

Section 3. Financial Markets and Financial Institutions

3.1. The key trends in Russia's domestic stock market¹

3.1.1. The comparative features of two Russian crises

The year 2015 saw a continuation of the longest slump in the history of Russia's stock market, which had started in May 2008. In 1997–1998, after the RTS Index had dropped by 91.3%, and the MICEX Index - by 73.0%, from their pre-crisis highs over a period that lasted slightly more than a year, they both managed to recover their former quotes in 58 and 8 months respectively (*Table 1*). Now, as of February 2016, after their plummet during the acute phase of the 2008 crisis, both these stock indices have never recovered: the MICEX Index over the period of 88 months, and the RTS Index – 85 months.

Table 1

The financial crises of 1997/98 and 2008/09 in Russia and the subsequent market recoveries (as of 29 February 2016)

	1997/98 crisis	2008/09 crisis
1. Decline from peak		
1.1. Depth, %		
RTS Index	-91.3	-78.2
MICEX Index	-73.0	-68.2
1.2. Length, months		
RTS Index	14	8
MICEX Index	13	6
2. Recovery, months		
RTS Index	58	85
MICEX Index	8	88

Source: own calculations based on data released by the Moscow Exchange.

The prompt recovery, after 1998, of the ruble-denominated MICEX index occurred largely due to the 5-fold depreciation of the ruble (*Fig. 1*), while the recovery of the RTS Index denominated in foreign currencies lasted for nearly 5 years. Russia's stock market had fully recovered only by H2 2003, and this was followed by Russia being assigned an investment grade rating by international rating agencies (Moody's - as of 8 October 2003; Fitch's - as of 17 November 2004; and S&P's - as of 31 January 2005). The access to cheap foreign loans granted to Russian issuers of securities coupled with the soaring oil prices in the mid-2000s ensured that the Russian share and corporate bond market began to grow at a rapid rate.

¹ Author of this section: Abramov A. – RANEPА.

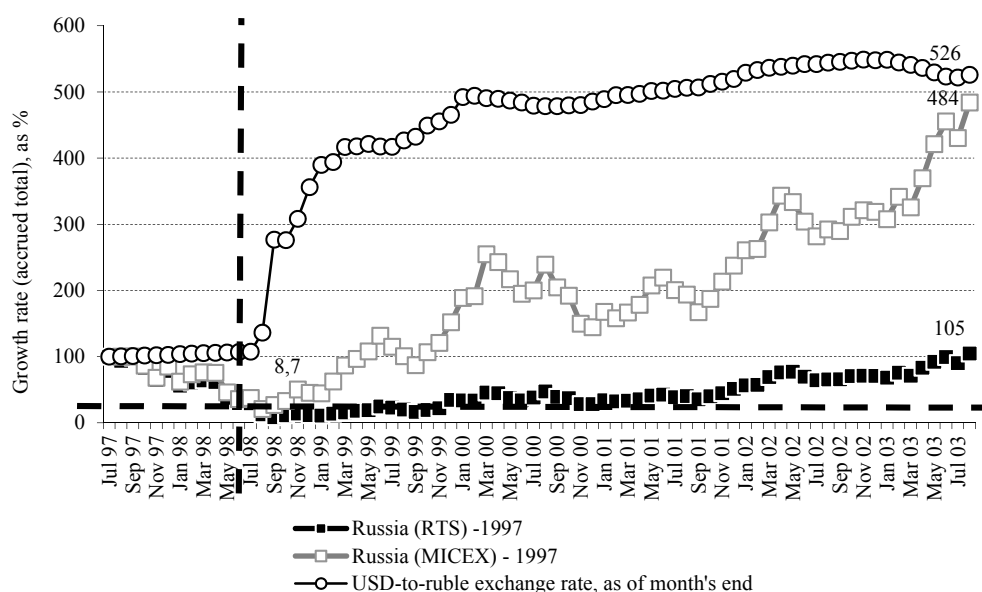


Fig. 1. The movement of the USD-to-ruble exchange rate, the RTS Index, and the MICEX Index in 1997–2003 (July 1997 = 100%)

Source: data released by the Moscow Exchange and the Bank of Russia.

After the 2008 crisis, the USD-to-ruble exchange rate moved along a W-shaped curve: from May 2008 through February 2009, the ruble lost 50.5%; by April 2009 the ruble had gained 23.0%; from May 2009 through August 2014, it once again lost 34.3%; from September 2014 through February 2016, being pushed down by plunging oil prices and the complete liberalization, by the Bank of Russia, of its foreign exchange policy, the ruble's exchange rate against major foreign currencies further declined by 103.3% (*Fig. 2*). As a result, over the period from May 2008 through February 2016, the USD-to-ruble exchange rate declined 3.2 times, from Rb 23.74 to Rb 75.09. In response to the ruble's fluctuations, the trajectories followed by the MICEX Index and the RTS Index likewise became W-shaped. However, the two indexes noticeably differed in their behavior. Over the period from May 2008 through February 2016, due to the ruble's devaluation, the ruble-denominated MICEX Index climbed to nearly its pre-crisis peak. In February 2016, it regained 95.6% of its record high of May 2008. Meanwhile, over the period from May 2008 through January 2009, the RTS Index denominated in foreign currencies reached its first bottom point at 21.8% of its pre-crisis peak; later on, by March 2009, it had recovered to 83.1%; however, thereafter it once again plunged to its record low of 30–31%, where it stayed from January 2015 through February 2016. So, in contrast to the MICEX Index, the RTS Index is now at its second bottom point. At the same time, it is the behavior of the RTS Index (which reflects the forex equivalent of investment in Russian stocks) that determines the attitude of foreign investors to shares issued by Russian companies.

In contrast to the stock market's recovery in the early 2000s, the current slump in the share market has not been accompanied by a recovery of prices of oil (*Fig. 3*) and an easier access to foreign investment. On the contrary, as a result of the economic sanctions, the Russian government and big companies alike have been effectively denied the possibility of borrowing in the US and EU markets. As estimated by two of the three major international rating agencies, Russia's sovereign credit rating was downgraded from an investment grade to 'junk': *S&P's* – from 25 January 2015; *Moody's* – from 20 February 2015. *Fitch* was the only rating agency to keep

on Russia's investment grade, as confirmed by its decisions as of 3 July 2015 and 16 October 2015. Given these conditions, at present there are no growth opportunities for the RTS Index, in spite of the actual near-recovery achieved by the MICEX Index.

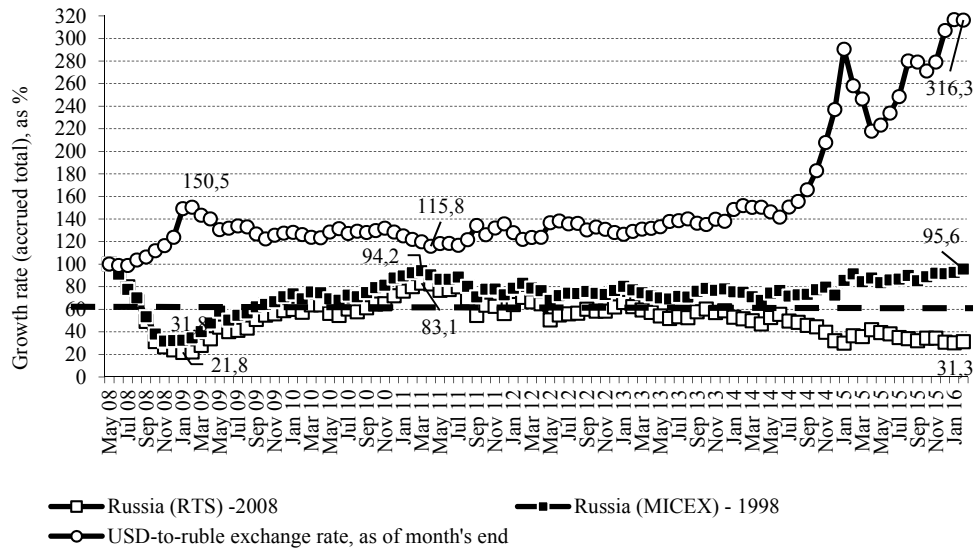


Fig. 2. The movement of the USD-to-ruble exchange rate, the RTS Index, and the MICEX Index from May 2008 through February 2016 (May 2008 = 100%)

Source: data released by the Bank of Russia and the Moscow Exchange.

The 1997–1998 crisis was caused not so much by the low prices of oil as a lack of properly balanced fiscal and monetary policies. In the course of that crisis, oil prices demonstrated a one-time plunge to 41.7% of their pre-crisis peak, but their recovery then took only 36 months (Fig. 3).

Having leaped to its average monthly peak of \$133.90 per barrel in July 2008, to this day oil prices have been following a W-shaped trajectory. Within 5 months from July 2008, their index reached its first bottom point at 31.1% of its pre-crisis peak recorded in October 2008 (Fig. 3). Over the next 28 months, it rose to 92.0% of its pre-crisis peak in February 2011; the following 58 months saw its slow decline to 22.9 of its peak value in January 2016. The subsequent upward movement of oil prices has led to the conclusion that in January 2016, their index hit its second bottom point. However, in contrast with the situation observed during the oil crisis of the 1990s, the international financial institutions predict that prices of oil are going to stay at a moderate level for a lengthy period of time, thus creating a 'New Oil Reality', as Rector of the RANEPА Vladimir Mau put it.¹ Thus, for example, according to the World Bank's forecast for 2015, the average price of oil in 2020 is expected to be at the level of \$65.3 per barrel, and in 2025 – at no more than \$88.3 per barrel.² This sort of outlook can largely be explained by the development of new energy saving technologies and the reliance on production of shale oil and oil-shale gas, which reestablished the market principles of shaping oil prices. Thus, the current crisis in Russia is structural, and not a cyclical one; and so it follows that the financial market's

¹ Mau V. *To remember the 1980s*. *Vedomosti*, February 16, 2016.

