate recorded in May 2008. Moderate devaluation of the ruble as a result of the crisis in 2008 against the effects of the 1998 crisis preconditioned slower recovery of the two key stock indices in the current period.

The differences in ruble devaluation between the crises in 1997–1998 and 2008–2009 show different recovery dynamics for the RTS and MICEX indices. More than fivefold devaluation of the ruble<sup>1</sup> in 1998 allowed the MICEX Index to subsequently recover at a faster rate than the RTS Index (see *Fig. 1*), because the MICEX Index portfolio is denominated in rubles while the RTS Index portfolio in US dollars. The MICEX Index managed to recover to its pre-recession peak as early as by May 1999, i.e. only eight months after passing through the “bottom line” of the crisis. It took 58 months for the RTS Index to recover after reaching its lowest level during the crisis.



Source: based on the data supplied by the Moscow Exchange and the Bank of Russia.

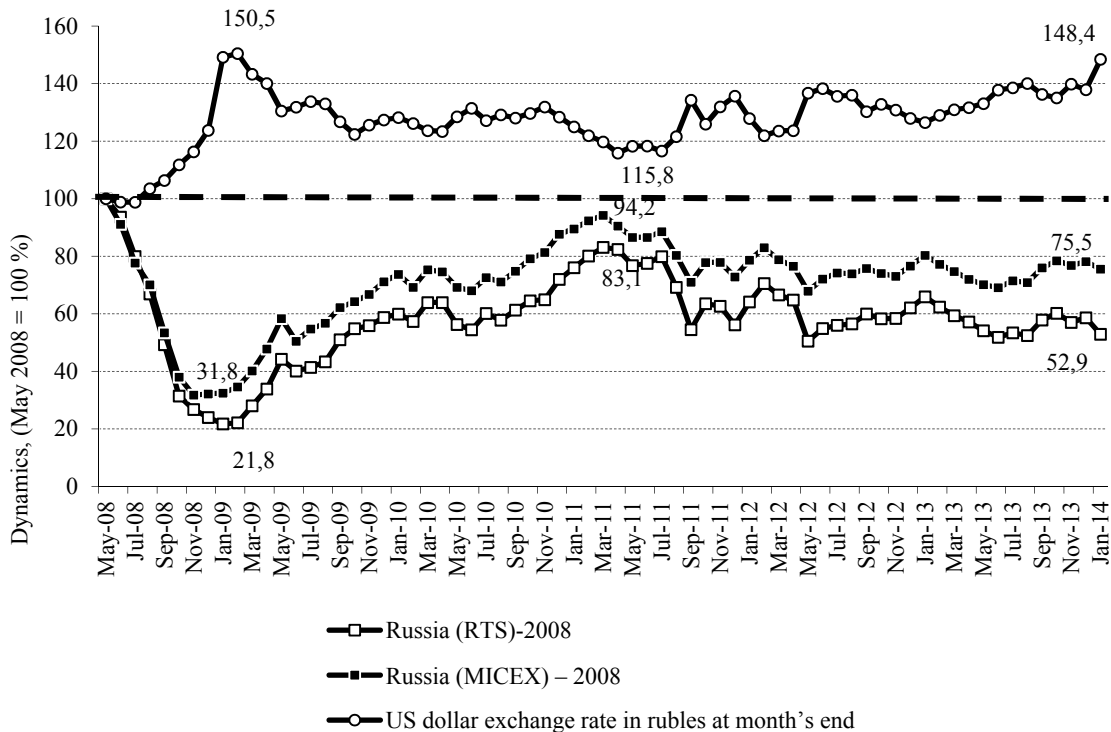
Fig. 1. Changes to the US exchange rate, the RTS and MICEX indices during the crisis of 1997–1998 (July 1997 = 100%)

During the crisis between 2008 and 2009 the ruble saw the highest devaluation of 50% (see *Fig. 2*). By April 2011 the ruble exchange rate recovered, devaluing only by 15.8% of the pre-recession period. However, in May 2011 the US dollar resumed to strengthen and by January 2014 the ruble devalued near 50%. It is in May 2011 when a new stage of withdrawing money from foreign foundations investing in Russian stocks<sup>2</sup> began. Because of a more moderate, vs. the 1998 crisis, devaluation of the ruble, the latest recovery of the RTS and MICEX indices was almost the same, except that the MICEX Index recovered a bit faster.

<sup>1</sup> Within the period of 1998 thru 2003.

<sup>2</sup> The reasons for this phenomenon are described in detail in section 3.3.2.

In January 2014, the RTS Index reached 52.9% while the MICEX Index showed 75.5% of the peak value of these indices recorded in May 2008.



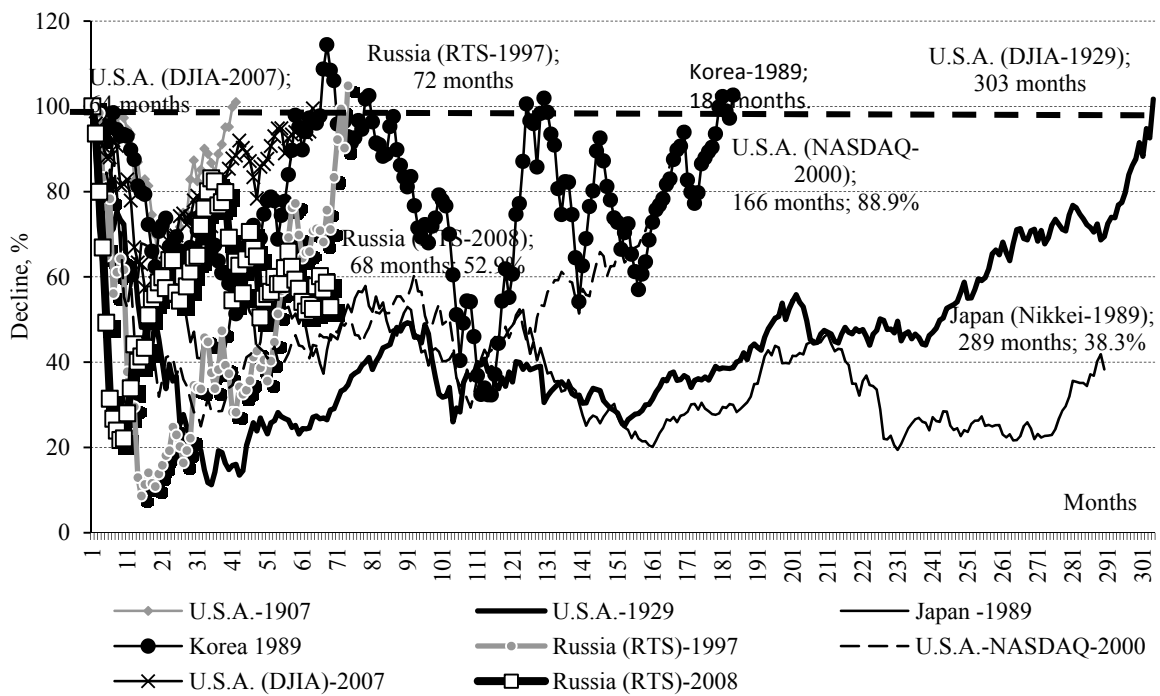
*Source:* the estimations are based on the data supplied by the Bank of Russia and the Moscow Exchange.

*Fig. 2.* Changes to the US exchange rate, the RTS and MICEX indices in the period of May 2008 thru January 2014 (May 2008 = 100%)

### 3.1.2. Long-term and short-term financial crises

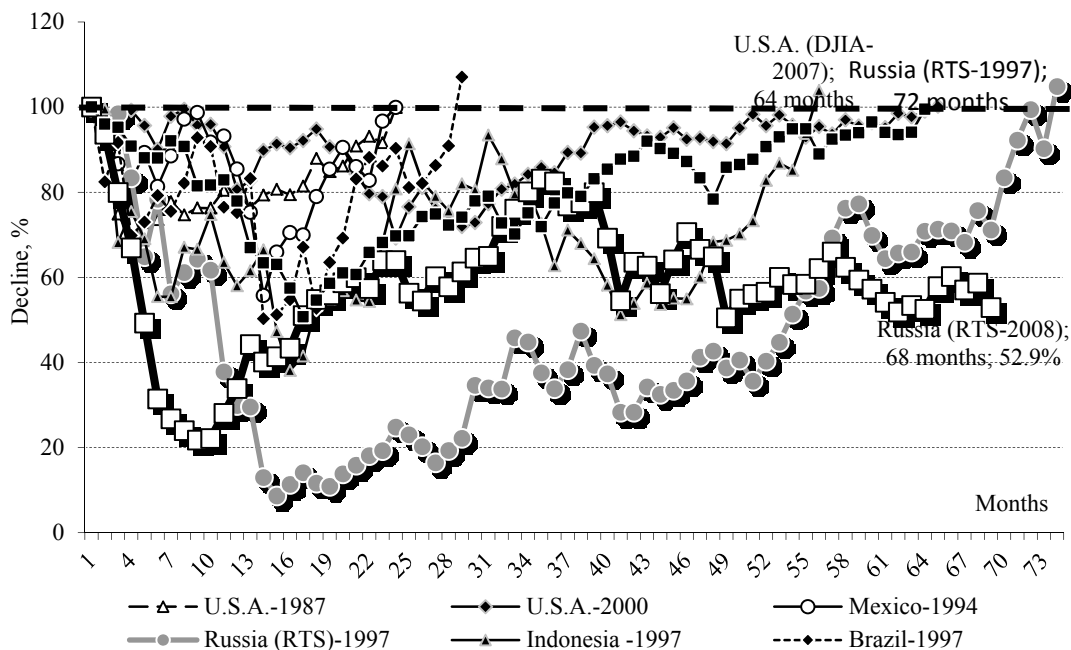
The current financial crisis in Russia is short-term as compared with the major long-term financial crises of the latest century (see *Fig. 3*). The RTS Index has been recovering only 68 months between May 2008 and January 2014. It took 183 days for the Korean stock index to recover after the crisis in 1989, while the US stock index recovered within 303 months after the onset of Great Depression in 1929. The Japanese NIKKEI-225 hasn't yet recovered after 289 months since 1989 while the NASDAQ-Composite has still been recovering within 166 months since 2000. Despite record gains of 22.9% in 2012 and 56.7% in 2013, the Japanese stock index has only 14 months to go in recovery to beat the world's longest recovery records established by the Dow Jones Industrial Average (DJIA) after the depression in 1929.

The Russian crisis in 2008–2009 is distinguished by a deeper and longer period of recovery as compared with the best known short-term financial shocks that took place in the United States in 1987, 2000 and 2007, in Mexico in 1994, Indonesia in 1997, and Brazil in 1997 (see *Fig. 4*). Furthermore, the DJIA, in contrast with the Russian stock market indicators, managed as early as January 2013 to recover reaching its peak recorded in 2007. This implies that slow recovery rates in the Russian market can be explained by the factors peculiar to a few large emerging market, as well as specific features.



Source: based on the data supplied by the Moscow Exchange and www.finance.yahoo.com.

*Fig. 3. Depth and duration of long-term financial crises worldwide as of January 31, 2014 (peak = 100%)*

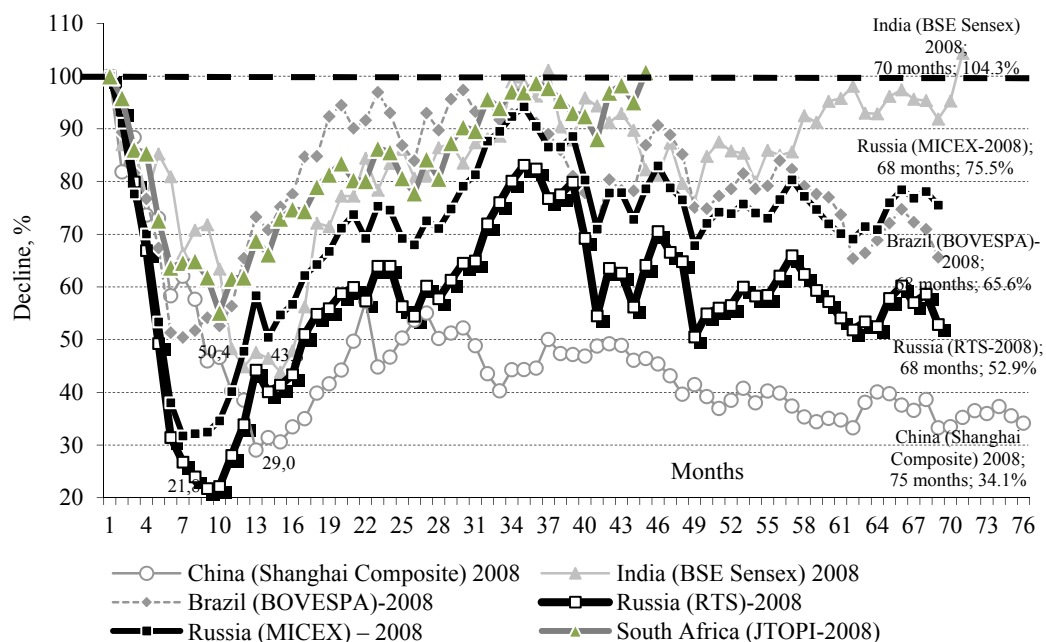


Source: based on the data supplied by the Moscow Exchange and www.finance.yahoo.com.

*Fig. 4. Depth and duration of short-term financial crises worldwide as of January 31, 2014 (peak = 100%)*

### 3.1.3. Market recovery specific features in the BRICS countries

Among the BRICS countries (Brazil, Russia, India, China, South Africa), only the Johannesburg Stock Exchange (JTOPI) and Bombay Stock Exchange (BSE Sensex) indices managed after the crisis of 2007–2008 to catch up with the pre-recession peaks within 44 and 70 months respectively (see Fig. 5). The indices of the rest BRICS countries showed delay in recovery. The Brazilian Bovespa Index reached within 68 months just 65.6% of the pre-recession highest value; the Shanghai Stock Exchange (China) index within 75 months reached only 34.1% of its peak value. At the same time, like the Brazilian and Chinese indices showed a W-shaped trend, like the dynamics of the Russian MICEX and RTS indices did. Moreover, the BRICS countries were found to be the least appealing for global investors at the stage of recovery in the global economy.



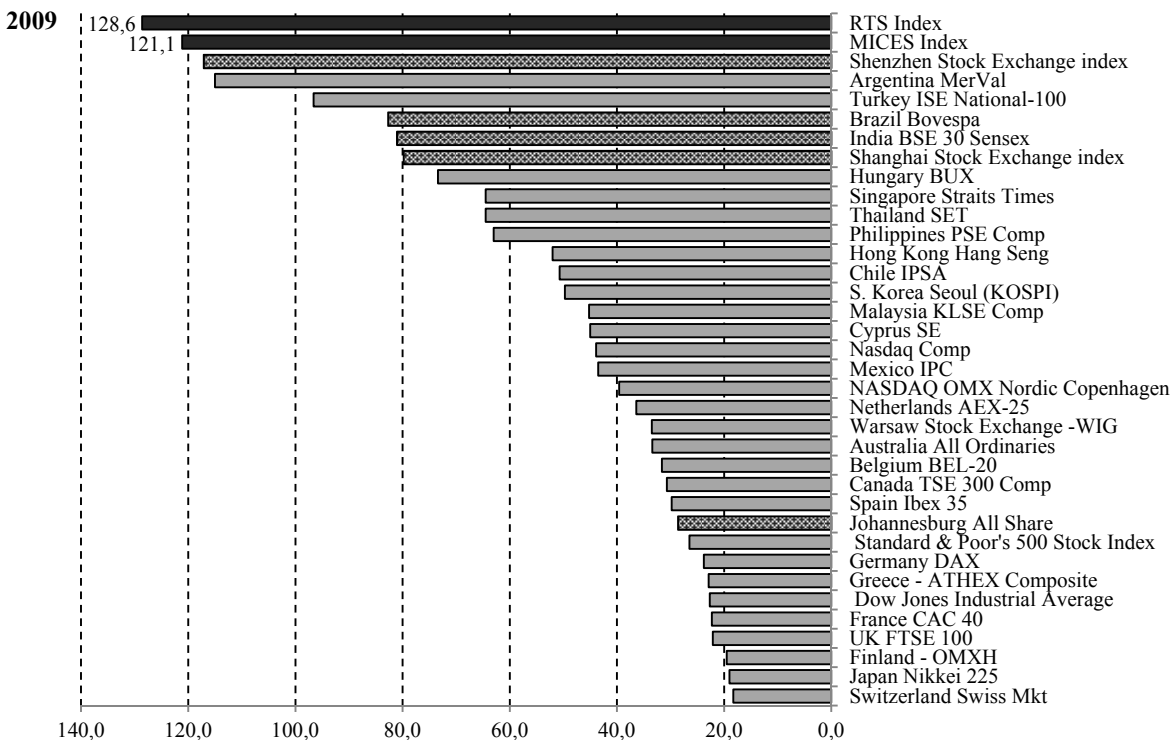
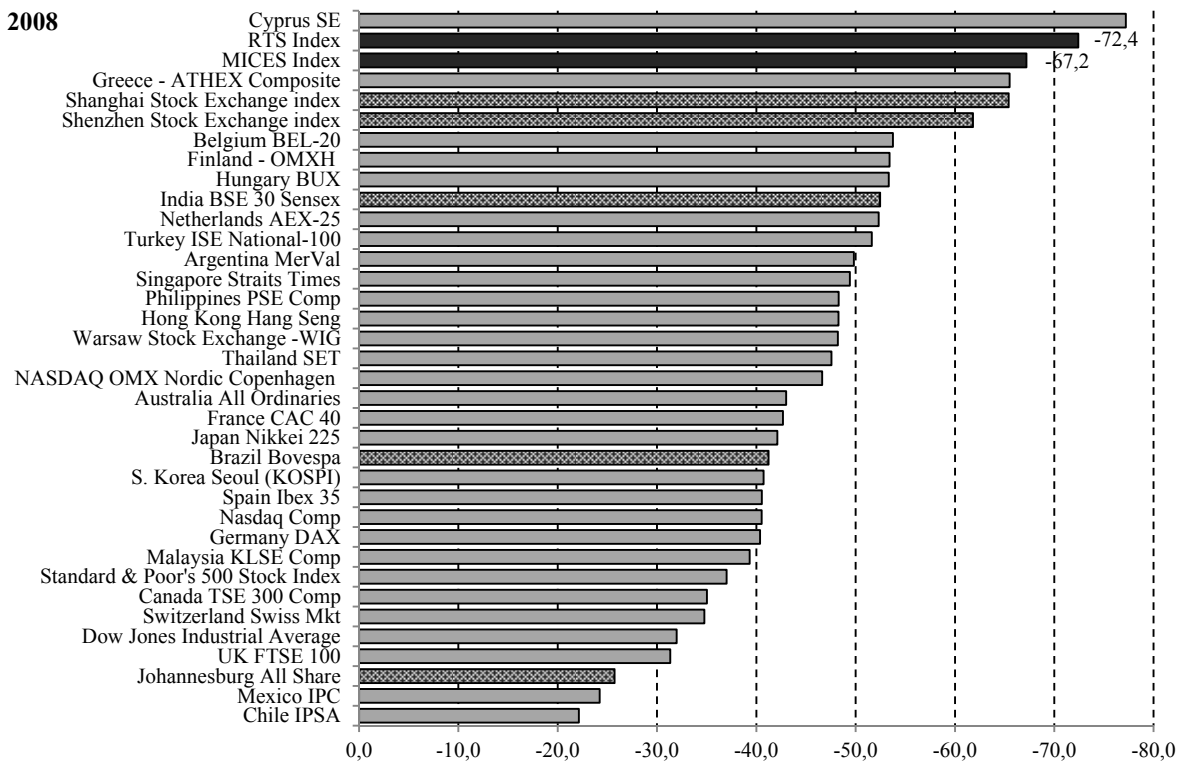
Source: the estimations are based on the data supplied by Thomson Reuters Eikon.

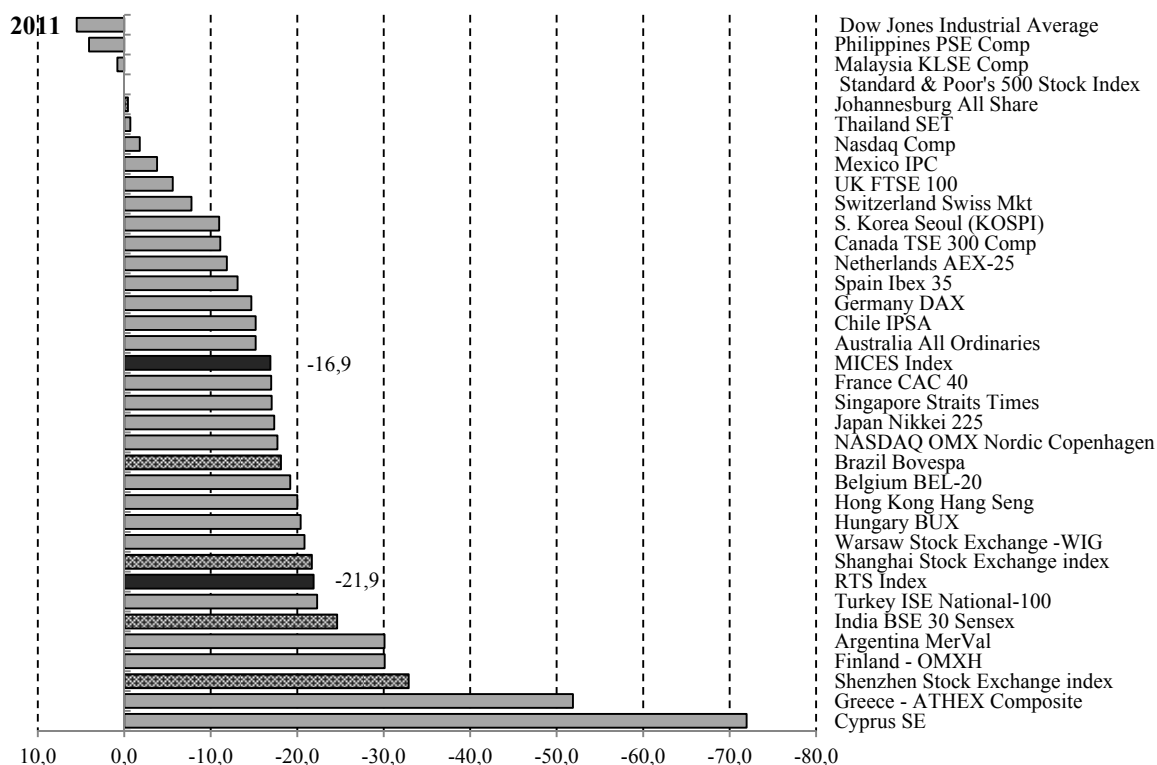
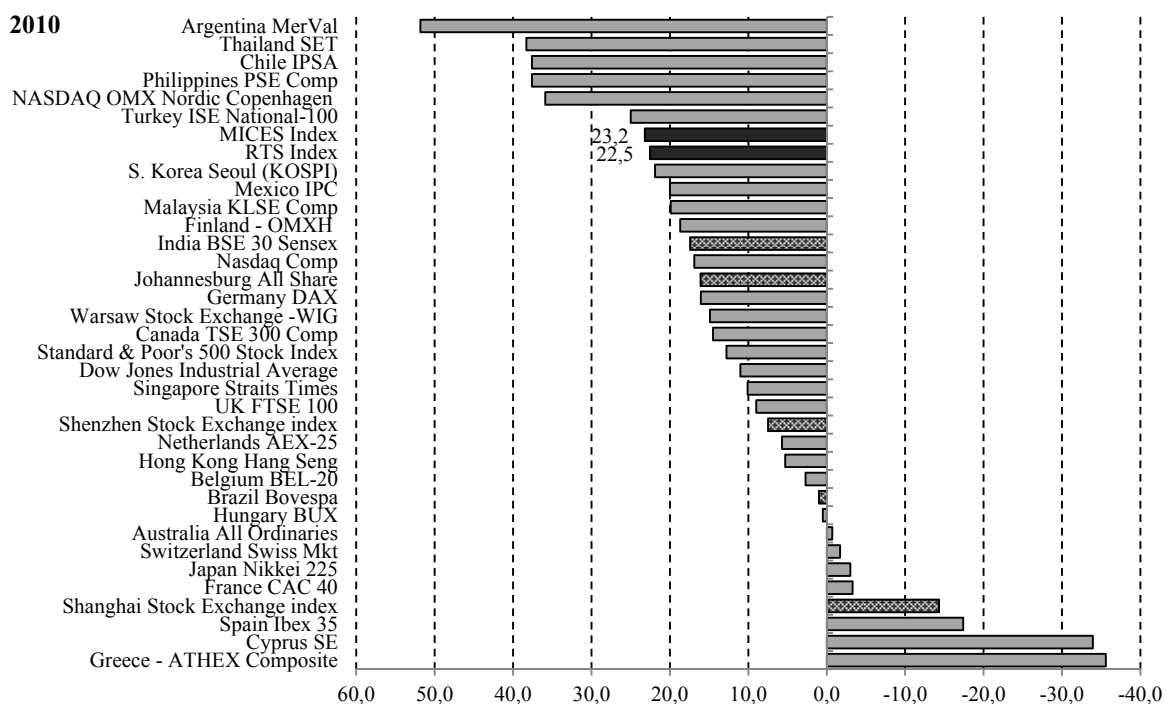
Fig. 5. Depth and duration of the current financial crisis in the BRICS countries as of January 31, 2014 (peak = 100%)

The BRICS’s stock markets have been remaining unattractive for investment over the last three years (see Fig. 6 and Table 2). In 2011 they saw a deeper decline than stock market indices in other countries. In 2012, Chinese, Brazilian, and Russian markets were found to be in the group of outsiders in terms of yield growth. In 2013, most of the BRICS’s indices demonstrated either very low positive or even negative yield against the backdrop of impressive growth in indices in many developed and developing countries. The Russian MICEX and RTS indices dropped 16.9% and 21.9% respectively in 2011; gained 5.2% and 10.5% respectively in 2012; the MICEX Index gained 2.0%, whereas the RTS Index lost 5.5% in 2013.

# RUSSIAN ECONOMY IN 2013

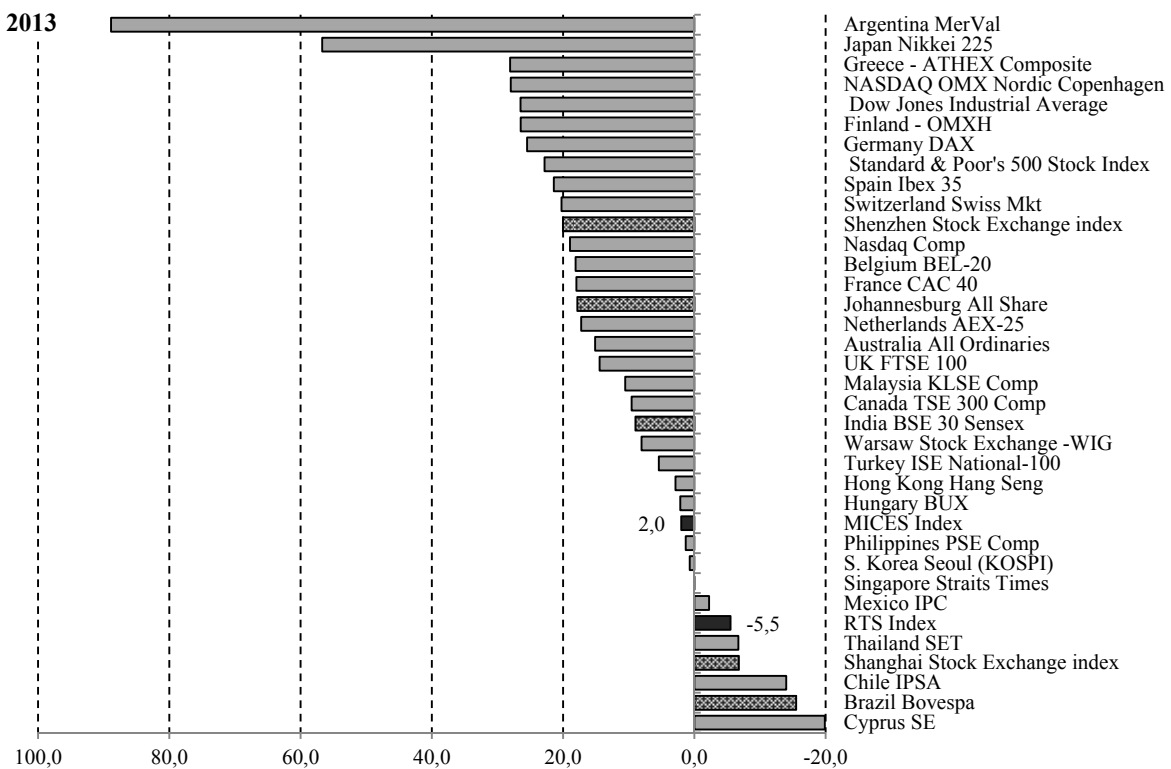
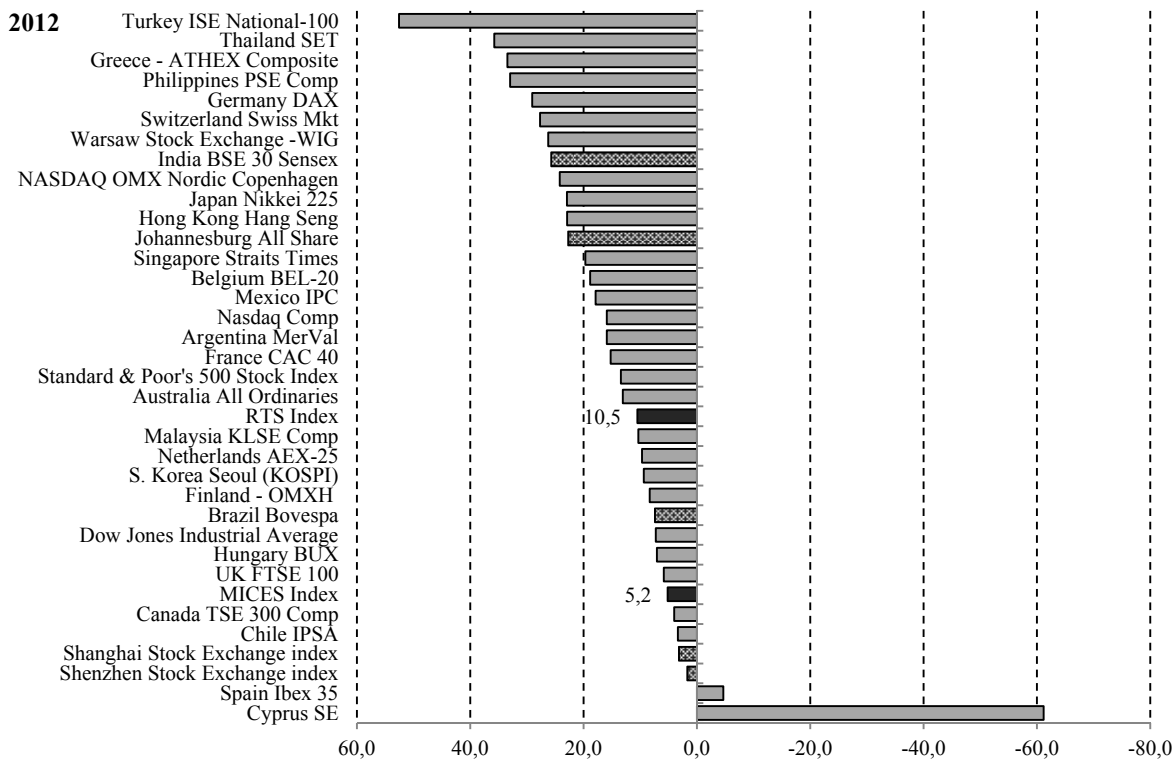
trends and outlooks





**RUSSIAN ECONOMY IN 2013**

trends and outlooks



Source: the estimations are based on the data supplied by Thomson Reuters Eikon.

Fig. 6. Global stock indices performance in 2008–2013, %



BRICS's stock markets have been facing challenges of similar nature, i.e. they have been out of traditional economic growth drivers, their national currencies have weakened, they cannot compete with other developing countries for offering best investment climate and business environment. According to economist N. Roubini, in 2014 economic growth rates in Brazil, Russia, South Africa are expected to be less than in the United States. India and China have been facing substantial economic slowdown. Brazil and South Africa are facing a double deficit including budget deficit and current account deficit. China is showing growth in toxic assets in banks, off-the-books banking sector, bad debts owed by local government authorities and state-run companies<sup>1</sup>.

*Table 2*

**Global stock indices performance in 2008–2013, %**

	2008	2009	2010	2011	2012	2013
Turkey ISE National-100	-51.6	96.6	25.0	-22.3	52.6	5.4
Thailand SET	-47.6	64.5	38.3	-0.7	35.8	-6.7
Greece – ATHEX Composite	-65.5	22.9	-35.6	-51.9	33.4	28.1
Philippines PSE Comp	-48.3	63.0	37.6	4.1	33.0	1.3
Germany DAX	-40.4	23.8	16.1	-14.7	29.1	25.5
Switzerland Swiss Mkt	-34.8	18.3	-1.7	-7.8	27.7	20.2
Poland –Warsaw Stock Exchange WIG	-48.2	33.5	14.9	-20.8	26.2	8.1
India BSE 30 Sensex	-52.5	81.0	17.4	-24.6	25.7	9.0
Denmark – NASDAQ OMX Nordic Copenhagen (All shares of stock)	-46.6	39.6	35.9	-17.7	24.2	28.0
Japan – Nikkei 225	-42.1	19.0	-3.0	-17.3	22.9	56.7
Hong Kong – Hang Seng	-48.3	52.0	5.3	-20.0	22.9	2.9
South Africa – Johannesburg All Share	-25.7	28.6	16.1	-0.4	22.7	17.8
Singapore – Straits Times	-49.4	64.5	10.1	-17.0	19.7	0.0
Belgium – BEL-20	-53.8	31.6	2.7	-19.2	18.8	18.1
Mexico – IPC	-24.2	43.5	20.0	-3.8	17.9	-2.2
U.S.A. – Nasdaq Comp	-40.5	43.9	16.9	-1.8	15.9	19.0
Argentina MerVal	-49.8	115.0	51.8	-30.1	15.9	88.9
France – CAC 40	-42.7	22.3	-3.3	-17.0	15.2	18.0
Australia – All Ordinaries	-43.0	33.4	-0.7	-15.2	13.1	15.1
U.S.A. – Standard & Poor's 500	-37.00	26.5	12.8	0.0	13.4	22.8
<b>Russia – RTS Index</b>	<b>-72.4</b>	<b>128.6</b>	<b>22.5</b>	<b>-21.9</b>	<b>10.5</b>	<b>-5.5</b>
Malaysia – KLSE Comp	-39.3	45.2	19.9	0.8	10.3	10.5
The Netherlands – AEX-25	-52.3	36.4	5.7	-11.9	9.7	17.2
The Republic of Korea – KOSPI	-40.7	49.7	21.9	-11.0	9.4	0.7
Finland – OMXH	-53.4	19.5	18.7	-30.1	8.3	26.5
Brazil – Bovespa	-41.2	82.7	1.0	-18.1	7.4	-15.5
U.S.A.– Dow Jones Industrial Average	-32.0	22.7	11.0	5.5	7.3	26.5
Hungary – BUX	-53.3	73.4	0.5	-20.4	7.1	2.2
Great Britain – FTSE 100	-31.3	22.1	9.0	-5.6	5.8	14.4
<b>Russia – MICEX Index</b>	<b>-67.2</b>	<b>121.1</b>	<b>23.2</b>	<b>-16.9</b>	<b>5.2</b>	<b>2.0</b>
Canada – TSE 300 Comp	-35.0	30.7	14.5	-11.1	4.0	9.6
Chile – IPSA	-22.1	50.7	37.6	-15.2	3.4	-14.0
China – Shanghai Stock Exchange index (SSE)	-65.4	79.8	-14.3	-21.7	3.2	-6.7
China –Shenzhen Stock Exchange index	-61.8	117.1	7.5	-32.9	1.7	20.0
Spain – Ibex 35	-40.6	29.8	-17.4	-13.1	-4.7	21.4
Cyprus – Cyprus SE	-77.2	45	-33.9	-72.0	-61.2	-19.9

Source: the estimations are based on the data supplied by Thomson Reuters Eikon.

<sup>1</sup> Roubini N. The Trouble with Emerging Markets. Project Syndicate, 03/02/2014, <http://www.social-europe.eu/2014/02/trouble-emerging-markets/>.

## 3.2. Russian stock market's competitiveness

### 3.2.1. Stock markets' liquidity

Repositioning of stock market liquidity centers became one of the effect of the 2008 crisis. For the first time over many decades, the recovery to the pre-recession values of stock indices in major global markets was not accompanied by recovery in trading volumes in stock exchanges (see *Table 3*). In 2013, stock trading volumes in U.S. stock exchanges accounted for as little as 54.3% of the level recorded in 2007. Likewise, stock trading volumes in the London Stock Exchange, Euronext (Europe), and the German stock exchange accounted for 51.7%, 36.7% and 39.7% respectively. At the same time, there are two trends towards total stock trading volumes globally, i.e. growth in the share of high-speed trading (HST) and growth in the share of off-market transactions. For example, in the United States, the share of HST in stock trading volumes increased from 35% in 2007 to 51% in 2012<sup>1</sup>. Additionally, according to Tabb Group, the share of off-market trading systems based on the dark pools principle in the U.S. stock market increased from 3% in 2007 to 15% in 2012<sup>2</sup>. Stock transactions that left the market constitute a big share of these volumes.

A six year, after 2007, lasting trend towards shrinkage in volumes of on-market trading, despite growth in HST, can be attributed to a set of factors including investors fleeing risk assets, disposing of shares of pension funds and mutual funds being subject to new rules for regulation and supervision. However, major institutional investors' sapping confidence in exchanges as encampment of high-speed traders is no less important factor in this process. According to self-regulated organization of U.S. companies, high-speed trading is exposed to severe risks for the mutual fund industry,<sup>3</sup> because it uses confidential information about large trading orders, applies the practice of manipulating markets through front running<sup>4</sup>, creates unreasonable fluctuations in liquidity in the security market. Studies of efficient execution of trading orders in exchanges conducted by one of the largest U.S. asset managers T. Rowe Price and Investment Technology Group show that the HST creates substantial difficulties in the execution and appreciation of such orders in U.S. stock exchanges<sup>5</sup>. In 2013, the HST fell within the focus of attention of regulators in many countries considering imposing special taxes on transactions of most active traders. Mary White, a new head of the U.S. Securities and Exchange Commission (SEC, U.S.A.) stated at Senate hearings that the high-speed trading and sophisticated trading algorithms give rise to numerous questions and concerns<sup>6</sup>.

In our opinion, growth in large investors' distrust in stock exchanges of different countries was to a large extent provoked by their commercialization whereby many large market operators ceased to own stock exchanges while the trading arrangement activity turned into a standalone profitable business. This process resulted in erosion of large trading participants' credibility in the equity of the trading mechanism of transactions. No efforts through

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<sup>1</sup> Strasburg J., Patterson S. High-Speed Traders Race to Fend off Regulators. WSJ, December 27, 2012.

<sup>2</sup> The data is presented in the article of Patterson S. Finra CEO Says It Is Expanding Oversight of Dark Pools. WSJ, January 8, 2013.

<sup>3</sup> Investment Company Institute's (ICI) Letter on Concept Release on Equity Market Structure of April 10, 2010 addressed to SEC. The Letter is available on the ICI's official website: <http://www.ici.org/pdf/24266.pdf>

<sup>4</sup> The unethical practice of a broker trading an equity based on information from the analyst department before his or her clients have been given the information.

<sup>5</sup> Bunge J. A Suspect Emerges in Stock Hiccups: Regulation NMS. Some Say Increasing Complexity of Market Partly Due to Set of Rules. WSJ, January 27, 2014.

<sup>6</sup> Strasburg J., Patterson S. Trading Clamps Spur Lobby Effort. WSJ, March 24, 2013.

conducting in-depth academic studies of pros and cons of the HST's effect on pricing of assets have so far been successful and unlikely to be so in the future. There is always arguments in favor or against. The only thing that used to maintain confidence in stock exchanges was that trading participants as owners of the exchange set the rules for themselves. This principle was undermined through commercialization of stock exchanges. This is not to say that stock exchanges have outlived their usefulness. They will continue to be centers of pricing and settlement in the financial market. However, the issue of lack of confidence of trading participants will facilitate more than expected demand for alternative trading systems including those based on the assets owned by trading participants.

*Table 3*

**Dynamics of the value of on-market transactions with shares of stock listed in major stock exchanges in 2007–2013 (2007 = 100%)<sup>1</sup>**

	2007	2008	2009	2010	2011	2012	2013
U.S.A. (NYSE and NASDAQ)	100	120.1	72.6	71.0	71.7	54.2	54.3
China (two stock exchanges)	100	63.0	128.9	132.8	106.9	81.8	124.9
Japan (Tokyo Stock Exchange and Osaka Stock Exchange)	100	87.3	61.2	63.2	66.3	57.5	103.9
Great Britain (LSE)	100	89.0	62.9	63.5	65.7	50.8	51.7
Euronext	100	84.7	42.7	44.5	47.1	34.8	36.7
Germany	100	95.5	45.1	48.4	52.3	37.9	39.7
Hong Kong	100	77.3	70.1	74.1	71.5	54.7	65.5
Canada	100	105.3	75.5	83.0	93.5	82.3	83.2
Australia	100	77.5	57.9	77.1	86.8	67.9	63.9
Russia (MICEX – market transactions)	100	89.0	77.3	75.5	95.2	55.8	44.0
Russia (MICEX – all trading modes)*	100	116.5	74.7	92.4	142.5	127.5	123.6
NASDAQ OMX Nordic Exchange	100	84.5	48.8	52.6	58.0	41.1	43.8
Total by member of the World Federation of Exchanges (WFE)	100	100.8	69.5	70.7	70.7	54.8	61.3

\* Market and negotiated repo transactions, repo, classic market and Standard.

Source: the author's estimates based on the data supplied by the World Federation of Exchanges and the Moscow Exchange.

The Moscow Exchange stock market developed towards the trends prevailing in the global financial centers. The volume of on-market (anonymous) transactions in the stock exchange in 2013 accounted for only 44.0% of the level recorded in 2007. At the same time, although the value of transactions with shares of stock given all trading modes contracted in 2013 against 2012, it accounted for 123.6% of the values recorded in 2007. This is indicative of the fact that after the crisis in 2008 the stock market in Russia was growing exclusively by means of non-market repo transactions, which is attributed to the money segment rather than the capital market. In 2013, total annual volume of traded shares of stock in all modes in the Moscow Exchange amounted to Rb 47,4 trillion, far below Rb 75 trillion forecasted for the same year by the Ministry of Finance of Russia under *The Development of Financial and Insurance Markets, Creation of International Financial Center State Program* of the Russian Federation (hereinafter – the State Program).

HST transactions played an important role in the market segment of trading in shares of stock in the Moscow Exchange. The data of a financial market review of the Bank of Russia shows that in 2011 high-speed trading systems (trading robots) accounted for about a half of the trading volume in the Forts (futures & options) market and the trading volume in the MICEX. According to former Senior Managing Director of the Moscow Exchange R. Goryunov, the data on the share of transaction robots in the exchange is conservative, but

<sup>1</sup> Including transactions with foreign issuers' securities in respective stock exchanges.

the order of figures is correct<sup>1</sup>. According to the data supplied by Expert journal with a reference to the Moscow Exchange, in 2012 trading robots concluded about 40% of total transactions in the stock market, and robots accounted for 97% of the total orders<sup>2</sup>.

The Moscow Exchange conducts its annual Best Private Investor Contest (BPIC) contest, its most costly marketing event.

For the purpose of analyzing the distribution of HST yield, we examined in 2013 a sample of transactions conducted by the BPIC participants within a period of eight trading days in the RTS and MICEX in 2011. High-speed trading robots were the winners, which is usual for this kind of competitions. Daily summarized data on transactions and BPIC participants' yield were published on the Moscow Exchange's official website. The sample included 8350 data on December 6–9 and 12–15, 2011 on the number of daily transactions on all stock market segments which were concluded by each participant and the amount of their daily yield measured on the basis of the results of such transactions in percentage terms<sup>3</sup>. Average daily yield over the period of eight days was 1.0% on the MICEX Index and 1.3% on the RTS Index.