² Commodity Markets Outlook. International Bank for Reconstruction and Development. World Bank, October 2015, p. 41.

sustainable growth can only be possible on the basis of in-depth structural transformations in the Russian economy.

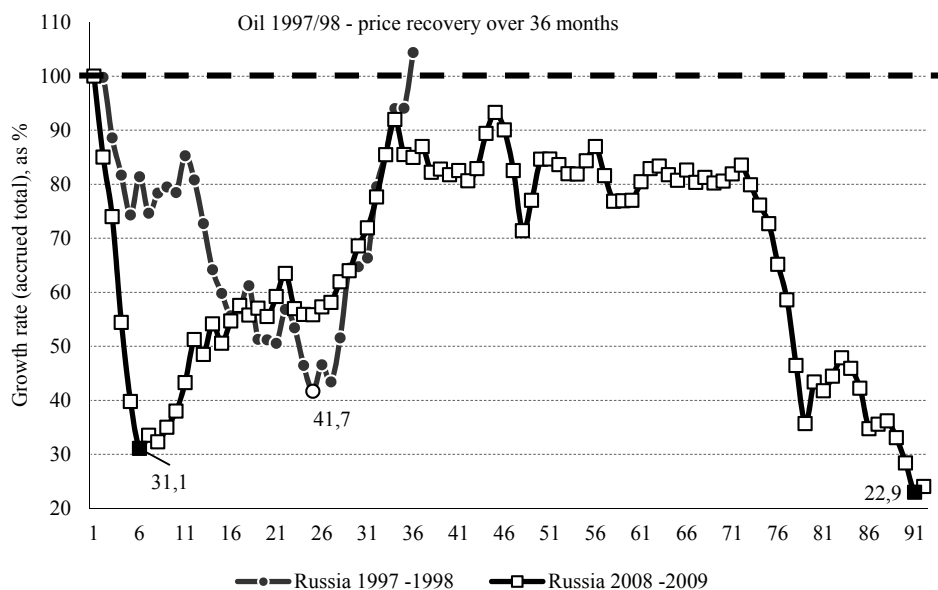


Fig. 3. The growth rate of price of Brent crude during the financial crises in Russia (peak price =100%), as of January 2015

Source: data released by IFS IMF.

3.1.2. The current crisis against the backdrop of world financial cataclysms

Against the backdrop of the previously observed short-run financial crises around the world (in the USA in 1987, 2000 and 2007; in Mexico in 1994; in Indonesia and Brazil – in 1997), which lasted for 5–6 years, the current downturn of the RTS Index, that has been continuing for 7.7 years in a row, has already become a record (*Fig. 4*). This crisis, which is being experienced by Russia alongside some other developing countries, is gradually evolving into a medium-run one.

A W-shaped trajectory of an index recovery was typical of countries where financial crises were caused by structural disproportions in the national economy, as exemplified by South Korea in 1989 and the US market for shares in hi-tech innovation companies in 1999 (*Fig. 5*). The recovery after such a crisis usually takes a longer period of time. In order to achieve it, a country must, as a rule, deal with the issue of restructuring the businesses of its domestic issuers of securities and boosting their competitive capacity on a global scale. The two most notorious medium-run crises with W-shaped trajectories – that of shares in South Korean companies and of NASDAQ in USA, with their onsets in 1989 and 2000 respectively, lasted for 183 and 177 months respectively. In other words, their durations are approximately twice as long as the duration of the current slump in the Russian share market. As of February 29, 2016, the RTS Index, having climbed to 31.3% of its pre-crisis peak of May 2008, was tentatively moving towards a new bottom point. The current crisis in the market for shares issued by Russian companies has continued for 93 months in a row, while after its collapse in 1997, the RTS Index

managed to recover within 72 months. In view of the long-term prospects of an unfavorable situation in the markets for energy carriers, there is evidently a need for some other companies capable of becoming the new divers of stock market growth.

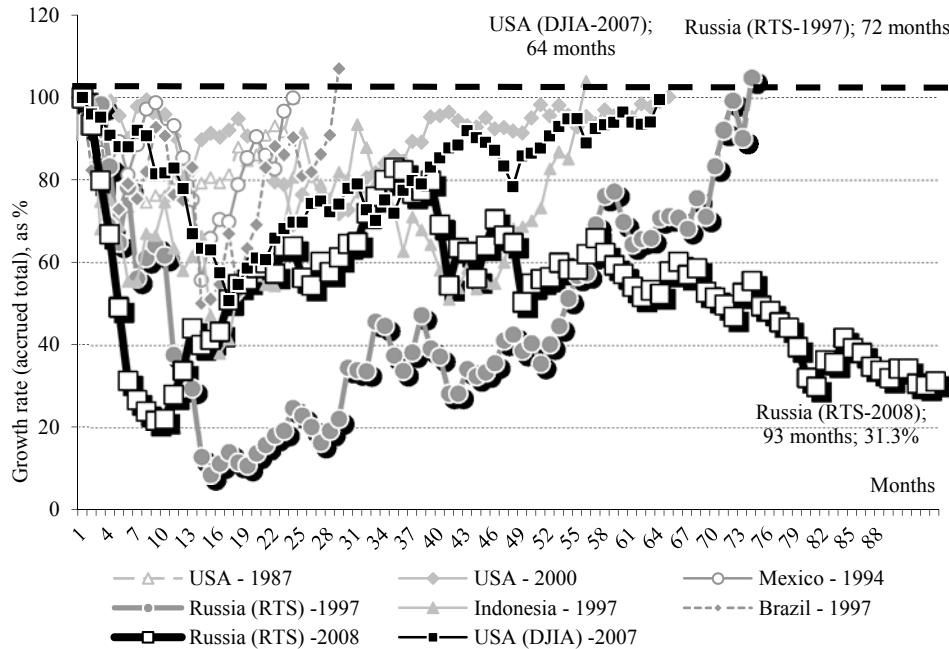


Fig. 4. The depth and length of short-run financial crises around the world, as of 29 February 2016 (peak = 100%)

Source: own calculations based on data released by the Moscow Exchange and www.finance.yahoo.com.

The longest crisis cycles in the history of stock markets are the slump in the US stock market triggered by the Great Depression of 1929–1933 and that in the market for Japanese shares from 1989 onwards. The recovery of the stock index Dow Jones Industrial Average (DJIA) in the USA after the Great Depression took 303 months, or 25.3 years. In 2015, that record was broken by the Japanese index NIKKEI-225, which as of February 2016 had been unable to recover its initial quote for 314 months (or 26.2 years) in a row, amounting to only 41.2% of its monthly record high of 1989.

The slow recovery of the Russian stock market reflects not only the specific internal issues faced by Russia's national economy and finance, but also the challenges that in recent years have been common for most of the developing countries, the BRICS including. Prior to the 2008 crisis, the global economy's accelerated growth had largely been sustained by certain irrational factors like the over-stimulated consumer demand and excessive growth in the housing market in many developed countries; active government support of exports to the detriment of domestic demand in the Asian economies;¹ and the restricted role of market principles in the investment sphere and the production and supply of energy resources in some of the developing

¹ A new term - Chimerica - was coined in the literature on economics to describe the relationship between the consumer boom in the West and the saving boost in China and other developing countries (see, e.g., Mau V., Ulyukaev A. *The global crisis and contemporary Russia's economic policy challenges*. M., Delo Publishing House, RANEP, 2015, p. 29).

markets. So, in the 2000s, the combination of all these factors gave rise to the phenomenon known as *global saving glut*,¹ when the domestic savings generated in the developed countries transformed into investment in the developing economies. Net foreign capital inflow in the BRICS countries triggered growth in their domestic securities markets.

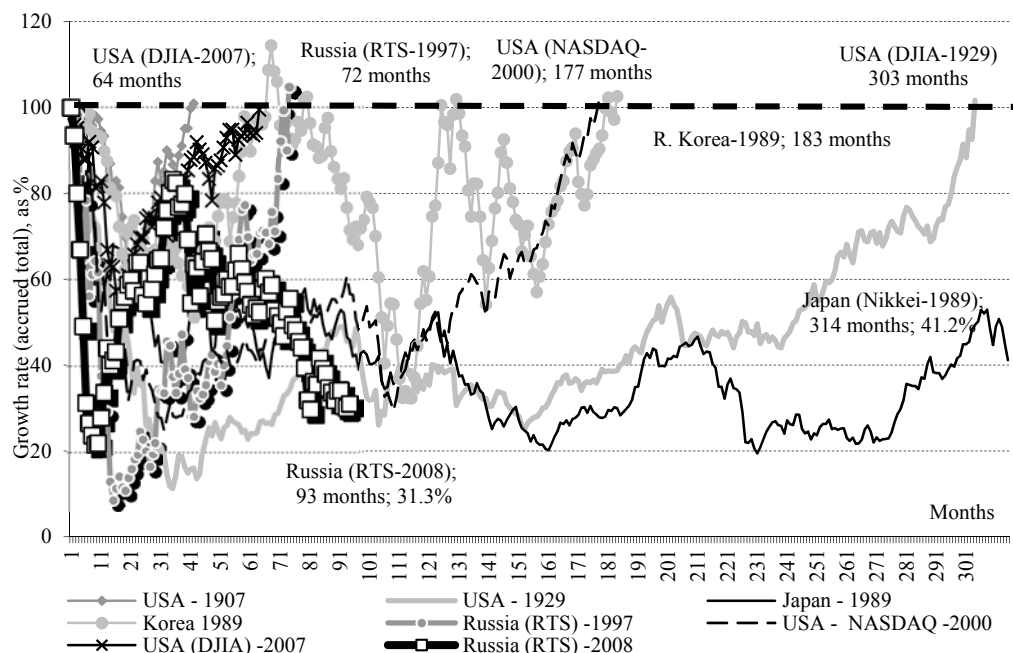


Fig. 5. The depth and length of long-run financial crises around the world, as of 29 February 2016 (peak = 100%)

Source: own calculations based on data released by the Moscow Exchange and www.finance.yahoo.com.

The 2008 crisis and the efforts to control its consequences caused that phenomenon to disappear. The USA and the other developed countries launched the reindustrialization process, introduced a tougher regulation of risks associated with lending and the provision of funding for mortgage loans. China and other Asian countries experienced problems caused by the slower growth of their exports and understood the necessity to reorient their economies to domestic demand. The ‘shale revolution’ (primarily in the USA), alongside the slowdown in global economic growth, resulted in overproduction in the countries that were the principal producers of natural gas and oil, plummeting prices for energy resources, and rising competition for shares in the market for oil and gas. As a result, the BRICS countries were faced with the need for reorientation of their domestic economic growth models, foreign capital outflows, declining returns and increasing volatility of their domestic stock markets. Thus, for example, the UNCTAD over the next few years expects an outflow of investment from the developing and transition economies towards the developed markets.²

¹ *The global saving glut and the U.S. current account deficit*. Remarks by Governor Ben S. Bernanke at the Homer Jones Lecture, St. Louis, Missouri. April 14, 2005: <http://www.federalreserve.gov/boarddocs/speeches/2005/20050414/default.htm>

² World Investment Report 2014: Investing in the SDGs: An Action Plan. UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD), 2014.

As of February 2016, the Brazilian stock index Bovespa over the previous 93 months since May 2008 had gained only 59.0% of its pre-crisis peak quote; the Shanghai Composite Stock Exchange Index (China) over the previous 100 months had gained 45.1% (Fig. 6). Russia's RTS index over 93 months had fallen lowest among all of the BRICS members – to 31.3% of its pre-crisis peak value. Over 94 months, the ruble-denominated MICEX index, due to the plummeting ruble-to-USD exchange rate, gained 95.6% of its record high of May 2008. Among the BRICS countries, the easiest post-crisis recovery was demonstrated by the share markets in India and South Africa. The indices of the Johannesburg Stock Exchange (JTOPI) and the Indian Stock Market (BSE Sensex) regained their pre-crisis quotes over 44 and 70 months respectively.

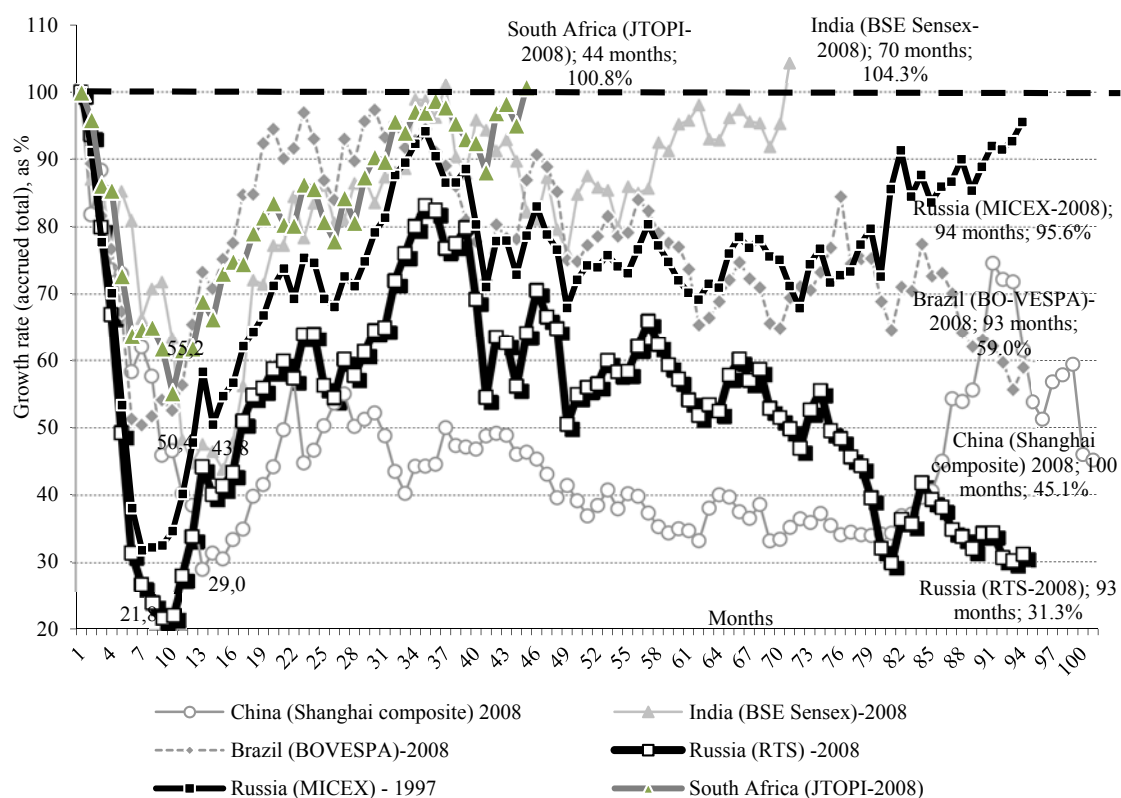


Fig. 6. The depth and length of the current financial crises in the BRICS countries, as of February 29, 2016 (peak = 100%)

Source: own calculations based on data taken from The Wall Street Journal and Thomson Reuters Eikon.

In 2015, by comparison with the other countries, Russia's stock market displayed moderate results (Fig. 7). The RTS Index, which describes the value of shares in Russian companies denominated in USD, declined by 4.3%; meanwhile, thanks to the decline by 29.6% of the ruble-to-USD exchange rate, the MICEX Index rose by 26.1%. The leaders in growth were the following stock indices: Argentina's MerVal, Hungary's BUX, and China's Zhenjiang Composite Stock Exchange Index, which gained in the course of that year 36.1%, 43.8% and 63.2% respectively. The worst results were demonstrated by Turkey's ISE National-100, Cyprus's CSE General Index, and Greece's ATHEX Composite, which over that year lost 16.3%, 21.4% and 24.6% respectively.

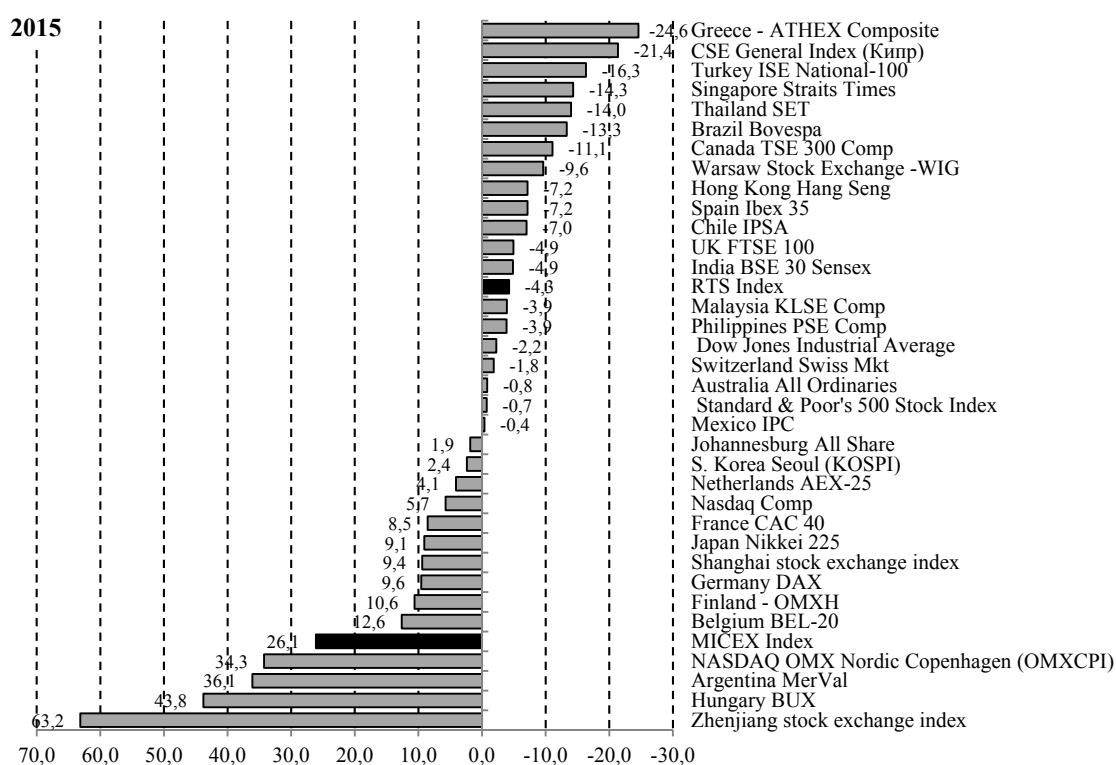


Fig. 7. Rates of return of the stock indices on the world's biggest exchanges in 2015, % per annum

Source: own calculations based on data released by *The Wall Street Journal*.