*Table 4*

**Trading data on the BPIC participants in 2011**

Participants	Number of observations	Daily yield, %	Standard deviation, %	Yield /Risk	Skewness <sup>4</sup>	Kurtosis <sup>5</sup>
100 or less daily transactions	6,887	-0.6	7.2	-0,1	-0,18	21,51
100 to 3000 daily transactions	1,388	-0.1	11.8	-0,01	-0,23	12,68
3000 and more daily transactions	76	66.9	133.2	0,5	3,57	16,55

*Data source:* the author's estimates based on the source data supplied by the Moscow Exchange.

*Table 4* shows key characteristics of the daily yield distribution density for BPIC participants closing 100 or less daily transactions, 100 to 3000 daily transactions, and 3000 and more daily transactions. The third group was considered as high-speed traders. In all cases the yield distribution is far from normal, but it is seen from the Table that distribution for the first and third groups of traders differs largely.

Those who concluded 100 or less transactions showed near to zero and negative average yield, skewness a bit negative, which is natural for a falling market. High kurtosis implies is indicative of some abnormal values in the distribution tail area (see *Fig. 7*). Such a distribution suggests that winners' benefits and losers' losses are nearly equal for those trading participants who concluded 100 or less daily transactions.

High-speed traders who concluded 3000 and more daily transactions (see *Fig. 8*) showed quite a different nature of distribution of daily yield results, their average yield was at 66.9%, the yield-to-risk ratio was 0.5 against -0.1 for less active traders. High-speed traders' yield distribution was skewed substantially towards a positive yield, with a skewness being 3.6.

<sup>1</sup> Trifonov A. Vedomosti, March 26, 2012.

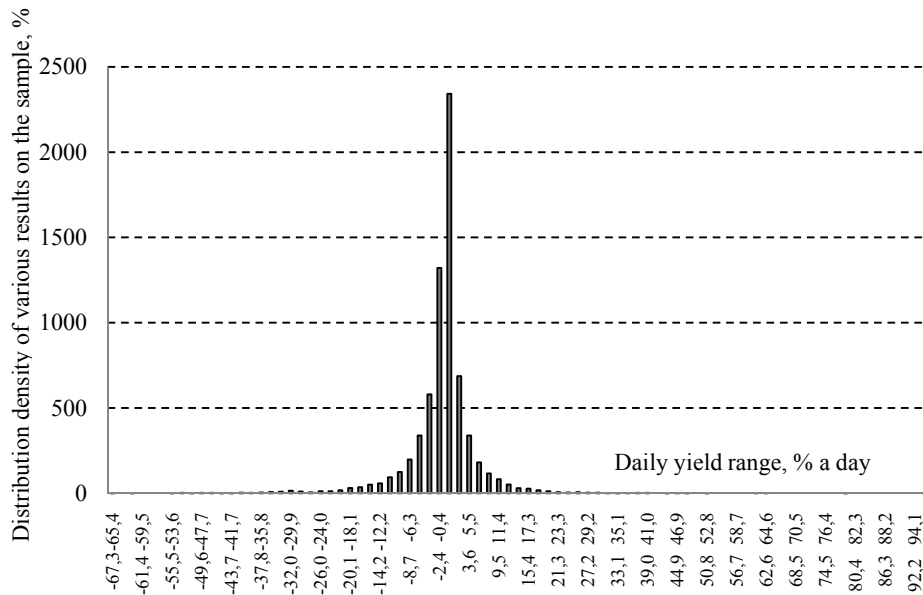
<sup>2</sup> Obukhova E. Stock Exchange beats robots. Expert, No. 37, September 17-23, 2012.

<sup>3</sup> The sample was made based on the data on final trading days of the Best Private Investor Contest – 2011. The 8-day limit can be explained by labor consuming processing of the source data, because the Moscow Exchange presents disclosed trading data in formats which are barely compatible with the Excel format.

<sup>4</sup> Skewness describes the skewness of a distribution. The skewness shows the degree of a distribution asymmetry against its average. Positive skewness refers to a distribution towards positive values, whereas negative skewness towards negative values. An above-3 value of skewness is indicative of substantial asymmetry.

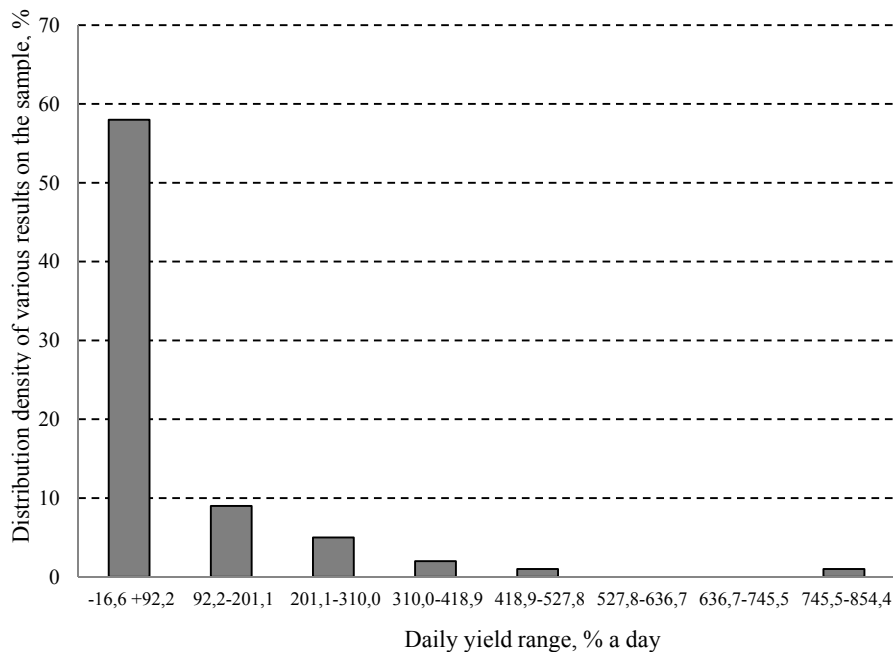
<sup>5</sup> Kurtosis describes relative peakedness or flatness of a distribution against normal distribution. Leptokurtosis refers to relative cuspidal distribution; platykurtosis refers to smoothed distribution.

This suggests that high-speed traders were ahead of the other participants, leaving the latter no chance to win.



Source: the author's estimates based on the data supplied by the Moscow Exchange.

**Fig. 7.** Yield distribution of BPIC participants concluded less than 100 daily transactions



Source: the author's estimates based on the data supplied by the Moscow Exchange.

**Fig. 8.** Yield distribution of BPIC participants concluded 3000 and more daily transactions

We also know from our conversations with the BPIC participants that:

- the Moscow Exchange sells at nearly Rb 500,000 a special monthly high-speed access to the trading system used by many high-speed traders. This service offers advantages of high-speed for trading orders;
- most of HST strategies use the “openbook” data containing information on all open buy and sell orders with specified prices and the number of securities as a signal for sending orders to the trading system;
- HST strategies, such as scalping, agreed quoting, and a few others are considered, even in textbooks, as part of the unethical practice of front-running.

True, with reference to the foregoing there is no way to infer that high-speed traders are actively involved in market manipulations, but they show that distribution of their yield is considerably biased towards abnormally high profits, thereby requiring that the exchange and regulators make at least a serious analysis of the nature of such advantages<sup>1</sup>. The nature of such advantages should be clear, because some traders generate an excess profit at the expense of extra losses of other traders. In any case, the existence of an equal distribution of the yield generated by various traders over a fairly long period of time is an important factor of keeping various types of investors confident in the exchange.

The Moscow Exchange stock market differs from global stock exchanges in its large dependence on foreign portfolio investors. According to analysts from CJSC Sberbank CIB, about 70% of free-float Russian shares of stock are being held by nonresidents. Furthermore, 14 largest investment foundations accounted for 28% of total investment by foreign portfolio investors<sup>2</sup>. Such foundations, according to CJSC Sberbank CIB, include The Norwegian State Pension Fund, Vanguard Emerging Markets Stock Index Fund, Oppenheimer Developing Markets Fund, ISHARES MSCI Emerging Markets ETF BlackRock Group, Lazard Emerging Market Equity Portfolio.

### 3.2.2. Stock market capitalization

The Russian stock market’s large dependence on foreign portfolio investors has an adverse effect on the dynamics of companies’ capitalization (see *Table 5*). Unlike of a majority of global financial centers where capitalization was growing in the period of 2012 thru 2013, the value of Russian companies saw a decline against 2007 to 72.9% in 2011, 71.8% in 2012, and 69.3% in 2013.

Foreign portfolio investors fleeing BRICS’s markets towards mature markets in developed economies was the reason for mixed dynamics of capitalization in Russia and mature markets. Weak performance of largest state-run companies, above all, OJSC Gazprom was another factor for lower capitalization on shares of stock in Russia. In 2013, capitalization of the largest Russian joint-stock company accounted for only 40.5% of the level recorded in 2007, having been keeping declining over the last three years. According to analysts from UBS, Gazprom is the most underestimated company among other oil and gas companies in the world<sup>3</sup>. This is an illustration of the issues of ineffectiveness and poor

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<sup>1</sup> There were no robots among the winners of the BPIC-2013 which was held separately on foreign exchange market, Forth market, and spot market. In 2013, 6519 persons participated in the BPIC, the trading volume (including stock market, Forth market, and foreign exchange market) of all the BPIC participants totaled Rb 1,8 trillion within 2.5 months. The BPIC prize fund amounted to Rb 7,5m.

<sup>2</sup> Gaidarov V. Foreign free-float control. Kommersant, January 17, 2014.

<sup>3</sup> Khodyakova E. Gazprom establishes a new antirecord. Vedomosti. February 13, 2013.

corporate governance of state-run companies becoming a serious barrier to growth in capitalization of Russian companies.

*Table 5*

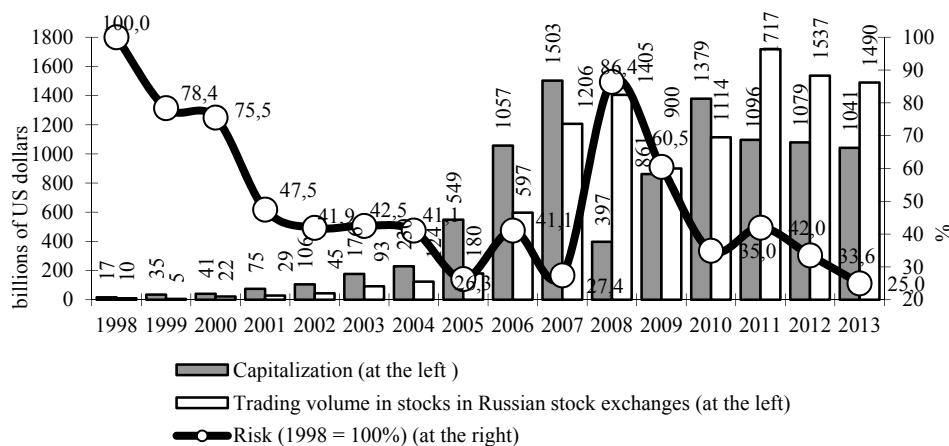
**Domestic market capitalization dynamics in 2007–2013 (2007 = 100%)**

	2007	2008	2009	2010	2011	2012	2013
U.S.A. (NYSE and NASDAQ)	100	58.3	76.7	87.9	79.5	94.9	122.2
China (Shanghai SE)	100	38,6	73,2	73,5	63,8	68,9	67,6
Japan (Tokyo Stock Exchange)	100	71.9	76.3	88.4	76.8	80.3	104.9
Great Britain	100	48.0	72.5	80.5	75.2	88.0	114.8
Euronext	100	49.8	68.0	69.4	57.9	67.1	84.9
Germany	100	52.8	61.4	67.9	56.3	70.6	92.0
Hong Kong	100	50.1	86.8	102.1	85.1	106.7	116.8
Canada (TMX Group)	100	47.3	76.7	99.3	87.4	94.2	96.7
Australia (Australian SE)	100	52.7	97.2	112.0	92.3	106.8	105.2
Russia*	100	26.4	57.3	91.7	72.9	71.8	69.3
including OJSC Gazprom	100	31.4	53.4	56.4	50.0	41.91	40.5
NASDAQ OMX Nordic Exchange	100	45.3	65.8	83.9	67.8	80.1	102.1

\* the estimates are based on the data on 2007–2013 supplied by S&P

Source: the estimations are based on the data supplied by the World Federation of Exchanges and Finam company.

In 2013, Russian joint-stock companies' capitalization amounted to \$1,0 trillion, a bit lower the level of 2011 (see Fig. 9). Capitalization of shares of stock in 2013 accounted for 49.7% of GDP, far less than 64% forecasted for the year by the Ministry of Finance of Russia. In 2013, unlike the trend prevailing in 2011–2012, no large Russian issuers changed their jurisdiction in favor of other counties. On the contrary, a few Russian companies incorporated in other countries (e.g., RUSAL) announced that they might change their jurisdiction in favor of Russia<sup>1</sup> against the backdrop of executive authorities tightening countermeasures against offshore taxation schemes in 2013. Total trading volumes under all trading modes in the Moscow Exchange contracted from \$1537bn in 2012 to \$1490bn in 2013, or by 3.1%. Stock market volatility, which is measured by a standard deviation of daily changes to the RTS Index, declined in 2013 against the preceding year, accounting for 25.0% of the level recorded in 1998.



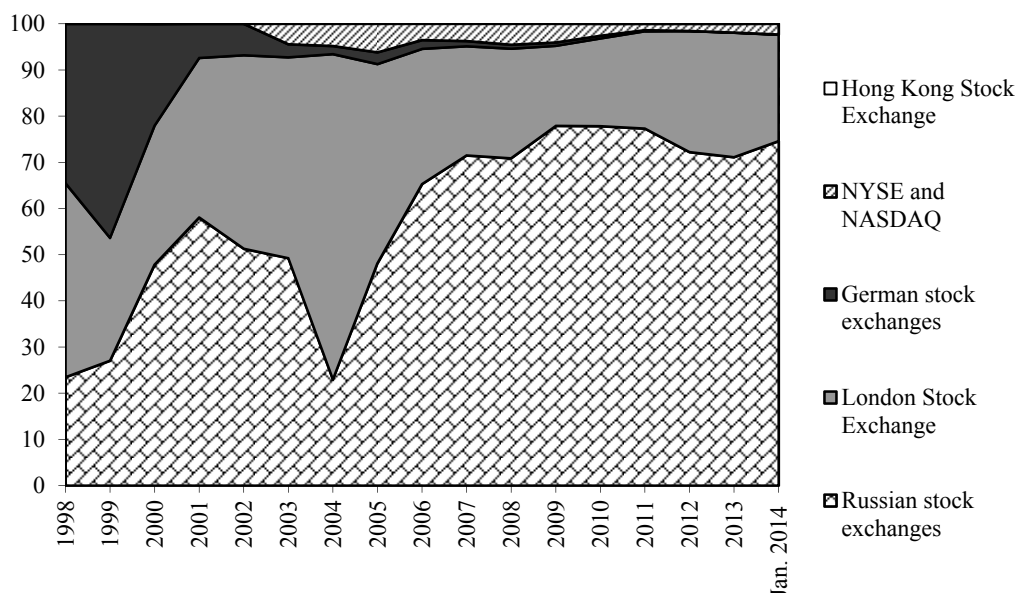
Source: the estimates are based on the data on capitalization supplied by the Moscow Exchange and S&P.

*Fig. 9. Russian stock market capitalization, liquidity, and volatility*

<sup>1</sup> Elkova O., Ermakov A., Loginov V. Business sets a course for deoffshorization. Izvestiya, December 19, 2013.

3.2.3. Competition with foreign stock exchanges

Judging by the total stock trading volume, including all trading modes, in 2013 the Moscow Exchange managed in general to maintain its position as the key authority on trading in equity instruments (shares of stock and depositary receipts) of Russian issuers (see Fig. 10 and Table 6). However, the share of the Moscow Exchange in trading in the foregoing shares of stock and depositary receipts shrank from 72.2% in 2012 to 71.1% in 2013. The share of the London Stock Exchange, the German Stock Exchange, and two largest U.S. stock exchanges increased insignificantly. However, these relatively good figures for the Moscow Exchange include repo transactions with shares of stock which formerly fall into the money market category. The Moscow Exchange’s share, net of repo transactions, in total volume of trading in equity instruments of Russian issuers contracted from 38.5% in 2012 to 36.2% in 2013. Therefore, the conclusion for on-market transactions is different – the share of the Russian exchange isn’t prevailing, more importantly, it keeps shrinking<sup>1</sup>.



Source: the author’s estimates based on the data supplied by Russian and foreign stock exchanges.

Fig. 10. The share of stock exchanges in volumes of trading in Russian JSCs’ shares of stock

The process of moving Russian companies’ head offices to other countries, like it was the case with such companies as Polus Gold, Polimetall, etc., was stopped in 2013 owing to the measures which the federal government authorities were taking to counteract entrepreneurs avoiding taxation through offshore schemes and enhance the transparency of their business. In 2013, however, the process of returning under Russian jurisdiction companies previously registered abroad but conducting their core activity in Russia didn’t go further than promises

<sup>1</sup> To measure competition with the London Stock Exchange, the Moscow Exchange uses a slightly different approach towards comparing volumes of trading in stocks. The approach is based on calculating trading volumes for the shares of only 26 issuers, ignoring volumes of repo transactions with the shares of these JSCs in the Moscow Exchange. In our opinion, the method of comparing the stock exchanges we offer is more complete, stable and objective. Furthermore, the source data of the method we use is based on the official public statistics of the stock exchanges.



of some entrepreneurs. New economy companies with Russian roots, such as TCS Group Holding, Luxoft Holding Inc., Yandex LLC, Qiwi Plc. chose foreign stock exchanges for IPO in 2013.

*Table 6*

**The share of stock exchanges in total volumes of trading in Russian JSCs' shares of stock, %**

	2000	2005	2010	2011	2012	2013	2014 –Jan.
Moscow Exchange core market	36.0	38.1	69.9	72.1	70.3	70.5	74.4
Moscow Exchange classic and conventional markets (the former RTS)	11.9	2.0	7.9	5.2	1.9	0.6	0.2
Others	0.0	8.1	0.0	0.0	0.0	0.0	0.0
<b>Russian exchanges – total</b>	<b>47.9</b>	<b>48.2</b>	<b>77.8</b>	<b>77.3</b>	<b>72.2</b>	<b>71.1</b>	<b>74.6</b>
London Stock Exchange	30.1	43.1	19.0	21.1	26.2	27.0	23.1
German stock exchanges	22.0	2.6	0.6	0.3	0.0	0.0	0.1
New York Stock Exchange and NASDAQ (U.S.A.)		6.2	2.6	1.4	1.5	1.9	2.3
Hong Kong Stock Exchange			0.0	0.0	0.0	0.0	0.0
<b>Shares of stock and depositary receipts – total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

*Source:* the author's estimates based on the data supplied by Russian and foreign stock exchanges.

In 2013, companies operating in Russia went public through IPO-SPO at \$9,0bn, a bit less than \$9,5bn in 2012. The public offerings of shares of stock of Russian issuers at a total of Rb 286bn in 2013 was found to be much less than Rb 400bn forecasted by the Ministry of Finance of Russia under the State Program. In 2013, unlike the previous year, the principal part of national issuers' public offerings of shares of stock took place in the Moscow Exchange. This was possible through an enlarged meeting of the Russian Government held on January 25, 2013, at which President Putin stated that privatization transactions as IPO must be held so as to ensure that issued shares of stock are traded in Russian stock exchanges.

In 2012, \$0,15bn of \$9,5bn public offering transactions took place in the Moscow Exchange. Sberbank of Russia (2.9%) and Megafon (2.3%) made up the two largest public offerings of Russian companies in the volume of shares of stock acquired through applications in the Moscow Exchange<sup>1</sup>. In 2013, the Moscow Exchange, VTB, Bank Saint Petersburg, PIK Group of Companies OJSC, Zhivoj Office, ALROSA JSC, and Nomos Bank went public at Rb 194,4bn, or \$5,9bn, in the Moscow Exchange. In most cases, applications were collected in full through the Moscow Exchange. These transactions showed that major public offerings with participation of largest international investors can take place in the internal market.

However, in 2013, the Moscow Exchange failed to cope with a trend towards reduction in the number of listed shares of stock, as well as the number of issues of shares of stock traded in the regulated security market. According to FB MICEX CJSC fin, the number of stock issuers in the exchange contracted from 320 in 2011 to 275 in 2012, or by 14.1%. Based on the data supplied by the World Federation of Exchanges (WFE), the number of companies listed in the Moscow Exchange in 2013 was 262 against 293 companies in 2012, i.e. 10.6% less. According to the Bank of Russia, the number of issues of shares of stock traded in the regulated security market contracted from 467 in 2011 to 361 in 2012, and 353 in 2013.

In 2013, such issuers as PAVA OJSC, Wimm-Bill-Dann Foods OJSC, Transcreditbank OJSC, Energetic Russian Company OJSC, Permskiye Motory OJSC, Vital Development

<sup>1</sup> Kuznetsov I., Ladygin D. Pensions initial public offering. Presidential address to the IPO market. M. Kommersant, January 28, 2013.

Corporation OJSC, etc. left the Moscow Exchange. Despite that the number of Russian companies that left the Moscow Exchange in 2013 was much less than in 2012, the largest Russian trading floor hasn't yet resolved the key goals of its strategic development, i.e. become a market of securities issued by foreign companies. According to a report made by the World Federation of Exchanges, the Moscow Exchange listing included securities of only a single foreign issuer, which is insufficient for implementing the project of establishing an International Financial Center.

The weakness of the Russian stock market is reflected by its low scores in the global competitiveness ranking of the World Economic Forum (WEF) on such criterion as internal stock markets' ability to raise financial resources for the development of national companies (see section 3.6.3). In 2013–2014 Russia was ranked 90<sup>th</sup> of 148 countries on this criterion. Other BRICS countries – India, Brazil, China and South Africa – were ranked 18<sup>th</sup>, 48<sup>th</sup>, 38<sup>th</sup>, and 2<sup>nd</sup> respectively on the same criterion in 2013.

#### 3.2.4. Integrating RTS and MICEX exchanges

The MICEX and RTS exchanges were integrated in 2011 through a respective deal. A general meeting of shareholders in June 2012 approved a new name OJSC Moscow Exchange MICEX-RTS or OJSC Moscow Exchange. The integration of the two Russian stock exchanges had a positive impact on the development of the Russian stock market.

The establishment of the integrated stock exchange has allowed settlement depositories of the National Depository Center (NDC) and the DKK Central Depository to be established on the base of the MICEX Settlement Chamber. Pursuant to the Order No. 12-2761/PZ-I of November 6, 2012 of the Federal Commission for Securities Market of Russia, the status was granted to the Non-Banking Credit Organization Closed Joint-Stock Company National Settlement Depository (NSD). The Federal Law of December 07, 2011, No. 414-FZ “On the Central Depository”, which has been in full force since January 1, 2013, provides for opening accounts with the central depository having a special status of registrars of joint-stock companies. The NSD opened such accounts for 1090 issuers by the end March 2013.

The emergence of the central depository has raised substantially the level of confidence of global investors and international settlement systems in the safety of holding assets invested in securities of Russian issuers and the settlements on respective transactions. In particular, the NSD was granted the official status of “eligible depository” under Rule 17f7 under the Investment Company Act of 1940, the U.S. Securities and Exchange Commission, allowing it to be used for holding assets of U.S. largest institutional investors. At present, the NSD has open inter-depository nominee accounts of largest global settlement systems Euroclear Bank S.A./N.V. (Euroclear) and Clearstream Banking S.A. (Clearstream), as well as the central depositories in Armenia, Belarus, Kazakhstan, and Ukraine. Opening in February 2013 accounts of Euroclear and Clearstream with the central depository and commencing respective operations with public securities raised lots of nonresident funds in the OFZ market (more details can be found in section 3.4.1). According to the estimates made by Euroclear Head F. Hannecart, allowing European depositories to open accounts with the NSD could have generate about \$20bn of new investment<sup>1</sup>. Euroclear and Clearstream accounts have been open since February 2014 for nonresidents' operations with corporate and regional bonds kept in the NSD. From July 1, 2014 nonresidents' funds will be available for Russian joint-stock companies' shares through the given accounts.

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<sup>1</sup> Financial Department. Euroclear. Kommersant, February 7, 2013.

Since February 6, 2013 the NSD has been functioning as depository registering over-the-counter transactions with various financial instruments. The establishment of such entities was envisaged by the decisions made by G-20 in Pittsburg in 2009 as a measure of coping with systemic risks. In 2013, the NSD's equity reached Rb 7,3bn. The value of the securities deposited in the NSD increased from Rb 8,1 trillion in 2011 to Rb 21,8 trillion in 2013.

The Moscow Exchange has another subsidiary CJSC JSCB National Clearing Centre (NCC). The NCC has been carrying out clearing operations in the stock market since November 2011 and in the Forts market since December 2012. Its core function is provide guarantees to trading participants in all segments of the Moscow Exchange's financial market amid transiting to a new mode of settlements for market transactions without preliminary depositing, i.e. to T+2. The NCC has a strategic goal of providing participants in different segments of the financial market with an integrated clearing service allowing for the use of a unified collateral and introduction of unified positions of the participants while servicing them in all stock markets of the Moscow Exchange and over-the-counter markets.

Regrettably, despite the fact that principal problems faced by settlements in the exchange market during the crisis in 2008 were associated with defaults on repo transactions, the problem related to the transition of this market segment to settlements through the central counterparty (CCP) still remains to be addressed. The problems of defaults on inter-dealer repo transactions kept occurring on a regular basis in 2013. Nonetheless, the defaults weren't significant enough to be able to bring about a systemic crisis<sup>1</sup>.

Repo transactions with the participation of central counterparty (CCP) have been introduced in the exchange since February 2013. Based on the data supplied by the Bank of Russia, volumes of CCP repo transactions gradually increased since June 2013 and by the end of December daily turnover on the foregoing transactions reached Rb 50bn or 12% of total open positions in the inter-dealer repo market. Corporate bonds haven't been used extensively for repo CCP transactions, because discounts on these securities established by the central counterparty were slightly overpriced against the market average. In October 2013, Bank of Russia acknowledged CJSC JSCB National Clearing Centre as the sole qualified central counterparty.

The integration of the RTS and MICEX made it quite simple for market participants to close transactions in the stock market and Forts market, thereby allowing the entire liquidity to be concentrated on trading participants' accounts which (the liquidity) is intended to carry out transactions in the government securities market and corporate securities market, as well as the Forts market and foreign exchange market within unified settlement and trading systems. Diversification of the new stock exchange in servicing transactions with different monetary and investment assets enhanced its financial sustainability amid falling trading volumes in stock markets globally and investors fleeing investment in risk-bearing assets.

The integration of the two stock exchanges helped create a team of well-motivated managers who spearheaded a historically unprecedented development project of the Russian stock market.

The following major projects were implemented in the group of the Moscow Exchange in 2013:

- T+2 trading was introduced in the stock market in March;
- the first in Russia foreign exchange-traded investment fund FinEx Tradable Russian Corporate Bonds UCITS ETF was listed in April;

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<sup>1</sup> Kuznetsov I., Gaidayev V. Shares steer clear of money. Kommersant, June 6, 2013.

- for the market trading system SPECTRA was upgraded to a new version in May;
- five time contracts on the shares of German companies were introduced in conjunction with Deutsche Borse in June;
- a project of marketplace trading in precious metals was launched in June;
- trading platforms were consolidated on a single technological platform in August.
- the stock market was successfully transitioned to T+2 in September; all shares were found to be eligible for trading in the T+2 market, namely Russian depositary receipts, investment units of unit investment funds, mortgage participation certificates, foreign exchange-traded funds;
- direct access to the stock exchange in the Moscow Exchange was made available for global banks (Citigroup, Credit Suisse Group, Merrill Lynch and Morgan Stanley) in September;
- lead German issuers' stock futures were adopted in October;
- trading in precious metals was launched in October;
- an agreement on cooperation with NASDAQ OMX was concluded in October;
- centralized clearing in the over-the-counter derivative (OTC) market was launched, a standardized derivatives market was opened in October.

According to Moscow Exchange Deputy Chairman of the Board Andrei Shemetov, it is the transition of trading to T+2 with partial preliminary depositing of assets that was the key infrastructural project 2013 for the entire Russian stock market<sup>1</sup>. Having decided to transition to T+2, the stock exchange made a difficult but adequate choice. Attracting foreign investment to the internal market requires creating such a procedure for settlements that is familiar for foreign investors and recognized by international regulators and reputable expert community<sup>2</sup>. To attract this category of investors to the internal market, the procedure for settlements in the national stock exchanges must meet the generally accepted standards. According to the estimates made by Shemetov A., successful completion of the transition to T+2 settlements helped the market be more reliable, because the NCC acts as CCP on all transactions and guarantor for discharge of obligations; increase liquidity, because the participants are to pay less for closing their transactions; raise international investors' confidence in the domestic market which has undergone the transition to the globally accepted procedure for trading<sup>3</sup>.

At the same time, the two years after the integration didn't allay market participants' fears of the effect this event might have on the internal financial market's competitiveness. The integration of the two stock exchanges hasn't eliminated competition between the MICEX and the RTS which has long been the key driver in the development of the stock market.

Factoring in the risk of internal competition loss, it was envisaged during the integration that this factor would be compensated by external competition of the newly established stock exchange with foreign exchanges. In pursuing these aims, the Bank of Russia Financial

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<sup>1</sup> Shemetov A. Russian exchange infrastructure: current status and development prospects. Rynki tsennykh bumag, November 2013. Available at <http://rts.micex.ru/n4315/?nt=109>.

<sup>2</sup> More details on the requirements and evolution of settlements on transactions in global and national stock markets are available in Thomas Murray. Capital Market Infrastructure (CMI) in focus - Equities Settlement Cycles, 2 January, 2013. Published at <http://www.thomasmurray.com/>

<sup>3</sup> Shemetov A. Russian exchange infrastructure: current status and development prospects. Rynki tsennykh bumag, November 2013. Available at <http://rts.micex.ru/n4315/?nt=109>.

Markets Service (RFMS) promised to liberalize, in establishing the central depository, the rules for Russian JSCs having access to public offerings in foreign stock exchanges. For this purposes, on August 4, 2011 the RFMS forwarded to the Ministry of Justice of Russia an order which allows a 100% or less, instead of previously allowed 25%, free float of Russian issuers' shares as receipts in foreign stock exchanges. The order was supposed to take effect on the effective date of a federal law regulating the terms and rules of procedure for the central depository, i.e. January 1, 2013. However, this rule was never adopted. Furthermore, a few critical decisions restricting Russian issuers from listing their shares in foreign marketplaces were made prior to IPO.

The key exchange projects in 2013, namely the NSD-Euroclear-Clearstream "bridge", settlements based on T+2, the use of the NCC as CCP, were focused more on creating favorable conditions for foreign market participants, as well as speculators in the domestic financial market. In order to strengthen the positions of Russian infrastructural organizations, the legislator adopted federal laws impeding generation of income on shares and bonds of Russian issuers for nonresidents who invest in shares through depository receipts and refuse to disclose final beneficiaries of shares and bonds of Russian issuers, including OFZ<sup>1</sup>. No such projects were implemented in 2013 for domestic institutional investors, private investors who are not after short-term profit. Perhaps, projects designed to attract more domestic institutional and private investors will become major priority for the Moscow Exchange in 2014.

The establishment of the new integrated stock exchange has allowed government agencies to obtain control over the exchange<sup>2</sup> (see *Table 7*). There were two stock exchanges in the Russian market prior to the integration: OJSC RTS was fully controlled by private shareholders while the state held a 61.1% interest in CJSC MICEX. OJSC RTS ceased to exist as a result of the integration. The state has come to hold 56.1% in the integrated stock exchange. The state-held interest was reduced to 50.3% as a result of Moscow Exchange's IPO which was held in part as additional offering of shares. The state-held interest shrank also because of selling on December 21, 2012 a part of the stock of shares held by Gazprombank to an unknown buyer who, according to a few mass media, might be a strategic investor from China<sup>3</sup>. The foregoing state-held interest in the Moscow Exchange might be a bit bigger, because at the time of the IPO about 2.69% of the Stock Exchange shares was held by Saint Petersburg Bank and 0.18% by Bank of Moscow controlled by VTB. In 2013, the state control became less visible as a result of state-run banks' transactions, however, based on our estimates, the state still controls the Moscow Exchange through the stock of less than 5% of voting shares held by state-controlled entities.

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<sup>1</sup> For example, the adoption of the Federal Law of November 2, 2013, No. 306-FZ "On Introducing Amendments to Parts 1 and 2 of the Tax Code of the Russian Federation and Certain Legal Acts of the Russian Federation" which specifies that if information on beneficiaries, for example on depository receipts, fails to be provided in time, the depository shall withhold tax at 30% (save for the cases when income on such securities is exempted from or subject to taxation at 0%).

<sup>2</sup> Bank of Russia, Sberbank of Russia, VTB, VEB, Gazprombank, and the Russian Direct Investment Fund (RDIF). A part of the integrated exchange's shares is owned by its 100% subsidiary MICEX-Finance. In our estimates of an interest held by state-run entities in the exchange's shareholding structure we don't include the shares held by the exchange into the state-controlled shares. However, it should be taken into account that given state-run entities' control interest in the exchange, the rights attached to the MICEX-Finance stock of shares are controlled by the state.

<sup>3</sup> Rudenko P. A mysterious buyer emerges in the Moscow Exchange. *Kommersant*, December 25, 2012.

Table 7

**Russian stock exchanges' shareholding structure prior to and after the integration**

	Prior to the integration of the two stock exchanges		After the integration: OJSC MICEX-RTS as of 01.02.2012 <sup>1</sup>	After IPO: Moscow Exchange as of 15.02.2013 – evaluation <sup>2</sup>	As of 23.12.2013 <sup>3</sup>
	OJSC RTS	CJSC MICEX			
Bank of Russia		28.6	24.3	22.5	24.7
Sberbank of Russia		7.5	10.4	9.6	9.8
VTB		7.1	6.1	5.6	3.6 <sup>4</sup>
VEB		10.5	8.7	8.0	8.0
Gazprombank		6.2	5.4		
Russian Direct Investment Fund (RDIF)		1.3	1.3	4.6	3.5 <sup>5</sup>
<b>The share of public entities</b>	<b>0</b>	<b>61.1</b>	<b>56.1</b>	<b>50.3</b>	<b>49.6</b>
MICEX-Finance		2.8	2.8	5.5	6.6
Chengdong Investment Corporation				5.4	5.4
EBRD				5.8	5.8
Other investors	89.0	27.9	32.9	33.0	32.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: based on the data supplied by the Bank of Russia, publications in Vedomosti and Kommersant.

The Moscow Exchange's shareholding structure, which only describes certain shareholders with an interest of 5% and more, remains nontransparent for the general public. Such a situation can hardly be regarded as plausible due to its market position and quite reasonable preferences from the state in the field of legislation and through using administrative resources. The significance of the shareholding structure for ensuring state security is acknowledged by the state itself by creating a precedent, when in the summer of 2010 the RFMS Russia and the Federal Security Service of Russia (FSB) blocked an attempt to sell OJSC FB RTS's shares held by KIT Finance to foreign bank EBRD. Through the intervention of security agencies, 11% of RTS's shares were finally purchased by an entity affiliated with MICEX Group. The Bank of Russia also requires that banks disclose a full list of their beneficiaries.

The presence of state-run entities in the management of stock exchanges is negatively regarded in globally acknowledged rankings of country competitiveness. This is, for instance, the main reason why Russia has one the lowest scores on stock exchange efficient management in the global competitiveness ranking of the World Economic Forum (WEF) (see section 3.6.3). According to the stock exchange efficient management ranking in 2013–2014, Russia was ranked 102nd of the 148 countries. Brazil, India, China, and South Africa were ranked 7th, 27th, 63rd, and 1st respectively on the same criteria.

The prevalence of state-run entities in the management of the stock exchange is associated with two groups of risks. First, state-run entities expansion in the market is hard to stop given that it helps them achieve concentration of financial resources in their own hands. Second, especially in the light of creating a mega-regulator, an independent mechanism which can

<sup>1</sup> Mazunin A., Rudenko P., Khvostik E. Stock-exchange capital runs westward. Kommersant, March 13, 2012.

<sup>2</sup> According to the data as of 16.01.2013 supplied by the Moscow Exchange, as well as information about major shareholders in the Moscow Exchange published in Kommersant's the statistics section on February 18, 2013.

<sup>3</sup> OJSC Moscow Exchange MICEX-RTS Quarterly Report for Q4 2013 (see <http://moex.com/a1548>).

<sup>4</sup> The estimate is based on the RBK's information published on October 31, 2013. VTB bank reduces by 1.5% its interest in the Moscow Exchange Available at <http://top.rbc.ru/economics/31/10/2013/886078.shtml>.

<sup>5</sup> Prime. January 15, 2014. RDIF sells its 1% interest in the Moscow Exchange. Available at <http://1prime.ru/finance/20140115/775346339.html>.

prevent overgrowth in risk-bearing operations of the Ministry of Finance of Russia and the Bank of Russia, for example in case of unfavorable financial situation in Russia or implementation of a risk-bearing industrial strategy, has been eliminated in the Russian market. The current overgrowth of the foreign exchange market and money market in the Moscow Exchange amid reducing volumes of securities transactions creates risks of self-sufficiency in the stock market and its isolation from the real economy's needs, as was the case which resulted in a financial crisis in 1998.

It therefore is very important to have a well-defined strategy aimed at the Bank of Russia withdrawing from shareholding in the Moscow Exchange and restricting its participation as co-owner in infrastructural organizations. Such a definiteness was shown in 2013. In accordance with Part 14, Article 49 of the Federal Law of 23.07.2013 No. 251-FZ "On Introducing Amendments to the Russian Legislation in Connection with the Transfer of Powers to Regulate and Oversee the Securities Markets to the Central Bank" the Bank of Russia is obliged to withdraw from shareholding in the Moscow Exchange and the St. Petersburg Currency Exchange until January 1, 2016. According to Reuters's estimates, the Moscow Exchange plans an SPO in the first half of 2014 in order to sell an interest held by the Russian Central Bank<sup>1</sup>.

Although executive government authorities and the Bank of Russia provided their all-round support to stock market projects, the integration of the two stock exchanges hasn't yet produced a synergetic effect in the form of growing capitalization in the Moscow Exchange. OJSC RTS and CJSC MICEX had a total capitalization of \$4,6bn prior to the integration early in 2011. Early in 2012, according to the estimates of the Bank of Russia and the Board of Directors of the Exchange, Moscow Exchange's capitalization was expected to reach a total of \$6bn by the end of the year<sup>2</sup>. The Moscow Exchange IPO which was held between February 4 and February 15, 2013 resulted in a capitalization of \$4,2bn in the Exchange, less than the total capitalization of the Russian stock exchanges prior to the integration. The lack of any visible progress in increasing capitalization of the Moscow Exchange is determined not only by internal factors, but also some trends prevailing in global markets. Considerable reduction in trading volumes in the major global stock exchanges (see section 3.2.1), their competition with alternative trading systems leads to decrease in the value of stock exchanges. In 2007, NYSE Euronext amounted to \$15,8bn; on November 13, 2013, NYSE Euronext was taken over by Intercontinental Exchange (ICE) at a total of only \$10,2bn. NASDAQ shares lost from \$49,49 in 2007 to \$39,80 in 2013, or 19.6% of their market value. The German Stock Exchange dropped 48.4%, whereas the London Stock Exchange advanced only 5.6% during the same period.

In the period of February 4 thru February 15, 2013, the Moscow Exchange held an IPO which yielded Rb 15bn, or \$500m. Although the price was announced within a range of Rb 55–63 per share, the actual price was established at the bottom of the price range, i.e. Rb 55 (see *Fig. 11*). According to mass media, state-run Chinese Investment Company (CIC), foundations such as OppenheimerFunds and BlackRock, and a lot more foreign foundations from Germany, Scandinavian countries, Great Britain, the United States, and Asian countries<sup>3</sup> participated in the IPO.

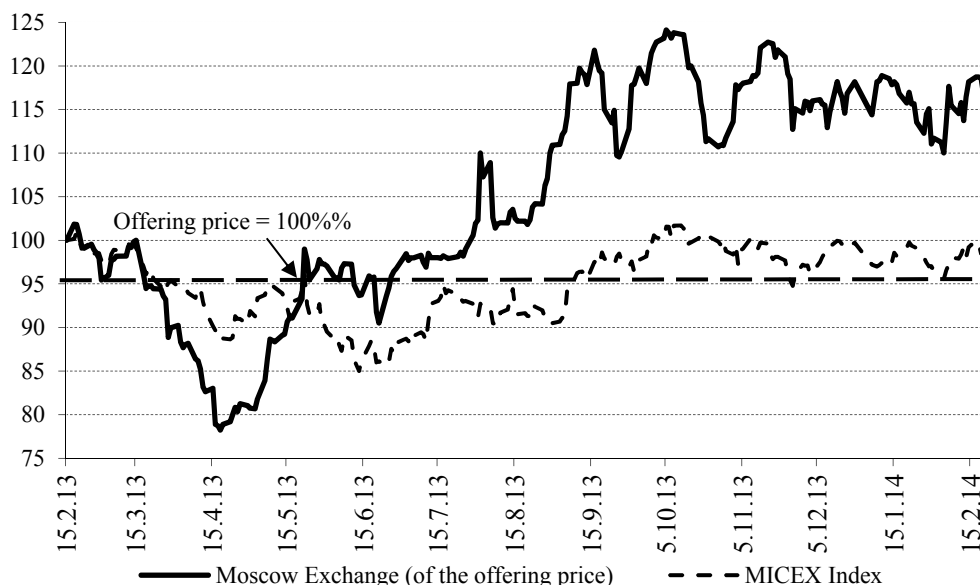
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<sup>1</sup> According to the information supplied by RBK on October 31, 2013.

<sup>2</sup> Interfax-AFI. Stock Exchange appries itself prior to IPO. Kommersant, March 26, 2012.

<sup>3</sup> Trifonov A., Papchenkova M., Kamneva G. Global guests in Moscow. Vedomosti, February 15, 2013.; Shlygin I. Chinese IPO. RBK-daily, February 15, 2013]; Gaidayev V., Kuznetsov I. Club IPO. February 15, 2013.

In the first trading day, on February 15, 2013, underrating of the stock exchange shares against the offering price was 0%. Small size of underrating of the first trading day during Russian JSC's IPO is indicative of overrating of the shares at the moment of IPO. Later it may often result in negative excess return on the shares against the base index for many years<sup>1</sup>. However, long-term yield of the stock exchange shares outstripped steadily the yield of the MICEX Index a year after the IPO.



Source: the author's estimates based on the data supplied by the Moscow Exchange and Finam Investment Company.

Fig. 11. Dynamics of the prices of the Moscow Exchange shares and the MICEX Index in the period of February 15, 2013 thru February 22, 2014 (15.02.2013 = 100%)

Aggressive programs supporting these shares by the Exchange itself and state-run banks facilitated positive dynamics of the Moscow Exchange shares after the IPO. VTB Capital was acting as stabilization agent within the first month from the public offering and which within 30 days could repurchase shares in the market at a current price in order to sell them through option back to MICEX-Finance. According to the estimates available through mass media, VTB Capital repurchased in the market about Rb 1,5bn of Rb 6bn generated from the sell of MICEX-Finance shares in order to subsequently resell them back to the Exchange's subsidiary<sup>2</sup>. Upon the completion of this period, the market value and liquidity of the shares were maintained by the Exchange itself and through a program maintaining liquidity in the stock market, as well as a repurchase program implemented by the Moscow Exchange on the basis of a resolution issued at the general shareholders meeting on November 14, 2013. According to the Exchange announcement made on February 21, 2014, the shares repurchased by MICEX-Finance LLC are planned to be repurchased, whereby an interest held by the existing shareholders and return on investment will be increased.

<sup>1</sup> Abramov A. E. Russian companies' problems with IPO-SPO. Economic and political situation in Russia. Gaidar Institute for Economic Policy, No. 10, 2012, pp.58-54.

<sup>2</sup> Orlova Y. Very free floating shares. Kommersant, March 18, 2013.