3.1.3. Liquidity issues in the stock market

In 2015, world exchanges were demonstrating some serious changes in liquidity in the markets for shares, measured in this case as the volume of market (or auction) transactions in securities (*Fig. 8*). Liquidity is important in that it not only reflects the market activity of investors, but also predetermines the pricing of securities traded on the exchanges. Over the year, for all the exchanges reporting their data to the World Federation of Exchanges, the average growth in the volume of market transactions amounted to 38.8%. However, while some exchanges, and first of all those in the countries relying on their oil exports, experienced a notable reduction in the volume of market transactions, in some other exchanges (predominantly in the countries across the Asian region) the value of such transactions surged. The Moscow Exchange was one of the six securities market operators where the plunge in the value of market transactions in shares was deepest in dollar terms. In 2015, the value of market transactions shrank in the Dubai Financial Market by 60.3%, at the Abu-Dhabi Securities Exchange – by 58.5%, at the Qatar Stock Exchange – by 53.3%, at the Athens Stock Exchange – by 49.6%, at the Egyptian Exchange – by 43.3%, and at the Moscow Exchange – by 42.9%. This means that in the situation of a long-run decline of the prices of and demand for oil, the investors operating in these exchanges have significantly reduced both their purchases and sales of shares issued by national companies.

The six exchanges displaying the fastest growth in the volume of market transactions in shares were the Hong Kong Stock Exchange, the South Korea Stock Exchange, the Cyprus

Stock Exchange, the Zhenjiang Stock Exchange, the Shanghai Stock Exchange, and the Kazakhstan Stock Exchange. The increased volume of exchange transactions (by 2.3 times at the Zhenjiang Stock Exchange and by 2.5 times at the Shanghai Stock Exchange) had largely to do with liberalization in the currency market and the access to China's domestic market for shares granted to foreign investors. In 2015, the highest growth rate in the market for transactions in shares - by 3.4 times - was demonstrated by the Kazakhstan Stock Exchange (KASE). This can be explained in part by the low initial rates, but the other relevant factors were the introduction of new listing rules designed to encourage the participation in trading of foreign brokers and the launch of the People's IPO program.

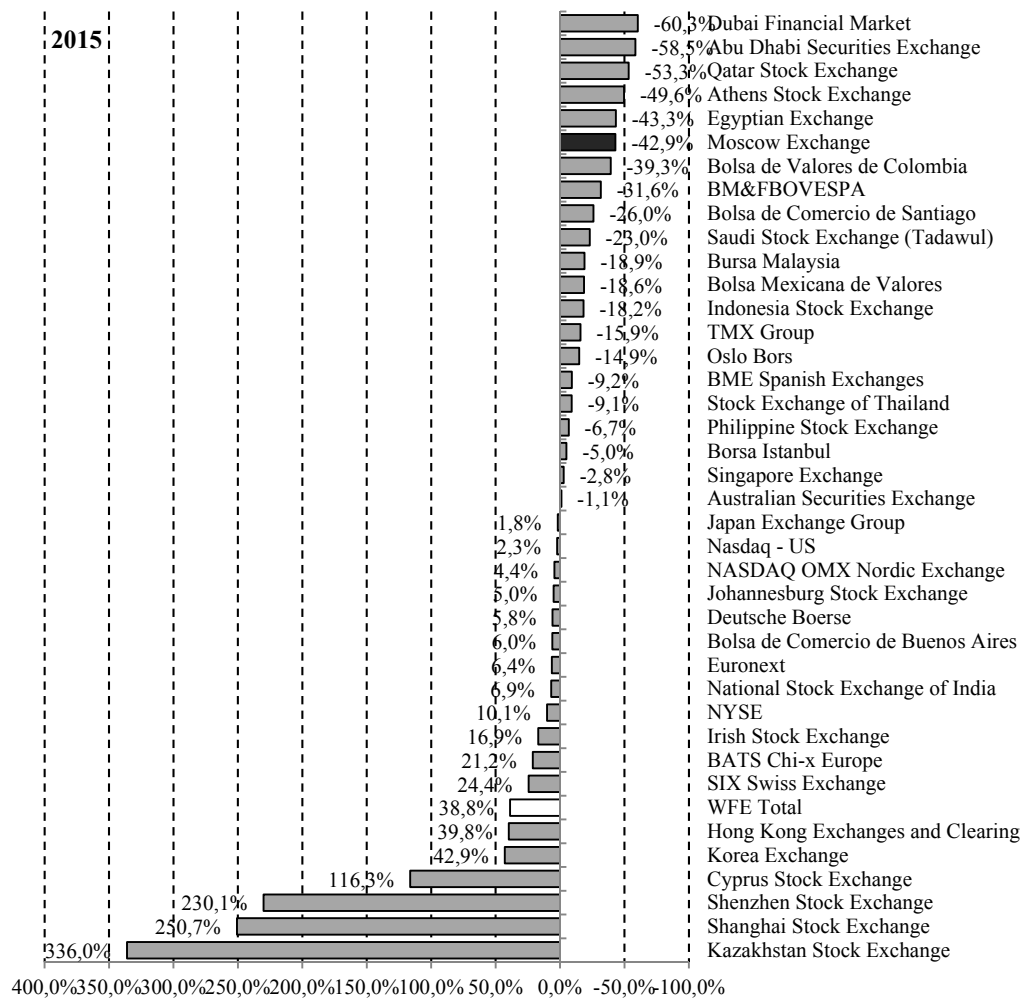


Fig. 8. Rates of return of world stock indices and the volume of market transactions in shares (anonymous market) at exchanges in 2015, % per annum

Source: own calculations based on data released by *The Wall Street Journal* and the World Federation of Exchanges.

The liquidity estimates describing the trade in shares on the world's biggest stock exchanges over a longer period are shown in *Table 2*. As of 2015, only two Chinese exchanges significantly exceeded their 2007 trade volume indices (6.7 times). The trade volume of the Hong Kong Exchange as of the reporting date was 105.2%. All the other major stock exchange had failed to exceed their pre-crisis year's indices. Thus, for example, in 2015 the aggregate volume of trade in shares on the New York Stock Exchange (NYSE) and NASDAQ amounted to only 69.9% of its 2007 level; the same index for the London Stock Exchange was 65.3%, for *Euronext* (Europe) – 45.8%, for *Deutsche Börse* – 46.3%, for Canada's TMX Group and the Australian Securities Exchange – 71.9 and 58.0% respectively.

This trend has to do with the multi-vectored changes currently occurring in the global financial market. On the one hand, after the 2008 crisis many national regulators have been focusing their efforts on pulling the traditionally off-floor financial instruments (those that had triggered that crisis in the first place, e.g., credit default swaps and many other derivatives, housing mortgage securities, etc.) into the zone of organized trade and regular payment-clearing and settlement system). On the other, the stock exchange markets, while keeping intact their common clearing and settlement systems, began to disintegrate into separate segments run by off-floor trading systems – the so-called dark pools. In 2008 in the USA, in place of the two traditionally existing stock exchanges, there were already 13 stock exchanges and alternative trading systems.¹ According to data released by the World Federation of Exchanges, in the USA in 2015, the value volume of market transactions in shares carried on by one alternative trading system – BATS Global Markets – amounted to 47.4% of the corresponding index for the NYSE and NASDAQ. In Europe, the trade volume on BATS Chi-x Europe amounted to 112.0% of the corresponding index for the London Stock Exchange. The commercialization of traditional stock exchanges has transformed them from 'membership organizations' uniting active market participants into rank-and-file providers of services in trading in financial instruments, thus providing an impetus for the formation of a competitive market for this type of services. At the same time, the emergence of high-frequency trading technologies (HFT) created incentives for big banks and brokers to set up their own alternative trading system, where they can more easily launch their new HFT tools. Owing to the combined effects of multiple factors, including the diminishing advantages offered by asset management strategies and the desire to avoid the rising transaction costs associated with the increasingly widespread HFT strategies, many pension and mutual funds significantly reduced the volumes of market transactions with their assets. According to data released by the Investment Company Institute (ICI), in 2014 the average portfolio turnover index of a US mutual fund amounted to only 35% of its 1980 level.²

On the Moscow Exchange over the period 2008 to 2015, the downward trend displayed by the volume of transactions in shares was even more pronounced. In 2015, its *index denominated in foreign currency* amounted to only a quarter of its 2007 value. The aggregate volume of transactions in shares carried on in all trading modes on the Moscow Exchange had recovered so promptly to its 2007 level largely due to the accelerated growth of repo deals, which represent a money market segment. However, in 2015, its *foreign currency denominated index* likewise dropped to 69.7% of its 2007 level.

¹ Lewis M. *Flash Boys: A Wall Street Revolt*. Transl. from the English, M., Alpina Publisher, 2015, p. 51.

² *Investment Company Fact Book*, 2015. ICI, 55th Edition, p. 37

Table 2

**The movement of the value volume of market transactions
in shares on major stock exchanges
in 2007–2015 (2007 = 100%)¹**

	2007	2008	2009	2010	2011	2012	2013	2014	2015
USA (NYSE и NASDAQ)	100	120.1	72.6	71.0	71.7	54.2	54.3	65.5	69.9
China (two stock exchanges)	100	63.0	128.9	132.8	106.9	81.8	124.9	198.0	674.2
Japan Japan	100	87.3	61.2	63.2	66.3	57.5	103.9	86.8	88.3
UK	100	89.0	62.9	63.5	65.7	50.8	51.7	66.4	65.3
Euronext	100	84.7	42.7	44.5	47.1	34.8	36.7	43.1	45.8
Germany	100	95.5	45.1	48.4	52.3	37.9	39.7	43.7	46.3
Hong Kong	100	77.3	70.1	74.1	71.5	54.7	65.5	75.3	105.2
Canada	100	105.3	75.5	83.0	93.5	82.3	83.2	85.4	71.9
Australia	100	77.5	57.9	77.1	86.8	67.9	63.9	58.6	58.0
Russia (Moscow Exchange) *	100	89.0	77.3	75.5	95.2	55.8	44.0	46.0	25.8
Russia (Moscow Exchange)**	100	116.5	74.7	92.4	142.5	127.5	123.6	119.2	69.7
NASDAQ OMX Nordic Exchange	100	84.5	48.8	52.6	58.0	41.1	43.8	50.6	52.9
Members of World Federation of Exchanges (WFE), total	100	100.8	69.5	70.7	70.7	54.8	61.3	87.4	124.4

* Only market (auction) transactions;

**Market transactions, negotiated deals, repo, Classica and Standart.

Source: own calculations based on data released by the World Federation of Exchanges, the London Stock Exchange, and the Moscow Exchange.

Fig. 9 shows the movement of the Moscow Exchange's market transactions in shares, corporate and regional bonds, from which it becomes obvious that the process of market liquidity recovery after the 2008 crisis was interrupted in H2 2012, and that its index has been displaying practically a zero growth since then. The negative liquidity trends in the secondary securities market persisted even in spite of the merger of the Russian stock exchanges in late 2011. The phenomenon has been caused in part by the outflow of foreign portfolio investment from Russia's share market, which started in 2011 (see *Fig. 24* and *25*) and the crisis in the eurozone, which restricted the access of Russian financial institutions to cheap loans in that market and urged the Bank of Russia to launch its large-scale banking system refinancing program through repo transactions (*Fig. 36*). However, there is another, more fundamental explanation of that phenomenon, namely that over all the years since its exit from the crisis, Russia's domestic stock market has failed to attract the resources of domestic institutional investors.

¹ Including transactions in securities issued by foreign companies on the corresponding stock exchanges.

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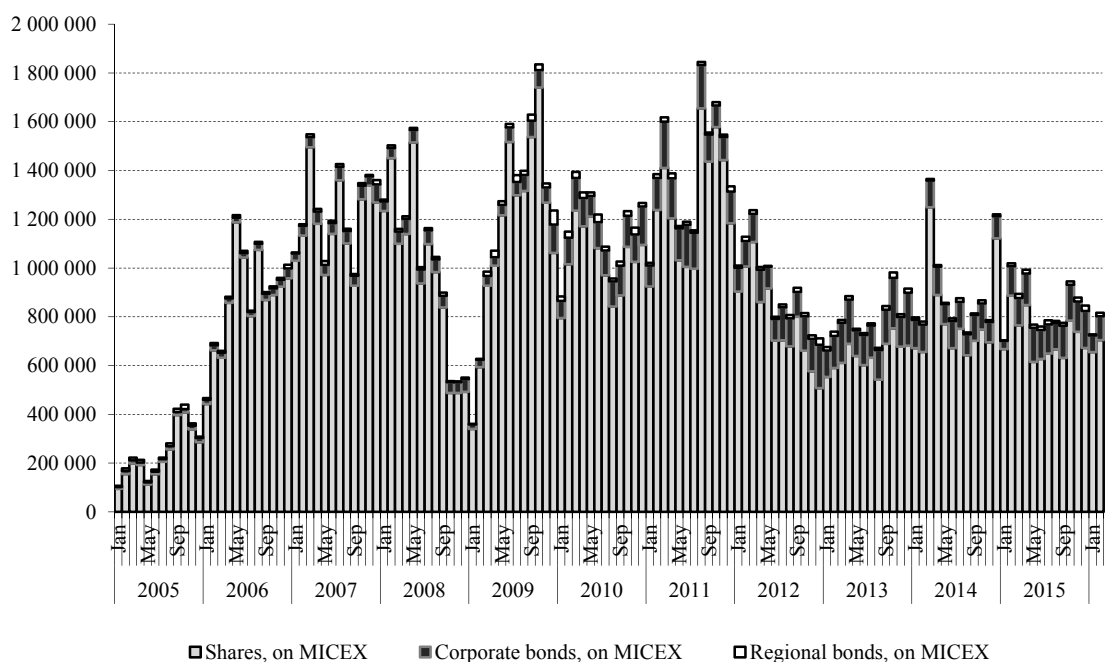


Fig. 9. The movement of monthly volume of market transactions in shares, corporate and regional bonds on the Moscow Exchange from January 2005 through February 2016, m Rb.

Source: own calculations based on data released by the Moscow Exchange.

3.1.4. The impact of foreign economic sanctions and the freeze of accumulated pension savings on Russia's financial market

The introduction of sanctions in 2014 was a two-stage process. In March 2014, the USA, the EU and some other countries imposed sanctions against some individuals and companies. In July 2014, these were followed by sectoral sanctions, whereby access to global financial markets was denied to Russia's biggest companies (*Rosneft*, *Transneft*, *Gazprom Neft*, *UralVagonZavod*, *Oboronprom*, *United Aerospace Corporation*, etc.) and state-owned banks (*Sberbank*, *VTB*, *Gazprombank*, *Russian Agricultural Bank*, *Vnesheconombank* (VEB), *Bank of Moscow*). The main ways that the sanctions were influencing the financial market were the restrictions on the amount of borrowing by Russian companies in the form of debt financing,¹ rising borrowings costs and an outflow of foreign investment from the market for shares.

The available estimates of the effect of sanctions on Russia's financial market vary dramatically, but they are expressed mainly as a percentage of the expected slowdown in the GDP growth rate. Few studies have directly analyzed the actual consequences of the imposed sanctions for the financial market. Thus, according to E. Gurvich and I. Prilepsky (2016), the additional cumulative net capital outflow triggered by the sanctions, was estimated to be at the level of \$58bn in 2014 and \$160–170bn in 2014–2017.² And the opinion of RF Minister of Finance

¹ Mau V., Ulyukaev A. *The global crisis and contemporary Russia's economic policy challenges*. M., Delo Publishing House, RANEPa, 2015, p. 42.

² Gurvich E., Prilepsky I. *The impact of financial sanctions on the Russian economy. Voprosy ekonomiki* (in Russian), No 1, January 2016, p.33.

Anton Siluanov, voiced in late 2014, is that Russia's loss from the sanctions is about \$40bn per annum.¹

We believe that, although the introduction of the sanctions *per se* indeed resulted in borrowed resources becoming more expensive, this effect was of a moderate scope. As demonstrated in *Fig. 10*, shortly after the sectoral sanctions were introduced in July 2014, the amount of risk premium in the form of credit default swaps (CDS) on the Russian Federation's and Gazprom's 5-year Eurobonds remained practically unchanged. Risk premiums began to rise from October 2014, following the plunge of oil prices coupled with liberalization and the ruble's weakening, so that when later on Russia's sovereign credit rating was downgraded first by S&P on January 25, 2015, and then by Moody's on February 20, 2015, these developments were not the factors responsible for a rising risk premium, but the upshot of something that had already happened. Moreover, from March 2015 until early 2016, the risk premium was displaying a downward trend, plunging from 628.5 basis points (BPS) as of February 5, 2015 for sovereign Eurobonds and 806.0 BPS for Gazprom's Eurobonds to 309.9 BPS and 386.0 BPS as of December 31, 2015 respectively. Such a decline of the risk premium, which happened in spite of the continuing plunge of oil prices and the ruble's exchange rate against major world currencies, was caused by the increasing demand of domestic investors for Eurobonds as a hedging tool against the ruble's devaluation and a first-class security to pledge against a refinancing loan from the Bank of Russia. Thus, for example, as estimated by *Vedomosti* (a business analytical organ), financial corporation (FC) *Holding Otkritie* alone could buy up *Russia, 2030* Eurobonds to the value of \$10-11bn (the total issue value being \$21.3bn).² According to RBC, at the FX auction held on March 1, 2015 by the Bank of Russia, *FC Holding Otkritie* attracted a total of \$12.2bn.³

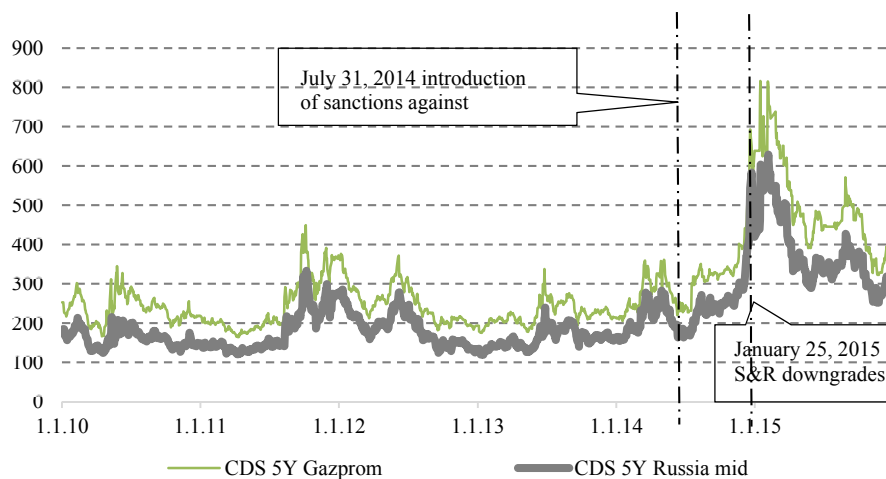


Fig. 10. The risk premium's movement in Russia (5-year CDS against Russia's and Gazprom's liabilities, basis points) in 2010–2015

Source: own calculations based on data released by the Moscow Exchange.