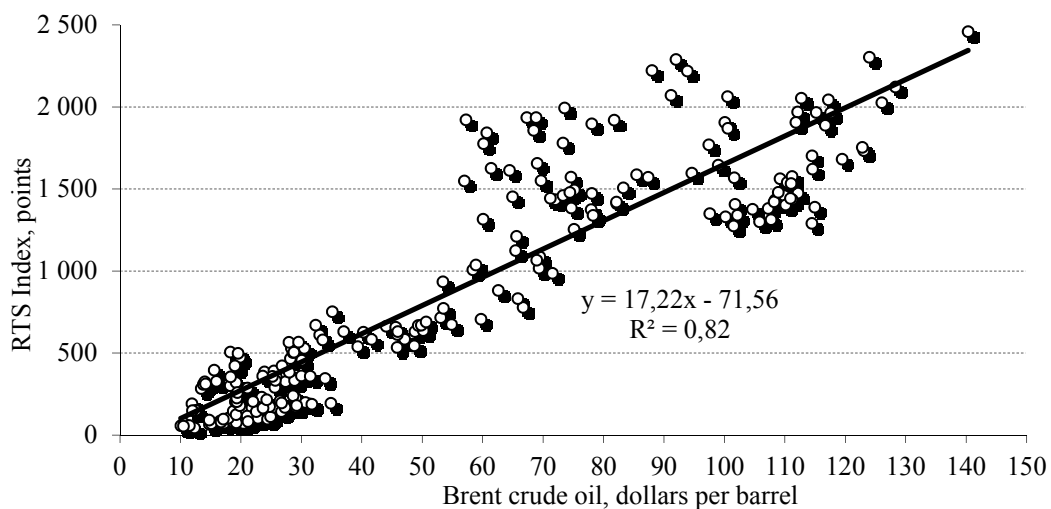


The integration of IT, trading and settlement systems is a slower process against legal and administrative integration of the two exchanges. This problem manifested itself through serious technical failures that occurred in the Russian stock exchanges in the period of 2011 thru 2012<sup>1</sup>. In 2013, the Moscow Exchange completed the process of consolidation of trading platforms in the stock market, foreign exchange market, and FORTS market into a single technological site, i.e. the M1 Data Processing Center. However, the Exchange failed to cope with all possible technical failures in 2013. Foreign exchange trading in the UTS was suspended because of a technical failure on February 21, 2013, another technical failure occurred on April 23 in the foreign exchange market. A 1-hour technical failure occurred in the FORTS market on November 13, 2013.

### 3.3. Russia's stock market

#### 3.3.1. Stock market's dependence on global price movement

It is well known that the stock market of Russian shares' depends largely on crude oil prices. The determination coefficient ( $R^2$ ) between absolute monthly values of the RTS Index and Brent crude oil prices in the period of September 1995 thru January 2014, as shown in Fig. 12, is 0.82, being indicative of a very close relationship between these indicators.



Source: estimated based on the data supplied by the IMF International Financial Statistics (IFS) and the Moscow Exchange.

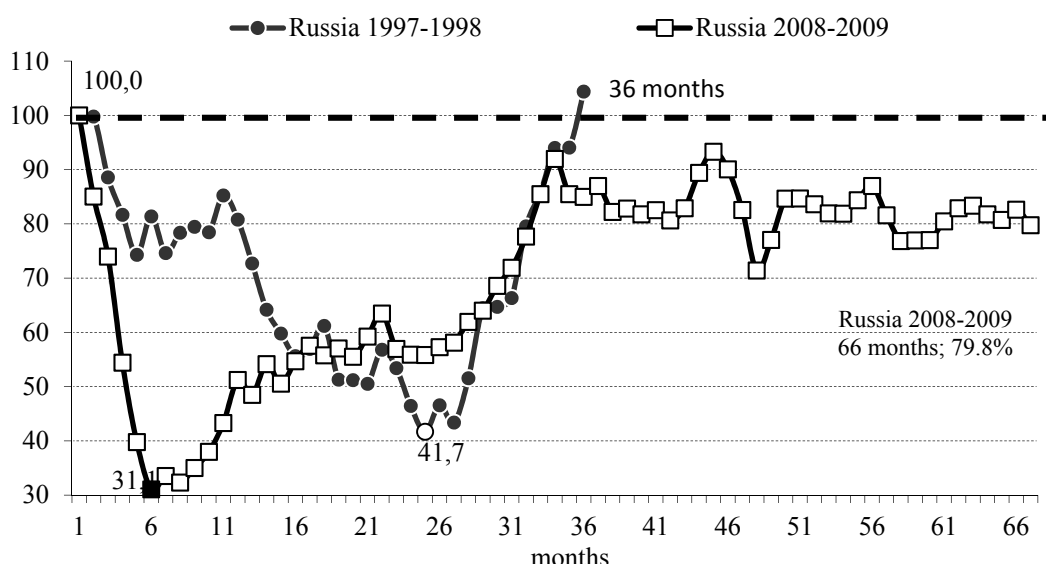
Fig. 12. Relationship between the RTS Index and Brent crude oil prices in the period of September 1995 thru January 2014.

Based on the forecasts of international financial institutions and the Ministry of Economic Development of Russia, no serious growth in crude oil prices is anticipated in the short-run period. This is determined by both moderate demand for crude oil amid slowdown in the global economy and introduction of power-saving technologies, and the development of new technologies in the production of mineral resources, in particular shale oil and gas.

According to a reference scenario of economic growth in Russia in the Long-term Socio-Economic Development of the Russian Federation until 2030 (the 2030 Forecast), only in 10

<sup>1</sup> For more details see our bulletin *Russian economy in 2012: Trends and outlooks (Issue 34)*, M.: Gaidar Institute, 2013, pp. 140-141.

years, by 1923, crude oil prices Urals are expected to reach \$127 per barrel, i.e. the pre-recession peak which was observed in June 2008. This forecast is supported by actual data, as shown in *Fig. 13*. Unlike the crisis in 1997–1998, when crude oil prices rebounded within 36 months, prices have managed to reach only 79.84% of the pre-recession peak within 66 months. Furthermore, crude oil prices have been remaining at a relatively stable level for 22 months to date.



Source: based on the data supplied by the IMF International Financial Statistics (IFS).

*Fig. 13.* Fall and rebound of Brent crude oil prices during financial crises in Russia (price peak =100%) as of January 2014

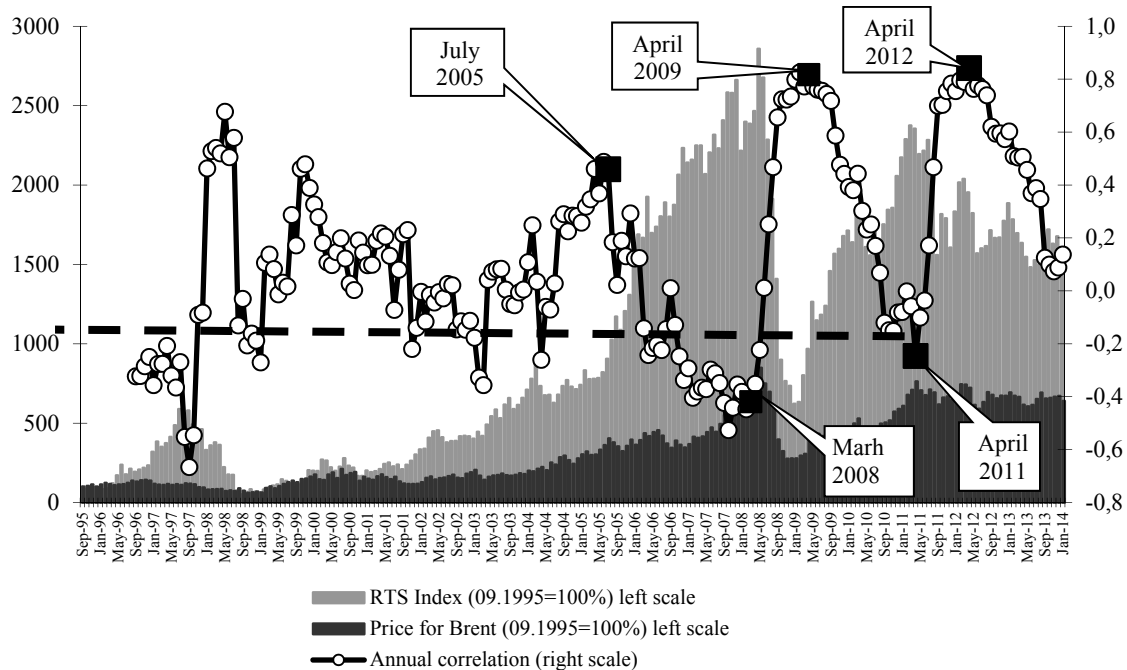
The relationship between stock indices and crude oil prices is better described by analysis of relative changes to the same. *Fig. 14* shows the results of changes to the correlation coefficient between monthly relative changes to the RTS Index and Brent crude oil prices within 12-month period. The moving correlation curve has a peculiarity which reflects strengthening or weakening of the relationship between the two indicators with a 1-year lag.

The correlation curve of changes to the RTS Index and crude oil prices is cyclic. As the index moves towards its pre-recession peak, the correlation coefficient declines and becomes negative. This means that crude oil prices and the index unexpectedly began to change in opposite directions. Positive correlation between changes to the index and crude oil prices rebounded during a meltdown in the stock market. Correlation tended again to minus unity upon the completion of recession acute phases.

The correlation curve dynamics over the recent decade has shown six periods:

- between the beginning of the 2000s and July 2005, when the correlation coefficient advanced from –0.2 to 0.5, crude oil prices and the RTS Index were growing in the same direction;
- between July 2005 and April 2008, when the correlation coefficient declined from 0.5 to –0.5, crude oil prices and the RTS Index advanced overall, however oil quotations declined in H2 2006 and H1 2007;

- between April 2008 and April 2009, when the correlation coefficient advanced from  $-0.5$  to  $0.8$ , it was a period of collapsing prices of crude oil and JSC's shares;
- between April 2009 and April 2011, the correlation coefficient fell from  $0.8$  to  $-0.2$ , crude oil prices increased moderately, and the RTS Index saw a drastic rally;
- between May 2011 and April 2012, when the correlation coefficient increased up to  $0.8$  while prices of crude oil and Russian JSC's shares went down;
- between May 2012 and January 2014, when the correlation index dropped again to  $0.1$ : the RTS Index mostly declined, and crude oil prices remained stable.



Source: estimated based on the data supplied by IFS IMF and MICEX-RTS.

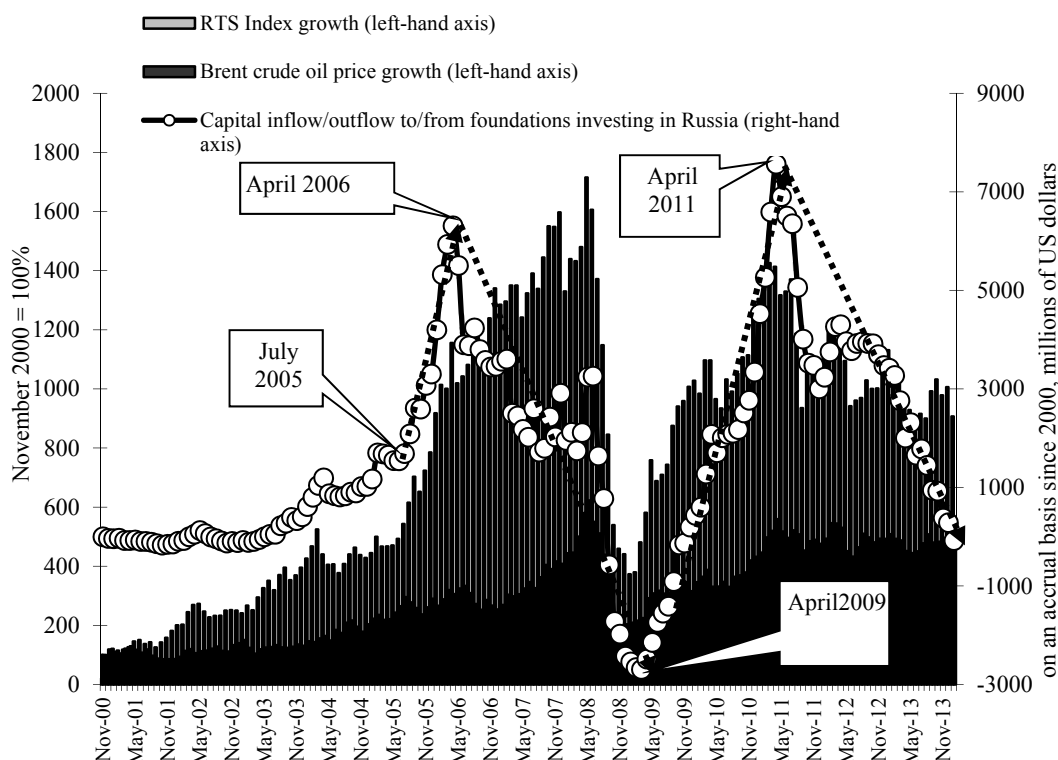
Fig. 14. Correlation between changes to the RTS Index and Brent crude oil prices in the period of September 1995 thru January 2014

### 3.3.2. Stock market's dependence on foreign portfolio investors

The cyclical nature of the correlation of changes to prices of crude oil and Russian companies' shares can be explained by a strong effect of outflow/inflow of foreign portfolio investments recorded by the Emerging Portfolio Fund Research (EPFR) on the dynamics of prices of stock of shares<sup>1</sup>. This factor is highly competitive with the dynamics of crude oil

<sup>1</sup> The EPFR's data on inflow/outflow of money to/from foreign foundations specializing in investment in Russia can be regarded as indicator of investment behavior of major foreign portfolio investors including global and regional foundations. The portfolios of special-purpose foundations account for, according to our estimates, about 50% of the investment in Russia from regional and global investment foundations. If investors of a special investment foundation, for example, withdraw their investment from the foundation, it implies no capital outflow from Russia. Capital outflow happens when the foundation begins to sell out its investment in Russian JSCs' shares in order to discharge its obligations to the investors. Where global and regional foundations see a cash outflow, it is impossible to quantitatively evaluate the effect of such operation on the reduction of investments of such foundations in Russian companies' shares which generally account for a small part of the portfolio.

prices in terms of having impact on prices of Russian issuers' shares, as evidenced by the data presented in Fig. 15.



Source: estimated based on the data supplied by IFS IMF, the Moscow Exchange and EPFR.

Fig. 15. Growth in the RTS Index and Brent crude oil prices, cash inflow/outflow to/from foundations investing in Russia, as calculated on a cumulative total in the period of November 2000 thru January 2014

Getting back to the aforementioned six periods during which the nature of relationship between changes to the RTS Index and dynamics of crude oil prices, analysis of investment foreign foundations specializing in investment in Russia allows this phenomenon to be explained.

Growth in the correlation coefficient index and crude oil prices between the beginning of the 2000s and July 2005 was associated with the fact that within that period both factors effecting the dynamics of the stock market – crude oil prices and cash inflow to foreign foundations investing in Russia – moved in opposite directions. Crude oil prices increased, portfolio investment saw cash inflow, the RTS Index grew steadily. It is shown in Table 8 that special-purpose foundations received \$1,5bn of investment funds in the period of November 2000 thru June 2005.

The correlation coefficient declined to  $-0.5$  in the period of July 2005 thru April 2008 in response to opposite dynamics of crude oil prices and foreign portfolio investments. In the period of July 2005 thru April 2006, foundations investing in Russia received \$4,8bn of new investments despite growth in volatility of crude oil prices (see Table 8 and Fig. 15). An

Nonetheless, if foundations specializing in investment in Russia see a cash outflow, it is most likely that global and regional portfolio investors reduce their investment in Russia.

upsurge of short-term investment inflow can be explained by investment rankings international agencies awarded for Russia. FITCH published its ranking on November 17, 2004 and S&P on January 31, 2005. However, a sharp turnaround in preferences of those who invested through foreign foundations was recorded in the period of April 2006 thru April 2008, when foundations investing in Russia saw an intensive cash outflow despite steady growth in crude oil prices. The RTS Index slowed down significantly in response to portfolio investment outflow against a sweeping increase in crude oil prices.

In the period of April 2008 thru April 2009, the correlation coefficient increased up to 0.8 in the period of stock market meltdown. At that time collapse in crude oil prices was accompanied by accelerated withdrawal of money from foreign foundations investing in Russia. Therefore the RTS Index dropped at the same period.

The correlation coefficient of the RTS Index and crude oil prices dropped again to -0.2 in April 2009 thru April 2011 in response to that outgrowth in the RTS Index was based mostly on active cash inflow in foreign foundations against a moderate growth in crude oil prices. Foreign foundations received \$10,2bn of new investment at the same period.

The correlation coefficient index and crude oil prices recovered in the period of May 2011 thru April 2012, because the factors of crude oil prices and foreign investment resumed to move in the same direction. Crude oil prices declined and investors withdrew their investments from investment foundations. The correlation disappeared in the period of May 2012 thru January 2014, because crude oil prices remained stable while investment foundations kept seeing cash outflow. In the period of May 2011 thru January 2014, the RTS Index itself a downtrend following the withdrawal of funds from foundations investing in Russia.

*Table 8*

**Inflow/ outflow of money to/from foreign foundations investing  
in Russian shares, based on EPFR's data**

	<b>Inflow (+)/ outflow (-) of money from foundations, millions of US dollars</b>
November 2000 thru June 2005	1 538
July 2005 thru April 2006	4 769
May 2006 thru March 2009	-9 005
April 2009 thru April 2011	10 255
May 2011 thru January 2014	-7 640

*Source:* the estimates are based on the data supplied by EPFR.

The graph of variance in accumulated cash flows at foreign foundations specializing in investment in Russia (see *Fig. 15*) shows that principal changes to the behavior of foreign investors took place in May 2006 and in May 2011. As seen in *Table 6*, special-purpose foreign foundations saw an outflow of funds of \$9,0bn in May 2006 thru March 2009 and \$7,6bn in May 2011 thru January 2014. Even though these assessments were doubled given a possible similar behavior of asset managers at regional and global foundations which reduced their investment in Russia, it appears that shock changes to prices of shares in the Russian market can result in gradual withdrawal of sums equal to a 1–2-day stock trading volume in the Moscow Exchange.

IMF's experts explained in the IMF Financial Stability Report, September 2011, the factors which predetermine adverse changes to the behavior of global portfolio investors in emerging markets<sup>1</sup>. The experts used the EPFR's data collected within the period of January 2005 thru

<sup>1</sup> IMF. Financial Stability Report. September 2011, pp. 11-18. Available at [www.imf.org](http://www.imf.org).

May 2011 on cash flow of special-purpose investment foundations worldwide, namely in Asia, Latin America, Europe, Middle East, and developed economies. The report shows that most influential factors with a significance of 1% on cash inflow to investment foundations were found to be:

- official forecasts of real GDP<sup>1</sup> growth rates (marked with a “+”);
- volatility of GDP growth rate forecasts (marked with a “–”);
- volatility of foreign exchange rates (marked with a “–”);
- stock market volatility indicator – VIX index (marked with a “–”).

Indicators of interest rates and strictness of foreign exchange regulation were found to be among less significant factors.

The foregoing factors can be regarded as forward-looking indicators of financial crises which are used by managers of portfolio investment foundations specializing in investment in specific markets. The results of the IMF’s study shows that the hardest shock in terms of maximum cash outflow (\$4,4bn) from foundations investing in countries located in Europe, Middle East, and Africa, occurred exactly in June 2006. It is in this month, as shown in *Fig.15*, when investors of foundations investing in Russian JSCs’ shares began to move backward. Under the circumstances, a trend towards cutting the GDP growth forecast in the second half of the year in the most significant developed and developing economies<sup>2</sup> which was recorded by the IMF World Economic Outlook (WEO), April 2006, as well as VIX index<sup>3</sup> perturbances beginning with Q2 2005 might serve as signals for withdrawal from portfolio investment. Upsurges in volatility of forecasts of GDP growth rate and prices of shares reflected experts’ and market’s concern about disproportions in countries’ trade balance, mounting crisis in the U.S. mortgage securities market, and other factors which eventually resulted in the recession of 2008.

These studies help understand a relatively simple model of behavior of those who invest in foreign foundations specializing in investment in the Russian stock market. By investing in Russia, they are aiming to enter the market when the price of local companies’ shares is low and timely leave the market at first signs of falling crude oil prices and devaluation of the ruble. They receive signals from, for example, the Consensus Economics information system which makes consensus projections of certain key macroeconomic and financial indicators of various countries with a 24-month depth (two years) based on the forecasts of analysts at major investment banks. The GDP growth forecast is the most significant one. The moment of significant changes to the forecast for the current year or the year to come is a signal of a new trend in the behavior of investors. For example, if forecasts show a substantial decline, investors begin to withdraw their funds from foundations investing in Russia. Investors’ behavior will change as soon as they receive a signal of potential increase in economic growth in Russia and the major developed countries. This creates the cyclic nature of the behavior of unit-holders of foreign foundations investing in Russia, as clearly seen in *Fig. 15*.

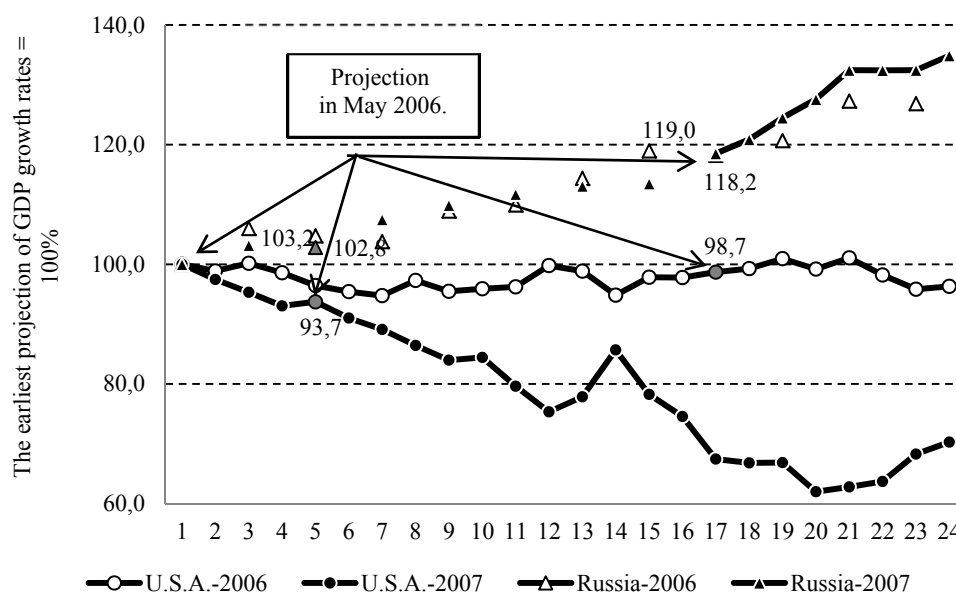
An illustration of the effect of Consensus Economics’ data on foreign investors decision-making to withdraw their funds from foundations investing in Russia in May 2006 is shown

<sup>1</sup> GDP growth and volatility projections were calculated on the basis of the data available at the Consensus Economics database.

<sup>2</sup> World Economic Outlook (WEO), April 2006, Fig.1.8. Available at [www.imf.org](http://www.imf.org).

<sup>3</sup> It is shown in R. Rajan. *Lines of Fracture* (M., Delo Publishing House, 2011, p. 272) that between Q2 2005 and Q2 2007 the two-year implied volatility of S&P500 option price – market expectations of volatility in prices of shares for two years – was 30-40% higher than short-term one-month volatility.

in Fig. 16 which presents the information on GDP growth forecasts in the United States and Russia from the foregoing analytical resource which was available for investors in May 2006. In this case, the earliest GDP growth forecast for 2006 and 2007 was taken as 100%. Each of the four curves has an arrow showing the point of the latest projection for 2006 and 2007 which was available for users in May 2006. The curve segment to the left of the point shows the values of the projection available for users in May 2006. Monthly projections issued after the date under review are shown to the right of the marked point. Furthermore, projected values on Russia were normally edited every two months within the specified periods.



Source: the estimations are based on the data supplied by Consensus Economics.

Fig. 16. Changes to analysts' consensus projections for GDP growth in 2006 and 2007

The data presented in Fig. 16 shows that it was only the curve representing U.S. economic growth projection in 2007 that worsened of the four other curves. Perhaps, it was these projections of U.S. economic growth in 2007 that injected most pessimism in those who invested in foundations investing in Russia. Slowdown in U.S. growth rates threatened the same downtrend in other regions, reduction in the demand for raw materials, fall in crude oil prices, reduction in hard currency proceeds and therefore devaluation of the ruble in Russia. By May 2006 the projection for U.S. economic growth had been worsening for four consecutive months, and this was enough to make investors withdraw their funds from foundations operating in emerging markets. Further worsening in U.S. growth forecasts for 2007 (a fragment to the right of the marked point in the "U.S.A.-2007" curve) after May 2006 made investors even more pessimistic, urging them to withdraw their funds from investment foundations.

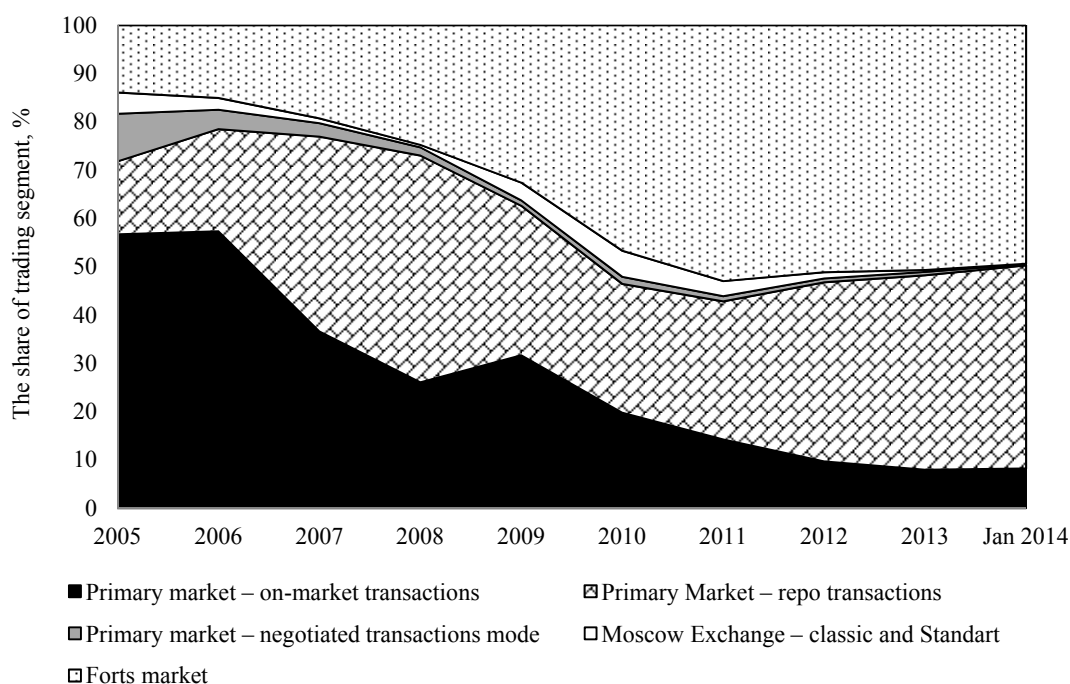
Interestingly, withdrawing their funds from foundations investing in companies of European countries including Russia, Middle East, and Africa, in June 2006 global portfolio investors demonstrated miracles of far sightedness, being far advanced of the boldest financial crisis prophets. Professor N. Roubini's famous statement on impending mortgage crisis at IMF conference wasn't made public until September 2006. At a conference in Davos (Switzerland) in February 2008 Finance Minister of Russia A. Kudrin asserted that the Russia

will remain a safe heaven amid world financial crisis. In her interview given as part of a film (*Inside Job*) directed and released by Charles Ferguson in 2010, Kristin Lagarde, incumbent Managing Director of IMF, confessed that it was not until February 2008 that she actually began to see an impending crisis when she attended as Minister of Economy and Finance Minister of France a G7 summit at which U.S. Secretary to the Treasury D. Poulsen stated that “we have everything under control”.

However, foreign investors began to fleeing Russia and other developing countries as early as May 2006. Today the reason for such a far sightedness of foreign portfolio investors vs. the most prominent stock market experts and representatives of monetary authorities seems to be more evident. What the foregoing indicators showed in 2012 will be shown in the section describing stock market risks.

### 3.3.3. Stock market segments in the Moscow Exchange

*Fig. 17* and *Table 9* show changes to the structure of various trading modes in Russian stock exchanges, including transactions in the FORTS market. Significance of most market-oriented segments of the exchange market has been declining for two years since the integration of the two stock exchanges in December 2011, while the only market segment showing a steady growth has been repo transactions.



Source: the author’s estimates based on the data supplied by Russian stock exchanges

*Fig. 17.* Market structure in the Moscow Exchange in the period of January 2005 thru January 2014.

The share of on-market stock transactions shank from 14.3% in 2011 to 9.7% in 2012 and 8.0% in 2013. The share of transactions in the FORTS market declined from 53.0% in 2011 to 51.1% in 2012 and 50.7% in 2013, being a seriously adverse factor, because it is on-market (anonymous) transactions that reflect the effectiveness of the stock exchange as pricing center, and serve as the basis for making fair prices of financial assets. The share of such



market segments as Classic and Standart, which advanced at a fast rate in the RTS prior to the integration, are currently close to zero, which can be explained by the establishment of a unified settlement regime for T+2 transactions in the Moscow Exchange. Only the repo market share showed a steady growth from 28.6% in 2011 to 37.1% in 2012, and 40.3% in 2013.

*Table 9*

**Stock market structure in the Moscow Exchange in January 2005 thru  
January 2014**

	2005	2010	2011	2012	2013	2014 – Jan.
Primary market – on-market transactions	56,7	19,8	14,3	9,7	8,0	8,2
Primary market – repo transactions	15,1	26,7	28,6	37,1	40,3	42,1
Primary market – negotiated transactions mode (NDM)	9,8	1,5	1,1	0,8	0,7	0,2
Moscow Exchange – Classic and Standart	4,4	5,4	3,1	1,3	0,4	0,1
Forts market	13,9	46,7	53,0	51,1	50,7	49,4
<b>Total</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>

*Source:* the author’s estimates based on the data supplied by Russian stock exchanges.

In 2013, the share of (anonymous) stock market transactions in the Moscow Exchange accounted for 13.7% (see *Fig. 18*), being almost similar to the level recorded in 2012. The share of repo transactions reached 85.5%. In the stock market brokers use repo transactions for realizing risk-bearing strategies aimed at fundraising to maintain liquidity and margin lending to their customers. According to the estimates available in mass media, it is arbitrage in the repo stock market that was a key reason for the issues faced in 2012 by Renaissance Bank, a large Russian investment bank, which led to the replacement of its control interest shareholder<sup>1</sup>.

The principal reasons for a small share of market transactions in the Moscow Exchange in 2013 are associated with that shares of Russian issuers don’t seem to look appealing to foreign portfolio investors, as well as limited internal sources of liquidity because of undeveloped institutional investors (pension and investment funds, insurance companies). These Russian stock market’s weaknesses were even worsened by freezing investment of new 2013 pension accruals and “moratorium” on pension accruals in 2014. Relatively big volumes of the repo stock market were maintained, because this market serves as mechanism of redistribution at the level of smaller participants of the liquidity which large state-run banks received from the Bank of Russia through repo transactions.

A small share of market transactions leads to risks of manipulation with prices of shares which are used for calculating stock indices and other underlying assets for the Forts market. The share of stock market transactions in the Moscow Exchange in 2013 could have been less than 13.7% without such a mechanism as the liquidity maintenance program in the stock market with T+2 settlements providing for a part of the transaction fee charged on 31 issues of shares to be returned to brokers. According to experts’ estimates, market makers’ turnover accounts for 15% to 20% of stock transactions T+2<sup>2</sup>. In 2013, the support program absorbed about one fourth of the fee initially paid by brokers to the exchange<sup>3</sup>.

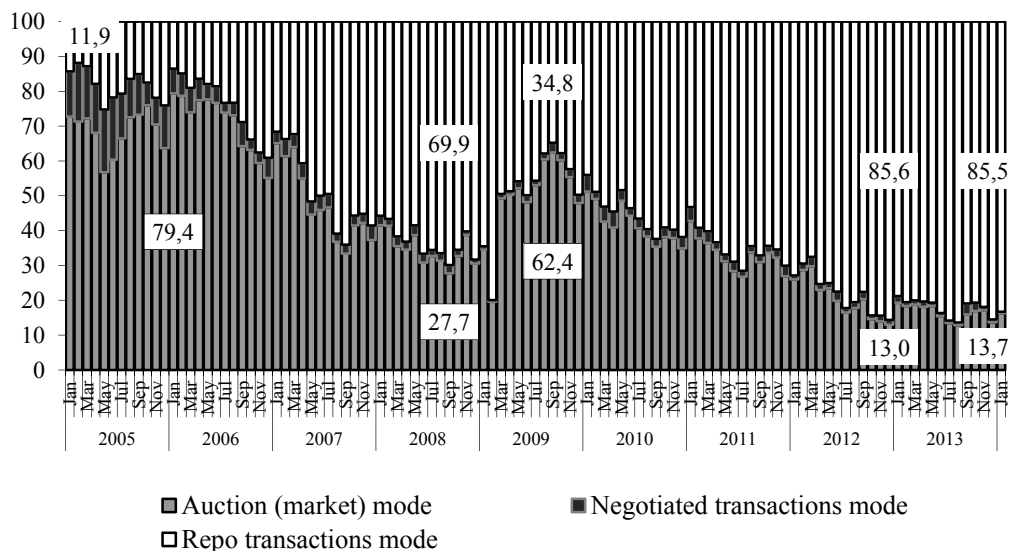
As shown in *Fig. 19*, in 2013 the number of market transactions in the Moscow Exchange and the average size of a transaction remained at the level recorded in of 2012, being

<sup>1</sup> Tofanyuk E. To walk in Africa. Forbes, No. 1 (106), 2013, pp.100-101.

<sup>2</sup> Orlova Y., Kazmin D. Moscow trags trading from London. Vedomosti, December 10, 2013.

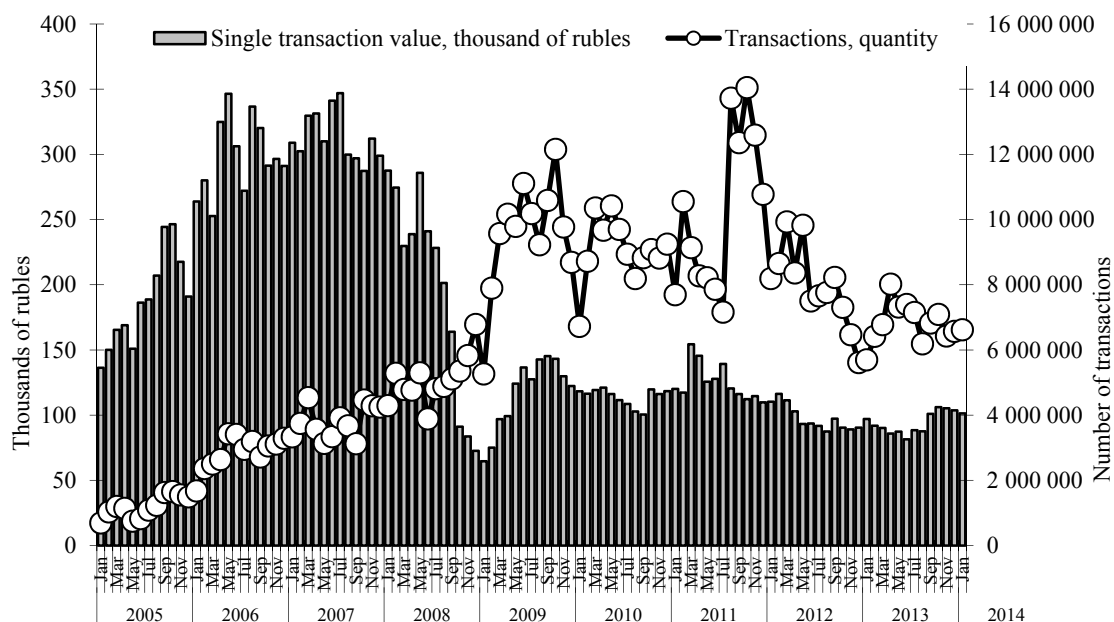
<sup>3</sup> Kuzntsov I., Gaidayev B. A quarter-of-one fee. Kommersant, August 25, 2013

indicative of temporal overgrowth of high-speed trading in the Exchange, which resulted in growth in the number of transactions prior to 2012. At the same time, stable indicators of the number of transactions and the size of a single transaction is indirectly indicative of no sweeping changes in 2013 in the intensity of participation of internal and foreign institutional investors in trading, because their entering the market would, other conditions being equal, mean growth in the average volume of transactions.



Source: the author's estimates based on the data supplied by the Moscow Exchange.

Fig. 18. Structure of stock transactions in the Moscow Exchange's primary market, %



Source: the author's estimates based on the data supplied by the Moscow Exchange.

Fig. 19. Stock transactions in the Moscow Exchange's primary market

### 3.3.4. Competition between the internal stock market participants

In 2013, state-run entities kept strengthening their position in the stock market, being manifested by growth in the share of state-run financial organizations in stock trading volumes, increasing their role in managing the Moscow Exchange, expanding the powers vested with the Bank of Russia and the Ministry of Finance of Russia in the field of regulation and compliance monitoring.

*Fig. 20* presents the results of stock transactions in the Moscow Exchange's primary market the Bank of Russia, state-run banks and related entities<sup>1</sup>. This market segment saw a visible growth in activity of public players during the acute phase of the crisis, September 2008 thru July 2009. In December 2008, the share of state-run entities in the volume of stock market transactions increased to 50.9%, which was mostly determined by the fact that a few major participants (KIT Finance, Svyazbank) were facing financial problems and fell under control of state-run banks, as well as Vnesheconombank implemented a stock market support program financed with Rb 175bn received on a repayable basis from the National Wealth Fund. When the market was recovering, the share of state-run banks and their subsidiaries and affiliates in the volume of stock market transactions declined, but resumed growth in February 2011, reaching 36.1% in December 2011, which can be explained by Sberbank of Russia acquiring Troika Dialog (Sberbank CIB), an investment company. In 2012, the share of state-run financial organizations didn't increase, however the Bank of Russia entered the stock market in May 2012, accounting for 7.9% of the value of transactions in December 2012. In December 2013, the share of state-run financial organizations increased to 38.0%, while the share of Bank of Russia stood at 5.1%.

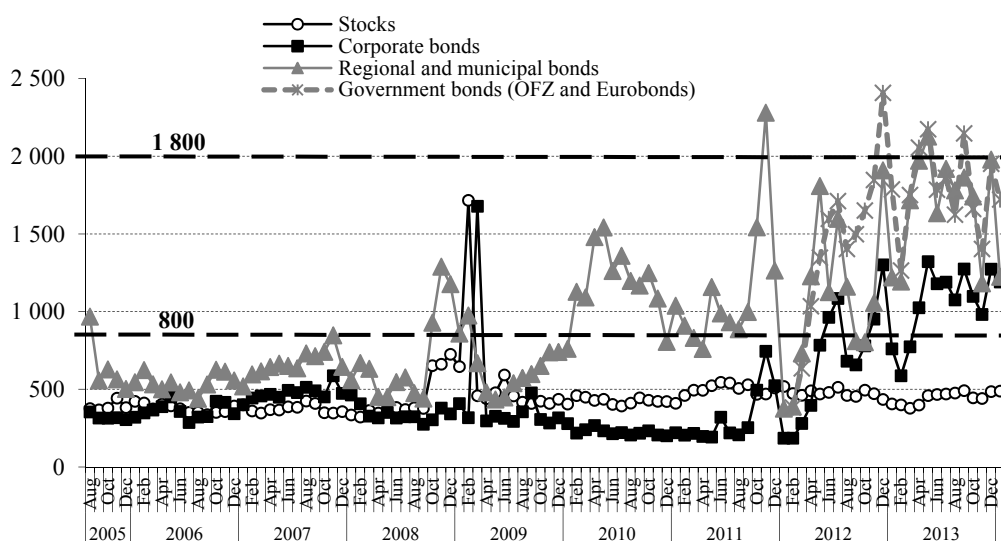


*Source:* the author's estimates based on the data supplied by the Moscow Exchange.

*Fig. 20.* The share of private and public brokers in stock trading volumes in the Moscow Exchange, %

<sup>1</sup> Vnesheconombank, VTB, VTB Capital, VTB24, Gazprombank, Sberbank, KIT Finance, Svyazbank, Bank of Moscow, Transcreditbank, and Sberbank CIB since 2011.

In 2013 in the Moscow Exchange saw deteriorating anti-monopoly characteristics of the corporate bond market and government securities market. The stock market concentration characteristics remained unchanged against 2012, whereas they degraded slightly for the regional bond market, as shown in the data presented in *Fig. 21*, describing the dynamics of the Herfindahl-Hirschman Index (HHI)<sup>1</sup> by market segment in the Moscow Exchange in the period of January 2005 thru January 2013. According to the estimates of the Federal Antimonopoly Service (FAS), the market is low concentrated if HHI being less than 800, moderately concentrated if  $800 < \text{HHI} < 1800$ , and highly concentrated if HHI is more than 1800<sup>2</sup>. HHI on transactions in the Moscow Exchange's primary stock market was stable at about 500, i.e. this market segment was low concentrated throughout the entire 2013.



Source: the author's estimates based on the data supplied by the Moscow Exchange.

*Fig. 21.* Herfindahl-Hirschman Index: on the volume of secondary stock trading in the Moscow Exchange's primary market (all modes).

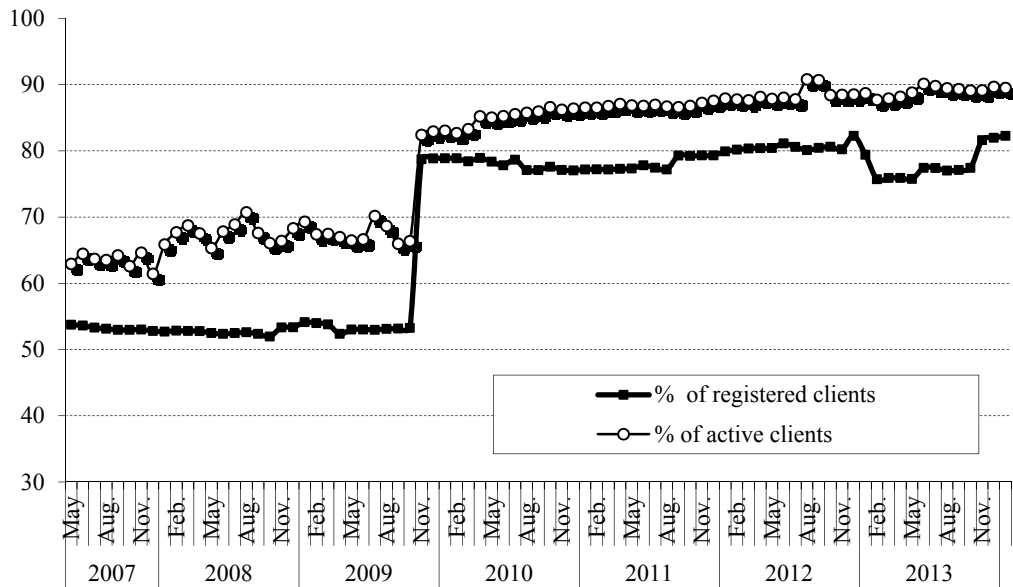
*Fig. 22* presents data on the share of the seven major brokers in the total number of registered and active customers<sup>3</sup> in the Moscow Exchange. In the period of 2010 thru 2013, the share of the given companies was growing on both indicators, reaching 89.5% on all registered customers and 82.3% on active customers of brokers as of January 2013. Growth in the level of concentration of the broker business by itself can't reveal weakening competition in the market of respective financial services. On the contrary, it may describe more effectively the manifestation of the broker business's scale effect. Brokers are facing an increasingly relevant objective to switch to attracting more conservative investors interested

<sup>1</sup> The Herfindahl-Hirschman Index (HHI) is a commonly accepted measure of market concentration. The HHI is calculated by squaring the interest rate in terms of trading volume of each participant and totaling the obtained results:  $\text{HHI} = (D_1)^2 + (D_2)^2 + \dots + (D_m)^2$ , where  $D_i$  is  $i$ -participant's market share expressed in percents;  $i = 1, 2, \dots, m$ .

<sup>2</sup> See section 2.6.4. The guidelines on the procedure for analyzing and evaluating the competitive environment in the financial service market approved by the Order of 31.03.2003, No 86 of the Russian Federation Ministry for Antimonopoly Policy and Support of Entrepreneurship.

<sup>3</sup> Under the the Moscow Exchange's rules customer which closes at least a single transaction a month in the Exchange.

in long-term savings, rather than strengthen their own position while providing services to reducing number of active customers (see section 3.6.2). However, to prevent growth in broker business concentration from breaching the free competition principles, conditions should be created so that new market participants providing an adequate level of competitive pressure on the “veterans” in the industry may easily enter and exit this market segment.



Source: the author’s estimates based on the data supplied by the Moscow Exchange.

*Fig. 22.* The share of seven major brokers in total number of registered and active customers of Russian brokers, %

Contraction of private investors’ trading activity and increased role of state-run entities in the financial market enjoying privileges in borrowing from monetary authorities has raised a question of staying in business for many private companies, i.e. brokers and asset managers. In this respect, a Bank of Russia Financial Markets Service’s (FMS) initiative on relaxing the capital adequacy requirements from the current Rb 35m to Rb 1m, which was mentioned early in 2014, has an important positive effect on the development of the industry.<sup>1</sup>

However, it appears that it is not sufficient to just eliminate redundant administrative pressure on nonbank financial institutions. The number of professional securities market participants has been contracting for four consecutive years since 2009 (see *Table 10*). In 2013, the number of brokers dropped from 983 to 885, or by 10.0%, the number of dealers fell from 994 to 888, or by 10.7% on an annualized basis.

*Table 10*

**The number of stock market professional participants**

	2007	2008	2009	2010	2011	2012	2013
Number of organizations holding the license for:							
1. Broker activity	1445	1475	1335	1213	1090	983	885
Changes as % year on year	0.8	2.1	-9.5	-9.1	-10.1	-9.8	-10.0
2. Dealer activity	1422	1470	1337	1198	1088	994	888
Changes as % year on year	2.0	3.4	-9.0	-10.4	-9.2	-8.6	-10.7

Source: based on the data supplied by the RFMS Russia and the Bank of Russia.

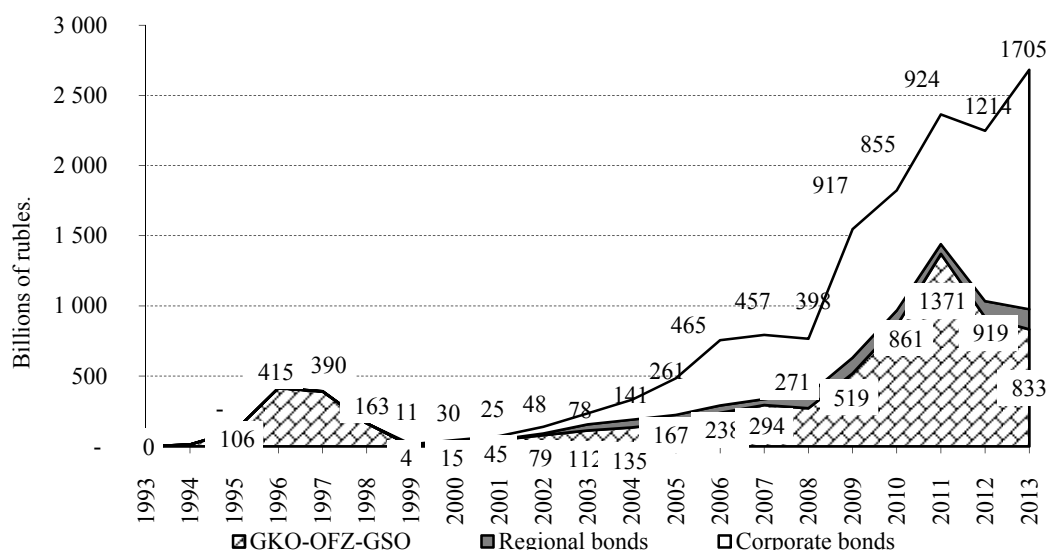
<sup>1</sup> Yakovenko D. Making brokers’ life easier. Expert, No. 5, January 27, 2014 – February 2, 014, p. 51.

### 3.4. Ruble-denominated bond market

#### 3.4.1. Government securities market

In 2013, the ruble-denominated federal bond market kept developing successfully in response to previous efforts aimed at unifying the trading rules, settlements in the internal market, as well as liberalizing since February 2013 access for nonresidents to the OFZ market, above all, through Euroclear and Clearstream settlements in the NSD.

At the same time, in 2013, OFZs achieved no new records in terms of volumes of new bond issues. Furthermore, federal bond issues have been tending to decline for two consecutive years (see *Fig. 23*). The volume of issued OFZs amounted to Rb 1371bn in 2011, whereas it shrank to Rb 919bn in 2012 and Rb 833bn in 2013. In this case, a more moderate issuing activity in the OFZ market can mostly be explained by Ministry of Finance of Russia's moderate needs for borrowing from the market rather than market capacity.



Source: based on the data supplied by the Moscow Exchange and cBonds.

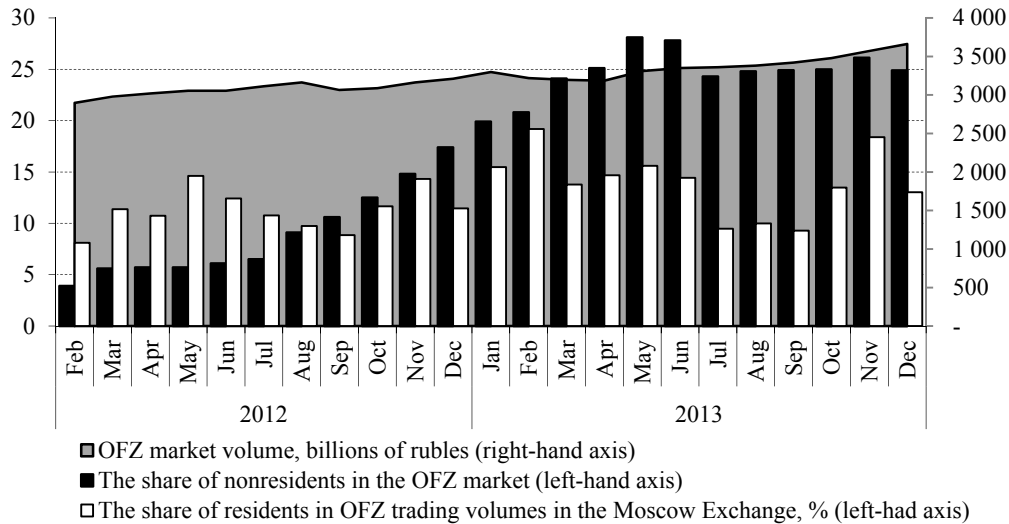
*Fig. 23.* Placement volumes of ruble-denominated bonds in 1993–2012.

According to the Bank of Russia, opening of the Russian central depository of nominee accounts for foreign clearance and settlement organizations at the beginning of 2013 attracted a significant inflow of foreign investment to the state debt internal market. The foreign investment base is quite diversified and includes participants adhering to quite different investment strategies<sup>1</sup>. However, the data presented in *Fig. 24* show that the share of nonresidents in the OFZ bondholding structure increased slightly before the official announcement of the commencement of operations on Euroclear and Clearstream accounts in the NSD in February 2013. The share of nonresidents in the structure of OFZ bondholders increased from 3.9% in February 2012 to 19.9% in January 2013, reaching 24.9% by the end of 2013. Perhaps, foreign investors decided to purchase the principal part of OFZs during the negotiations and testing a new technology of providing services to them in the NSD. Rapid growth in the share of nonresidents in the OFZ market came as a surprise to the Ministry of Finance of Russia. According to the Guidelines of the Public Debt Management Policy in the

<sup>1</sup> The Central Bank of the Russian Federation. Money Market Review, Quarter 4, 2014, p.22.

Russian Federation for 2013–2015<sup>1</sup> (p.25), the foregoing indicator was anticipated to increase to 10% in the medium-term perspective, and to 25% in the long-term period.

The introduction of the new system of providing services for nonresidents through a bridge between the NSD and international clearing organizations hasn't yet resulted in any serious growth in transaction volumes of the dealers providing services to nonresidents in the secondary government bond market. In December 2013, the share of dealers (banks) oriented to providing services to nonresidents<sup>2</sup> accounted for 13.0% of the total government bonds trading volume in the Moscow Exchange as compared to 11.4% in December 2012.



Source: the author's estimates based on the data supplied by the Moscow Exchange and the Bank of Russia.

*Fig. 24. Nonresidents' share in the OFZ market*

In 2013, the indicator for the same 12 nonresident banks' contribution in the trading volume in the secondary government bond market was visibly much higher than that estimated for the same financial institutions in the secondary stock market, secondary corporate and regional bond market in the Moscow Exchange (see Fig. 25). This is indicative of that many nonresidents still prefer the government bond market segment to other securities.

It was anticipated, according to the Guidelines of the Public Debt Management Policy in the Russian Federation for 2013–2015 (p.25), that increase in the share of foreign investors in OFZs would inevitably reduce their yield by one percentage point, like it happened in 2012, when nonresidents' share in the OFZ market increased most. In 2012, inflation increased to 6.6% against 6.1% in 2011, while the OFZ average monthly long-term interest rate dropped to 7.10% p.a. in December 2012 against 8.10% in the preceding year (see Fig. 26). However, the trend was different in 2013. Inflation lowered to 6.5%, the OFZ long-term interest rate

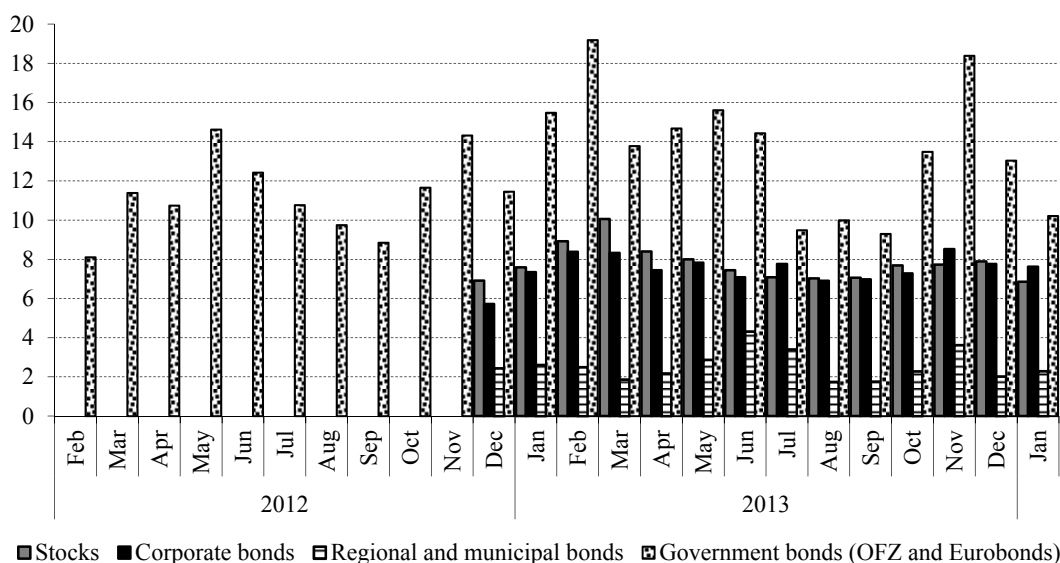
<sup>1</sup> Available at: [http://www.minfin.ru/common/img/uploaded/library/2012/12/DOLGOVAYA\\_POLITIKA\\_ROSSIYSKOY\\_FEDERATSII\\_NA\\_2013-1015.pdf](http://www.minfin.ru/common/img/uploaded/library/2012/12/DOLGOVAYA_POLITIKA_ROSSIYSKOY_FEDERATSII_NA_2013-1015.pdf)

<sup>2</sup> Estimated by the author on the basis of official data supplied by the Moscow Exchange on 12 nonresid banks: Goldman Sachs Group, Deutsche Bank, ING BANK (EURASIA) ZAO, CJSC "Bank Credit Suisse (Moscow), CJSC Raiffeisen Bank, ZAO Citybank, ZAO Unicredit, JP Morgan Bank International (LLC), OJSC Rosbank, Barclays Capital LLC, OOO Morgan Stanley Bank (LLC), HSBC Bank plc. This indicator helps evaluate real increase in nonresidents' trading activity in the Moscow Exchange's secondary market.

## RUSSIAN ECONOMY IN 2013

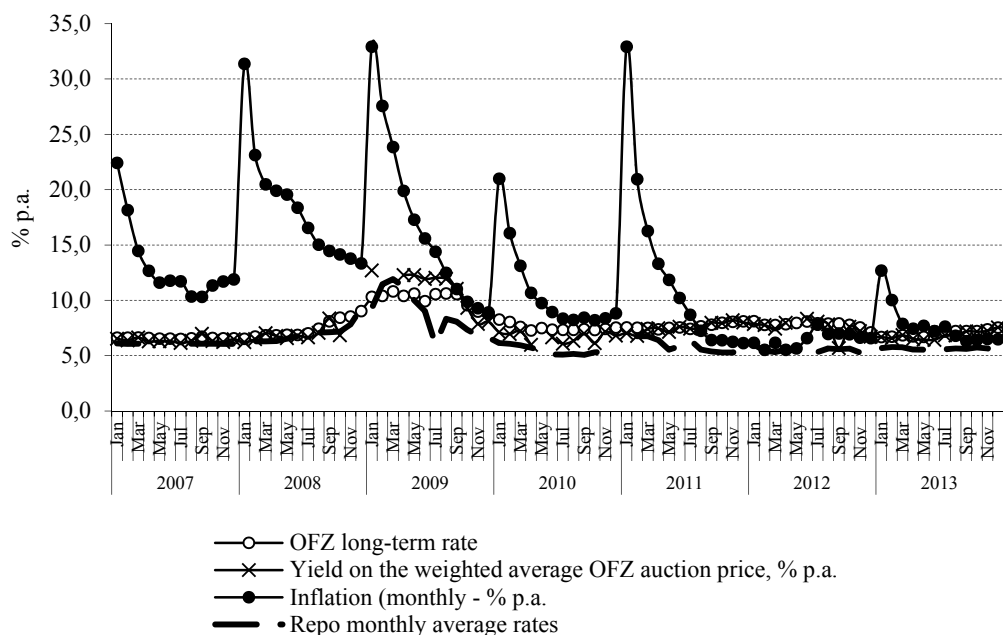
trends and outlooks

increased from 7.10% p.a. in December 2012 to 7.53% p.a. in December 2013 despite continuous but slowed down growth in nonresidents' share in the OFZ market.



Source: the author's estimates based on the data supplied by the Moscow Exchange.

Fig. 25. The share of nonresidents in securities trading volumes in the Moscow Exchange, %



Source: the author's estimates based on the data supplied by the Bank of Russia and the Federal State Statistics Service (Rosstat).

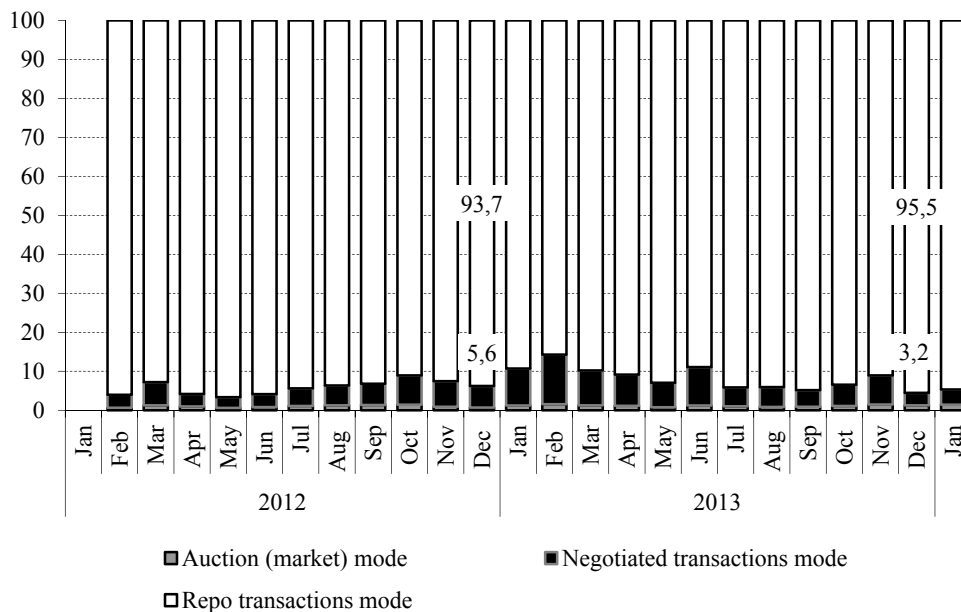
Fig. 26. Average monthly interest rates in the OFZ market and inflation, % p.a.

Overgrowth in OFZ interest rates over inflation for the last two years has made them more appealing to investors. However, the Russian economy is facing a substantial risk of OFZ interest rates substantially overtaking the key interest rate at which the Bank of Russia



actively refinances the banking system. In December 2012, the average monthly key interest rate on repo operations was 5.6% at a OFZ long-term interest being 7.1% p.a.. In December 2013, the corresponding interest rates stood at 5.6% and 7.53% respectively<sup>1</sup>. Under the circumstances, it would be more advantageous for banks to generate profits from almost risk-free arbitrage strategy based on the difference between interest rates, rather than keep lending to borrowers in the real sector of economy. This may have an adverse effect on the economic growth potential.

The data on different transactions volumes in the in the corporate bond market became publicly available in 2012–2013 owing to the statistics supplied by the Moscow Exchange. Previously, in its financial market reviews the Bank of Russia used to only disclose information on volumes of market (auction) transactions and operations on OFZ negotiated transactions. It is seen from the data presented in *Fig. 27* that in 2013 the share of repo transactions in the corporate bond market stood at 95.5%. Market transactions accounted for only 1.3% of the trading volume. Under the circumstances, it isn't quite clear what kind of function is performed by market transactions, how useful they can be in obtaining objective information on the parameters for the OFZ market and Eurobonds market.

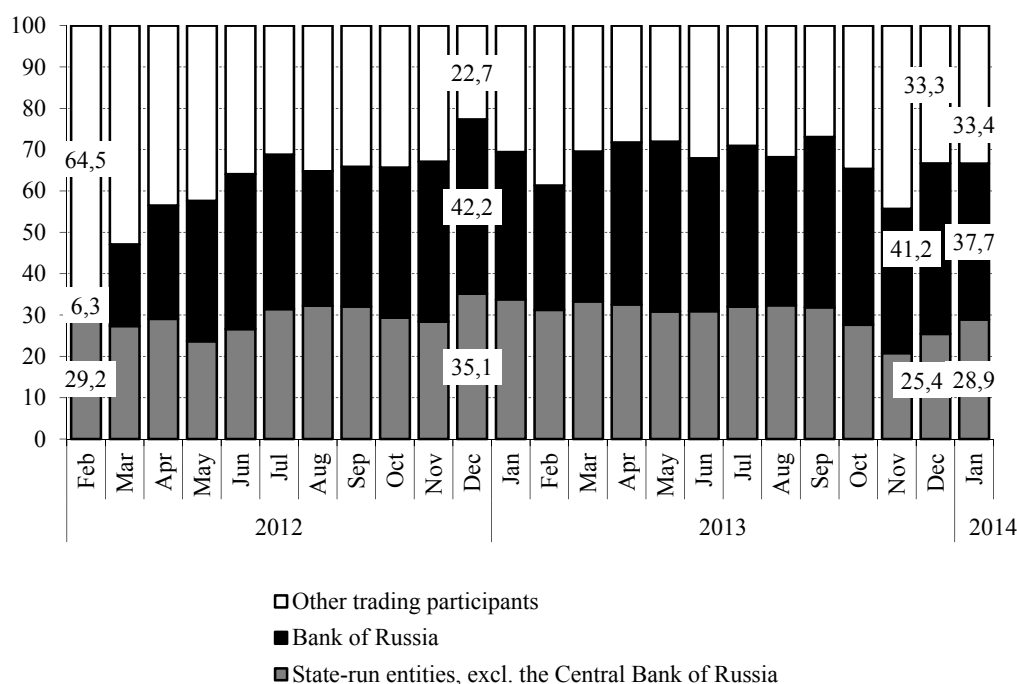


*Source:* the author's estimates based on the data supplied by the Moscow Exchange.

*Fig. 27.* The structure of federal bond transactions in the Moscow Exchange since February 2012, %.

*Fig. 28* presents data on the share of state-run entities and the Bank of Russia in the federal bond market, which the Moscow Exchange began to disclose since February 2012. It shows that state-run entities and the Bank of Russia accounted for 33.8% and 35.6% respectively of the government securities transactions given all trading modes.

<sup>1</sup> In December 2012 and 2013, the average monthly yield on weighted average OFZ auction price corresponded approximately to the foregoing long-term yields on OFZs.



Source: the author's estimates based on the data supplied by the Moscow Exchange.

Fig. 28. The share of private and public brokers in volumes of trading in federal bonds (OFZs) and Russia's Eurobunds in the Moscow Exchange, %

According to the Herfindahl-Hirschman Index (HHI) in 2013, the government bond secondary market remained one of the mostly high-concentrated segments in the Moscow Exchange market (see Fig. 21). The HHI shows that the market remained mostly within a high-concentration range, showing some rare signs of a moderately concentrated market. This implies that the government securities market has less participants than in the stock market and corporate bond market. Limited competition may manifest itself in higher transaction costs and less beneficial transaction parameters for investors.

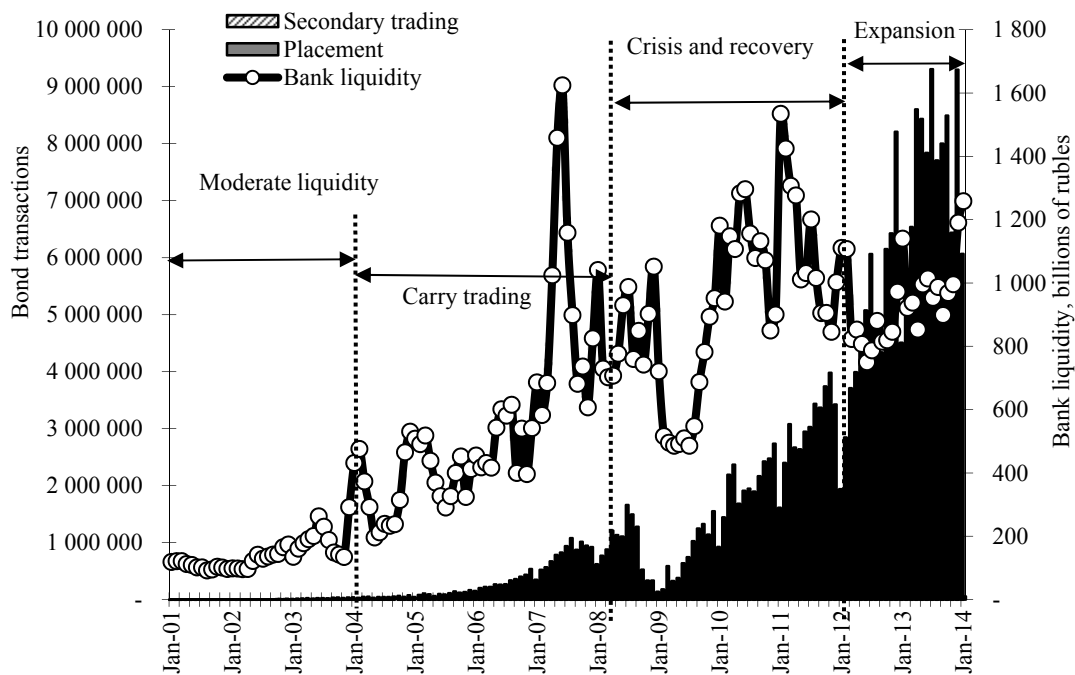
### 3.4.2. Corporate bond market

Fig. 29 presents monthly data on volumes of issues and turnover in the secondary ruble-denominated corporate bond market in the Moscow Exchange in the period of 2001 thru January 2014. Furthermore, there is data on bank liquidity represented by banks' average monthly balances on accounts and deposits with the Bank of Russia. In 2013, trading volumes in the secondary corporate bond market increased to Rb 90,3 trillion against Rb 58,0 trillion in 2012. Since 2012 corporate bond trading volumes have been overtaking trading volumes in the stock market which amounted to Rb 47,4 trillion in 2013 and Rb 47,7 trillion in 2012.

Since liquidity in the corporate bond market depends largely on liquidity in the banking system, different stages can be distinguished in stock trading dynamics in these instruments, namely carry trading, recession and recovery, state expansion. In the pre-recession years, growth in trading volumes in the corporate bond market relied mostly upon the carry trading strategy, whereas during the crisis and recovery period it relied upon Bank of Russia's resources received as unsecured loans and other forms of loans. Since April 2012 liquidity in the corporate bond market has been maintained mostly through repos with the Bank of Russia. Repo loans have turned from an instrument of temporal support of bank liquidity into

the principal instrument of financing the banking system, the scope of such operations has become unprecedented (see section 3.3.2 for more details).

Another distinctive feature of the corporate bond market was that the secondary market has becoming more significant vs. the bond placement process. The difference between volumes of issues and secondary market trading in corporate bonds reduced from 3.7% in 2010 to 1.9% in 2013. On the one hand, outstripping growth in liquidity in the secondary corporate bond market has a positive impact on interest rates and credit terms. On the other hand, funding long-term loans with short-term resources increases risks this market is exposed to, including a possibility for issuers to refinance loans in the future.



Source: the author's estimates based on the data supplied by the Bank of Russia and the Moscow Exchange.

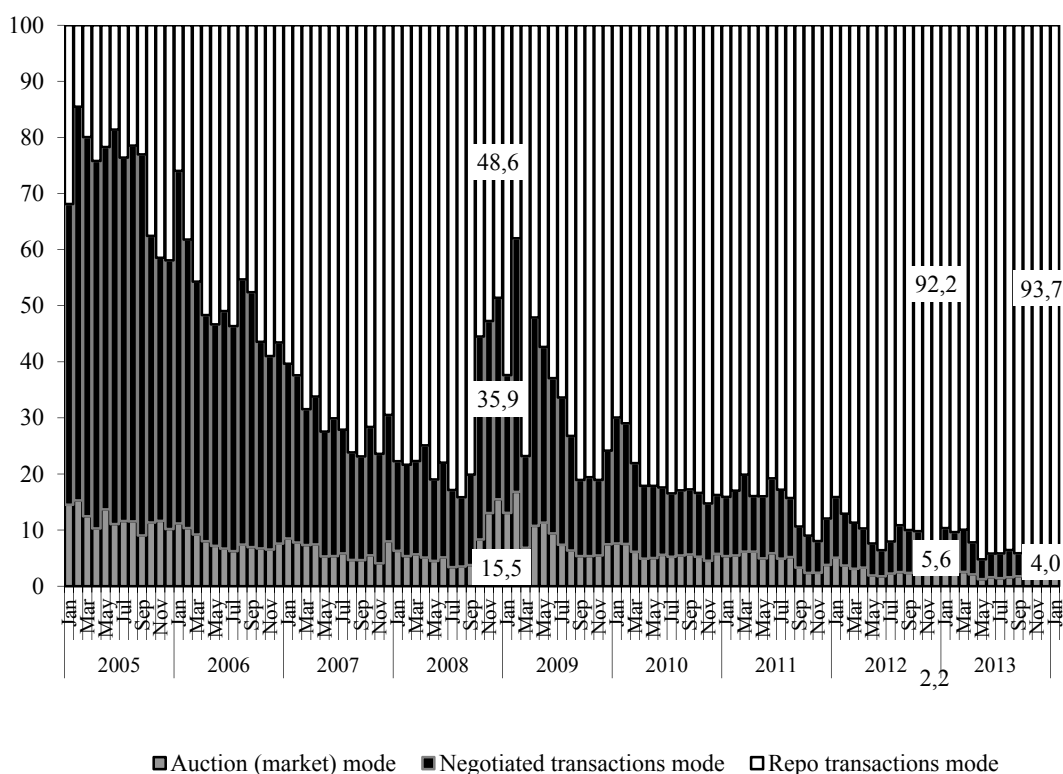
*Fig. 29.* Operations with corporate bonds and bank liquidity in the period of January 2001 thru January 2014

The ruble-denominated bond market is still facing the issue of attracting internal investors. Banks are still dominating as money source in the market. The share of banks in the structure of corporate bondholders shrank from 40.9% in 2011 to 30.9% in 2012, and 27.5% in 2013. The share of pension accruals managed by asset managers including Vnesheconombank in the value of bonds increased from 4.9% in 2011 to 7.6% in 2012 and 12.0% at the end of the 9-months period in 2013. The share of unit (bond) investment funds in the structure of corporate bondholders was merely 0.6% in 2011, 0.7% in 2012, and 1.5% in 2013. A certain weakening of the role of banks in the corporate bond market in 2013 was compensated with growth in investment from internal institutional investors and nonresidents.

Since February 2014 nonresidents has had access to ruble-denominated corporate bonds through Euroclear and Cleanstream accounts with the NSD. At present, the share of operations of banks providing services to nonresidents in the secondary corporate bond market in the Moscow Exchange is 8% or less (see *Fig. 25* in section 3.4.1). In our opinion, amid currently prevailing expectations of devaluation of the ruble, opening a technological

gateway for nonresidents' operations with internal corporate bonds in 2014 wouldn't lead to any significant increase in their share in this stock market segment.

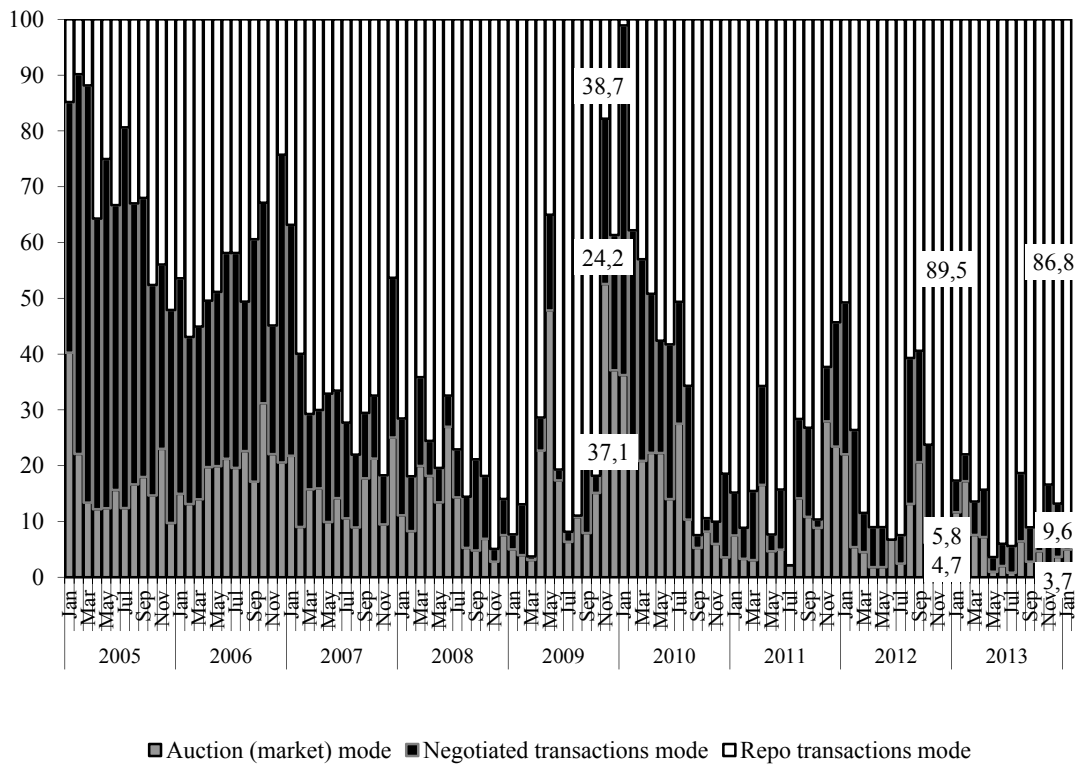
The fact that the corporate bond market has been turning into a money market instrument as opposed to the long-term nature of corporate bonds themselves shows that the structure of corporate bond transactions in the Moscow Exchange (see *Fig. 30*). In December 2013, the share of repo transactions in the value of on-market corporate bond transactions achieved an absolute record of 93.7%, overtaking the values recorded in 2012. At the same time, only 2.3% of corporate bond transactions are on-market ones. Such a drastic decline in the share of on-market transactions raises risks of credible pricing of corporate bonds during transactions in the Moscow Exchange. Our studies of the factors influencing yield spreads of ruble-denominated corporate bonds which were carried out in 2013 for The National Securities Market Association (NSMA) show that fundamental factors such as issuer's credibility, indicators of issuer's financial performance and liquidity of bond issues have no significant effect on the size of spreads on corporate bonds.



Source: the author's estimates based on the data supplied by the Moscow Exchange.

*Fig. 30.* Corporate bond transactions structure in the Moscow Exchange, %

The exchange regional bond market is facing similar problems related to the reduction of the share of on-market transactions, (see *Fig. 31*). In December 2013, the share of on-market transactions decreased here to 3.6%, whereas the share of repo transactions reached 86.8%.



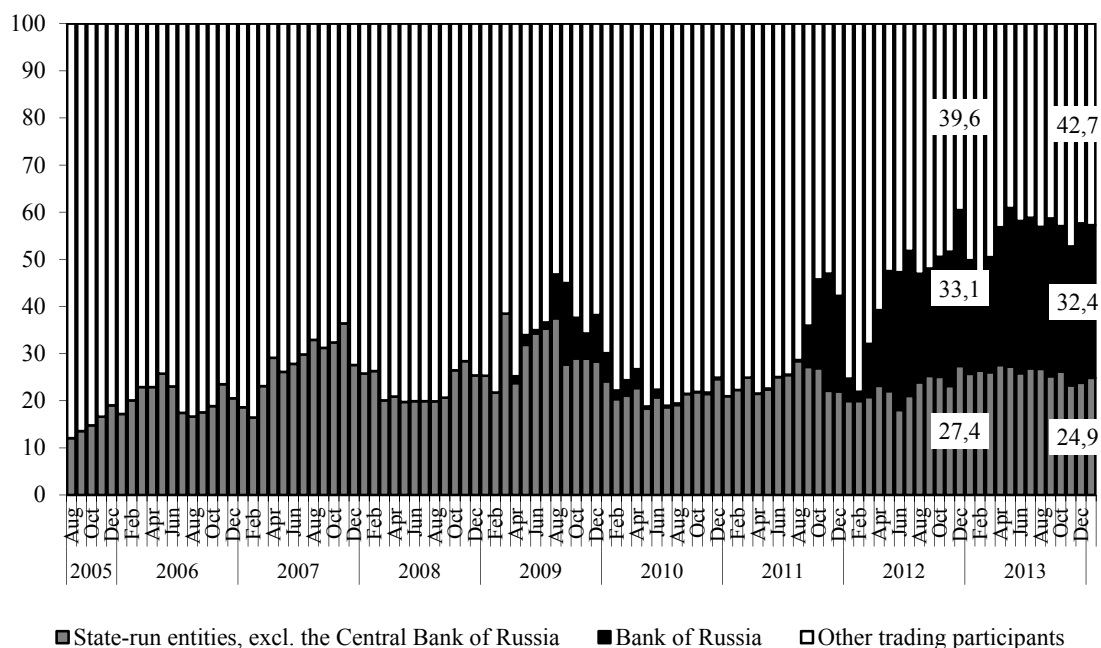
Source: the author's estimates based on the data supplied by the Moscow Exchange.

Fig. 31. Structure of regional bond transactions in the Moscow Exchange, %

### 3.4.3. Competition in the corporate and regional bond markets

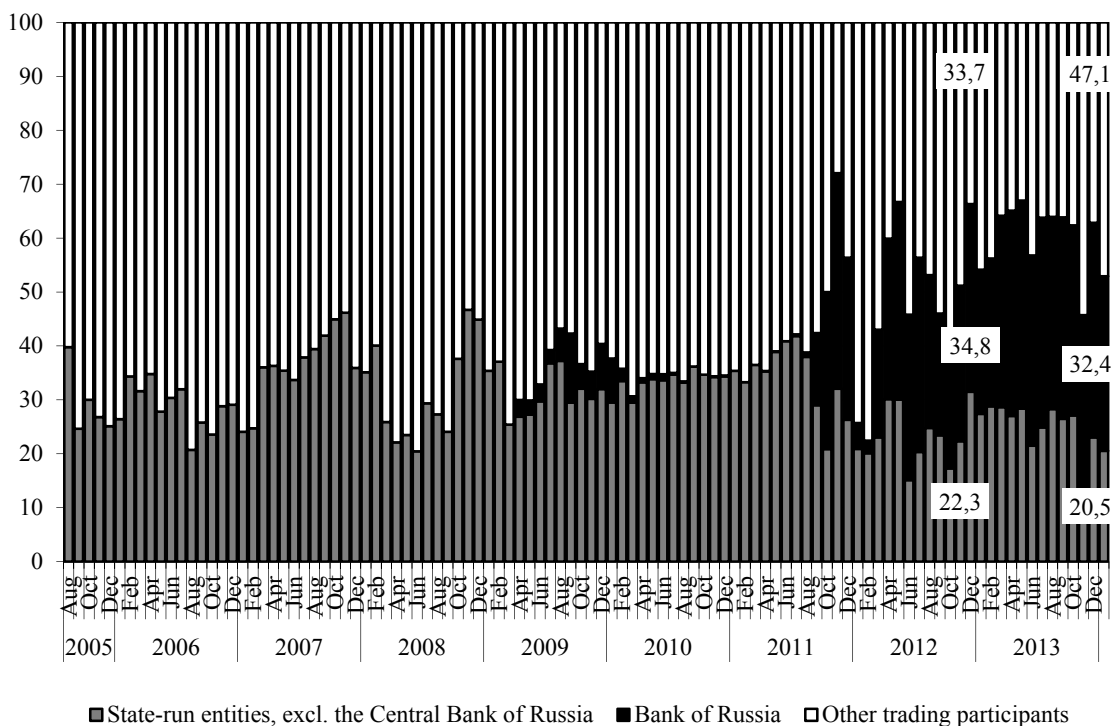
Fig. 32 provides analysis of various groups of traders' (private and state-run financial institutions (Vnesheconombank, VTB, VTB Capital, VTB24, Gazprombank, Sberbank, KIT Finance, Svyazbank, Bank of Moscow, Transcreditbank, a c 2011 Sberbank CIB), the Bank of Russia) contribution in corporate bonds trading volumes in the Moscow Exchange in all modes including market, negotiated deals, and repo transactions. In December 2013, the share of state-run entities and the Bank of Russia in volumes of corporate bond transactions in the Moscow Exchange was 24.9% and 32.4% respectively. The scope of the Bank involvement in transactions in the corporate bond market exceeded largely its activity volumes during the crisis of 2008–2009.

Fig. 33 reflects the share of state-run financial institutions and the Bank of Russia in exchange trading volumes of regional bonds. In 2012, it was even bigger than in the exchange corporate bond market. In December 2013, the share of state-run entities and the Bank of Russia in regional bond transactions reached 20.5% and 32.4% respectively. These figures inched down against 2012 when they measured 22.3% and 34.8% respectively.



Source: the author's estimates based on the data supplied by the Moscow Exchange.

*Fig. 32. The share of private and public brokers in corporate bond trading volumes in the Moscow Exchange, %*

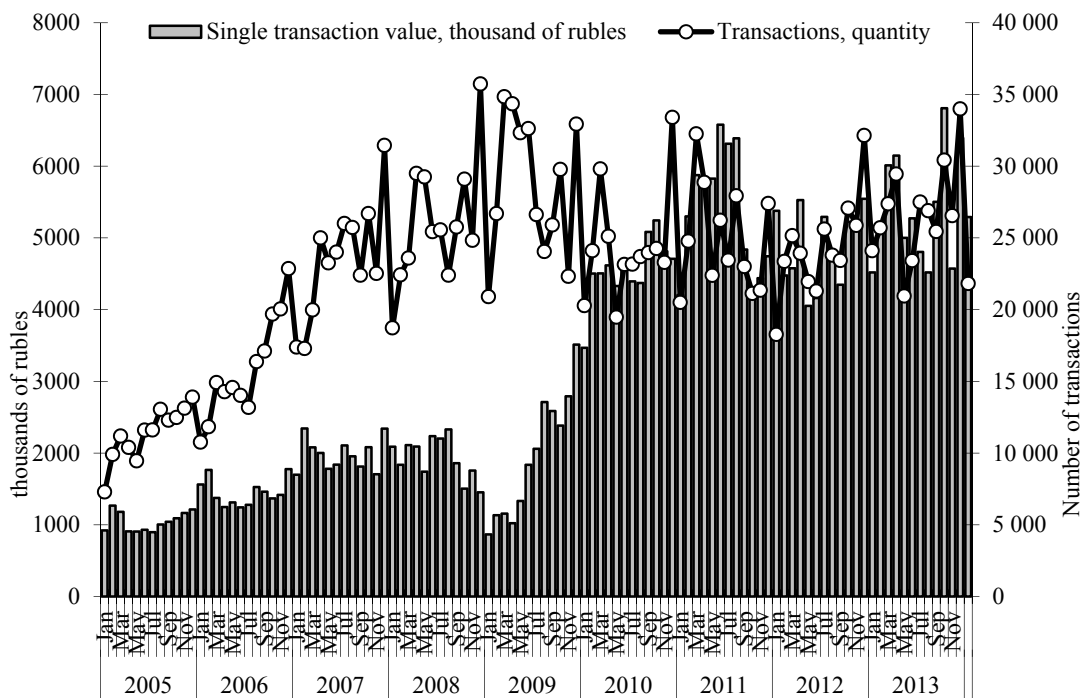


Source: the author's estimates based on the data supplied by the Moscow Exchange.

*Fig. 33. The share of private and public brokers in regional bond trading volumes in the Moscow Exchange, %*

Concentration characteristics of the secondary corporate bond market in the Moscow Exchange saw considerable deterioration in the period of 2012 thru 2013 (see *Fig. 21* in section 3.3.4). The Herfindahl-Hirschman Index (HHI) on transactions in the secondary corporate bond market exceeded 800 points since May 2012. The HHI on corporate bonds has since then been ranging within 800 and 1800 points, which means that this market segment shifted from low concentration to moderate concentration. To compare with the corporate bonds, the regional bond market in the Moscow Exchange is more concentrated. In 2012, it was within a range of moderate concentration, according to the HHI criteria, the regional bond market was highly concentrated most of the time in 2013, with HHI showing over 1800 points. On our opinion, any further following the course towards outstripping growth in repo transactions in the Exchange should be accompanied by anti-monopoly measures aimed at enhancing supervision over various exchange market segments.

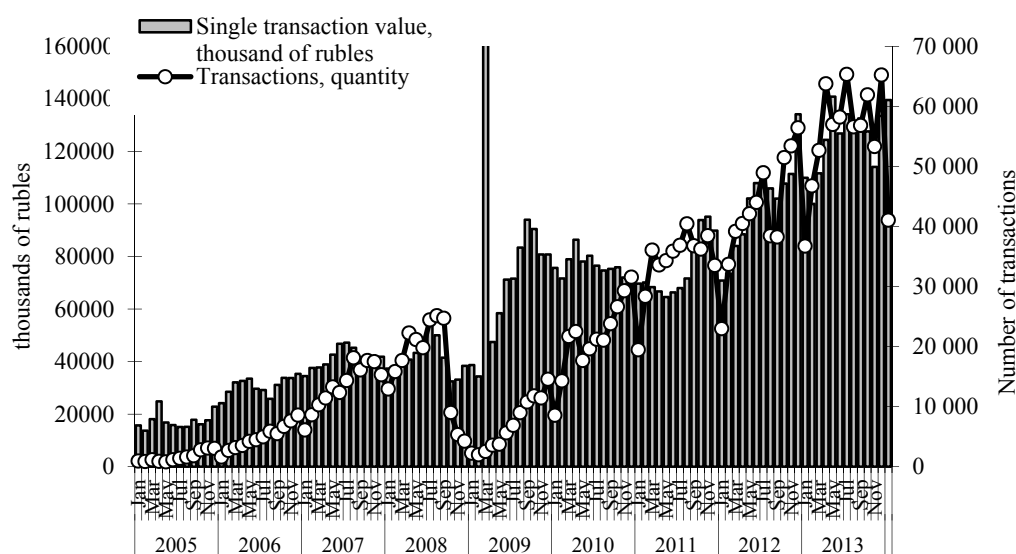
*Fig. 34* presents data on the number of transactions and the value of a corporate bond transaction in autonomous trading in the Moscow Exchange. Similar to the market segment of trading in shares (see *Fig. 19* in section 3.3.3), 2013 saw a trend towards stabilizing the number of on-market corporate bond transactions and the average volume of a transactions.



*Source:* the author's estimates based on the data supplied by the Moscow Exchange.