¹ Volkova O. Counter-sanctions against sanctions: which of these are worse. RBC Daily, March 21, 2016, p.4.

² Biyanova N. Over a half-year of 2015, FC Holding Otkritie tripled the amount of its lending to its Eurobonds by Holding Otkritie. *Vedomosti*, August 31, 2015.

³ Sharoyan S. In 2014, Sberbank and VTB received half of the RF Central Bank's loans. RBC, March 30, 2015. Published at <http://top.rbc.ru/finances/30/03/2015/5516aaed9a794763fa1878fb>

Under such conditions, the main outcome of sectoral sanctions for the financial market was the closure of the US and European markets to a number of Russian companies and state banks. In this connection, the direct ban on lending to individual companies indirectly translated into limited investment in those companies that were not subject to the sanctions, as foreign bankers exercised caution in their dealings with Russian participants in the securities market. As shown in *Fig. 11*, prior to the introduction of sectoral sanctions, over the period from January 2010 through July 2014, the average monthly volume of borrowing by Russian companies in the market for Eurobonds was \$3.3bn; after the sanctions had been introduced, over the period from August 2014 through December 2015, this index dropped to \$0.4bn.

So, in per month terms, the lost income of Russian issuers of Eurobonds amounted to \$2.9bn, or approximately \$50bn over the 17-month period from August 2014 through December 2015. Over the same period, the Reserve Fund shrank by \$41.8bn. Part of that money went to Russia's biggest companies, to smooth the negative effects of sanctions.

For the sake of comparison, these figures can be set against the amount of accumulated pension savings frozen in 2014 and 2015 (Rb 244bn and Rb 310bn respectively). The freeze significantly limited the inflow of new money to the domestic market. Taken in dollar terms, this is the equivalent of approximately \$ 10bn, or roughly one-fifth of the total loss of Russian issuers of securities in the Eurobond market.

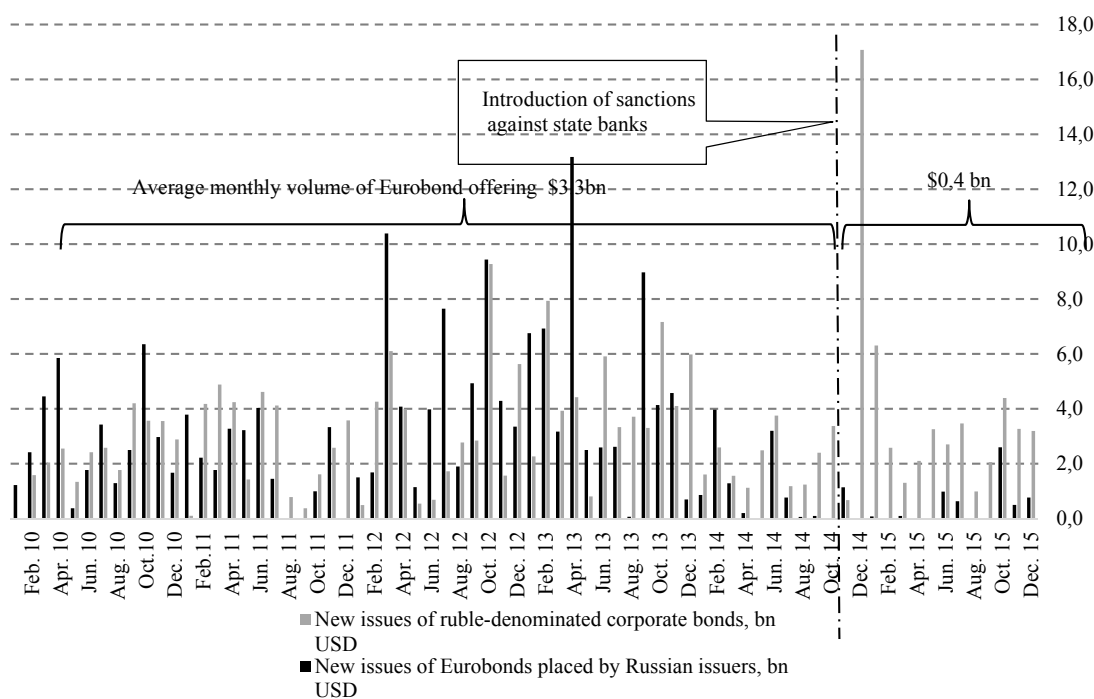


Fig. 11. New bond issues placed by Russian issuers of securities, bn USD

Source: own calculations based on data released by the Moscow Exchange.

The introduction of sanctions altered the behavior of foreign private investors specializing in investing in shares issued by Russian companies. As demonstrated by the movement of accumulated cash flows from private investors (seen *Fig. 12*), their market activity began to display a certain stagnation pattern. On the one hand, as early as March 2014, the investment outflow pattern began to demonstrate a marked slowdown, in anticipation of the RTS Index's

second bottom point. On the other, the sanctions coupled with the negative dynamics of oil prices made it impossible to change in any way the investment strategy - that is, to pour new resources into the investment funds specializing on Russia with a view towards potential recovery growth of the prices of shares in Russian companies.

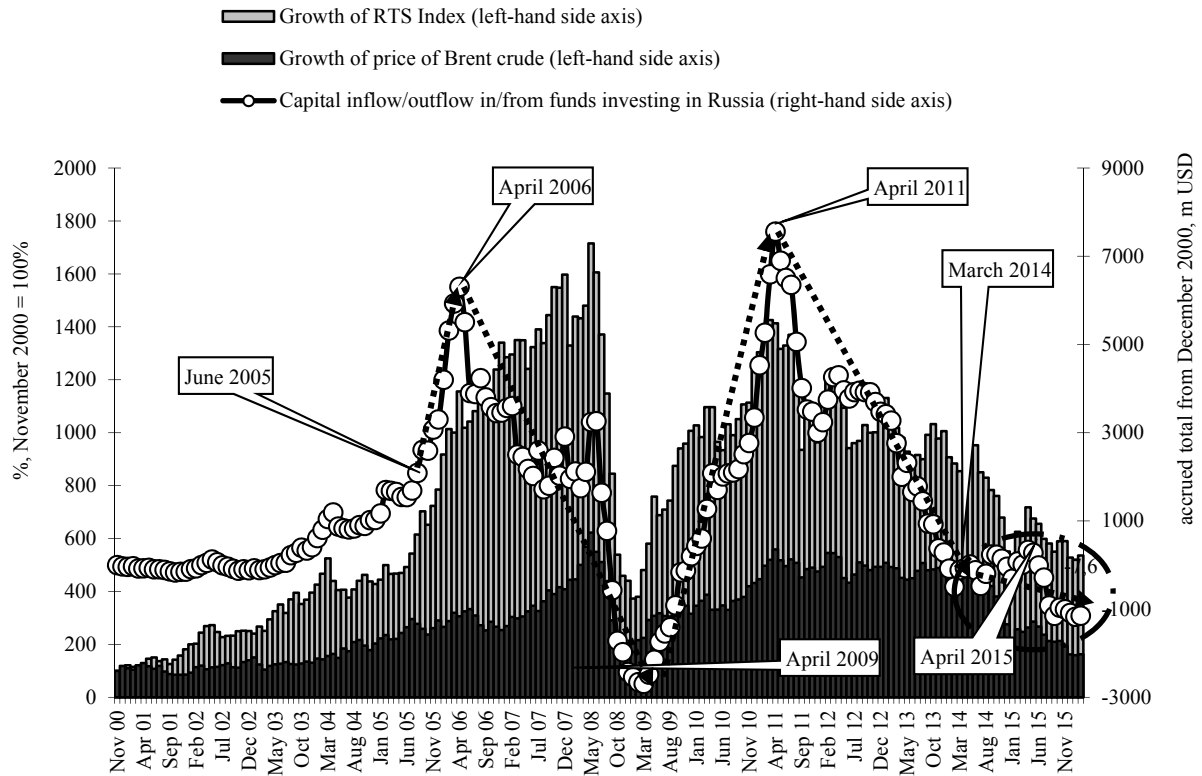


Fig. 12. Growth of the RTS Index and the price of Brent crude, capital inflow (outflow) to/from the investment funds specializing on Russia, calculated by the accrued total method, from November 2000 through December 2015

Source: own calculations based on data released by the IFS IMF, the Moscow Exchange and EPFR.