*Fig. 34.* On-market corporate bond transactions in the Moscow Exchange

*Fig. 35* presents analysis of the repo corporate bond transaction segment in the Moscow Exchange. Unlike the market mode of transactions in the repo segment, steady growth in the number of transactions and the average volume of a transaction was observed in 2013. The size of an average repo transaction also twice as much as the value of on-market corporate bond transactions, which is not surprising, because volumes of bank loans for financial companies cannot be small.



Source: the author’s estimates based on the data supplied by the Moscow Exchange.

Fig. 35. Repo corporate bond transactions in the Moscow Exchange

Major state-run companies began to play the leading role in the primary corporate bond market in the post-recession period. In 2013, 24 issuers with major corporate bond issuance volumes accounted for 59.4% of the total issuance of the given bonds, while state-run companies of these issuers accounted for 47.7% of the total corporate bond issues (see Table 11). According to various indicators of concentration of corporate bond issues, as referred to in Table 11, two trends were observed in 2013 against 2012: higher concentration of major bond issuers including state-run companies’ bond issues. For example, the share of 10 issuers with the largest corporate bond issues was 40.5% in 2013 as compared to 35.7% in 2012, of which the share of state-run companies in total corporate bond issuance volumes increased from 27.9% in 2012 to 36.8% in 2013.

Table 11

**Concentration of ruble-denominated corporate bond issuers in 2009–2013**

	First 5 bond issuers		First 10 bond issuers		First 24 issuers		Total market
	Total	including government bonds	Total	including government bonds	Total	including government bonds	
<b>2009</b>							
Billions of rubles	440	390	610	441	803	513	917
Share, %	48.1	42.5	66.8	48.1	87.8	55.9	100.0
<b>2010</b>							
Billions of rubles	177	147	304	200	513	317	855
Share, %	20.6	17.2	35.4	23.4	59.9	37.1	100.0
<b>2011</b>							
Billions of rubles	241	191	389	309	642	405	1089
Share, %	22.0	17.5	35.7	28.4	58.9	37.2	100.0
<b>2012</b>							
Billions of rubles	265	265	429	334	690	443	1199
Share, %	22.1	22.1	35.7	27.9	57.8	36.9	100.0
<b>2013</b>							
Billions of rubles	550	550	705	640	1035	830	1741
Share, %	31.6	31.6	40.5	36.8	59.4	47.7	100.0

Source: the author’s estimates based on the data available at [www.cBonds.ru](http://www.cBonds.ru) , [www.rusbonds.ru](http://www.rusbonds.ru) and supplied by the Moscow Exchange.



Year by year the corporate bond market has increasingly been servicing cash flows between state-run entities. State-run companies borrow from state-run entities. The secondary market is also maintained by mostly state-run banks in conjunction with the Bank of Russia. Furthermore, state-run investment banks have been mostly acting as underwriters and investment advisors in placing corporate bonds (see *Table 12*). In 2007, state-run banks acted as underwriters for 36.3% of corporate bond issues (in terms of value). In 2013, their share increased to 60.1%. A similar situation was observed with investment and banking services in the regional bond market. In 2007, the share of public lead managers of regional bond issues was 14.2% in terms of value. It increased to 51.9% in 2013.

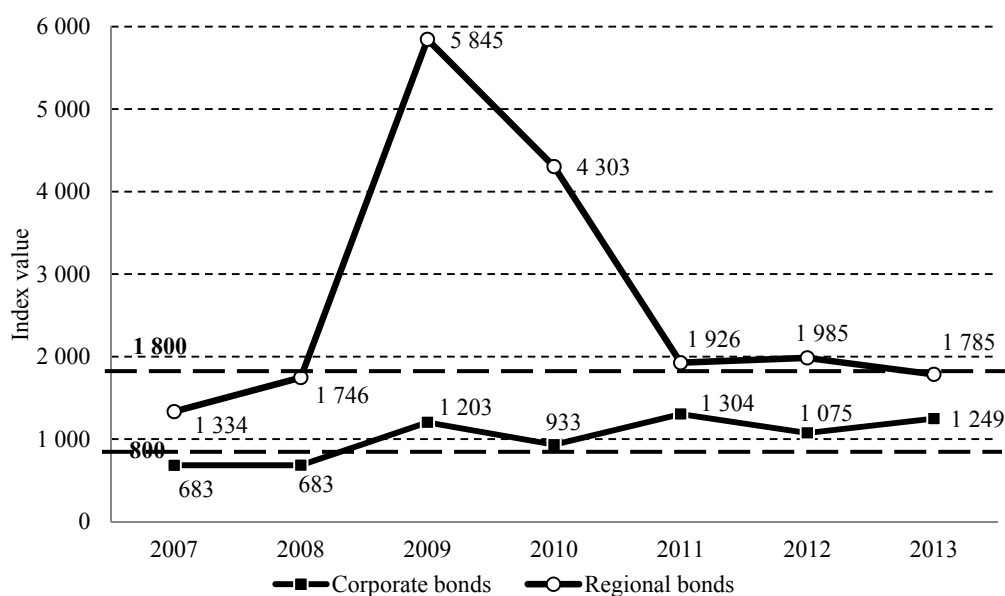
*Table 12*

**The share of public and private financial organizations in the market of internal bond issue organizers in Russia**

	<b>Bond issue organizers:</b>					
	<b>corporate bonds</b>			<b>regional bonds</b>		
	<b>Public financial organizations</b>	<b>Private financial organizations</b>	<b>Total</b>	<b>Public financial organizations</b>	<b>Private financial organizations</b>	<b>Total</b>
<b>2007</b>						
Millions of rubles	169 668	298 302	467 970	7 551	45 481	53 032
Share, %	36.3	63.7	100	14.2	85.8	100
<b>2008</b>						
Millions of rubles	219 892	249 900	469 792	42 227	29 716	71 943
Share, %	46.8	53.2	100	58.7	41.3	100
<b>2009</b>						
Millions of rubles	620 044	373 978	994 022	133 325	22 511	155 836
Share, %	62.4	37.6	100	85.6	14.4	100
<b>2010</b>						
Millions of rubles	393 743	461 292	855 035	86 613	28 288	114 901
Share, %	46	54	100	75.4	24.6	100
<b>2011</b>						
Millions of rubles	620 698	374 146	994 844	7 767	46 177	53 944
Share, %	62.4	37.6	100	14.4	85.6	100
<b>2012</b>						
Millions of rubles	734 697	502 831	1 237 528	61 925	57 637	119 562
Share, %	59.4	40.6	100	51.8	48.2	100
<b>2013</b>						
Millions of rubles	1 033 849	686 894	1 720 743	79 980	74 259	154 239
Share, %	60.1	39.9	100	51.9	48.1	100

*Source:* based on the rankings bond issue organizers [www.cBonds.ru](http://www.cBonds.ru) for 2007–2013.

The Herfindahl-Hirschman Index (see *Fig. 36*) measures is indicative of inadequate level of competition in the markets of underwriting and advisory services in terms of placing corporate and regional bonds. Since 2009 the market of investment and banking services within the corporate bond market has turned from a highly concentrated into a moderately concentrated, when monthly HHI measures fall within a range of 800 to 1800. Prior to 2013 the market of regional bond services was steadily highly concentrated, with the HHI being above 1800. It was not until 2013 when it fell into the category of moderately concentrated market, with the HHI measuring 1785. All this raise the question of having to enhance the role of anti-monopoly regulation in the securities market.



Source: based on the rankings for bond issue organizers [www.cBonds.ru](http://www.cBonds.ru) за 2007–2013

Fig. 36. Herfindahl-Hirschman Index: bond issue organization services for ruble-denominated corporate and regional bond issuance.

### 3.5. Financial system' and mediators' contribution to economic growth

#### 3.5.1. Financial system's influence on economic growth

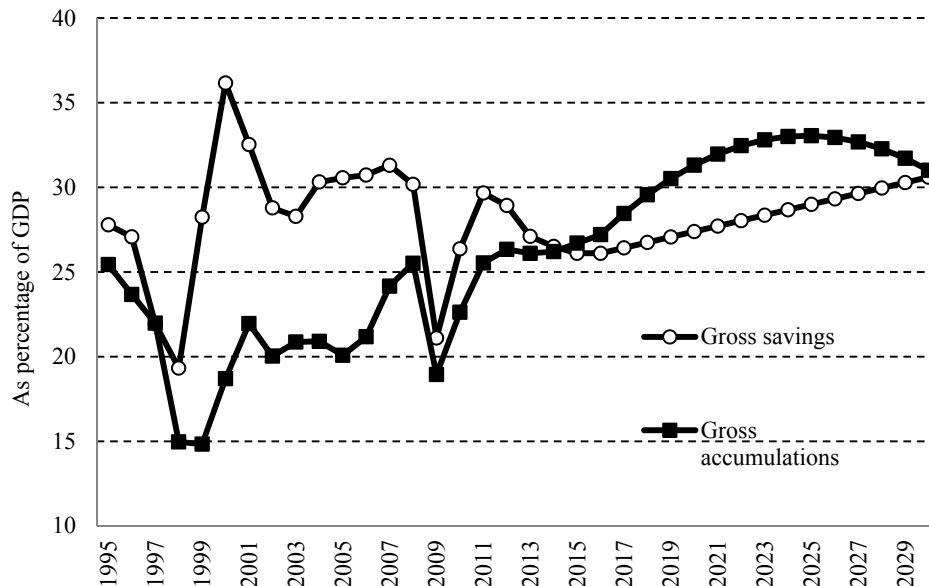
Hardening the requirements to the financial system in terms of its potential in accelerating GDP growth cannot be avoided against the backdrop of slowing down economic growth which manifested itself in 2013. Inconsistency of result-oriented documents on economic growth and financial market development which are adopted at the departmental level is one of the factors preventing the financial system from realizing such a potential. The key parameters of the financial market development are specified in the State Program of the Russian Federation *The Development of Financial and Insurance Markets, the Creation of an International Financial Center* (the State Program) designed by the Ministry of Finance of Russia, and the key performance indicators (so called KPIs) which the Bank of Russia develops for its entities and offers for adoption by the Moscow Exchange<sup>1</sup>. The economic growth key instruments are specified in *The Forecast of Long-Term Socio-Economic Development of the Russian Federation until 2030* developed by the Ministry of Economic Development of the Russian Federation (Forecast-2030). The problem is that none of the instruments provided for by the State Program and discussed KPIs is engaged as driver of economic growth in the current version of Forecast-2030 adopted in March 2013. Furthermore, there is no quantitative evaluation whatsoever of the effect the stock market may have on economic growth acceleration now and in the future.

With respect to the financial system, it is narrowing the gap between savings rates and accumulation and growth in domestic consumption supported through accelerated retail

<sup>1</sup> Policy guidelines in financial market regulation with the assistance of the FMS were considered at the October 17, 2013 meeting of the working group on the establishment of an International Financial Center. More information is available at <http://mfc-moscow.com/index.php?id=119>.

lending that was specified as the key incentives of economic growth in the Forecast-2030 in March 2013. In doing so, the transition to outstripping growth in retail credit portfolio against retail deposits under the forecast of the Ministry of Economic Development of Russia should have resulted in long-term decline in household saving rates and therefore the demand for investment and financial instruments.

To accelerate economic growth under the accelerated development version of the Forecast-2030, the accumulation ratio was expected to increase from 26.0% in 2012 to 33.0% in 2025, the highest ever in the modern economic history of Russia, with further decline to 31% in 2030 (see Fig. 37). The accumulation ratio was supposed to be higher than the saving rate through making the former grow in 2015. This means that in the long run Russia will transit from the economy exporting “excessive” savings in global capital markets to a country where foreign capital inflow is stronger than outflow. In other words, this way of stimulating growth implies using idle excessive gold and foreign currency reserves for the purpose of internal investment, because the currently existing difference between internal savings and accumulations is what centralized public funds gain. The key agents in investing such resources are development institutes and major state-run companies and banks.



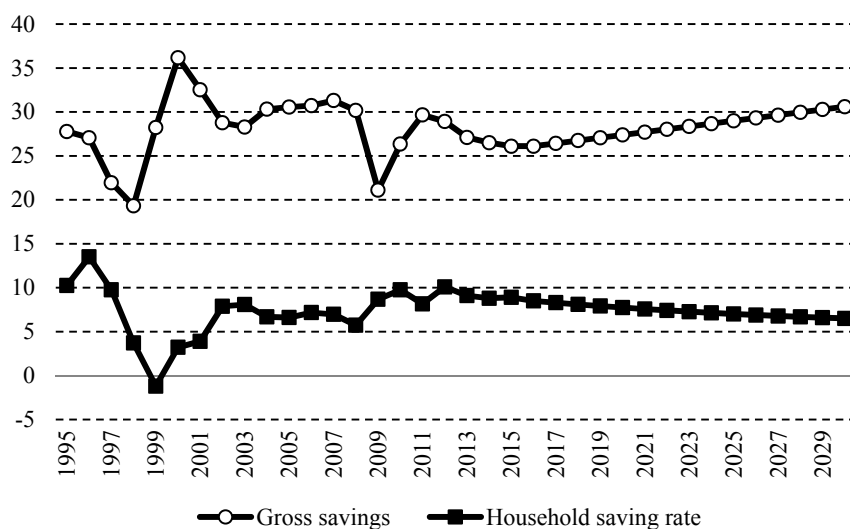
Source: the author’s estimates based on the data for the period of 1995-2012 supplied by Rosstat and the Forecast-2030 data.

*Fig. 37. Gross savings and accumulations in Russia*

Another source of economic growth, according to the Forecast-2030, should be outstripping growth in household consumption through a marked decline in the saving rate of this economic sector. Our estimates of the figures specified in the foregoing forecasts show that household savings rate should have dropped from 10.3% of GDP in 2012 to 7.7% of GDP in 2020, and 6.5% in 2030 (see Fig. 38).

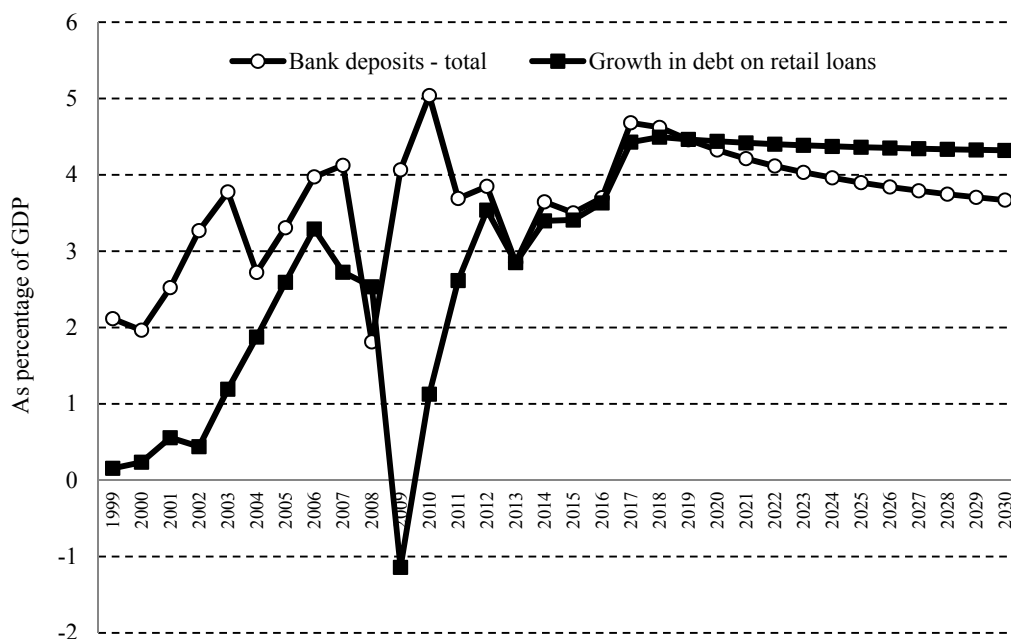
Growth in retail loans should be governed not only through increasing the deposit base, but also state refinancing of banks. As a result, by 2020 the value of household loans would grow by 4.4% of GDP, while total growth in bank deposits grow only 4.3% (see Fig. 39). By 2030

the gap between annual growth in credit portfolio and household deposits could reach 0.6% of GDP.



Source: the author's estimates based on the data for the period of 1995-2012 supplied by Rosstat and the Forecast-2030 data.

Fig. 38. Gross saving rate and household saving rate in 1995–2030.



Source: the author's estimates based on the data for the period of 1995-2012 supplied by Rosstat and the Forecast-2030 data.

Fig. 39. Growth in bank deposits and household's outstanding debt in Russia

The 2013 results show that focusing on the promotion of consumer demand and growth in retail credit portfolio amid slowdown in household incomes just increased risks of financial

system stability. The aggressive credit policy provoked growth in bad household debts owed to banks. Based on the data supplied by the Bank of Russia, in January-October 2013 the share of overdue debts on consumer loans increased from 5.9% to 7.7%, and the quality of credit portfolio is expected to keep deteriorating until the middle of 2014<sup>1</sup>, as forecasted by representatives of the Bank. According to Bank of America Merrill Lynch (BAML) report, *Unsecured retail loans in Russia: a new era*, 40% of the population have to pay 20% on average of their salary on loans issued for purchasing goods at retail stores, with an even bigger share of 50% and more for those who have a credit card loan<sup>2</sup>. Households' bad debts and financial status worsening normally result in a long-term stagnation of their consumer demand.

In our opinion, the currently applicable mechanisms of facilitating economic growth could be complemented with the promotion of internal investment through creating long money for institutional investors (see section 3.6.1 for more details) and accelerating growth in household savings (see section 3.6.2)<sup>3</sup>. In accordance with the G20/OECD principles on long-term investment financing which were developed in September 2013<sup>4</sup>, governments are recommended to create favorable conditions for financing long-term investment. According to the developers of the document, long-term investment helps reach financial stability, debt sustainability, new jobs, economic growth, higher standards of living, competitiveness, sustainable economic development and green economy development. Institutional investors who should be adequately regulated and subject to supervision factoring in their specific features and risks they may encounter may play a special role in addressing this issues.

Approximation of growth rates in debts on bank loans issued to households and non-financial organizations may further help promote economic growth. It is shown in *Fig. 40* that the sweeping growth since the second half of 2011 in the Bank of Russia's support to the banking system through repo transactions has resulted, above all, in outstripping growth in retail loans rather than loans to companies operating in the real sector of economy. This priority was chosen for some reasons which can be explained: retail lending is a more marginal operation against financing of business. Additionally, funding of such operations with Bank of Russia's short-term financing also tends to choose in favor of retail loans which are more short-term in nature.

However, the choice in favor of retail lending has failed to boost economic growth for the past 2.5 years. Since the end of 2013 the Central Bank of Russia has been taking measures aimed at extending terms of refinancing of banks and widening the list of assets that may serve as security on loans. Since 2014, the terms of loans on repo transactions have been set for seven days, a new mechanism of lending to banks against non-market assets which are first of all associated with business loans has been introduced. The Bank of Russia plans to work on mechanisms of refinancing project bonds, securitized assets, pools of loans for small businesses<sup>5</sup>. These measures, in our opinion, should be continued so that the bank refinancing mechanism can be more seriously reoriented towards supporting loans issued to companies engaged in the real sector of economy.

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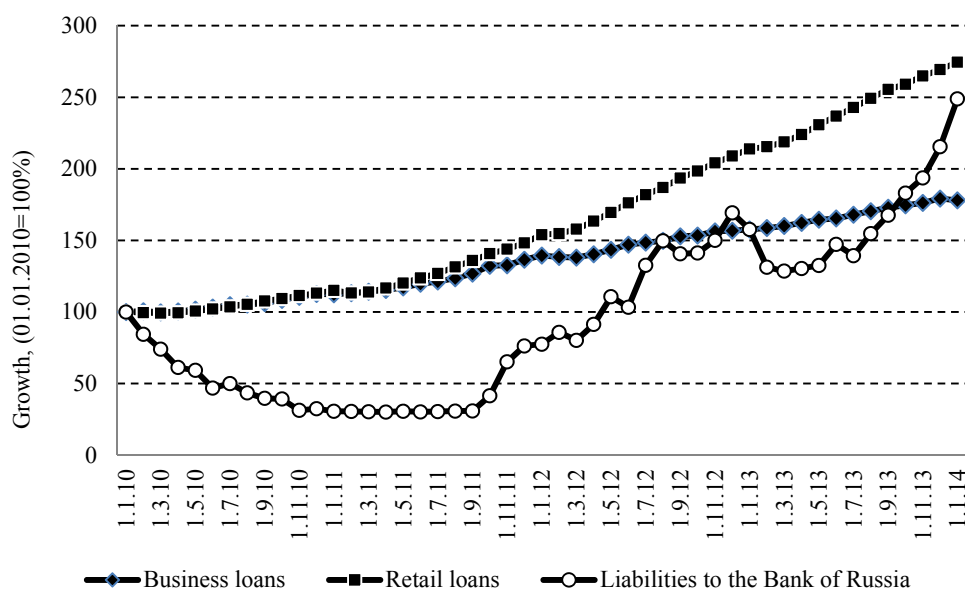
<sup>1</sup> Biyanova N. Et al. "Abnormal" loans. *Vedomosti*, November 1, 2013.

<sup>2</sup> Cited from Shestopal O. Recreational poverty. *Kommersant*, October 18, 2013.

<sup>3</sup> This measure is also a way to narrow the gap between internal savings and accumulation rates through reducing household capital outflow.

<sup>4</sup> G20/OECD High-Level Principles on Long-Term Investment Financing by Institutional Investors. OECD, September 2013.

<sup>5</sup> Youdayeva K. Economic reversal may come as a surprise. *Vedomosti*, February 24, 2014.



Source: the author's estimates based on the data supplied by the Bank of Russia.

Fig. 40. Credit portfolio growth and increase in Bank of Russia's support to banks in the period of January 2010 thru December 2013.

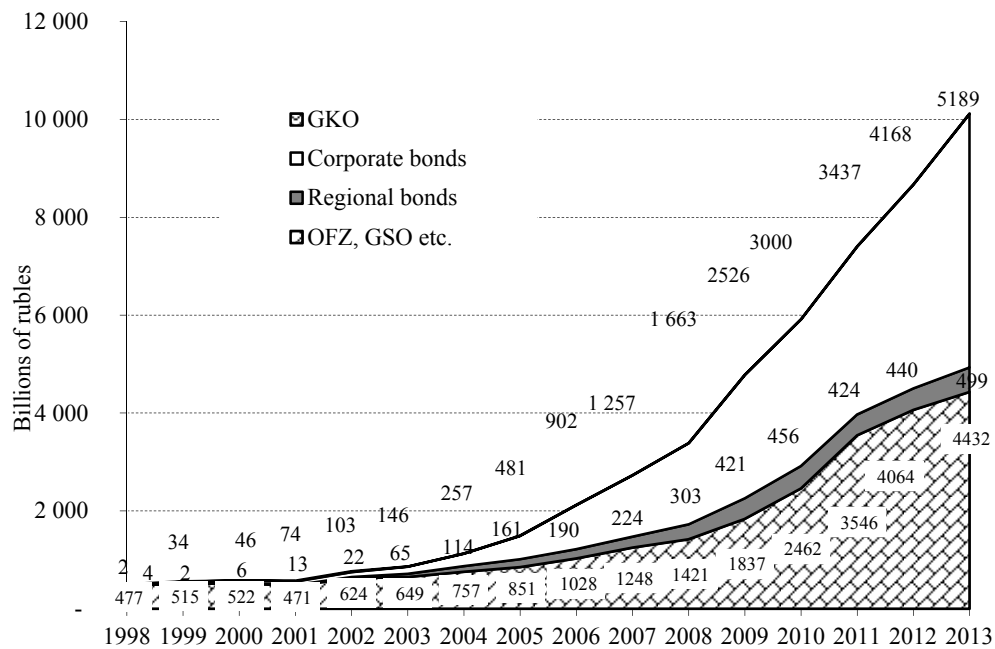
### 3.5.2. Corporate bonds and economic growth

Supporting banks' investment in corporate bonds through repo transactions is one of Bank of Russia's core measures aimed at promoting economic growth. This mechanism helps the Bank of Russia provide banks with cheap short-term monetary resources at a basic rate of 5.5% p.a. effective in 2013 to against corporate bonds. This mechanism allowed banks to receive resources for purchasing corporate bonds, "plus" extra return on investment in bonds through their remortgaging in the Bank of Russia.

In the period of state expansion the repo mechanism turned from a tool of coping with temporal gaps in banks' liquidity into a permanent method, whereby steady growth in the corporate bond market was maintained (see Fig. 41). The possibility to use bonds for refinancing in the Bank of Russia gives rise to extra demand for bonds and facilitates issuance activity in the securities market<sup>1</sup>. Capitalization the ruble-denominated bond market increased from Rb 0,6 trillion in 2000 to Rb 10,1 trillion in 2013, or by 16.8 times. The corporate bond market saw the fastest growth against other ruble-denominated bonds, their total capitalization increased from Rb 46bn in 2000 to Rb 5,2 trillion in 2013, or by 113.0 times.

It is, however, not obvious that the repo mechanism has the same positive effect on economic growth like growth in the corporate bond market does. This in particular is evident by the Federal State Statistics Service (Rosstat) official data on the role of companies' fundraising through issuing corporate bonds as investment source. Table 13 reflects the parameters of the ruble-denominated corporate bond market in 2000–2013, expressed in US dollars. The amount of corporate bond proceeds contributed to equity still remain low despite rapid growth in corporate bond issuances from \$1,1bn in 2000 to \$54bn in 2012.

<sup>1</sup> The Central Bank of the Russian Federation. Money Market Review, Quarter 4, 2013, p.19.



Source: based on the data supplied by the Ministry of Finance of Russia and Cbonds.ru.

Fig. 41. Outstanding ruble-denominated bonds, billions of rubles

In 2012, only Rb 4,2bn, or 35% of companies' bond issue proceeds, of a total of Rb 1214,2bn corporate bond issuance were allocated to fixed capital investment, according to Rosstat's official data. In 2013, only Rb 5,0bn, or 0.29%, of companies' annual bond issue proceeds of a total of Rb 1705,2bn annual corporate bond issuance were allocated to fixed capital investment within nine months of the year. According to the foregoing statistics, one may infer that Bank of Russia's artificial support to the corporate bond market through repo transactions has no positive effect whatsoever either on fixed capital investment, or economic growth. Perhaps, corporate bonds, which are supported through funding from the money market, are *de facto* too short-term sources of financing for companies engaged in the real sector of economy, this is why the latter use them for working capital financing and old debt financing. All this raises the question of seeking alternative forms of financing the banking system by the Bank of Russia to make this mechanism appealing for banks in financing long-term projects of companies engaged in the real sector of economy, having a positive effect on economic growth.

Another issue of the financial market's effect on economic growth is the effect of the interest rate policy on bank's interest in lending to companies engaged in the real sector of economy. Accelerated growth in bank financing volumes through repo transactions in 2012–2013 took place at the backdrop of an increase by 1–2 percentage points in returns on investment in government securities (OFZ) over interest rates in the repo market (see Fig. 42). In other words, major state-run banks as principal beneficiaries in the repo market could generate profit without any serious risk simply by investing funds received from the Bank of Russia, as government securities, instead of lending to organizations engaged in the real sector of economy.

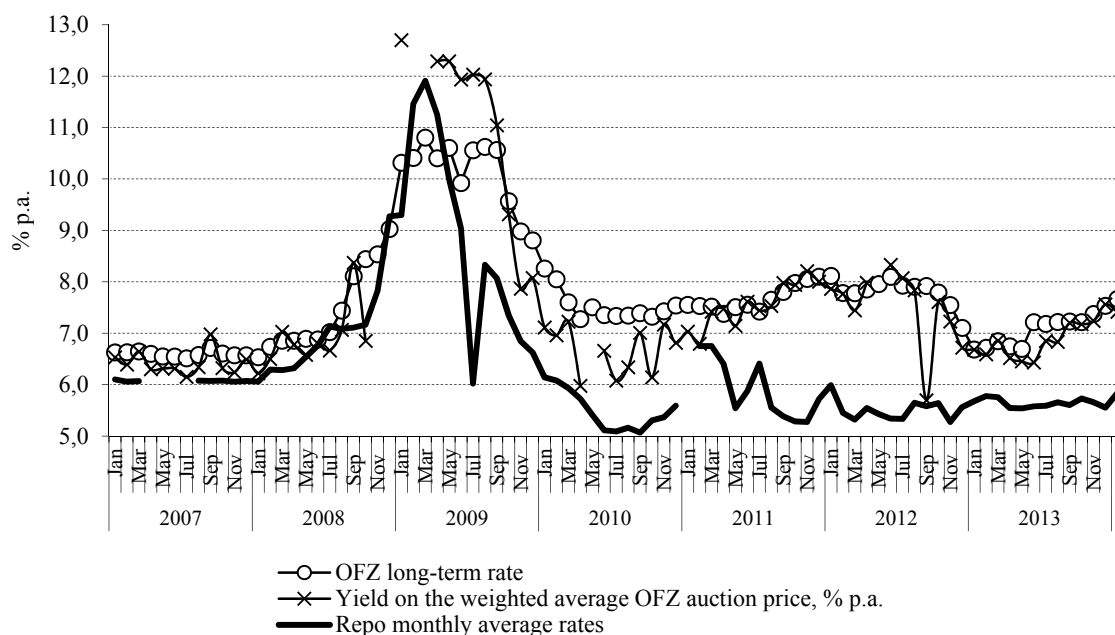
Table 13

**Parameters of the ruble-denominated corporate bond market  
(billions of US dollars)**

	Capitalization	Secondary market including repo	Bond placement	Bond issue proceeds to the equity		
				billions of US dollars.	the same as % of capitalization	the same as % of bond placement volume
2000	2	0,2	1,1			
2001	3	1	0,8			
2002	3	2	2	0,1	3,0	6,7
2003	5	8	3	0,1	2,1	3,8
2004	9	15	5	0,1	1,1	2,0
2005	17	44	9	0,3	1,8	3,3
2006	33	135	17	0,1	0,3	0,6
2007	49	371	18	0,2	0,4	1,1
2008	67	457	16	0,2	0,3	1,2
2009	80	293	29	0,1	0,1	0,3
2010	99	757	28	0,03	0,03	0,1
2011	117	1237	31	0,014	0,01	0,05
2012	134	1866	39	0,14	0,1	0,4
2013	163	2839	54	0,16*	0,1	0,3

\* in the period of January thru September 2013.

Source: the author's estimates based on the data supplied by the Moscow Exchange, cBonds, the Bank of Russia, and Rosstat.



Source: the author's estimates based on the data supplied by the Bank of Russia.

Fig. 42. Average monthly rates in the OFZ market and repo market

3.5.3. IPO of shares' effect on the economy

IPO and SPO of shares is more efficient tool of fundraising than corporate bonds for fixed capital investment. This is determined by the fact that IPO proceeds are of more long-term nature. Table 14 presents parameters of the Russian stock market. The parameters show that most active IPOs of shares took place in 2006 and 2007 when companies borrowed \$17,0bn and \$33,0bn respectively. In 2006, companies allocated 18.8% of IPO-SPO proceeds to



purchase fixed assets, whereas in 2007 this indicator declined to 10.9%. There were years, for example 2008 and 2009, when 110.5% and 117.6% respectively of IPO proceeds was fixed capital investment, which is associated with that companies received a part of fixed capital investment through closed subscription rather than IPO-SPO.

In 2013, \$1,6bn, or 17.8%, of a total \$9,0bn of public offerings were allocated to fixed capital investment within nine months of the year. In 2012, \$3,1bn, or 32.6%, of a total \$9,5bn of initial public offerings were allocated to fixed capital investment. A part of the resources borrowed in the stock market was allocated to repurchase a business from the previous owners, debt refinancing, and servicing A&M transactions including purchase of major stocks of shares. IPOs and investment in real capital through issuing shares have so far been much less in volume than A&M transactions. In the period of 2000 through 2013, Russian companies' IPO-SPO volume totaled \$100,5bn, whereas A&M transactions volume totaled \$941,8bn, or by 9.4 times and beyond.

*Table 14*

**Parameters of the market of Russian companies' stocks  
(billions of US dollars)**

	Capitalization	Secondary market including foreign exchanges	IPO of shares	IPO contributions to equity			A&M transactions volume
				billions of US dollars.	the same as % of capitalization	The same as % of IPO volume	
2000	41	47	0,5	0,2	0,5	40,0	5
2001	75	49	0,2	0,1	0,1	50,0	12
2002	106	87	1,3	0,2	0,2	15,4	18
2003	176	188	0,6	0,2	0,1	33,3	32
2004	230	541	3	0,1	0,0	3,3	27
2005	549	374	5,2	3,2	0,6	61,5	60
2006	1057	914	17	3,2	0,3	18,8	62
2007	1503	1687	33	3,6	0,2	10,9	126
2008	397	1983	1,9	2,1	0,5	110,5*	110
2009	861	1156	1,7	2,0	0,2	117,6*	56
2010	1379	1431	6,3	2,4	0,2	37,9	56
2011	1096	2222	11,3	2,6	0,2	23,1	79
2012	1079	2128	9,5	3,1	0,3	32,6	135
2013	1041	2095	9,0	1,6**	0,2	17,8	163

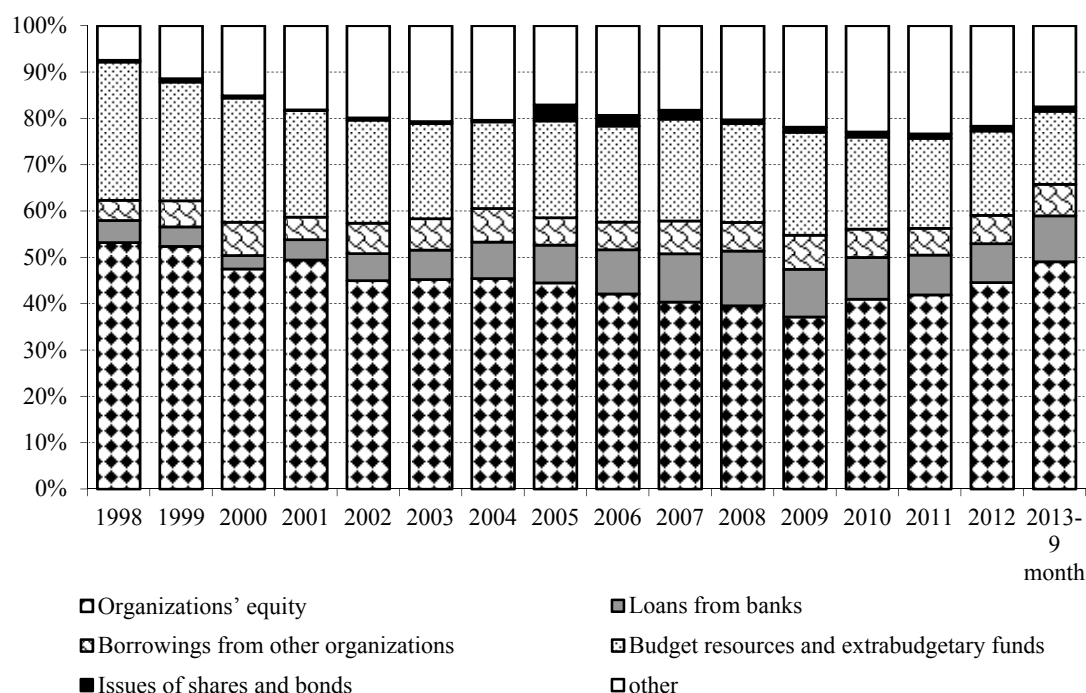
\* the value is more than 100%, because a part of fixed capital investment might be through private subscription of shares;

\*\* in the period of January thru September 2013

Source: the author's estimates based on the data supplied by the Moscow Exchange, cBonds, the Bank of Russia, and Rosstat.

The amount of funds which companies raise through issuing stocks and corporate bonds and then allocate them to purchase fixed assets accounts for a small part of sources of fixed asset financing. This is supported by the data on sources of financing investment in fixed assets (*Fig. 43*).

In the period of 2000 thru 2012, the share of funds raised through issuing bonds and stocks in sources of fixed capital financing varied within a range of 0.1% in 2001 to 3.4% in 2005. The same indicator was recorded 1.0% in 2012 and within nine months in 2013.



Source: the estimations are based on the data supplied by Rosstat.

Fig. 43. Structure of sources of investment in fixed assets

### 3.6. Investors in the Russian stock market

#### 3.6.1. Internal institutional investors

Stable institutional investors are required to increase the rate of household savings and fundraising of long-term resources, as is the case with public reserves. Their low relative level of development in Russia (see *Table 15*) constitutes the key problem for the Russian financial market. The initial stage of pension reform slowed down growth in pension accruals through allowing policy holders to choose between a zero rate and 6% contributions to the funded component of retirement pension, as well as temporal waiver to accumulate pension accruals in 2014. Nevertheless, pension accruals are most likely to resume growth when a system of pension accruals safety guarantees is introduced in 2015 and comprehensive revision of financial stability of non-government pension funds is completed.

All three types of institutional investors (pension and mutual funds, insurance organizations) are poorly developed in Russia as compared to other countries including major emerging economies. The Russian banking system has been ranked with a mean score in terms of value of commercial banks' assets as percentage of GDP (see *Table 15*). Russia has been ranked 64th of the 67 countries covered by the statistics on mutual funds' assets; 53rd of the 67 countries in terms of autonomous pension funds' assets; 47th of the 50 countries in insurance companies' assets. In 2012, the value of open-end and interval unit investment funds in Russia accounted for 0.2% of GDP; pension accruals and reserves for 5.0% of GDP; insurance organizations' assets for about 1.7% of GDP. Additionally, Russia has been ranked 100<sup>th</sup> of the 168 countries on which the World Bank discloses data on the share of commercial banks' assets as percentage of GDP.

*Table 15*

**Institutional investors and banks in Russia (based on average values in 2001–2012)**

	Number of countries in samples ICI <sup>1</sup> , OECD and World Bank	Russia's place in samples	As percentage of GDP	
			Average in 2001–2011 .	2012
Open-end investment funds' assets*	67	64	0.3	0.2
Autonomous pension funds' accruals and reserves **	67	53	2.1	5.0
Insurance companies' assets ***	50	47	1.4	1.7****
Commercial banks' assets*****	168	100	33.0	45.6****

\* Russia – open-end and interval unit investment funds (UIFs);

\*\* Russia – pension accruals and reserves – total (in non-state pension funds and asset managers);

\*\*\* Russia – insurance reserves;

\*\*\*\* 2011;

\*\*\*\*\* Net of development banks. The average is 55.0% in 2001–2011; 76.9% in 2012 for all commercial banks of Russia

Source: the author's estimates based on the data supplied by Investment Company Institute, resources [www.stat.org](http://www.stat.org) OECD, [www.econ.worldbank.org](http://www.econ.worldbank.org), World Bank and IFS IMF.

Russia should cope with the lag in the development of institutional investors in order to maintain investment activity in the country. This means that the banking sector should focus on making sure that the banking system is reliable and strong. With the regard to pension funds, insurance companies, open-end and interval unit investment funds (UIFs), most importantly, a development policy aimed at creating efficient companies which enjoy confidence of individuals should be implemented. This requires support of competition in the financial services market and protection of investors' rights, i.e. what is referred to the regulating rather than supervising function of the state.

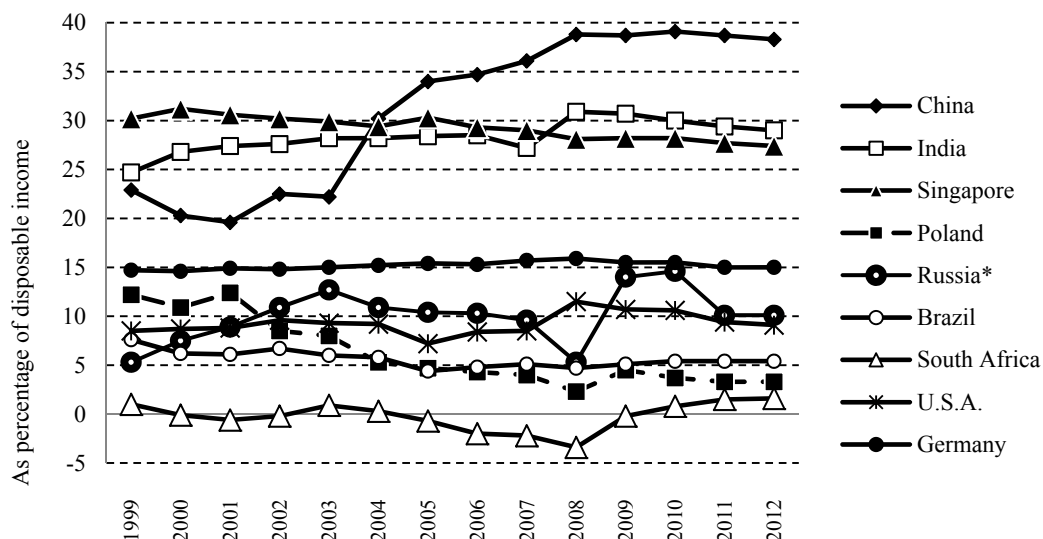
### 3.6.2. Individual domestic investors

Russia should maintain high rates of domestic savings to be able to maintain its economic and modernization growth rates. Increasing the household saving rate serves as reserve for savings growth. Rosstat's official statistics shows that Russian households save about 10% of their income (see *Fig. 44*). Household saving rate is much higher than that of disposable income in those countries which are leading in economic growth and modernization, namely China, India, Singapore, Hong Kong. Indeed, social and demographic situation in these countries differs from that in Russia, however it should be admitted that any large-scale modernization tends to rely on internal finances. Furthermore, under the current circumstances high consumption rate in Russia means promotion of foreign manufacturers through internal demand.

*Fig. 45* presents data on the number of individual investor accounts opened with brokers and the number of personal accounts in the register of unitholders of unit investment funds (UIFs). The period of 2010–2013 was distinguished by an emerging trend towards slower growth in the number of brokers' customers registered in the MICEX trading system. Annual growth in the number of registered customers was 112,200 persons in 2009, only 42,800 persons in 2010, 66,500 persons in 2011, 24,800 persons in 2012, 38,800 persons in 2013. The number of brokers' active customers dropped from 114,100 persons in 2009 to 54,600 persons in January 2014. This might mean that the existing model of attracting customers to the Russian stock market has begun to run its course. Every country has a limited number of

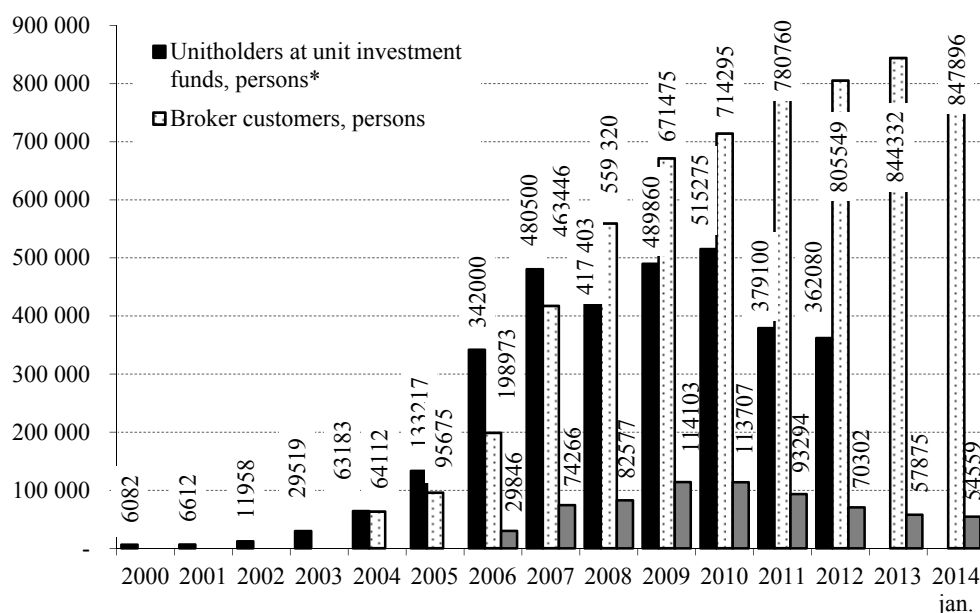
<sup>1</sup> Investment Company Institute.

persons specializing in gambling in the stock exchange. A new model of growth requires attracting long-term investors to the market, which cannot be done without creating an efficient system of pension accruals and reconstructing the model of services provided by financial institutions.



\* Rosstat's data, net of savings in deposits denominated in foreign currencies and savings in foreign exchange.  
Source: the estimations are based on the data supplied by Euromonitor International.

Fig. 44. Household saving rate, as percentage of disposable income



\* Expert Rating Agency's data for 2013 still remains to be published.  
Source: the author's estimates based on the data supplied by the Moscow Exchange, Russia's National League of Management Companies, and Expert Rating Agency.

Fig. 45. The number of market retail customers covered by asset managers and brokers

The adoption of revolutionary amendments to the applicable legislation which provide for introducing from January 1, 2013 substantial personal income tax allowances in taxation of yields on securities which are held for a period of at least three years, as well as, from January 1, 2015, allowances on individuals' contributions to so called personal investment accounts (PIA)<sup>1</sup> became the most remarkable event in the realm of private savings in 2013.

Under the Federal Law of December 28, 2013, No. 420-FZ On Making Amendments to Article 27.5-3 of the Federal Law "On the Securities Market" and Parts 1 and 2 of the Tax Code of the Russian Federation, returns from investment in newly purchased securities will be exempted from taxation to the extent that a physical body holds such securities for a period of three years and beyond. At present, all returns which individuals generate from investment in securities – through unit investment funds (UIFs), trust management, or direct holding through broker's accounts – are subject to personal income tax at a 13% rate. The maximum amount to be deducted from the tax base is Rb 3m per each year of shareholding (unitholding). The personal income tax allowance is not applied to income as dividends on shares and coupon payments on bonds, except in cases where a person is holding securities indirectly through an open-end unit investment fund. For this reason it is unitholders at open-end unit investment funds specializing in long-term investment who will benefit most from this tax allowance.

Furthermore, a concept of individual investment accounts which private investors will be able to open with brokers and asset managers from 2015 was introduced into the Federal Law "On the Securities Market" and the Tax Code of the Russian Federation. The national may have only one agreement to maintain a PIA. This account can be credited up to Rb 400,000 on an annual basis. The PIA owner may choose one of the two available options of investment deduction. The first option suggests that when a PIA is closed not earlier than after three years from the opening date, the investor is entitled to a tax exemption of 13% of total contributions made. The second option makes no provision for tax deduction from contributions, however, when the PIA is balanced, the entire amount paid to the PIA owner is exempted from personal income tax.

Both tax allowances, in our opinion, provide strong incentives for private investors investing in securities for a period of at least three years. We tried to assess the effect of the measures aimed at promoting household savings through growth in individuals' extra pension contributions to non-state pension funds and PIAs, growth in individuals' investment in life insurance policy and units of open-end and interval unit investment funds (UIFs). Additionally, benchmark values of growth in life insurance, collective investment, and non-state pension funds were calculated on the basis of the proposals made by representatives of respective industries during a strategic session Financial Market Regulation Policy Guidelines as part of the project on the creation of a Moscow Financial Center with the participation of the head of the Bank of Russia Financial Markets Service (FMS)<sup>2</sup>. The data on growth in the assets on PIAs were calculated separately on the basis of understanding this market potential, the assumption that the level of this product penetration among middle class would be about

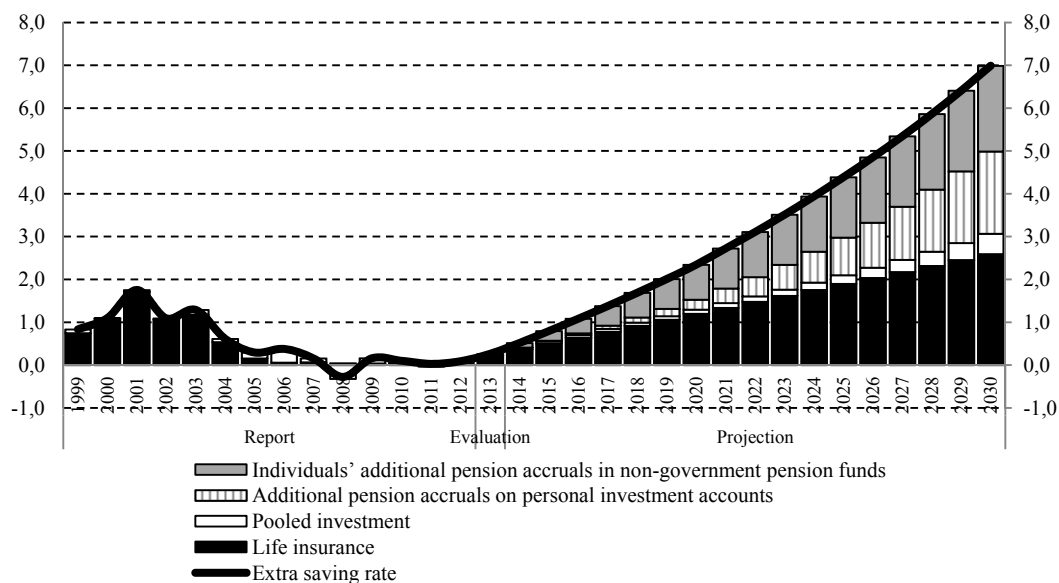
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<sup>1</sup> Judging by their status, these accounts resemble two investment arrangements which are popular in many countries, namely individual retirement accounts (IRAs) which are used extensively in the United States, Poland, the Republic of Korea, Canada etc., as well as individual savings accounts (ISAs) which are widely used in Great Britain.

<sup>2</sup> More details are available at <http://mfc-moscow.com/index.php?id=119>.

40% by 2030, average saving rate on PIAs of their owners would gradually reach 10% of income, while average nominal return on investment in 2014–2030 would be 8% p.a.

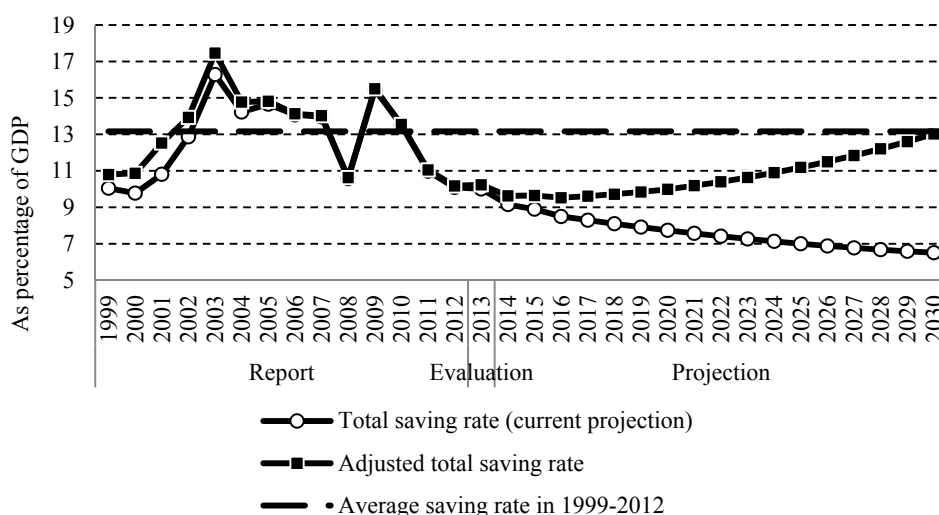
Fig. 46 presents the main results of the calculations made. Under the reference forecast, gross extra saving rate might be 0.5% of GDP in 2014, 2.3% in 2020, and about 7.0% in 2030. Such products as life insurance, voluntary contributions to non-state pension funds and personal investment accounts will grow most.



Source: the author's estimates.

Fig. 46. Structure of extra savings, as percentage of GDP

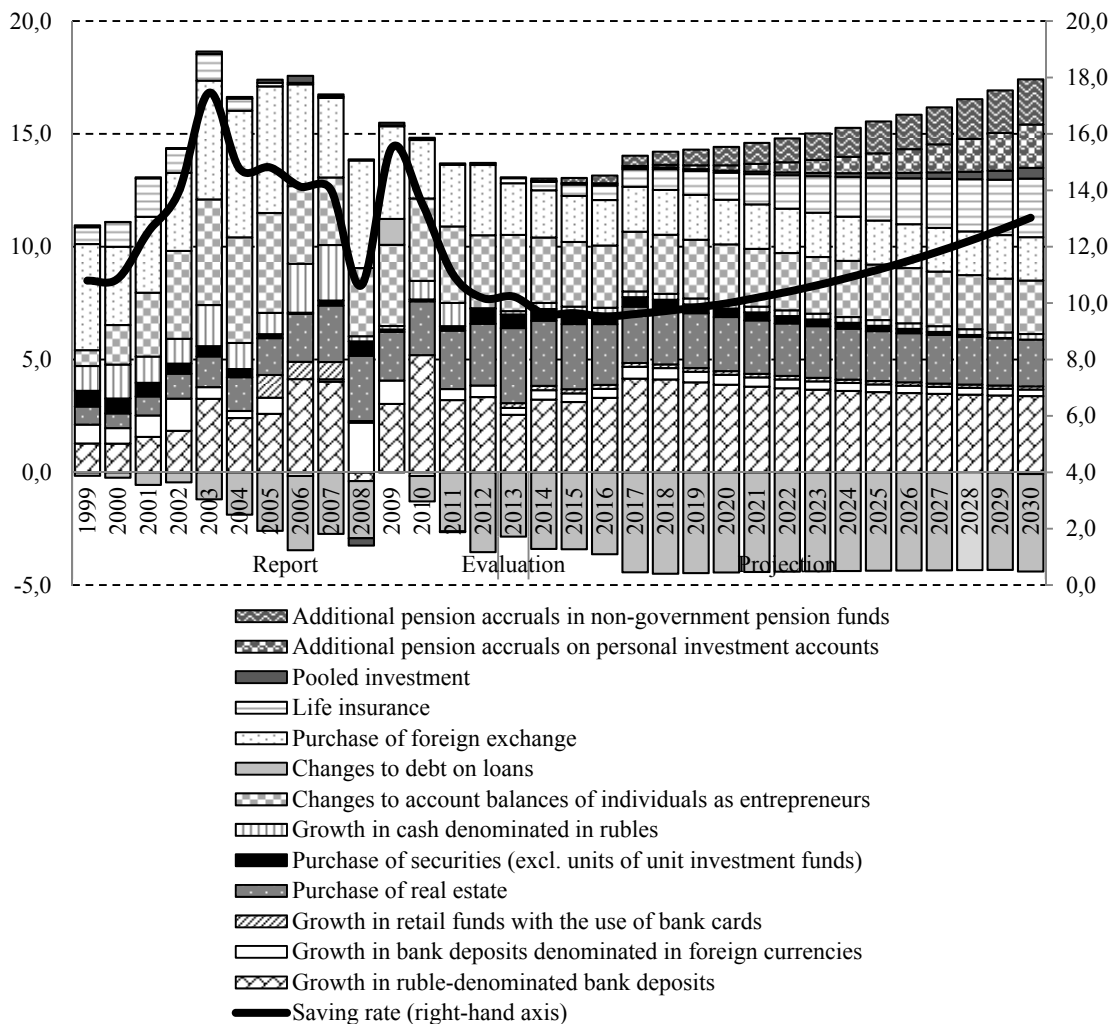
The average household saving rate for the period between 1999 and 2012 was used as natural constraint to growth in the savings rate in our forecast (see Fig. 47). Furthermore, if the reference scenario of the development of extra long-term household savings was realized, the adjusted rate (as percentage of GDP) would return to its natural average value in 2030.



Source: calculations made by the authors of the study.

Fig. 47. Current and adjusted household saving rates, as percentage of GDP

Fig. 48 shows an approximate structure of household savings if the reference scenario of growth in voluntary savings with institutional investors was realized.



Source: calculations made by the authors of the study.

Fig. 48. Household savings structure factoring in extra forms of savings, as percentage of GDP

Our estimates show that if traditional forms of savings such as bank deposits, individual entrepreneurs' cash reserves, purchasing foreign exchange and real estate keep prevailing, new types of savings through institutional investors will play a more important role and exceed substantially savings as direct investment in securities. Household savings through institutional investors are expected to reach Rb 3 trillion in 2020 and about Rb 17 trillion by 2030.

### 3.6.3. Foreign conservative investors

Major foreign institutional investors' behavior towards the Russian stock market still remains conservative. This conclusion is supported by the data on investment in Russian JSCs shares by California Public Employees' Retirement System (Calpers), U.S. largest public pension fund whose assets were \$258bn worth in 2013 (see Table 16).

Table 16

**Calpers investment in depositary receipts and shares (equity securities)  
of Russian companies, millions of US dollars**

	2008*	2009*	2010*	2011*	2012*
Gazprom	144,7	46	55,1	154,4	56,4
Lukoil	189,1	93,5	80,6	78,7	68,2
Mechel	9,1	1	1,8	9,8	0,6
Norilsk Nickel	4,6	1,4	14,3	12,1	0,0
OAO Novatek		20,6	10,4	45,4	36,2
JSC Novorossiysk Commercial Sea Port	10,3	8,4	7,7	6,3	4,4
Rosneft	11,4	31,4	15,7	59,7	26,4
Plus Gold		5,5	2,3	5,8	0,0
Rostelecom		3,4	1	16,4	14,0
Sberbank of Russia	5,5	30,8	9,3	53,7	114,3
Severstal	7	4,7	7	9,4	6,5
Sistema JSFC	9,7	3,8	62	71,9	50,3
Surgutneftegaz	4,5	20,5	18,9	23,5	21,7
Wimm-Bill-Dann		20,2	2,2	0	0,0
Magnit		7,3	15,5	37,5	38,7
Magnitogorsk Iron and Steel Works		6,1	2	2,8	1,8
VTB	31,6	6,9	14,3	22,8	12,5
LSR Group		2,9	4,4	4,5	4,1
Other OJSCs			12,9	60,1	72,0
<b>Receipts and shares of Russian companies – total</b>	<b>427,4</b>	<b>314,4</b>	<b>337,4</b>	<b>674,8</b>	<b>528,0</b>
<b>Equity securities purchased in domestic and external markets – total</b>	<b>122 281,2</b>	<b>80 728,6</b>	<b>91 776,3</b>	<b>117 640,8</b>	<b>112 299,4</b>
The share of receipts and shares of Russian companies in the Calpers portfolio	0,35	0,39	0,37	0,57	0,47
These share of Russian companies' shares in global capitalization	1,23	1,80	2,51	2,31	1,97

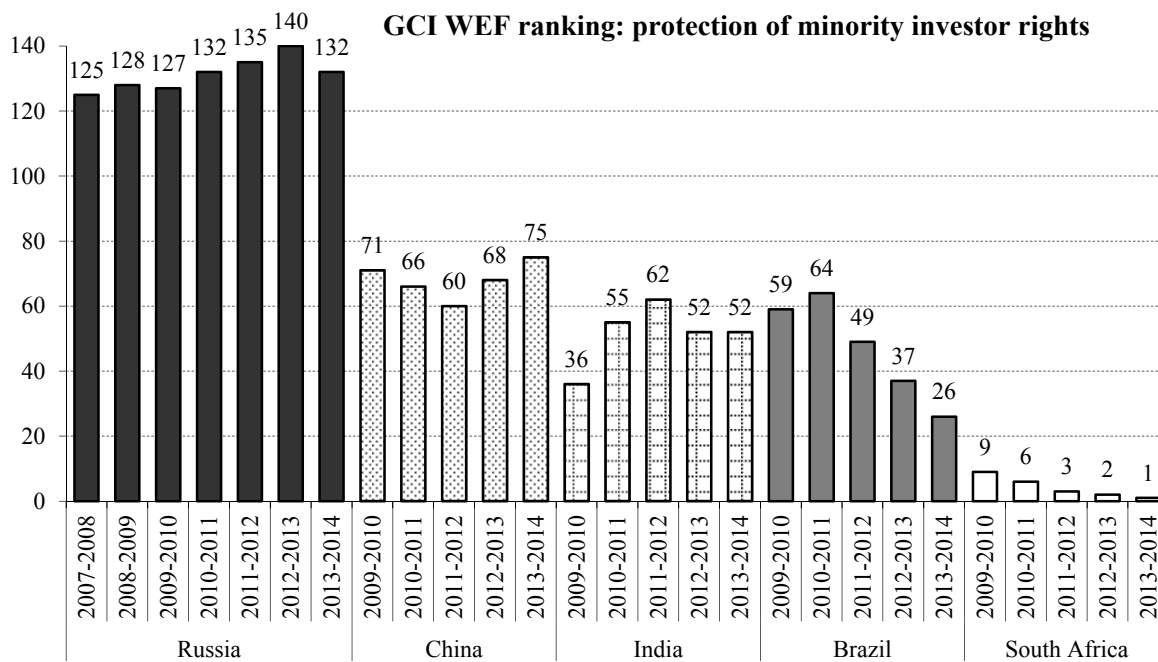
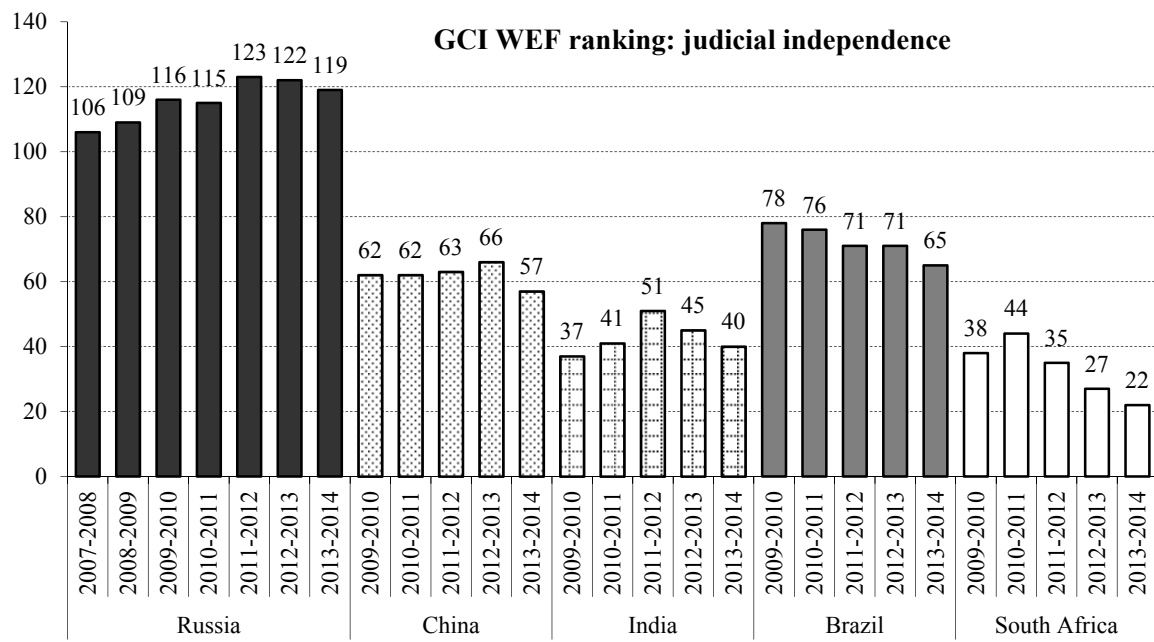
\* fiscal year ending in June; detailed information on the Calpers portfolio composition and structure which is available on the Calpers official website is posted with about a year's lag, most likely to prevent copying the portfolio strategy of the pension fund.

Source: based on the Calpers investment report for a few years.

Calpers investment in Russian companies' shares is subject to limits. The investment increased from \$427m, or 0.35% of the pension fund's portfolio of stocks, in 2008 to \$528m, or 0.47% of the pension fund's portfolio, in 2013. To compare, Russian companies' shares accounted for 1.23% of global capitalization in 2008, and 1.97% in 2013. The weight of the Calpers Russian equity securities portfolio is underestimated, which is indicative of Calpers concerns about risks it might be exposed to through investing in such securities.

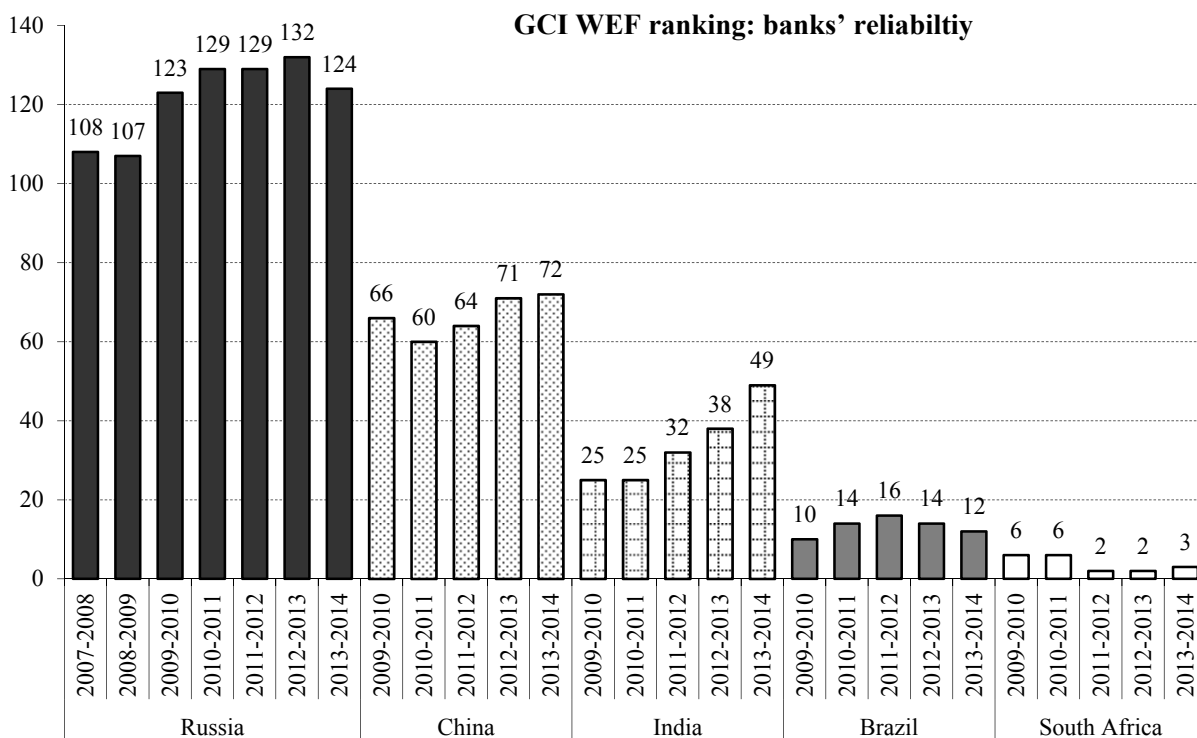
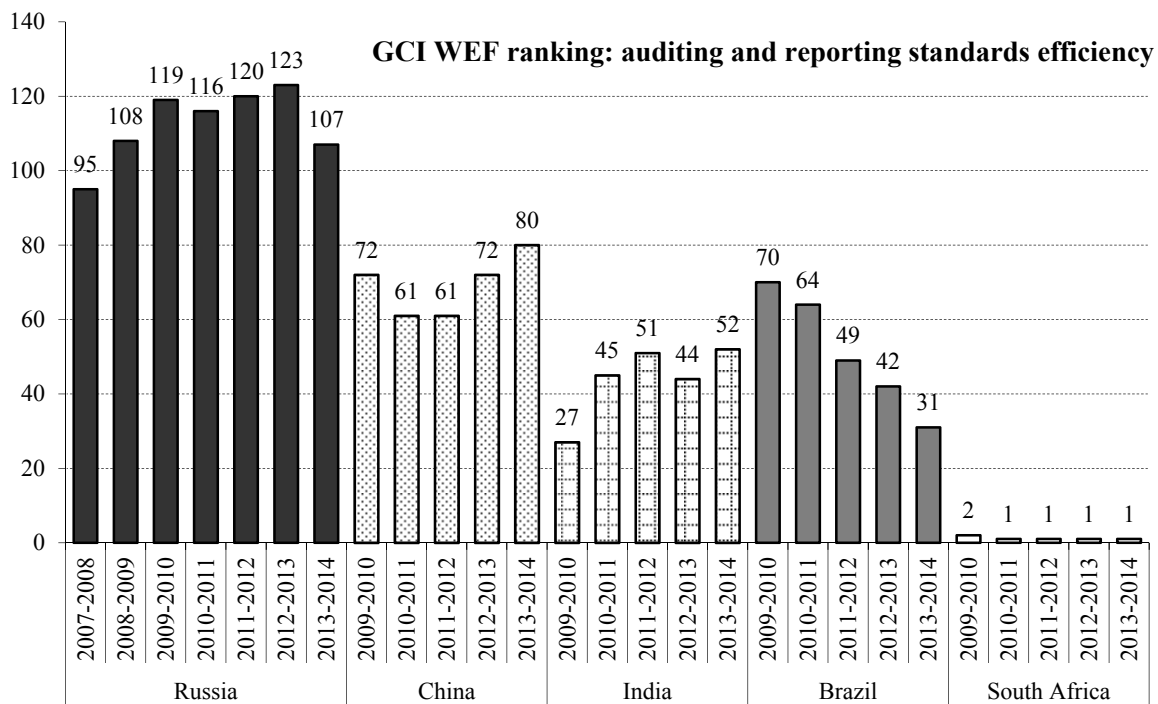
It was not until 2008 when Calpers began to invest in depositary receipts and stocks of Russian JSCs. Within many years prior to 2008 Calpers employed the method of making investment rankings for emerging markets to see whether it can invest in such markets. Russia has long been ranked as an emerging market, but emerging market were not eligible for investment by the Californian pension fund. In 2007, Calpers decided not to follow strictly to this method, allowing portfolio managers in emerging markets to decide whether or not to invest in shares of some of other issuers. However, analysis of the previous method allowed us to highlight key factors which for many years prevented Calpers from investing in Russia. These factors and their assessment by using the method of global competitiveness ranking of the World Economic Forum are shown in *Fig. 49*.

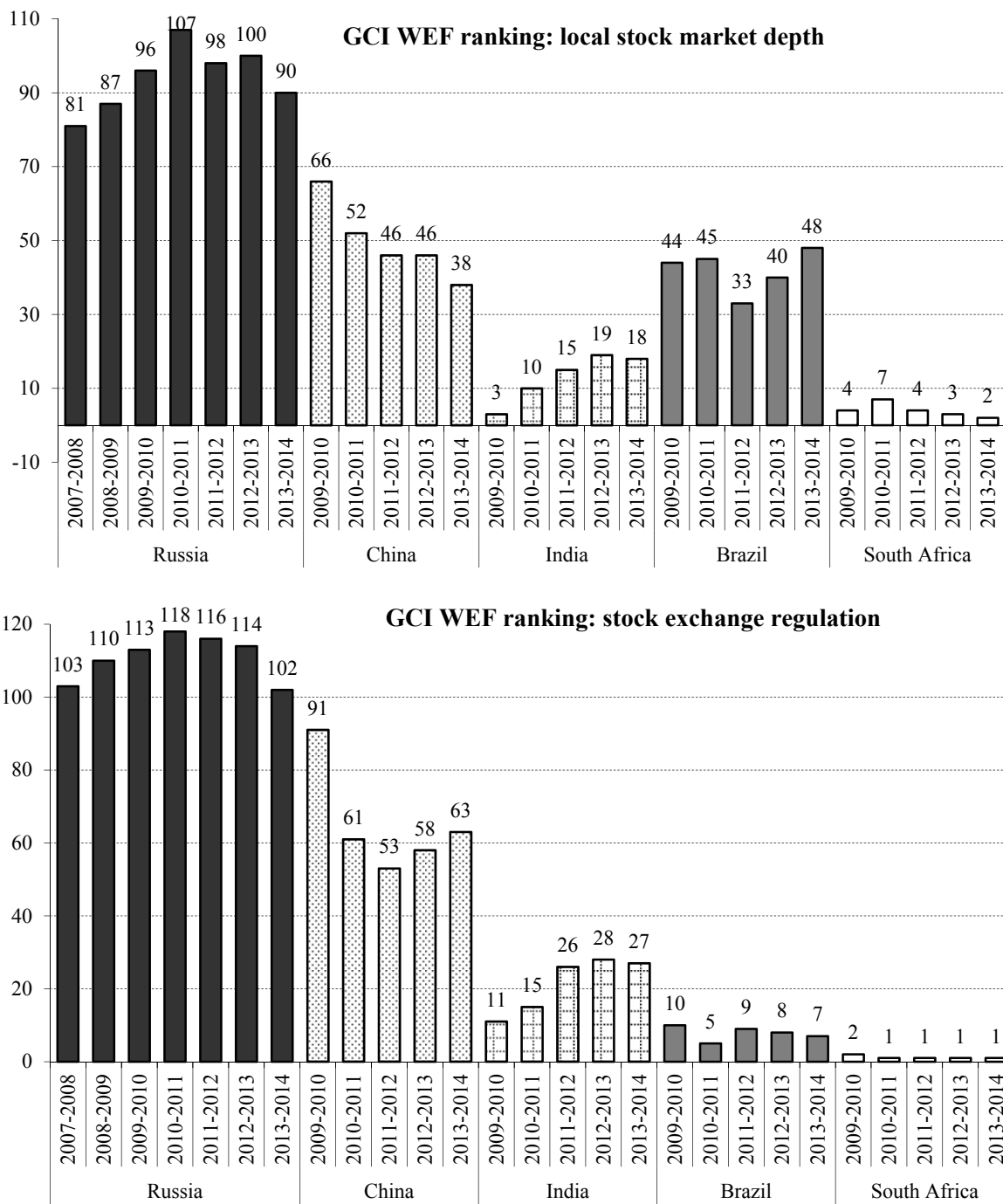




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Source: World Economic Forum's Global Competitiveness Ranking for several years.

Fig. 49. BRICS's countries in Global Competitiveness Ranking of the World Economic Forum on a series of criteria eligible for making decisions by conservative portfolio investors

Russia has been far behind the markets of other BRICS's countries in addressing the most challenging issues such as judiciary independence, protection of minority investors, auditing and reporting standards, stock market depth, effectiveness of stock exchange regulation, and reliability of banks. Additionally, in 2012, Russia's scores worsened on the four of the

foregoing criteria. In 2013, Russia’s ranking inched up on all the six criteria, however the gap between Russia and other BRICS’s countries has not yet been eliminated.

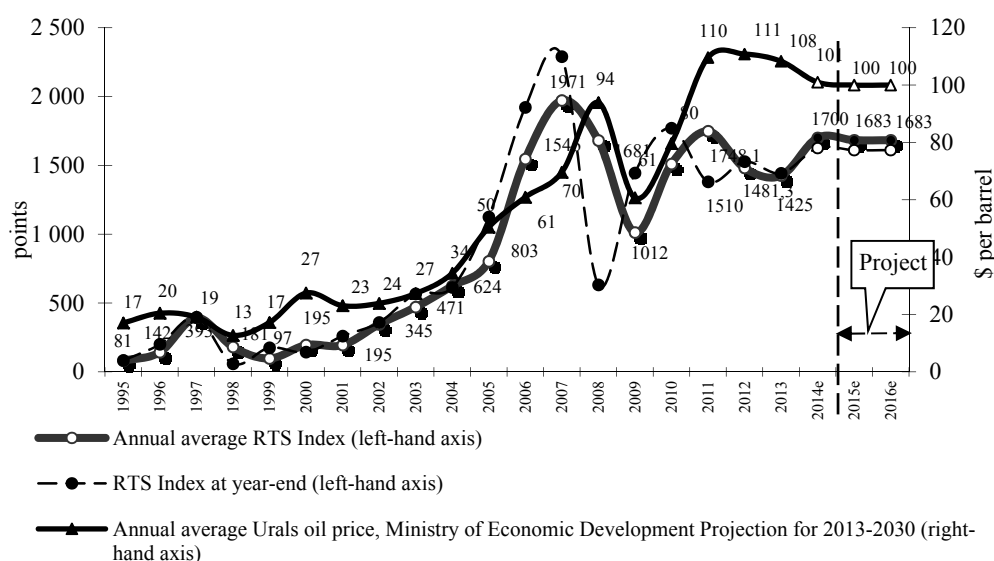
### 3.7. Risks in the financial market

The following factors govern the principal risks in the financial market. Stock market stagnation because of no growth in prices of energy resources; risks associated with foreign capital outflow; the ruble devaluation risk; outstripping growth in external debts owed by banks and non-financial sector; carry trading renewal; growth in trading volumes in the Forts market against insufficient security of transactions.

#### 3.7.1. Prices of shares and dynamics of crude oil prices

As shown in section 3.3.1, Russian stock market depends on crude oil prices. These prices describe the situation in global economy, financial system stability, and cash liquidity in that system. The recent projections of the Ministry of Economic Development of Russia and international financial institutions, both of which show that crude oil prices will not go up in the mid-term through the development of new technologies in oil and gas production allowing many countries to gradually switch to a self-sufficient oil and gas supply.

If we apply the equation of relationship between crude oil prices and index, as shown in Fig. 12, to the mid-term forecast of crude oil prices made by the Ministry of Economic Development for a period of 2014–2016, then the annual average RTS Index would grow, at slow rates though. In 2014, it may increase to 1700 points against 1425 points in 2013, i.e. the annual average index would grow by 19.3%.



Source: the author’s estimates based on the data supplied by the Ministry of Economic Development of Russia and the Moscow Exchange.

Fig. 50. RTS Index projection until 2016 based on the Ministry of Economic Development’s oil prices forecast

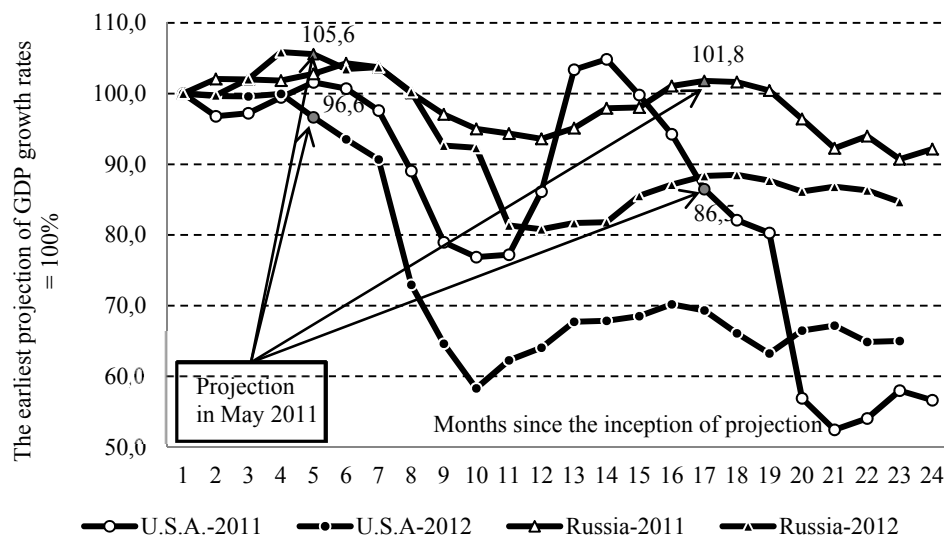
The presented method of forecasting growth in the annual average stock index is not ideal, however, just like any other method of forecasting stock market indicators. The reason for the weakness of a forecast relying upon the historical relationship between crude oil prices and

the RTS Index is that foreign investment outflow from Russia has the strongest downward effect on the RTS Index since its inception.

### 3.7.2. Foreign capital outflow

Section 3.3.2 presents analysis of the relationship between the Russian stock market and capital movement in foreign investment foundations investing in Russia. It shows with referenced to an IMF's study that portfolio investors make their decisions on the basis of the dynamics and volatility of GDP growth forecasts, evaluation of exchange rate volatility, indices of anticipated volatility in mature and emerging markets.

In 2013, the trend towards capital outflow from foreign foundations specializing in investment in Russia continued since May 2011. It is shown in *Fig. 51* that capital outflow from the foundations began in May 2011 and coincided with drastic worsening of forecasts for the U.S. economy for 2012, supporting our hypothesis that changes to global economic growth forecasts registered in the Consensus Economics base have a stronger effect on the behavior of foreign portfolio investors who invest in foundations specializing in investment in Russia. In January 2013, the IMF 2013 forecasts downgraded again projections of global economic growth. The 2013 GDP growth forecast for Russia and the United States was downgraded by 0.1 p.p., being indicative of that in the first half of 2013 the Russian market is likely to see a small outflow of portfolio investors' capital, which cannot be stopped as soon as economic growth forecasts for 2013–2014 are upgraded.



Source: the author's estimates based on the data supplied by Consensus Economics.

*Fig. 51.* Changes to analysts' consensus projections of GDP growth in 2011 and 2012

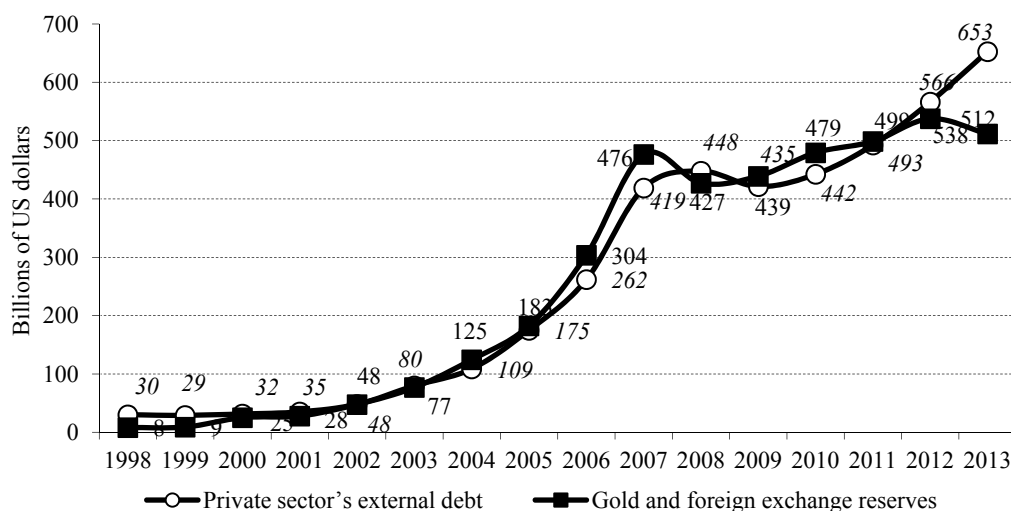
### 3.7.3. Risks related to banks' and non-financial businesses' external debt

Russian banks' and non-financial companies' external debt increased \$87bn, or by 15.4%, in 2013, continuously overtaking the value of the gold and foreign exchange reserves of the Russian Federation (see *Fig. 52*). It amounted to \$653bn as compared to \$512bn of foreign exchange reserves. On the one hand, outstripping growth in businesses' external borrowings can be regarded as positive trend towards intensive fundraising required for economic growth

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and development. On the other hand, accruing businesses' external debt in values exceeding substantially the value of foreign exchange reserves reduces the ability of the state to support businesses in case of a crisis and depreciation of assets. Additionally, cheaper borrowings in foreign markets vs. the domestic market lead to carry trading, which eventually, at a high level of inflation, impedes the development of internal institutional investors and their investment at a real interest rate.

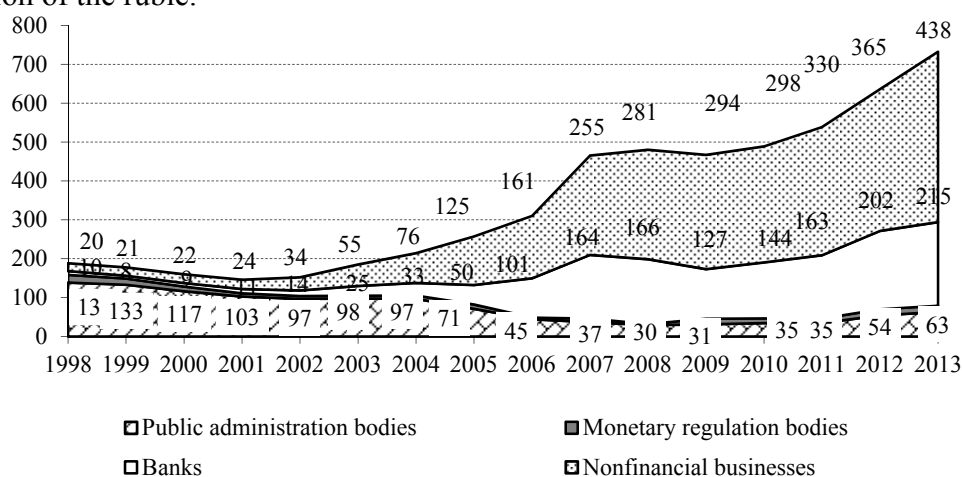


Source: the author's estimates based on the data on balance of payments over a few years.

Fig. 52. Growth in private sector's debt and state cash surplus

Fig. 53 presents data on external debt owed by banks and non-bank companies separately. Banks' external debt increased from \$202bn in 2012 to \$215bn in 2013, or by 6.4%.

Non-bank companies' debt increased from \$365bn in 2012 to \$438bn in 2013, or by 20.0%. In 2013, like in the previous year, the private sector's external debt increased despite substantial net capital outflow from Russia. Capital outflow from Russia is associated with a set of factors including weak institutional environment, slowdown in growth, and anticipated devaluation of the ruble.



Source: based on the data on balance of payments over a few years.

Fig. 53. Russian Federation's external debt in 1998–2012, billions of US dollars

#### 3.7.4. Risks related to carry trading as speculative strategy

In 2012 and early in 2013, the financial market saw lots of signs of reviving carry trading strategy which already brought Russia into the crises in the banking system in 1998 and 2008. Technological conditions have been created for speculative foreign capital inflow to the market through accounts with international clearing and settlement systems, regulations imposing limits on banks in borrowing from nonresidents have been relaxed. Banking sector's external debt has been mounting at outstripping rates, the banking sector has increasingly been active in using financial leverage for building up the credit portfolio.

How dangerous the carry trading strategy is? What consequences may it bring about? There are three aspects that are worth mentioning: growing risks of a liquidity crisis in the banking system; the threat of wasting the national gold and foreign exchange reserves through support to ineffective businesses; reducing internal incentives for individuals to make long-term savings using ruble-denominated bonds.

In the banking system the foregoing strategy tends to lead to mounting imbalance between banks' foreign exchange assets and liabilities, when the value of foreign exchange liabilities overtakes substantially over that of foreign exchange assets. This is the key factor of exposure to a liquidity crisis in the banking system. In developing countries banks involvement in carry trading for the purpose of funding growth in retail lending, according to IMF experts, is one of the principal risks the financial markets in these countries are exposed to<sup>1</sup>.

#### 3.7.5. Transaction risks in the stock market and Forts market

Outstripping growth in trading volumes vs. assets of market participants and their customers has been the stock market's specific feature over the recent years. High-speed trading has been gaining ground. Annual best private investor contents among stock exchanges have turned into hidden advertisement of high-speed trading. The data on customers transactions which is published from time to time by mass media allows one to assume that major brokers' private customer fully renews his/her portfolio within 2 to 3 days on average<sup>2</sup>.

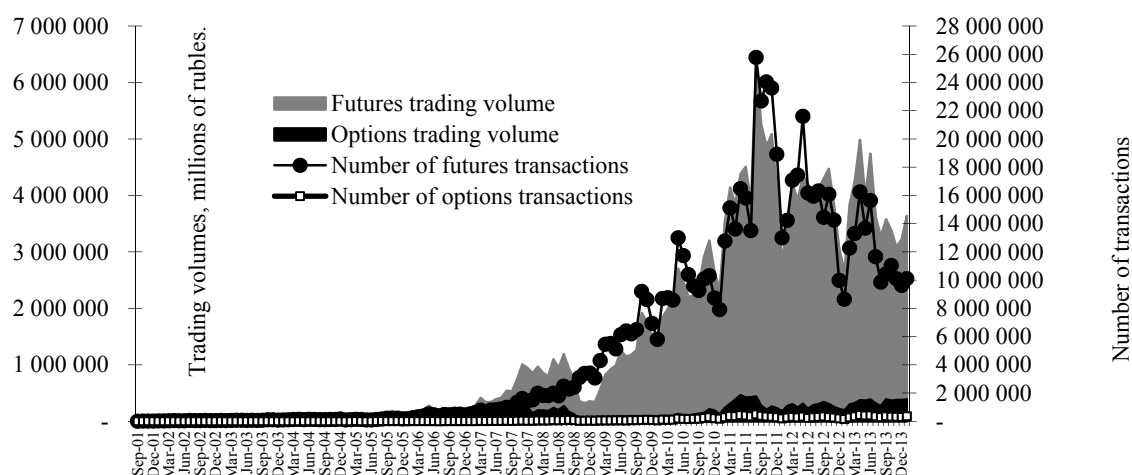
Not only does intensive trading activity often than not interferes with investment results of most private investors, but it also creates higher transaction risks for trading systems. Every year the stock exchange has increasingly been engaged in a battle for processing ever growing flow of applications, being challenged by about 700 participants having all the resources required for increasing transaction activity. There is no knowing, however, whether or not such a competition has an impact on growth in issuers' capitalization, new fundraising, better investment performance. Therefore, infrastructural organizations are expected to face more operational problems in the years to come, which might bring up a question of taking further measures aimed at regulating high-speed trading.