After the introduction of sectoral sanctions, the market for bonds on the Moscow Exchange displayed practically no decline in the trading activity of the affiliations of major foreign investment banks¹ (Fig. 13). From January 2013 through July 2014, the average share of these entities in the total volume of trading in bonds on the exchange was 8.6%; and from August 2014 through February 2016, it remained nearly unchanged at 8.3%. At the same time, the activity of the same affiliations of non-resident entities on the exchange market for shares became noticeably less prominent as a result of the sanctions. From January 2013 through July 2014, the average share of these affiliations in the total volume of trading in shares was 7.2%; over the period from August 2014 through February 2016, it shrank to 4.5%. However, this was

¹ The market share of taken up by non-residents was estimated on the basis of the volume of trading in securities on the Moscow Exchange carried on by the affiliations of twelve major foreign investment banks: Goldman Sachs, Deutsche Bank, ING Bank (Eurasia), CJSC Bank Credit Suisse (Moscow), Raiffeisenbank, Citibank, UniCredit Bank, CB 'J.P. Morgan Bank International', Rosbank, Barclays Capital, Morgan Stanley Bank, HSBC Bank.

by no means the indication of a deliberate withdrawal of non-residents from Russia's market for joint-stock capital, but rather that of a somewhat diminished trading activity of their clients, including foreign investment funds, as shown in *Fig. 12*.

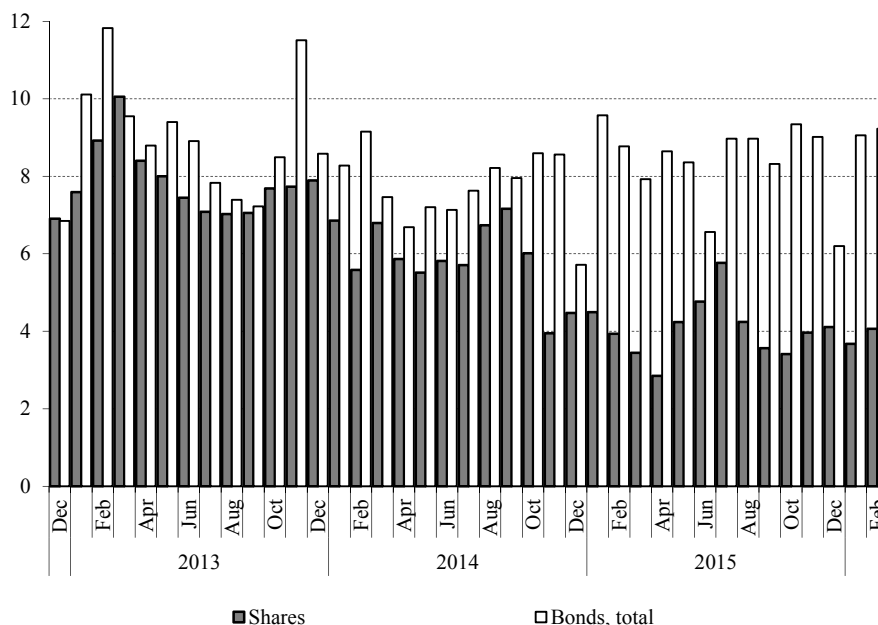


Fig. 13. The participation of the affiliations of major foreign investment banks in the volume of trading in securities on the Moscow Exchange from December 2012 through February 2016, as %

Source: own calculations based on data released by the Moscow Exchange.

3.1.5. Competition with foreign stock markets

Prior to the merger of the two Russian exchanges in 2011, it had been intended that the elimination of competition between them in the domestic market should have no negative consequences for market participants, because the single consolidated exchange was expected to compete with global trading systems not only in organizing the market for securities issued by Russian companies, but also in handling the financial instruments of foreign issuers, with the purpose to increase their accessibility for domestic investors.

In 2015, in terms of its overall trade in shares, including all trading modes, the Moscow Exchange managed to retain its role of a major organizer of trade in equity financial instruments (shares and depository receipts) of Russian issuers (*Fig. 14* and *Table 3*). The share of the Moscow Exchange in these transactions increased from 82.6% in 2014 to 85.1% in 2015. The relative shares of the London Exchange, the Hong Kong Exchange, Deutsche Boerse and the two biggest US exchanges shrank. However, this favorable competition ratio has been created in the main by the accelerated growth of the money market volume on the Moscow Exchange, namely equities repo transactions.

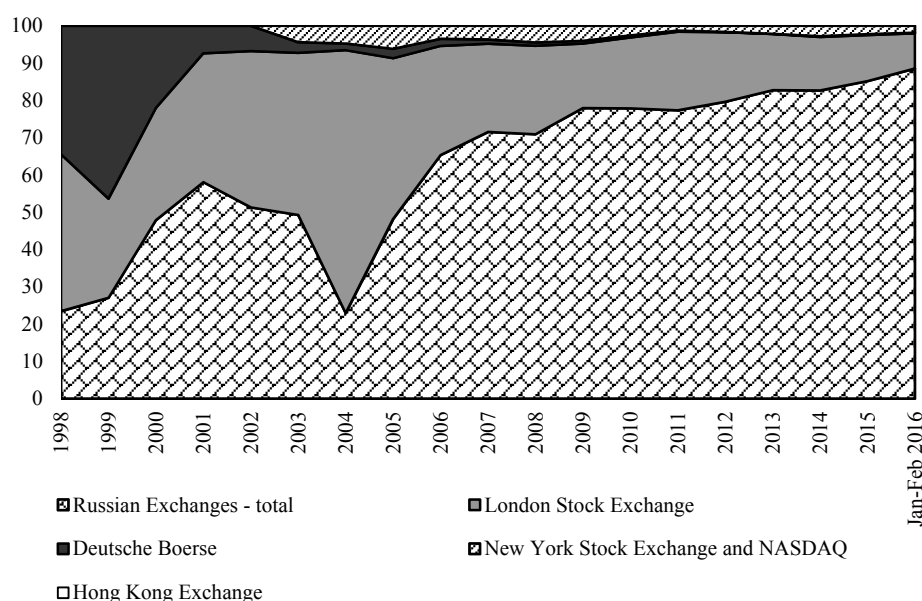


Fig. 14. The relative shares of stock exchanges in the volume of trade in equity financial instruments issued by Russian JSCs in 1998–2015, including all trading modes in the equities market on the Moscow Exchange, as %

Source: own calculations based on data released by stock exchanges.

Table 3

The relative shares of stock exchanges in the volume of trade in equity financial instruments issued by Russian JSCs in 1998–2015, including all trading modes in the equities market on the Moscow Exchange, as %

	2000	2005	2010	2011	2012	2013	2014	2015	Jan-Feb 2016
Moscow Exchange's Main Market	36.0	38.1	69.9	72.1	70.3	70.5	82.6	85.1	88.5
Classical and standard markets	11.9	2.0	7.9	5.2	1.9	0.6	0.0	0.0	0.0
Other	0.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russian Exchanges - total	47.9	48.2	77.8	77.3	72.2	71.1	82.6	85.1	88.5
London Stock Exchange	30.1	43.1	19.0	21.1	26.2	27.0	14.3	12.3	9.4
Deutsche Boerse	22.0	2.6	0.6	0.3	0.0	0.0	0.2	0.3	0.2
New York Stock Exchange and NASDAQ (USA)		6.2	2.6	1.4	1.5	1.9	2.8	2.2	1.9
Hong Kong Exchange			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shares and depository receipts, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: own calculations based on data released by Russian and foreign stock exchanges.

At the same time, as seen from *Fig. 15*, from 2011 onwards, the strengthening of the competitive position of the Moscow Exchange was taking place against the backdrop of shrinkage, in absolute terms, of the volume of organized trading in equity financial instruments issued by Russian JSCs on all stock exchanges, including the Moscow Exchange.

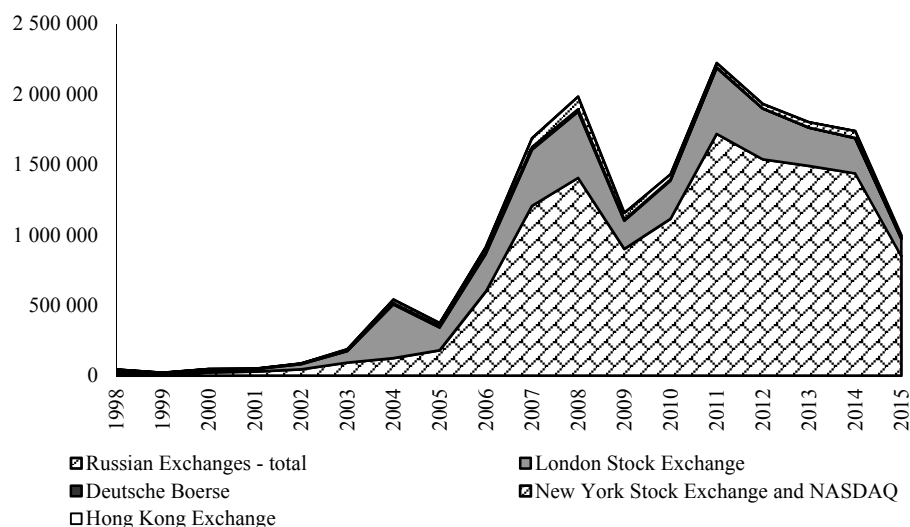


Fig. 15. The volume of trade in equity financial instruments issued by Russian JSCs on various stock exchanges in 1998–2015, including all trading modes in the equities market on the Moscow Exchange, m USD

Source: own calculations based on data released by stock exchanges.