The Forts market raises the same concerns. The number of transactions and trading volumes have been growing fast (see *Fig. 54*), customers' assets have been increasing at slower rates, information on the number of participants in the market and their transaction activity is nontransparent.

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<sup>1</sup> IMF. Global Financial Stability Report. Financial Market Turbulence: Causes, Consequences, and Policies. September 2007, pp. 22–25.

<sup>2</sup> BKS makes plans. *Vedomosti*, June 22, 2010.



Source: the author's estimates based on the data supplied by the Moscow Exchange.

Fig. 54. Trading volumes and the number of transactions in the Forts market the Moscow Exchange in the period of 1.09.2001 thru 31.01.2014

### 3.8. Regulation and supervision problems

The State Program, *The Development of Financial and Insurance Markets, Creation of International Financial Center*, developed by the Ministry of Finance of Russia as part of the results-based principle of budgeting was a positive event in 2012 and early in 2013. However, the effectiveness of these measures remains to be seen. The State Program is of fragmentary nature, ignoring to cover such market sectors as pension reserves and accruals, pooled investment, investment companies, fiscal measures of providing incentives to internal investors, expansion of Russian financial business to other countries. It is unclear from the State Program what kind of role self-regulating organizations should play in the market development, and only departments are listed as entities which should implement the Program. It is not quite clear who is going to implement the State Program which was designed by one department (the Ministry of Finance of Russia) for another department (mega-regulator). A set of program's quantitative indicators and the method of their calculation is incomplete and not optimal. For example, whether volume indicators cover only on-market stock transactions or they should be calculated factoring in other, over-the-counter transactions (repo, negotiated transactions etc.). Most of the targets set by the State Program were found to be unachieved at 2013 year-end, thereby raising the question of having to make adjustments thereto.

Pursuant to the Russian President Order of July 25, 2013 No. 645, September 1, 2013 the RFMS of Russia was abolished and its regulation, control, and financial market supervision powers were delegated to the Bank of Russia. Respective amendments were made by the Federal Law of July 23, 2013 No. 251-FZ. The Bank of Russia Financial Markets Service (FMS) was established to ensure that the Bank of Russia can perform its regulation, control, and supervision functions in financial markets.

The establishment of a mega regulator in Russia is in line with global changes in global financial markets. This measure may facilitate solution of the key issues related to the development of the internal financial market and building up investors' confidence in it; improvement of skills of the personnel being in charge of financial market regulation,



supervision, and development. Using the experience of prudential supervision over banks will enhance the effectiveness of supervision over nonbank financial institutions. Creating a mega regulator helps get rid of duplication of the same functions state executive authorities are vested with. For example, a new assignment of duties has put an end to diffusion of responsibility in regulation and supervision over non-government pension funds.

Financial regulation includes prudential supervision and business conduct supervision. Prudential supervision is intended to make sure that financial institutions are stable and reliable, mitigate systemic risks. Business conduct supervision, or regulation, is designed to support competitive markets and protect the rights of financial services consumers.

Financial regulation should create a balance different objectives of prudential supervision and regulation. Excessive prudential supervision may undermine competition, whereas deregulation often makes financial institutions less stable. According to the estimates made by a few authors, excessively strict prudential requirements may force institutional investors to increasingly focus on shorter-term (short-termist) interests<sup>1</sup>, which can be manifested through a shorter holding period of financial assets and increase in the investment portfolio turnover rate, less investment in less liquid and more risk-bearing assets, for example, infrastructure and venture projects, portfolio managers' propensity for the "gregarious behavior". The Green Paper on the long-term sources of financing of the European economy, which was prepared by EU experts as part of the implementation of the Europe Development Strategy until 2020, poses the question of the need to conduct monitoring of prudential reforms in order to minimize adverse effects on long-term investment<sup>2</sup>. In particular, regulation and supervision systems should support competition between banks and institutional investors.

Indeed, there is no optimal model for organization of regulation and supervision. In terms of the level of integration the World Bank underlines six categories of prudential supervision systems and five categories of regulation systems (see *Table 17*). The higher is the level of integration of supervision and regulation, the bigger is the serial number of respective models.

*Table 17*

### Countries classification by degree of regulation and supervision integration

Prudential supervision	Serial number	Regulation	Serial number
Sectoral supervision: supervision over banks and nonbank organizations out of the central bank's scope	1	Lack of regulation in banking business <sup>a</sup>	1
Sectoral supervision: within the central bank's scope – only supervision over banks; other supervision outside the central bank's scope	2	Regulation is performed by an agency other than prudential supervision body <sup>b</sup>	2
Partially integrated supervision outside the central bank's scope	3	Sectoral regulation <sup>c</sup>	3
Partially integrated supervision within the central bank's scope	4	Regulator is a body which performs integrated supervision	4
FSA – integrated prudential supervision outside the central bank's scope	5	Twin Peaks – integrated regulation by a special body which is not a supervisory body	5
Integrated prudential supervision within the central bank's scope	6		

**Notes.** This classification includes no regulation and supervision over pension funds and retirement schemes.

<sup>a</sup> It is assumed that there is no body in place authorized to perform the regulation including provision of competition and consumer rights protection, above all, in the banking sector. Additionally, agencies engaged in stock markets and insurance business may be vested with specific regulating functions.

<sup>1</sup> Croce R. D., Stewart F., Yermo J. (2011). Promoting Longer-Term Investment by Institutional Investors: Selected Issues and Policies // OECD Journal: Financial Market Trends. Vol. 2011, No. 1.

<sup>2</sup> European Commission (2013). Green Paper. Long-Term Financing of the European Economy. Brussels, 25.3.

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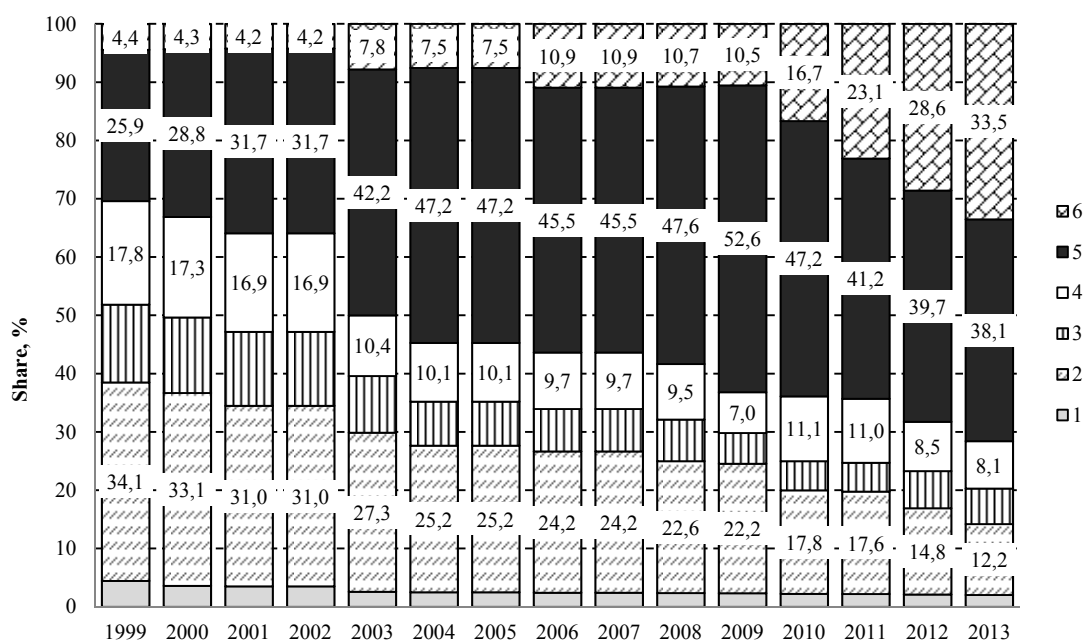
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<sup>b</sup> Fragmentary market regulation, when a country has an organization authorized to protect financial services consumer rights, including bank customers.

<sup>c</sup> A “special” prudential supervision body is assigned to different types of financial business and simultaneously vested with regulating functions.

Source: World Bank, 2013.

We used this classification for a sample comprising 50 countries for 1999–2013<sup>1</sup> a trend towards growth in the number of countries employing more integrated prudential supervision models was observed prior to the crisis in 2008 (see Fig. 55). The share of countries with supervision fully integrated within the scope of the central bank (Group 6) increased from 4.4% in 1999 to 10.7% in 2008, outside the central bank’s scope (Group 5) from 25.9% to 47.6%. After the crisis, the share of countries in Group 6 continued to grow, reaching 33.5% in 2013, whereas the share of countries in Group 5 declined to 38.1%. This implies that the crisis didn’t discourage countries from adopting the concept of integrated prudential supervision, although many countries believe that central banks are better prepared vs. any other public agencies to perform integrated prudential supervision.



**Note.** The symbols in the legend describe prudential supervision models as they are numbered in Table 17. The higher is the index number, the higher is the level of integration prudential supervision.

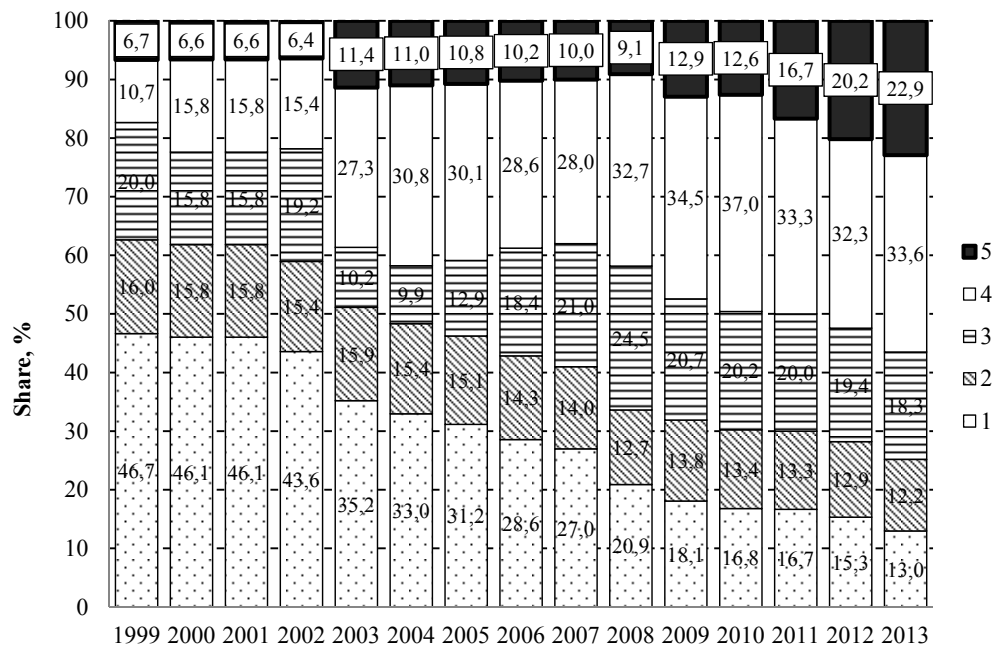
Source: estimated based on the data supplied by Abramov A., Radygin A., and Chernova M.

Fig. 55. Structure of countries with different prudential supervision models in 1999–2013

It is shown in Fig. 56 that the share of countries where the agency in charge of integrated prudential supervision acted as regulator increased most prior to the crisis (Group 4). The share increased from 10.7% in 1999 to 32.7% in 2008. The countries where regulation and

<sup>1</sup> The sample was made on the basis of the World Bank’s data on 1999–2010. (<http://data.worldbank.org/data-catalog/global-financial-development>) and the data on 2011–2013 on the basis of our analysis of the information on regulators in 50 countries. More details on the results of this study are available in the article of Abramov A., Radygin A., Chernova M. Financial market regulation: models, evolution, effectiveness. *Voprosy Ekonomiki*. No. 2, 2014.

supervision are assigned to a single state department (agency) made up the biggest group in the sample of 50 countries. The share of countries employing the Twin Peaks approach (Group 5) increased moderately over the same period from 6.7% in 1999 to 9.1% in 2008. In 2008, the approach was employed only by Australia and the Netherlands. The post-recession period saw sweeping changes in regulation. The share of countries employing the Twin Peaks approach increased to 22.9% by 2013. Growth in the share of countries in Group 4 tumbled, reaching 33.6% in 2013. Along with assigning the integrated prudential supervision function to the central bank, countries began to switch to Twin Peaks, assigning the regulation function to agencies not related with the central bank. The objective was to make sure that the creation of integrated supervision is not interfering with competition, the development of all financial institutions, and comprehensive protection of the rights of financial service consumers. Finland, Belgium, New Zealand, and Great Britain fully or partially switched to the Twin Peaks by 2013. However, the Twin Peaks is still being under discussion in the United States, South Africa, Mexico etc.



**Note.** The symbols in the legend describe prudential supervision models as they are numbered in *Table 17*. The higher is the index number, the higher is the level of integration prudential supervision.

*Source:* estimated based on the data supplied by Abramov A, Radygin A., and Chernova M.

*Fig. 56.* Structure of countries with different regulation models in 1999–2013 (%)

The foregoing sample was used to study the effect of 18 macroeconomic and financial indicators on countries' decision to choose a model of integration of prudential supervision and regulation, as well as the probability of Russia choosing the financial regulation model was looked into.

In projecting the probability of Russia falling into each group of countries with different models of prudential supervision, the highest probability was detected for Group 2 (see *Table 17*), which corresponds to the historical data observed prior to September 1, 2013. Furthermore, there is lowest, almost zero probability of falling into Group 6 with highest

integration of supervision within the central bank's scope. However, since September 1, 2013 Russia has virtually switched to the mega regulator model on the basis of the Bank of Russia.

Table 18

**Factors having an effect on the decision to choose a regulation and supervision model**

Factors
Population size, the share in the population in 50 countries, %
Income per capita in constant dollars 2005
Export of goods and services (as percentage of GDP)
Country effectiveness index
The number of registered countries in the listing as per 10000 persons
Asset concentration of top-5 largest banks (%)
Bank deposits (as percentage of GDP)
Deposited money among bank assets (as percentage of GDP)
Z-score
Pension funds' assets (as percentage of GDP)
Mutual funds' assets (as percentage of GDP)
Life insurance premiums (as percentage of GDP)
The value of outstanding internal private debt securities (as percentage of GDP)
Depository institutions' capital adequacy (%)
Securities market capitalization (as percentage of GDP)
Total volume of traded securities (as percentage of GDP)
Regulation quality index
Saving rate (%)

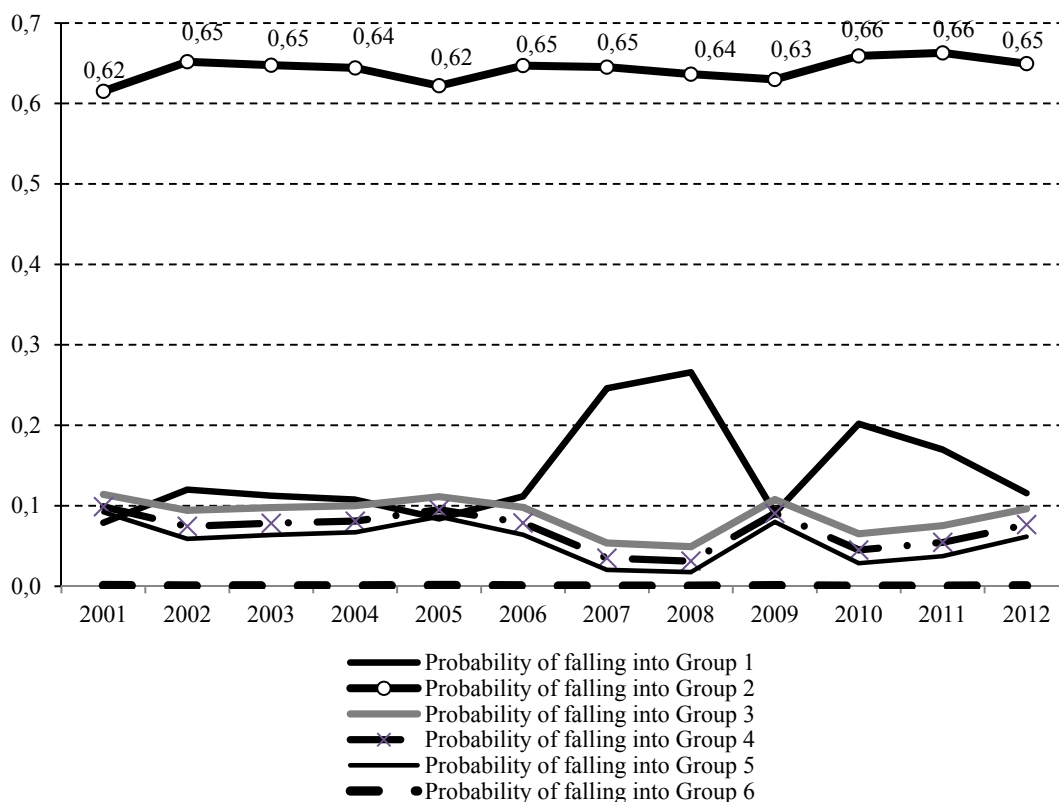
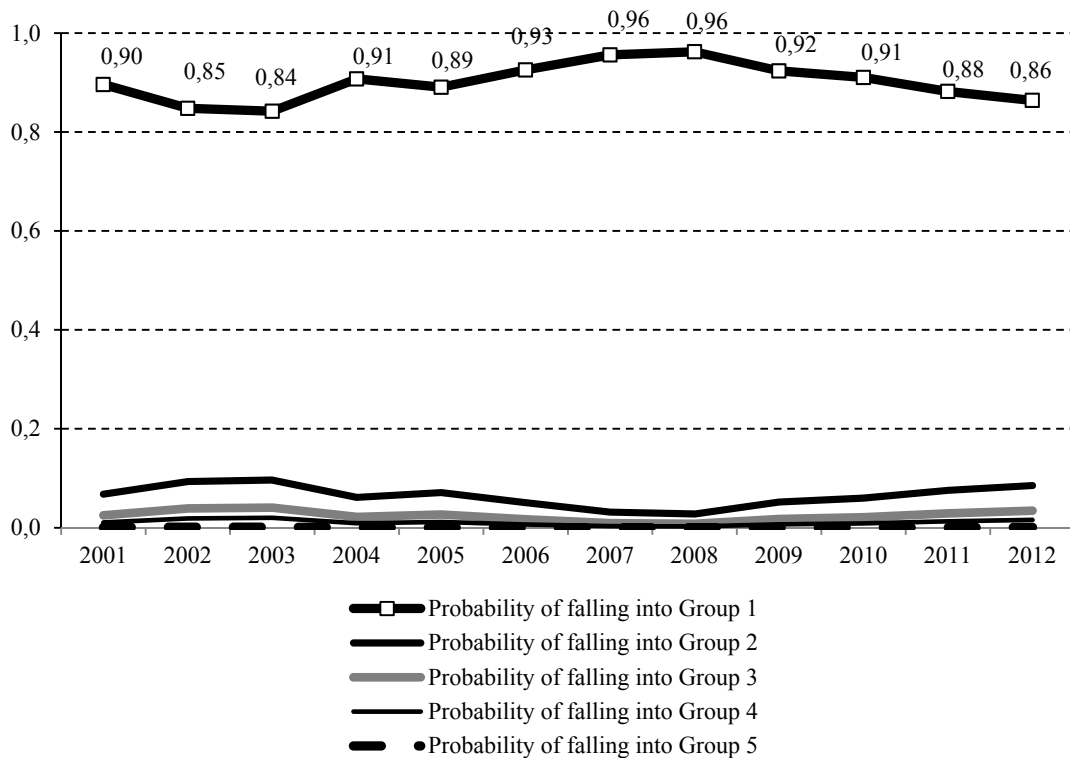


Fig. 57. Predicted probability of Russia falling into each group in accordance with the prudential supervision classification

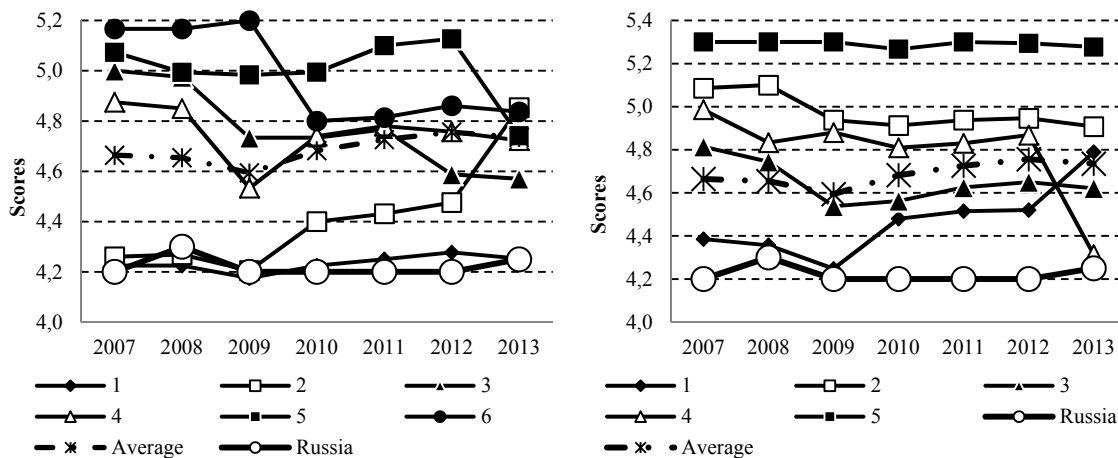
In projecting the probability of Russia falling into each group of countries with different regulation models, the highest probability was detected for Group 1 (see *Table 17*), which corresponds to the historical data observed in 1999–2012. The Probability of falling into Group 4 inched up and remained close to zero, being indicative of inconsistency between Russia’s indicators and parameters throughout the entire period. However, in 2013 Russia did fall into this group providing for concentration of regulating functions in a single body in charge of consolidated prudential supervision (see *Fig. 58*).



*Fig. 58.* Predicted probability of Russia falling into each group based on the regulation classification

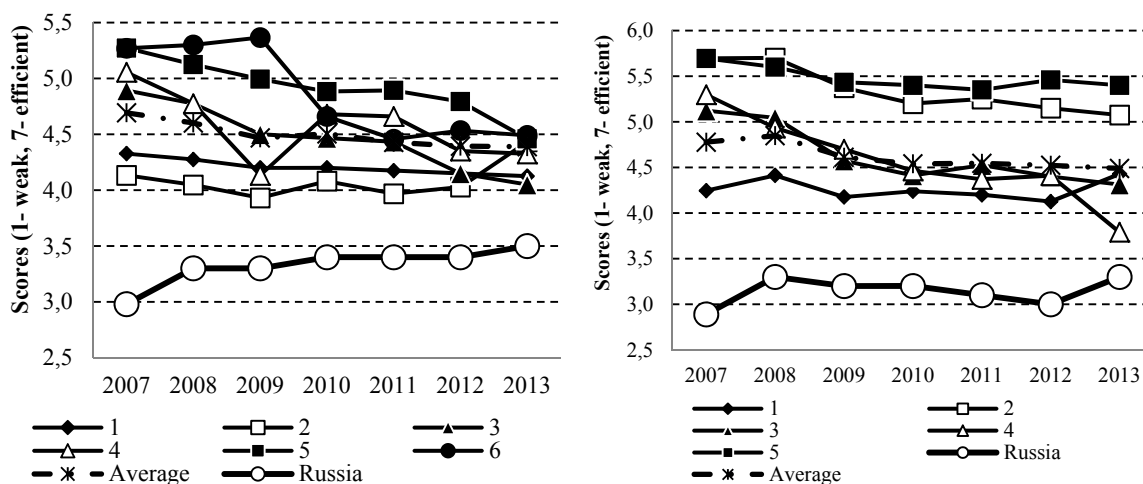
Although countries with more integrated supervision and partially regulation models tend to receive higher scores in rankings on competitiveness and public administration effectiveness, countries with the least consolidated supervision and regulation have recently been showing positive dynamics on the criteria in question. At 2013 year-end the group of countries with sectoral supervision model (Group 2), which Russia exited (see *Fig. 59*), received the best average score in the World Economic Forum (WEF) global competitiveness ranking. In terms of regulation, the countries of Group 2 were an inch behind the countries with the Twin Peaks. Additionally, the countries in Group 4, which Russia entered in 2013, showed average competitiveness results a lot worse than those of the countries with the least integrated regulation, i.e. the group of countries which Russia exited last year.

Countries in Group 2 of supervision and regulation also achieved best results in the field of anti-monopoly regulation together with the countries with most consolidated supervision and regulation of the economy, (see *Fig. 60*).



Source: the author's data.

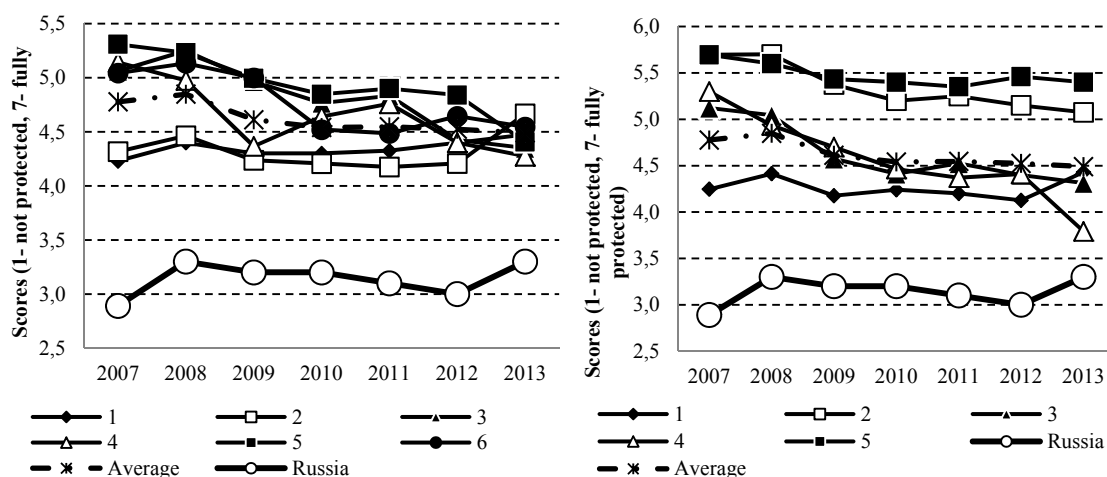
Fig. 59. Final score in the WEF global competitiveness ranking (prudential supervision models on the left; regulation models on the right)



Source: the World Bank - <http://data.worldbank.org/data-catalog/global-financial-development> and the author's data on 2011–2013 based on analysis of the data available on the official websites of regulating agencies in 50 countries

Fig. 60. Anti-monopoly regulation effectiveness under the WEF global competitiveness ranking (prudential supervision models on the left; regulation models on the right)

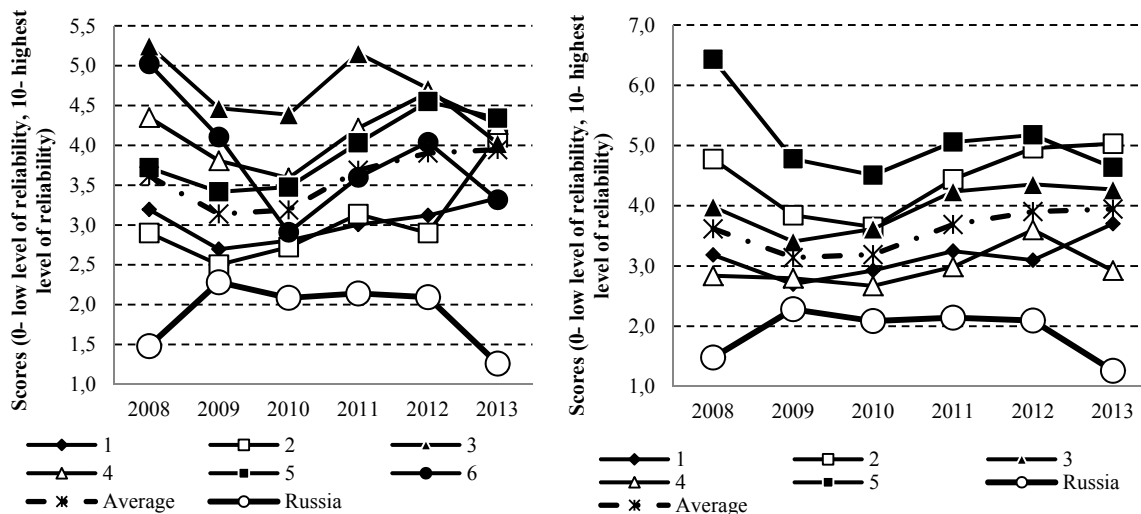
Countries in Group 2 showed best results in supervision systems on protection of minority investor rights, and Group 2 is only behind the Twin Peaks group in countries with different regulation models (see Fig. 61).



Source: the author's estimates based on the World Bank's data.

Fig. 61. Protection of minority shareholder rights under the WEF global competitiveness ranking (prudential supervision models on the left; regulation models on the right)

Finally, a trend towards achieving high scores on competitiveness of countries with low and moderate consolidation of the systems of prudential supervision and regulation vs. countries with highly integrated models can be perfectly seen through the indicators of reliability of pension systems in the Swiss IMD business school rankings (see Figure 62).



Source: the author's estimates based on the data supplied by WCY IMD (Switzerland).

Fig. 62. The score of pension system reliability under the WCY IMD business school ranking (Switzerland) (prudential supervision models on the left; regulation models on the right)

The results of the analysis made allow for the assumption that Russia is closer to the sectoral prudential supervision model and relatively simple regulation model under which nonbank financial institutions are regulated by different bodies while there is no special

regulator of competition between banks and protection of the rights of bank service consumers. True, it doesn't mean that the model of mega regulator based on the Bank of Russia which has been chosen in Russia since the end of 2013 is incorrect. However, a special emphasis should be placed on the effectiveness of the regulating function which provides for creating conditions for fair competition between all financial market participants and protection of the rights of financial service consumers. For instance, institutional investors whose development level in Russia is substantially behind that of commercial banks may find themselves in a difficult situation amid maximum consolidation of regulation and supervision in the absence of mature institutions designed to resolve conflicts of interests. In its turn, regulatory and institutional barriers to accelerated development of institutional investors lead to shortage of long money sources.

Modern financial systems are characterized by stronger integration of the regulation and prudential supervision models, creation of an optimal balance between financial systems' sustainability, and ensuring fair competition between its participants. The level of integration of the foregoing models is to a large extent determined by a level of economic development and the financial system, as well as the effectiveness of public administration. Creating a mega regulator on the basis of the Bank of Russia in the Russian financial market in 2013 provides for the transition to the highest level of integration of regulation and supervision exclusive of economic and financial development specifics in the country. This creates higher risks of both excessive administrative pressure upon yet underdeveloped nonbank financial organizations and competitive environment weakening. The foregoing issues can be resolved through major efforts of state agencies and financial market participants.

### **3.9. The Russian banking sector**

#### **3.9.1. Main trends**

For the banking system 2013 was marked by a slowdown of development in almost all directions. The previous year's forecast<sup>1</sup>, which had predicted the slowdown of growth rates for key parameters of the banking sector, proved correct. The aggregate assets of the banking sector grew by 16% (previous year's forecast predicted 15-17%), corporate loans grew by 13% (forecast: 12-15%), loans to individuals by 28% (forecast: 25-30%) (*Fig. 63*).

The formation of the resource base of the banking sector in 2013 depended on funds of individuals and loans of the Bank of Russia to a larger extent than in the previous year. The funds of private clients accounted for one third of the growth of banking sector resources compared to 28% in the previous year, while funds of the regulator accounted for 24% compared to 18%. The role of the corporate sector in the formation of bank liabilities increased significantly, their contribution growing from 14 to 22%. At the same time, the inflow of foreign credits and loans to the banking sector almost stopped. Foreign liabilities accounted for only 3% of the banking sector resources (*Fig. 64*).

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<sup>1</sup> See review "Russian Economy in 2012. Trends and Prospects" (Issue 34), Moscow, the E.T.Gaidar IEP, 2013.



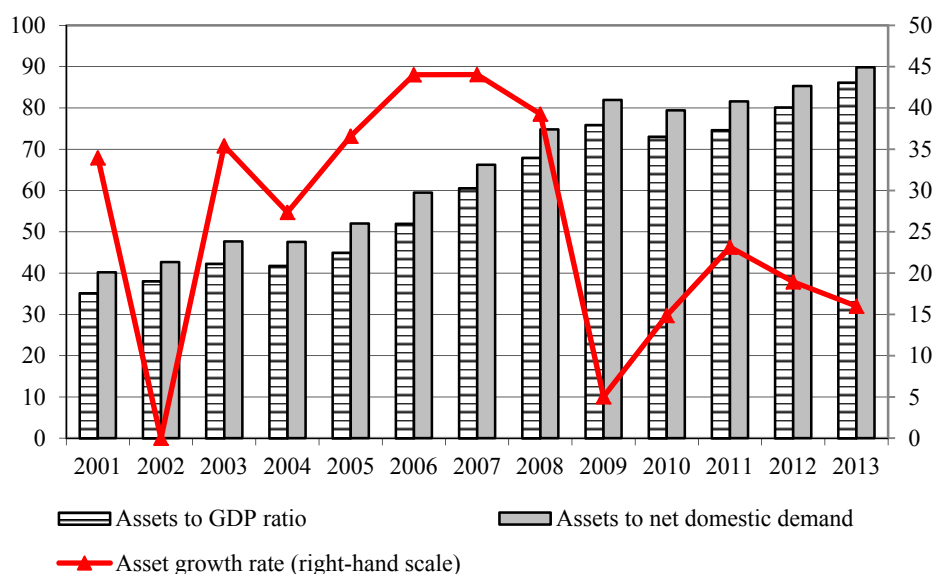


Fig. 63. Growth in bank' assets and the ratio to GDP and net domestic demand<sup>1</sup> (%)

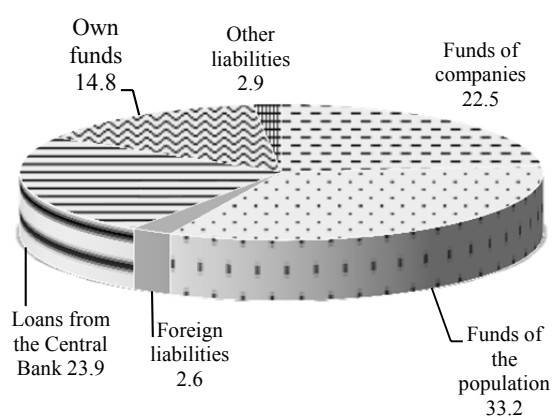


Fig. 64. Structure of banking sector resources (growth in liabilities and decrease in assets) in 2013, as % of the total

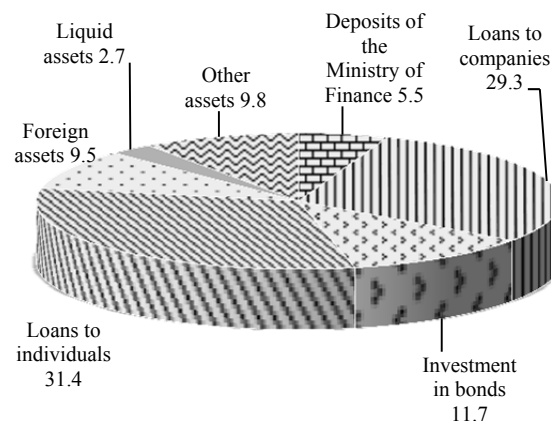


Fig. 65. Structure of the use of banking sector resources (growth in assets and decrease in liabilities) in 2013, as % of the total

The previous year's trend in the lending sector, towards displacement of lending to corporate borrowers by retail lending, continued. As a result, in 2013 the growth in loans to individuals exceeded the growth in corporate lending in absolute terms for the first time. Of banks' financial resources, 31% were provided as loans to individuals while 29% went as loans to business (Fig. 65).

<sup>1</sup> Net domestic demand (NDD) is calculated as GDP without net export and constitutes a measure of domestic consumption in the economy.

### 3.9.2. Banks and households

The following key trends, which in many respects continued the tendencies of the previous year, dominated in the relationship between banks and individuals in 2013:

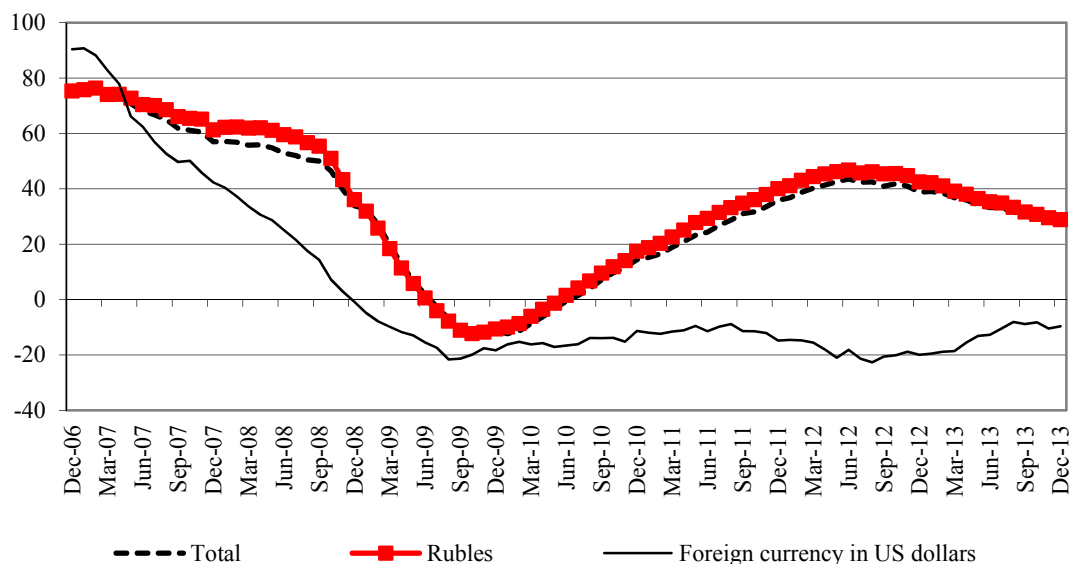
1. Consumption by households continued to become increasingly dependent on bank loans.
2. The load on household available income, related to the servicing of bank debt, continued to grow.
3. By the end of 2013 a sharp slowdown in the growth in deposits occurred, with their simultaneous redistribution in favour of the state-owned banks.

#### *Growth of credit dependency of the population*

There was a decline in growth of the retail segment of bank lending in 2013, after the record (post crisis) levels of 2012 (*Fig. 66*). The volume of individual indebtedness under consumer loans showed the fastest growth (as in previous years), with a 31.3% growth rate. Indebtedness under loans for the purchase of residential property, including mortgage loans, grew by 29.8% during the year, while car loans grew by 22.3%.

The volume of loans to individuals increased by 21.5% in 2013, totaling Rb 8.8 trillion, out of which Rb 1.4 trillion accrued to mortgage loans while Rb 7.4 trillion went to other loans (consumer loans, including car loans). The ratio of provided consumer loans in proportion to household consumer expenditure grew from 21.7% in 2012 to 23.5% in 2013. This means that almost every fourth ruble spent on the purchase of goods and services was loaned by Russian banks.

The greatest concern in respect of risks relating to the insolvency of borrowers and, hence, the stability of banks is not the rate of growth of the loan portfolio itself — in certain periods before the crisis, loan volumes grew even faster — but the increased level of debt burden on the income and assets of households. For example, the ratio of total debt under bank loans to the income of households has already exceeded the crisis maximum (17.8% in September 2008), having reached 24.7% by the end of the year.



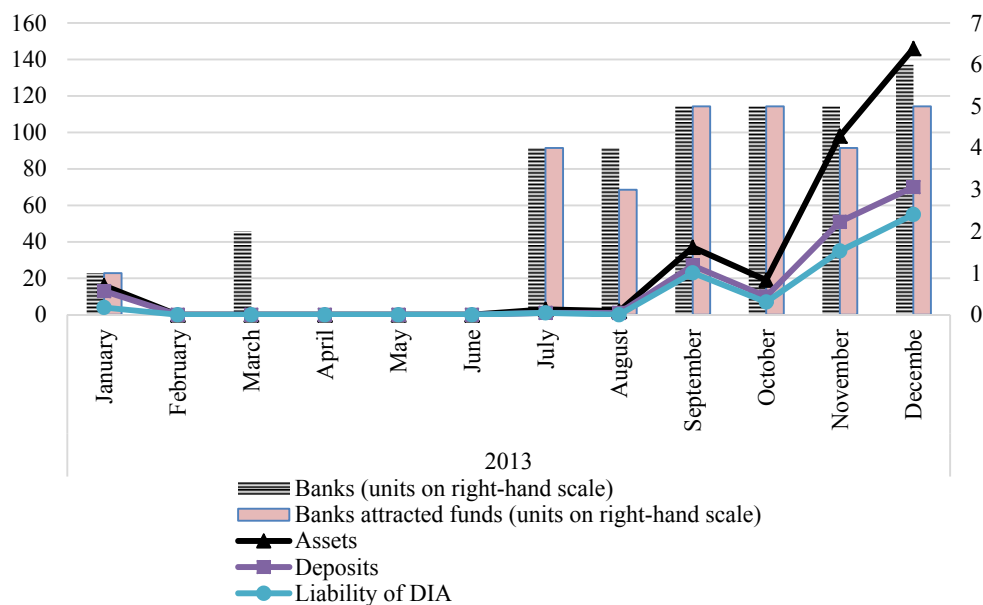
*Fig. 66. Rates of growth of lending to individuals for 12 months (%)*

The current load on the disposable income of households relating to servicing bank debt (the amount of obligatory payments of the principal amount and of interest) has continued to grow. While in 2012 individuals had to pay 9.5% of their available income to banks, in 2013 this figure increased to 11.3%.

***Savings rate of households***

The growth rates of the deposit base have remained stable for almost two years. As early as late October 2013 the annual growth rate of the funds of individuals in banks was around 20%. However, based on the results of 2013, private deposits had grown by only 17% at the year end, and in January 2014 the slowdown continued.

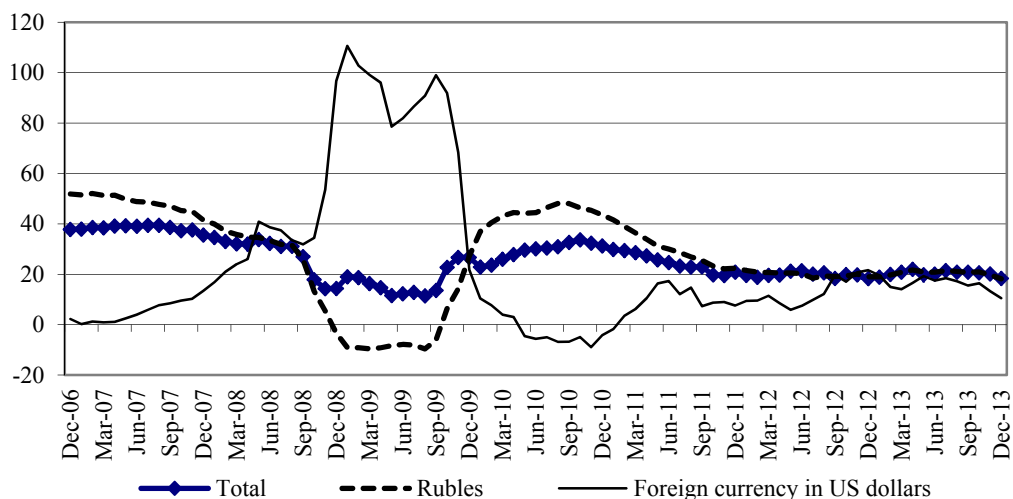
The main factor causing increased public distrust of the banks was, oddly enough, the policy of the Bank of Russia aimed at putting the banking sector in order. In summer 2013 the licenses of a number of banks were revoked, including the fairly large Master Bank and Investbank, which were in the top 100 in terms of the size of their assets. In total, the Bank of Russia revoked the licenses of 32 banks, with two more banks subjected to reorganisation. Of them, 26 banks held licenses for transactions with individuals and the deposits with these banks were insured through the Deposit Insurance Agency (DIA). The banks that lost their licenses in 2013 held private deposits of over Rb 170bn and the DIA liability under these insured events was Rb 125bn (*Fig. 67*).



*Fig. 67.* Range of indicators for banks whose licenses were revoked in 2013

Firstly, this caused a general slowdown of the inflow of funds of private individuals to banks and, secondly, the floating of funds from small and medium-sized banks to large, mainly state-owned, banks. Household savings in banks in November-December 2013 grew by 5.2% (RUR 820bn), while in the corresponding period of 2012 the growth in deposits was 8.3% (RUR 1,088bn) (*Fig. 68*). At the same time, the deposit growth rate of the 30 largest banks remained almost unchanged (8.6% in November-December 2013 against 8.9% in November-December 2012) and the deposit growth rates of state-owned banks, taking into

account Sberbank, increased from 8.7% at the end of 2012 to 10.9% at the end of 2013. In the medium-sized and small banks during November-December 2013 the funds of individuals decreased by Rb 208bn (5.3%), as compared to the increase by Rb 214bn (6.5%) in the corresponding period of 2012.



*Fig. 68. Growth rates of deposits by individuals per 12 months (%)*

### 3.9.3. Banks and the corporate sector

The relationship between banks and corporate clients in 2013 were characterised by the following trends:

1. Slowdown in the growth of lending to companies and organisations.
2. Increase in the growth of balances on the accounts of corporate clients;
3. Increase in “non-performing” assets in the corporate sector.

In 2013, there was a slowing of the rise in the level of debt of companies and organisations to banks under loans and credits. While the 2012 growth had been 16%, growth rates for the corporate segment of the credit market decreased to 13% (*Fig. 69*). Furthermore, the nominal volume of debt increase in 2013 for the retail segment overtook the corporate debt: company debt grew by Rb 2.4 trillion while individual debt grew by Rb 2.5 trillion.

However, the quality of the credit debt of corporate clients was gradually increasing during the year. The volume of reserves against possible loss grew only by 2.9%, while the value of arrears decreased by 0.4%. The yearly results also showed a decrease both in the share of overdue debt in the total debt (from 4.6 to 4.1%) and in the ratio of reserves to loan debt (from 7.5 to 6.8%). At the same time, these formal indicators of the quality of corporate customers’ debt still remained much higher than the pre-crisis minimum values, when the share of overdue debt did not exceed 1% of the total debt and the volume of reserves was about 3% of the total volume of loans.

In 2013, the intensity of flow of the funds of corporations to bank accounts and deposits increased (*Fig. 70*). After a reduction to 10% in 2012, in 2013 the volume of corporate clients’ funds grew by 16%. In absolute terms the annual inflow of funds from enterprises to banks increased by 1.5 times from Rb 1.07 trillion in 2012 to Rb 1.62 trillion in 2013.

In this respect, the total of funds placed on term deposits, constituting the “non-performing” assets of the corporate sector withdrawn from the current economic turnover, continued to dominate in the total funds of corporations in the banking sector. Throughout the year their share in the total funds of corporate customers exceeded 50%, at certain points reaching 55% of the total funds of corporations in banks. Moreover, a considerable part of the term deposits of legal entities was placed in banks for a term of over 1 year. For the term deposits of non-financial organisations their share slightly increased during the year from 38.2% as of 1 January 2013 to 39.6% as of 1 January 2014.

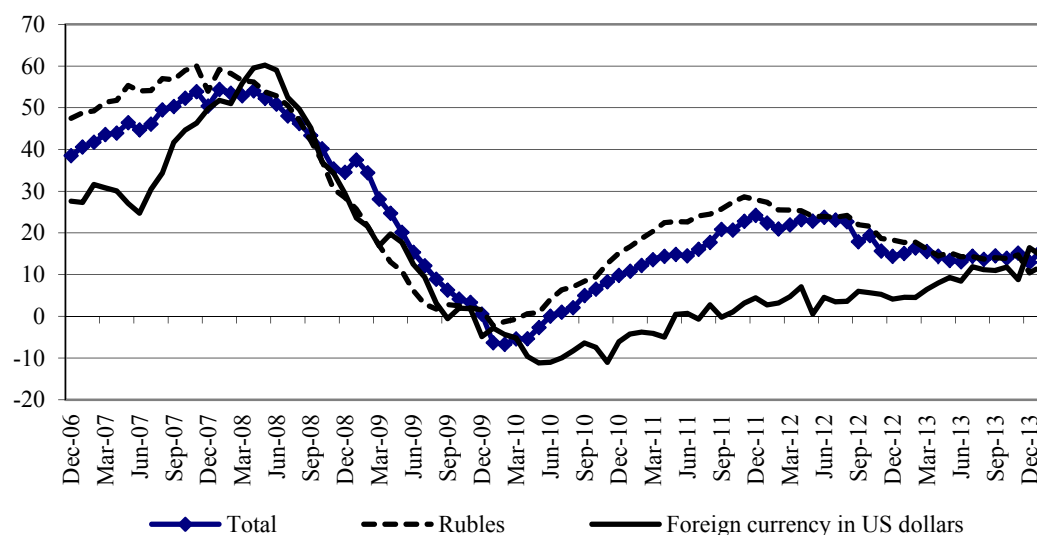


Fig. 69. Rates of growth in lending to companies per 12 months (%)

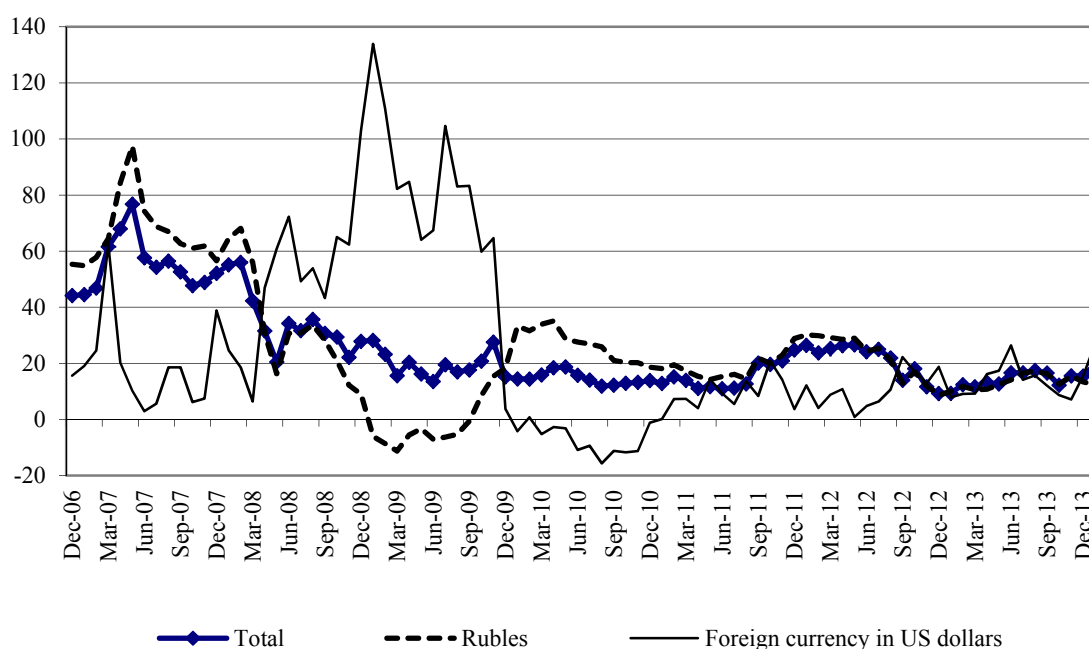


Fig. 70. Rates of growth of company funds per 12 months, %

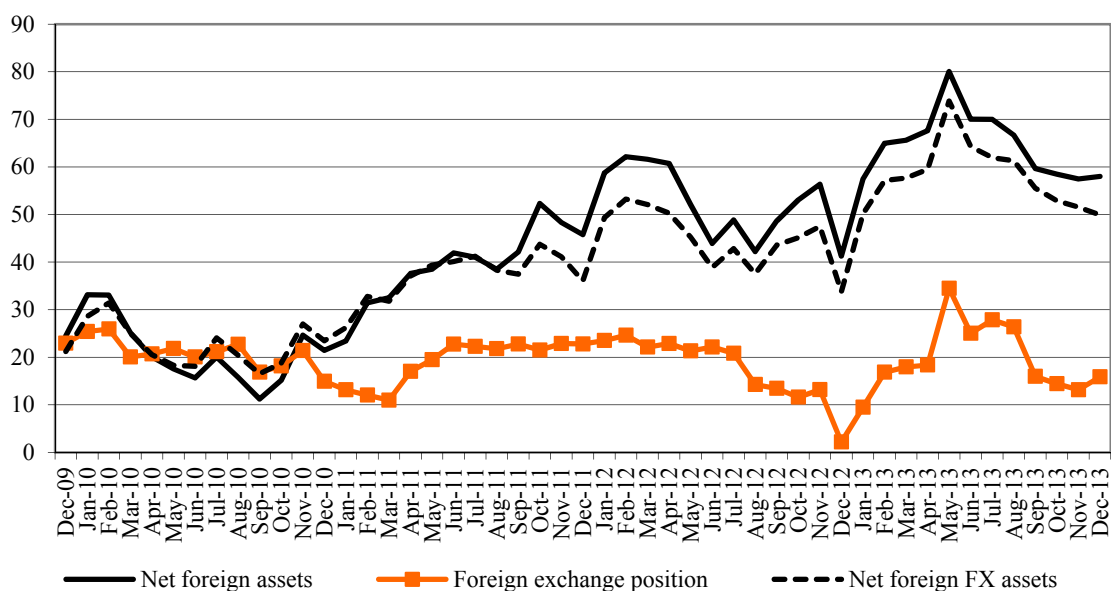
### 3.9.4. Banks and the outside world

Based on the results of 2013 the balance of transactions of the banking sector with non-residents continued to change in favour of the net placement of foreign assets. The volume of foreign liabilities grew by only Rb 4bn and foreign assets grew by Rb 21bn. The net investments of banks in foreign assets, thus, grew by Rb 16bn during the year, reaching Rb 58bn (*Fig. 71*).

In 2013, simultaneously with the growth of net foreign assets, the net balance foreign exchange position of the banking sector, i.e. the excess of foreign exchange assets over foreign exchange liabilities, grew. It grew by Rb 14bn during the year.

The fact that the dynamics of the foreign exchange position followed that of net foreign assets shows that the foreign exchange balance, in bank transactions with the internal economy sectors, was preserved. Almost the entire increase in foreign currency accounts and the deposits of residents (Rb 25bn) was placed in internal foreign exchange assets, which increased by Rb 23bn. The growth in the foreign exchange position of banks was due to the accumulation of currency liquidity of foreign banks, and the major part of the increase in foreign assets accounted for loans to foreign banks. This strategy was justified under the conditions of depreciation of the national currency in 2013. During the year the ruble lost 7.5% against the US dollar and 12% against the euro, which brought Rb 50bn of net income from the revaluation of accounts in foreign currencies.

The Bank of Russia's gradual exit from the foreign exchange market continued in 2013 and the increased uncertainty in the medium-term dynamics of the ruble exchange rate discouraged banks from assuming additional foreign exchange risks. It makes it pointless to undergo a possible repeat of the banking sector growth strategy that prevailed before the crisis: growth of credit expansion in the country by attracting cheap (in foreign currency terms) resources from foreign financial markets.



*Fig. 71.* Net foreign assets and foreign exchange position of the banking sector, billion USD

### 3.9.5. Banks and the state

Starting from 2011 the main factor in the formation of money supply in the Russian economy has been the refinancing of the banking sector by the Bank of Russia. The scale of growth of the debts of commercial banks to the regulator, today, considerably exceeds the increase in the broad definition monetary base (as an indicator of the dynamics of the money supply) due to the substantial outflow of liquidity through other channels, principally as a result of the sterilisation of the funds of enlarged government accounts in the Bank of Russia.

So, for 2011–2013 the volume of the broad definition monetary base increased by Rb 2.3 trillion; refinancing of the banking sector grew by Rb 4.1 trillion; Rb 3.2 trillion were received to the budgetary accounts in the Bank of Russia; and operations with reserve assets provided a ruble issue in the amount of Rb 0.6 trillion (with an additional Rb 0.8 trillion through loans by the Central Bank of the Russian Federation to the Deposit Insurance Agency, a decrease in the balances of the accounts of organisations in the Central Bank of the Russian Federation and other factors).

The same situation will continue in the medium term. The dynamics of the key elements of the balance of payments, coupled with the declared policy of the Bank of Russia for minimisation of its presence in the internal foreign exchange market, will lead to minor changes in the size of the reserve assets of the Bank of Russia in absolute terms. In some years, they could be both positive and negative, but in any event their amount will be insufficient to provide the banking sector with the required volume of liquid assets.

The budgetary factor will keep its sterilising influence on the money market. In accordance with the Law on the Federal Budget for 2014 and the Planning Period of 2015 and 2016 it is planned to reduce the federal budget deficit to 1% of GDP. According to estimates by the Ministry of Economic Development, as laid out in the forecast of long-term social and economic development of the Russian Federation for the period until 2030, the balance of the budget system in general for this period will be close to zero. At the same time, it is planned that internal state debt will continue to grow to 10.8% of GDP by 2016. Together, these factors will determine the continuation of the sterilising effect of the budget system on the dynamics of money supply until 2016.

Thus, the refinancing of the banking sector by the Bank of Russia will remain the only stable source of growth of money supply in the future, at least until 2016. According to our estimates, in the period from 2014 to 2016 the amounts owed by credit institutions to the regulator will increase by more than Rb 6 trillion, reaching 14% of the total assets of the banking sector.

At the same time, the level of dependency of the banking sector on monetary regulators continues to grow. In nominal terms, state support for the banking sector has already exceeded the crisis values of early 2009 and its relative level (although it has not returned to the crisis maximum) is still quite high. Based on the results for 2013, the aggregate volume of bank debt to the regulators has reached 8% of assets and 7% of GDP (*Fig. 72*).

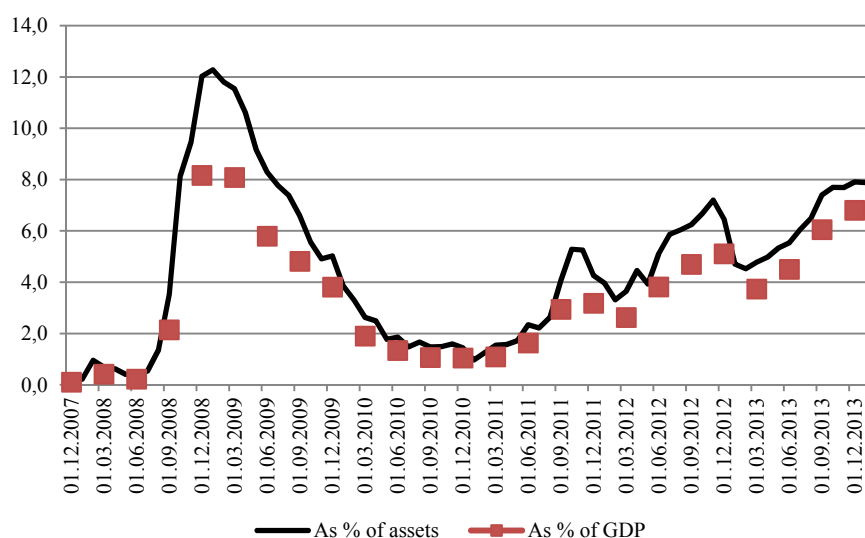


Fig. 72. Funds of the Bank of Russia and the Ministry of Finance of Russia, attracted by banks

### 3.10. The Market for Municipal and Subfederal Borrowings

#### 3.10.1. The Dynamics of the Market's Development

The annual consolidated regional budget and the budgets of territorial state off-budget funds for 2013 were executed with a deficit of Rb 625.5bn (or 0.94% of GDP). The amount of consolidated regional budget deficit as a percentage of GDP increased more than twice on 2012. Thus, in 2012 the amount of territorial budget deficit was Rb 273.1bn (or 0.44% of GDP).

In 2013, the budgets of subjects of the Russian Federation were executed with a deficit of Rb 599.8bn; the budgets of city districts – with a deficit of Rb 43.4bn; the budgets of intra-city municipal formations of Moscow and St Petersburg – with a deficit of Rb 0,7bn; the budgets of municipal raions – with a deficit of Rb 5,7 bn; the budgets of urban and rural settlements – with a surplus of Rb 7.7bn; the budgets of territorial state off-budget funds – with a surplus of Rb 16.5bn.

In 2012, the budgets of subjects of the Russian Federation were executed with a deficit of Rb 251.1 bn; the budgets of city districts – with a deficit of Rb 31.0bn; the budgets of intra-city municipal formations of Moscow and St Petersburg – with a surplus of Rb 0.4bn; the budgets of municipal raions – with a deficit of Rb 1.1bn; the budgets of urban and rural settlements – with a surplus of Rb 4.3bn; the budgets of territorial state off-budget funds – with a surplus of Rb 5.4bn.

Table 19

#### The Territorial Budget Surplus (Deficit) to Budget Expenditure Ratio (as %)

Year	Consolidated regional budget*	Regional budgets
1	2	3
2013	-6.4	-8.1
2012	-3.0	-3.5
2011	-0.2	-0.3
2010	-1.4	-1.6
2009	-5.3	-5.3



*Cont'd*

1	2	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

\* January state off-budget funds.

*Source:* Ye. T. Gaidar Institute for Economic Policy's calculations based on data released by the Federal Treasury.

*Table 20*

**The Territorial Budget Surplus (Deficit) to Budget Expenditure  
Ratio in 2007–2012 (as %)**

Year	Budgets of intra-city municipal formations of Moscow and St Petersburg	Budgets of city districts	Budgets of municipal raions	Budgets of urban and rural settlements
2013	-3.47	-2.61	-5.59	2.24
2012	2.26	-2.01	-0.08	1.34
2011	6.15	-2.10	1.13	0.64
2010	-1.12	-1.16	-0.11	1.72
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:* Ye. T. Gaidar Institute for Economic Policy's calculations based on data released by the Federal Treasury.

As of 1 January 2014, the consolidated budget was executed with a deficit (including territorial state off-budget funds) for 77 RF subjects (in 2012 – for 68 regions). The amount of total deficit was at the level of Rb 655.0bn, or 8.1% the amount of their budget revenue (in 2012 – Rb 347.3bn, or 4.6%).

The average amount of consolidated budget deficit was at the level of 8.0% of the relevant budget's revenue amount. The highest budget deficit to revenue ratio was observed in Chukotka AO – 49.4%, in Tyumen Oblast – 23.4%, in Krasnodar Krai – 20.4%, and in Novgorod Oblast – 19.2%. Moscow accounted for more than 13.5% of total consolidated budget deficit, or Rb 47.0bn (*Table 22*).

In 2013, the consolidated budget was executed with a surplus for 6 subjects of the Russian Federation (against 15 RF subjects in 2012). The amount of total budget surplus displayed by these regions was Rb 29.5bn, or 2.6% of the amount of their budget revenue (in 2012 – Rb 74.2bn, or 6.1% of budget revenue). The average budget surplus index amounted to 1.7% of budget revenue.

The highest consolidated budget surplus to revenue ratio was achieved in the Republic of Altai – 5.2%.

The bulk (94.1%) of the aggregate consolidated regional budget surplus was achieved due to the budget results displayed by two subjects of the Russian Federation: St Petersburg (50.5% or Rb 14.9bn) and Moscow Oblast (43.6% or Rb 12.9bn).

### 3.10.2. Cumulative Debt Structure

According to data released by the Ministry of Finance of the Russian Federation, the amount of total net borrowing by the subjects of the Russian Federation in 2013 went up by 386.1 bln rubles and amounted to 1,737.5 bln rubles, the volume of the cumulative debt of the

municipalities went up by Rb 43.5 bn and came to Rb 288.9 bn. Meanwhile, the ruble equivalent of the volume of cumulative external borrowing of the regional consolidated budgets increased by Rb 1.2 bn and amounted to Rb 181.3 bn (*Table 21*).

*Table 21*

**Net Borrowing in Regional and Local Budgets (as % of GDP)**

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net borrowing by subfederal and local authorities	-0.29	-0.04	0.47	0.37	0.26	0.09	0.21	0.17	0.29	0.74	0.51	0.21	0.33	0.61
Including:														
Refundable loans received from budgets of other levels	-0.03	0.04	0.12	-0.1	-0.02	-0.03	-0.04	-0.01	0.03	0.33	0.37	0.15	0.01	0.06
subfederal (municipal) bonds	-0.27	-0.07	0.16	0.31	0.29	0.09	0.14	0.08	0.17	0.24	0.07	-0.11	0.06	0.12
other borrowings	0.01	-0.02	0.19	0.6	...	0.03	0.11	0.10	0.09	0.17	0.07	0.17	0.26	0.43

*Source:* Ye. T. Gaidar Institute for Economic Policy's calculations based on data released by the Federal Treasury.

**3.10.3. Structure of Borrowing**

Cumulative volume of borrowing by the regions and municipalities came to Rb 1,195.4 bn. Biggest borrowers were: Omsk Oblast – Rb 75.5 bn, Nizhniy Novgorod Oblast – Rb 75.3 bn, Moscow Oblast – Rb 58.9 bn, Novosibirsk Oblast – Rb 58.1 bn, Krasnodarsky Krai – Rb 50.6 bn, Krasnoyarskiy Krai – Rb 38.6 bn, Arkhangelsk Oblast – Rb 30.9 bn. In comparison with 2012 the volume of borrowing in nominal terms went up by Rb 364.4 bn or by 43.9%.

In the overall volume of borrowing of the consolidated regional budget issue of securities came to 12.9%, for loans from upper level budgets (budgetary loans) – 11.1%, other types of borrowing (borrowing from commercial banks and international credit organizations) – 76.0%.

The overall volume of net borrowings of the consolidated regional budget came to Rb 404.6 bn. The highest net borrowing to budget revenue ratios were demonstrated by Chukotka AO – 45.6%; the Republic of Udmurtia – 17.3%; and by Smolensk Oblast and Pskov Oblast – 14.1%. (*Table 22*).

The largest net borrowers were: Krasnodarskiy Krai – Rb 35.8 bn, Krasnoyarskiy Krai – Rb 19.9 bn, Kemerovo Oblast – Rb 16.6 bn, Sverdlovsk Oblast – Rb 16.1 bn, and Novosibirsk Oblast – Rb 15.4 bn.

Due to the higher amount of previously received and redeemed loans vs. the amount of new loans, the amount of cumulative debt declined in four subjects of the Russian Federation: in Moscow Oblast – by Rb 13.1bn, in the city of Moscow – by Rb 11.1bn, in St Petersburg – by Rb 2.6bn and Smolensk Oblast – 14.1%.

*Table 22*

**The Execution of Consolidated Budgets of Subjects of the Russian Federation in 2013**

	Budget revenue (m Rb)	deficit (surplus) (m Rb)	Deficit (surplus) to revenue ratio, %	Attracted borrowing to revenue ratio, %	Net borrowing to revenue ratio, %	Repaid debt to revenue ratio, %	Net borrowing to deficit (surplus) ratio, %
1	2	3	4	5	6	7	8
<b>Central Federal District</b>							
Belgorod Oblast	86,795.1	9,828.4	11.32	17.92	8.07	6.08	71.26
Briansk Oblast	52,611.4	3,616.9	6.87	13.43	6.28	7.15	91.33

*cont'd*

1	2	3	4	5	6	7	8
Vladimir Oblast	59,979.0	2,796.6	4.66	5.38	4.39	0.99	94.20
Voronezh Oblast	105,900.9	8,317.5	7.85	15.49	8.06	5.21	102.67
Ivanovo Oblast	43,142.2	2,951.6	6.84	20.40	7.14	13.16	104.29
Tver Oblast	65,839.2	3,805.8	5.78	37.18	7.55	29.63	130.69
Kaluga Oblast	57,423.4	4,552.6	7.93	18.18	7.96	9.70	100.34
Kostroma Oblast	29,770.8	1,906.6	6.40	35.44	7.68	23.94	119.85
Kursk Oblast	54,284.4	2,194.2	4.04	5.46	3.50	1.68	86.69
Lipetsk Oblast	53,494.4	5,202.0	9.72	14.49	7.52	5.11	77.34
Moscow Oblast	509,135.0	-12,855.3	-2.52	11.58	-2.57	11.19	101.66
Orel Oblast	36,025.3	2,876.0	7.98	16.76	6.83	9.76	85.49
Ryazan Oblast	53,568.0	6,752.9	12.61	29.26	7.45	20.47	59.07
Smolensk Oblast	42,784.2	7,303.1	17.07	61.99	14.06	45.57	82.38
Tambov Oblast	50,409.4	4,731.7	9.39	17.54	4.07	12.02	43.36
Tula Oblast	72,638.3	4,388.5	6.04	15.25	8.31	6.36	137.50
Yaroslavl Oblast	71,016.6	7,565.6	10.65	30.49	10.23	20.05	96.07
Moscow	1,592,594.4	44,582.1	2.80	1.86	-0.70	1.61	-25.00
Financial administration, Baikonur city government	3,851.5	0.1	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>3,041,263.5</b>	<b>110,516.7</b>	<b>3.63</b>	<b>9.39</b>	<b>1.51</b>	<b>6.52</b>	<b>41.55</b>
<b>North Western Federal District</b>							
Republic of Karelia	37,499.1	5,566.8	14.85	33.97	9.36	21.95	63.05
Republic of Komi	72,490.3	13,192.8	18.20	15.52	9.73	5.30	53.44
Arkhangelsk Oblast	86,572.0	5,591.0	6.46	35.66	8.16	25.81	126.35
Vologda Oblast	61,509.2	4,839.7	7.87	21.64	6.67	10.35	84.82
Kaliningrad Oblast	53,200.2	6,089.2	11.45	16.77	6.42	5.76	56.06
Leningrad Oblast	104,107.8	5,048.6	4.85	7.19	4.48	2.18	92.32
Murmansk Oblast	65,824.9	6,983.8	10.61	18.13	6.74	7.78	63.56
Novgorod Oblast	31,856.9	6,103.3	19.16	34.10	10.50	21.91	54.79
Pskov Oblast	32,012.5	4,937.0	15.42	17.11	14.13	2.24	91.61
St Petersburg	453,242.6	-14,901.9	-3.29	0.02	-0.58	0.30	17.62
Nenets AO	16,908.2	700.6	4.14	0.00	0.00	0.00	0.00
<b>Total</b>	<b>1,015,223.6</b>	<b>44,151.0</b>	<b>4.35</b>	<b>11.13</b>	<b>3.89</b>	<b>5.94</b>	<b>89.43</b>
<b>Southern Federal District</b>							
Republic of Kalmykia	12,063.1	1,575.9	13.06	7.79	1.26	2.07	9.65
Krasnodar Krai	251,325.7	51,178.9	20.36	20.13	14.24	5.89	69.93
Astrakhan Oblast	46,040.6	2,482.7	5.39	40.10	6.54	31.33	121.35
Volgograd Oblast	97,471.6	10,980.0	11.26	22.24	11.55	9.94	102.50
Rostov Oblast	180,375.2	8,642.3	4.79	4.57	3.24	1.34	67.59
Republic of Adygeya (Adygeya)	19,124.3	325.2	1.70	7.94	2.33	3.15	136.95
<b>Total</b>	<b>606,400.6</b>	<b>75,185.0</b>	<b>12.40</b>	<b>16.73</b>	<b>9.32</b>	<b>6.95</b>	<b>75.14</b>
<b>North Caucasus Federal District</b>							
Republic of Dagestan	102,541.9	3,068.1	2.99	8.15	3.70	2.93	123.59
Republic of Kabardino-Balkaria	31,265.1	1,061.4	3.39	10.18	2.18	8.00	64.29
Republic of North Ossetia – Alania	28,611.7	1,844.9	6.45	17.64	3.42	8.25	53.01
Republic of Ingushetia	22,949.0	3,533.9	15.39	4.09	4.09	0.00	26.59
Stavropol Krai	109,247.1	8,074.8	7.39	13.98	5.42	8.01	73.30
Republic of Karachay-Cherkessia	23,207.3	-77.1	-0.33	10.99	2.02	4.51	-607.52
Chechen Republic	72,755.8	-175.4	-0.24	1.61	0.16	0.00	-67.79
<b>Total</b>	<b>390,577.8</b>	<b>17,329.7</b>	<b>4.44</b>	<b>9.35</b>	<b>3.30</b>	<b>4.52</b>	<b>74.42</b>
<b>Volga Federal District</b>							
Republic of Bashkortostan	181,472.2	17,024.4	9.38	6.06	3.80	2.26	40.53

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1	2	3	4	5	6	7	8
Republic of Mari El	29,307.2	1,686.9	5.76	15.58	5.10	8.91	88.63
Republic of Mordovia	41,817.5	4,102.8	9.81	33.88	7.97	21.12	81.20
Republic of Tatarstan (Tatarstan)	231,127.5	160.8	0.07	2.49	0.09	2.38	127.37
Republic of Udmurtia	71,434.8	9,498.2	13.30	38.74	17.36	19.46	130.59
Republic of Chuvashia	51,006.4	1,375.6	2.70	11.28	0.35	9.25	12.85
Nizhny Novgorod Oblast	159,876.0	10,986.3	6.87	47.11	7.75	37.66	112.82
Kirov Oblast	59,811.9	6,608.7	11.05	27.18	8.02	18.83	72.56
Samara Oblast	174,388.0	10,799.6	6.19	14.01	3.08	10.23	49.80
Orenburg Oblast	92,591.5	10,986.8	11.87	18.78	9.34	9.11	78.68
Penza Oblast	57,721.7	5,851.3	10.14	28.16	10.24	17.22	101.04
Perm Krai	138,841.8	9,843.1	7.09	0.09	0.01	0.08	0.16
Saratov Oblast	95,516.3	6,713.5	7.03	29.05	7.77	19.87	110.56
Ulianovsk Oblast	49,397.7	5,983.6	12.11	13.44	9.06	3.58	74.76
Total	1,434,310.4	101,621.5	7.09	17.64	5.13	11.73	72.38
<b>Urals Federal District</b>							
Kurgan Oblast	39,821.3	1,983.8	4.98	7.21	5.35	1.26	107.39
Sverdlovsk Oblast	237,404.5	26,630.3	11.22	10.48	6.77	3.34	60.33
Tyumen Oblast	138,852.6	32,454.5	23.37	0.00	0.00	0.00	0.00
Cheliabinsk Oblast	155,510.7	10,974.5	7.06	9.22	5.18	3.77	73.41
Khanty-Mansi AO	212,338.6	35,548.1	16.74	6.45	4.89	1.56	29.21
Yamalo-Nenets AO	146,339.9	20,266.8	13.85	15.40	9.59	5.81	69.27
Total	930,267.6	127,857.9	13.74	8.42	5.45	2.81	39.64
<b>Siberian Federal District</b>							
Republic of Buryatia	60,962.1	126.8	0.21	8.71	4.36	1.80	2 097.19
Republic of Tyva	24,625.7	2,138.9	8.69	5.88	3.30	2.58	38.00
Altai Krai	104,330.5	985.3	0.94	1.75	0.80	0.95	84.63
Krasnoyarsk Krai	203,604.1	33,385.6	16.40	18.97	9.76	9.19	59.51
Irkutsk Oblast	142,834.9	13,953.3	9.77	1.29	0.52	0.30	5.30
Kemerovo Oblast	133,298.0	17,138.7	12.86	16.54	12.35	1.59	96.03
Novosibirsk Oblast	149,144.1	17,342.1	11.63	38.95	10.30	27.93	88.60
Omsk Oblast	92,286.7	8,631.1	9.35	80.70	8.25	71.64	88.23
Tomsk Oblast	63,211.5	6,955.8	11.00	32.19	8.65	21.13	78.61
Republic of Altai	18,048.6	-947.4	-5.25	8.92	0.52	7.03	-9.82
Republic of Khakassia	27,291.4	3,913.9	14.34	32.88	13.66	19.14	95.27
Transbaikal Krai	61,923.5	4,931.2	7.96	19.12	8.16	10.62	102.43
Total	1,081,561.0	108,555.2	10.04	22.78	7.28	14.63	72.49
<b>Far Eastern Federal District</b>							
Republic of Sakha (Yakutia)	169,230.6	10,412.0	6.15	6.46	4.64	1.44	75.48
Maritime Krai	112,742.9	9,470.9	8.40	9.84	6.24	3.60	74.24
Khabarovsk Krai	120,812.0	3,686.7	3.05	11.37	8.31	2.80	272.17
Amur Oblast	83,341.2	2,966.5	3.56	26.54	10.04	14.68	282.05
Kamchatka Krai	63,830.4	-537.4	-0.84	2.94	0.17	2.65	-19.77
Magadan Oblast	30,394.9	2,445.6	8.05	8.38	5.30	2.96	65.83
Sakhalin Oblast	102,195.8	1,932.7	1.89	8.30	2.05	5.74	108.18
Jewish AO	15,581.0	352.4	2.26	7.77	5.39	1.10	238.37
Chukotka AO	19,346.3	9,555.2	49.39	46.52	46.52	0.00	94.19
Total	717,475.1	40,284.7	5.61	11.29	6.54	4.29	116.51
Total, Russian Federation	9,217,079.6	625,501.7	6.79	12.97	4.39	7.61	64.69

Source: Ye. T. Gaidar Institute for Economic Policy's calculations based on data released by the Federal Treasury.

### ***Domestic Bond Loans***

In 2013, new issues of bond loans were registered in 28 RF subjects and in 1 municipal formation (vs. 27 regions and 4 municipalities in 2012). In the course of the same year, the RF Ministry of Finance registered prospectuses for the offering and listing of bond loan issues placed by: Volgograd Oblast; Krasnoyarsk Krai; the Republic of Karelia; Nizhny Novgorod Oblast; Tver Oblast; St Petersburg; Tomsk Oblast; the Republic of Sakha (Yakutia); Yaroslavl Oblast; the Republic of Udmurtia; Samara Oblast; Stavropol Krai; the Republic of Bashkortostan; Stavropol Krai; the Republic of Bashkortostan; Belgorod Oblast; Lipetsk Oblast; Voronezh Oblast; Tula Oblast; Orenburg Oblast; Kostroma Oblast; Moscow; Novosibirsk Oblast; the Republic of Mordovia; Smolensk Oblast; Omsk Oblast; Kemerovo Oblast; the city of Novosibirsk.

In 2013, the total volume of placed bonds amounted to Rb 154.6bn, thus having increased on 2012 by one-third. So, over that year the total volume of newly issued subfederal and municipal bonds rose from 0.19% to 0.23% of GDP (*Table 23*).

The biggest placements of securities were made by: Moscow – to the value of Rb 29.7bn, or 19.8% of the total domestic borrowing volume; Krasnoyarsk Krai – to the value of Rb 11.0bn, or 7.4% of the total domestic borrowing volume; Nizhny Novgorod Oblast – to the value of Rb 10.0bn, or 6.7% of the total domestic borrowing volume; and Voronezh Oblast – to the value of Rb 9.8bn, or 6.5% of the total domestic borrowing volume.

*Table 23*

#### **Issuance of Subfederal and Municipal Securities (as % of GDP)**

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Issue volume	0.19	0.17	0.27	0.46	0.47	0.37	0.28	0.26	0.43	0.41	0.25	0.10	0.19	0.23
Redemption	0.46	0.23	0.10	0.15	0.19	0.28	0.14	0.18	0.26	0.16	0.18	0.21	0.13	0.12
Net financing	-0.27	-0.07	0.16	0.31	0.29	0.09	0.14	0.08	0.17	0.24	0.07	-0.11	0.06	0.12

*Source:* Ye. T. Gaidar Institute for Economic Policy's calculations based on data released by the RF Ministry of Finance.

Thus, the four biggest bond issuers accounted for 40.4% of the total volume of placed regional and municipal bonds (*Table 24*).

*Table 24*

#### **Placement of Subfederal and Municipal Securities in 2013**

RF Subject	Issue volume (bn Rb)	Issuer's share in total bond issue volume (%)	Issue volume to total domestic borrowing volume ratio (%)
1	2	3	4
<b>Central Federal District</b>			
Belgorod Oblast	3.5	2.3	27.4
Voronezh Oblast	9.7	6.5	74.5
Tver Oblast	3.0	2.0	12.9
Kostroma Oblast	3.0	2.0	33.0
Lipetsk Oblast	3.0	2.0	42.3
Ryazan Oblast	2.5	1.7	16.3
Smolensk Oblast	3.0	2.0	12.5
Tula Oblast	5.0	3.3	53.2
Yaroslavl Oblast	5.0	3.3	30.6
Moscow	29.7	19.8	100.0
<b>North Western Federal District</b>			
Republic of Karelia	2.0	1.3	23.5
St Petersburg	0.95	0.1	100.0

*Cont'd*

1	2	3	4
<b>Southern Federal District</b>			
Volgograd Oblast	7.0	4.7	41.7
<b>North Caucasus Federal District</b>			
Stavropol Krai	5.0	3.3	35.2
<b>Volga Federal District</b>			
Republic of Bashkortostan	5.0	3,3	57,0
Republic of Mordovia	3.0	2,0	21,7
Republic of Udmurtia	2.0	1,3	8,2
Republic of Chuvashia	1.5	1,0	32,3
1	2	3	4
Nizhny Novgorod Oblast	10.0	6,7	17,3
Samara Oblast	8.3	5,5	60,7
Orenburg Oblast	5.0	3,3	29,7
<b>Urals Federal District</b>			
Sverdlovsk Oblast	3.00	2,5	46,8
<b>Siberian Federal District</b>			
Krasnoyarsk Krai	11.0	7,4	39,4
Kemerovo Oblast	1.0	0,7	4,9
Novosibirsk Oblast	5.0	3,3	10,6
Omsk Oblast	5.0	3,3	9,8
Tomsk Oblast	5.8	3,9	45,4
Republic of Khakassia	3.0	2,0	35,0
<b>Far Eastern Federal District</b>			
Republic of Sakha (Yakutia)	2.5	1.7	24.3
Russian Federation – total:	149.6	100.0	15.1

Source: Ye. T. Gaidar Institute for Economic Policy's calculations based on data released by the Federal Treasury.

The highest securitization level (100%) is observed in regions with the most highly developed borrowing markets – Moscow and St Petersburg.

The total net borrowing volume in the securities market in 2013 amounted to Rb 77.6bn, thus having doubled on 2012 (Rb 38.2bn). (Table 25).

*Table 25*

**The Volume of Net Borrowing in the Market for Domestic Subfederal and Municipal Securities (m Rb)**

	Consolidated regional budget	Regional budgets	Municipal budgets
1	2	3	4
<b>2013</b>			
Net borrowing	77,610.5	75,454.0	2,156.5
Attracted funds	154,642.0	149,641.8	5,000.2
Principal repayment	77,031.5	36,187.5	2,843.7
<b>2012</b>			
Net borrowing	38,175.9	36,797.5	1,378.5
Attracted funds	119,855.0	115,953.2	3,901.9
Principal repayment	81,679.1	79,155.7	2,523.4
<b>2011</b>			
Net borrowing	-58,202.6	-57,113.1	-1,089.5
Attracted funds	55,050.7	53,366.2	1,684.5
Principal repayment	113,253.3	11,479.3	2,774.1
<b>2010</b>			
Net borrowing	29,774.6	28,611.9	1,162.6
Attracted funds	111,106.3	105,854.3	5,251.9
Principal repayment	81,331.7	77,242.4	-4,089.3
<b>2009</b>			
Net borrowing	95,457.6	97,916.5	-2,458.9
Attracted funds	158,114.0	153,992.5	4,121.5
Principal repayment	62,656.5	56,076.1	6,580.4

*Cont'd*

1	2	3	4
<b>2008</b>			
Net borrowing	68,851.3	72,984.9	-4,133.7
Attracted funds	178,565.7	177,324.4	1,241.4
Principal repayment	109,714.5	104,339.4	5,375,048.0
<b>2007</b>			
Net borrowing	25,867.0	23,691.970	2,175.0
Attracted funds	84,159.2	79,889.761	4,269.4
Principal repayment	58,292.2	56,197.791	2,094.4

*Source:* Ye. T. Gaidar Institute for Economic Policy's calculations based on data released by the Federal Treasury.

The majority of those regions that had been regularly issuing debt securities, continued to do so in 2013. Since 1999, on an annual basis, bond issues have been placed by Volgograd Oblast; since 2003 – by Krasnoyarsk Krai; since 2004 – by the Republic of Karelia and Nizhny Novgorod Oblast. Their first issues of debt securities were placed in 2013 by the Republic of Mordovia, Smolensk Oblast, Omsk Oblast, and Kemerovo Oblast (*Table 26*).

*Table 26*

### Registration of New Issues of Subfederal and Municipal Securities in 1999–2013

Issuer	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RF Subject															
Volgograd Oblast	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Krasnoyarsk Krai					*	*	*	*	*	*	*	*	*	*	*
Republic of Karelia						*	*	*	*	*	*	*	*	*	*
Nizhny Novgorod Oblast						*	*	*	*	*	*	*	*	*	*
Tver Oblast				*	*	*	*	*	*	*	*	*	*	*	*
St Petersburg	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Tomsk Oblast		*	*	*	*	*	*	*	*	*	*	*	*	*	*
Republic of Sakha (Yakutia)				*	*	*	*	*	*	*	*	*	*	*	*
Yaroslavl Oblast					*	*	*	*	*	*	*	*	*	*	*
Republic of Udmurtia							*	*	*	*	*	*	*	*	*
Samara Oblast					*	*	*	*	*	*	*	*	*	*	*
Stavropol Krai			*							*			*	*	*
Republic of Bashkortostan			*	*		*	*	*	*				*	*	*
Stavropol Krai			*							*			*	*	*
Republic of Bashkortostan			*	*		*	*	*	*				*	*	*
Belgorod Oblast				*	*		*	*	*	*				*	*
Lipetsk Oblast						*	*	*	*	*				*	*
Voronezh Oblast						*	*	*	*					*	*
Tula Oblast								*						*	*
Orenburg Oblast														*	*
Kostroma Oblast				*	*		*		*				*	*	*
Moscow	*	*	*	*	*	*	*	*	*	*	*	*			*
Novosibirsk Oblast	*				*	*	*		*						*
Republic of Mordovia				*											*
Smolensk Oblast															*
Omsk Oblast															*
Kemerovo Oblast															*
Sverdlovsk Oblast												*	*	*	
Republic of Chuvashia	*	*	*	*	*	*	*	*	*	*	*		*	*	

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*Cont'd*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Kaluga Oblast						*		*	*	*			*	*	
Vologda Oblast													*	*	
Krasnodar Krai						*			*			*		*	
Republic of Khakassia												*		*	
Ryazan Oblast												*		*	
Irkutsk Oblast			*	*	*	*	*	*	*	*	*			*	
Republic of Mari El														*	
Republic of Komi		*	*	*	*	*	*	*		*		*	*		
Ivanovo Oblast									*				*		
Republic of Buryatia													*		
Murmansk Oblast				*	*							*			
Khanty- Mansi AO				*	*						*				
Penza Oblast								*	*	*					
Ulianovsk Oblast									*	*					
Kurgan Oblast								*		*					
Moscow Oblast				*	*	*	*	*	*	*					
Republic of Kalmykia									*						
Khabarovsk Krai				*	*	*	*								
Republic of Kabardino- Balkaria		*					*								
Leningrad Oblast			*	*	*	*									
Yamalo- Nenets AO					*	*									
Briansk Oblast						*									
Sakhalin Oblast				*											
Kursk Oblast				*											
Maritime Krai		*													
Municipalities															
Novosibirsk					*	*	*	*				*	*	*	*
Volgograd	*	*	*	*	*		*	*		*	*	*	*	*	
Krasnoyarsk					*	*	*		*	*	*	*	*	*	
Tomsk					*	*		*	*	*		*	*	*	
Kazan							*	*	*		*	*	*		
Krasnodar												*	*		
Ufa				*	*	*						*			
Elektrostal, Moscow Oblast									*		*				
Smolensk											*				
Lipetsk								*	*	*					
Magadan								*	*	*					
Bratsk										*					
Novorossiisk										*					
Yekaterinburg		*	*	*	*	*	*	*	*						
Klin raion, Moscow Oblast							*	*	*						
Noginsk raion, Moscow Oblast						*		*	*						
Blagoveshchensk								*	*						
Cheboksary	*						*		*						
Balashikha, Moscow Oblast									*						
Odintsovo raion, Moscow Oblast							*	*							
Astrakhan								*							
Briansk								*							
Voronezh								*							



*Cont'd*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Orekhovo-Zuevo, Moscow Oblast								*							
Yaroslavl								*							
Yuzhno- Sakhalinsk					*	*	*								
Novocheboksarsk	*		*			*	*								
Angarsk							*								
Vurnar raion, Republic of Chuvashia							*								
Shumerlia, Republic of Chuvashia							*								
Barnaul							*								
Perm							*								
Nizhny Novgorod				*											
Kostroma	*	*													
Arkhangelsk	*														
Dzerzhinsky	*														

Source: RF Ministry of Finance.