A more objective indicator of a stock exchange's performance is the volume of market (or auction) transactions, on the basis of which stock indices are calculated and the pricing of financial instruments traded on the exchanges is determined. If we take into consideration this indicator alone, the relative share of the Moscow Exchange in the total volume of trading in equity financial instruments issued by Russian companies will appear to be more modest; it increased from 45.5% in 2014 to 48.8% in 2015 (*Fig. 16*).

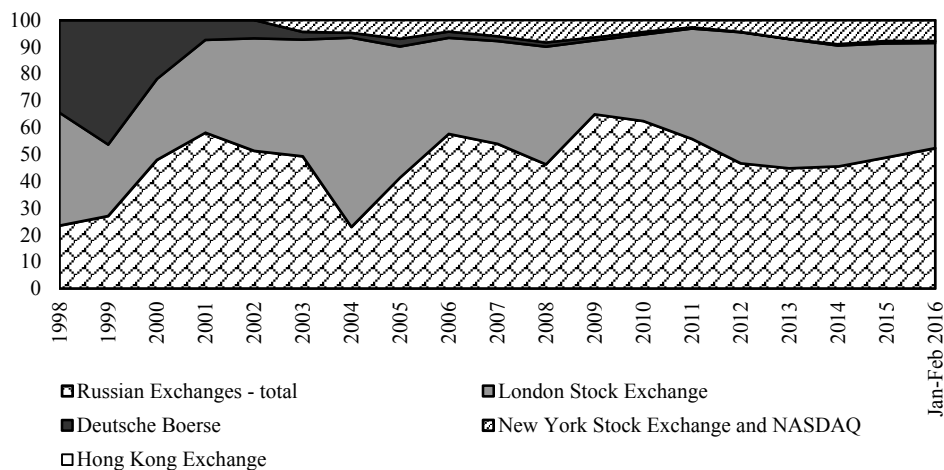


Fig. 16. The relative shares of stock exchanges in the volume of trade in equity financial instruments issued by Russian JSCs in 1998–2015, including all trading modes in the equities market on the Moscow Exchange, as %

Source: own calculations based on data released by stock exchanges.

In other words, more than half of the market for equity financial instruments of Russian JSCs is still being operated outside of the RF territory. At the same time, the relative share of the Moscow Exchange in the volume of trade in equity financial instruments has been increasing alongside a shrinkage of volume of trade in shares in absolute terms, which points to the dwindling attention of global investors operating on foreign stock exchanges to the depository receipts issued by Russian companies, rather than to any positive shifts in the ongoing competition between stock exchanges (*Fig. 17*). In spite of the merger of two Russian exchanges completed in 2011, the value volume of market transactions on Russia's stock market declined from \$635.2bn in 2011 to \$141.4bn in 2015, or by 77.7%. In terms of its volume of market transactions in shares, the Moscow Exchange in 2015 practically reproduced its 2005 index, which amounted then to only \$137.7bn.

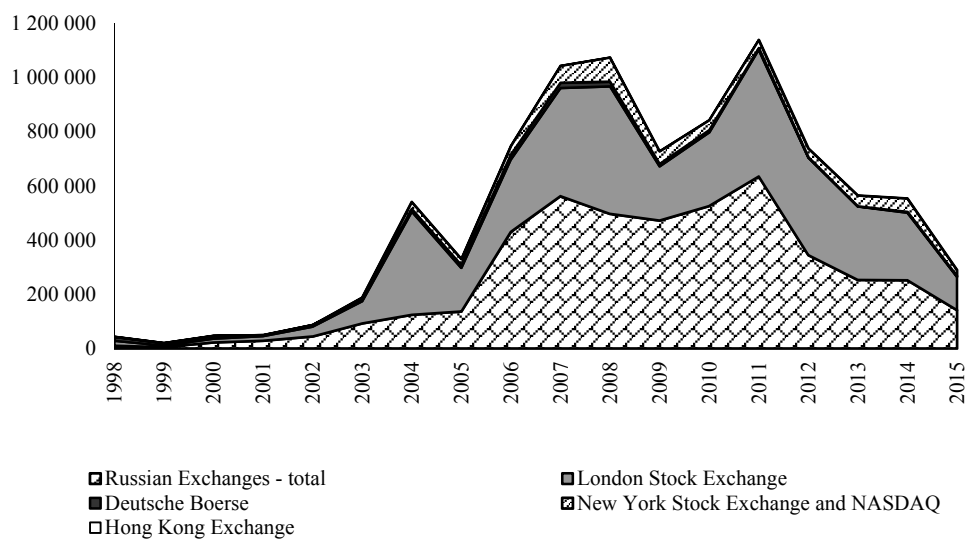


Fig. 17. The volume of trade in equity financial instruments issued by Russian JSCs on various stock exchanges in 1998–2015, including all trading modes in the equities market on the Moscow Exchange, m USD

Source: own calculations based on data released by stock exchanges.

The devaluation of Russia's national currency, the sanctions introduced against Russia in the European and US financial markets, the downgrading of Russia's sovereign and corporate ratings by the international agencies, and the deficit of domestic investment resources have all resulted in a situation where, in 2015, the rising volume of IPO-SPO launched on the global markets was coupled with a downfall of the same type of transactions with the participation of Russian companies. In 2015, the latter shrank to \$1.3bn (or Rb 93.3bn) compared to \$1.7bn in 2014. At the same time, in 2015, the volume of IPO-SPO launched on the Moscow Exchange amounted to \$0.6bn (Rb 46.5bn), or 46.2% of the total value of transactions with shares issued by Russian companies.¹ In 2014, the volume of public offering on the domestic exchange amounted to only 29.4%.

¹ In 2015, the mass media repeatedly raised the issue of how the pension savings held by private pension funds could be attracted in the IPO schemes launched by some of the banks attached to those funds (Biyanova N. *The masters are more important than the pensioners. Vedomosti*, February 2, 2016; Biyanova N., Petrova O., Kaverina M. *Mutual credit society. Vedomosti*, February 4, 2016).

In 2014, the Moscow Exchange failed to reverse the downward trends both in the number of listed national issuers of shares and in the number of issues traded on the organized securities market. This trend could not be reversed even after the enactment, from September 1, 2014, of the amendments to the RF Civil Code and the alterations to Federal Law of February 26, 1995 'On joint-stock companies', which was augmented by new Article 7.1,¹ whereby it was established that, in order to obtain the status of a public joint-stock company, prior to the entry of the official documents concerning its new legal status into the single state register, a company must sign a contract with an organizer of trade concerning its shares being listed on the exchange.

According to data released by the World Federation of Exchanges (WFE), the number of companies listed on the Moscow Exchange dropped from 262 in 2013 and 257 in 2014 to 254 in 2015. Our estimations based on the Moscow Exchange's statistics demonstrate that the number of listed issues of shares shrank from 314 in 2014 to 309 in 2015, or by 1.6%.

In contrast to the contracting market for shares as estimated by the number of issues listed on the exchanger, the market for bonds, on the contrary, expanded. The number of listed issues of bonds increased from 395 in 2014 to 474 in 2015, or by 20.0%; that of issues of corporate bonds – from 555 до 568, or by 2.3%; and that of issues of regional bonds – from 113 до 116, or by 2.7% respectively.

As a separate note, we should mention the noticeably decreased transparency, in 2015, of the information concerning the number of listed companies and issues of securities in the statistics published by the Moscow Exchange. Prior to 2015, the official data on the number of issues of securities listed on the exchange and their issuers was disclosed in the quarterly reports of Closed Joint-stock Company *MICEX Stock Exchange*,² a 100% affiliation of Moscow Exchange PJSC. In 2015, *MICEX SE* CJSC discontinued the publication of its quarterly reports on its official website.

3.1.6. The decline of the capitalization index of Russian joint-stock companies

In 2015, many big markets for shares continued their successful growth since their recovery after the 2008 crisis. Compared to 2007, the capitalization index of the share market in the USA had increased to 127.5%, in China - to 123.1%, in Japan - to 113.0%, in Hong Kong - to 120.0% (*Table 4*). The capitalization of shares in the UK, on Euronext, in Germany, Canada and Australia had recovered to 70–90%. Meanwhile, the value of Russian companies in 2015 had been shrinking for a third year in a row, amounting to only 30.7% when estimated on the basis of data released by S&P and Market Vectors Russia Index, or to 29.6% in accordance with the aggregate capitalization index for shares released by the Moscow Exchange. The factors responsible for the downfall of the capitalization index of Russian joint-stock companies in 2015 were the ruble's devaluation, foreign capital outflow, the deficit of domestic investment resources (caused, among other things, by the freeze of pension savings in 2014–2015). Another important factor that restricts the growth of the capitalization index of Russian companies is the nearly complete absence of any inflow of new big issues of securities onto the market, as confirmed by the downward trends displayed by the number of companies listed on the Moscow

¹ In accordance with Federal Law of June 29, 2015, No 210-FZ.

² <http://moex.com/a137>

Exchange (mentioned in subsection 3.1.5). The shares in Russia's biggest state-owned companies, state corporations and private vertically integrated holding companies have remained in the off-floor zone. The exchange listings practically never include shares in new medium-sized companies - those that could have become the foundation for fixture economic growth.

Table 4

The movement of domestic market capitalization in 2007–2012 (2007 = 100%)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
USA (NYSE и NASDAQ)	100	58.3	76.7	87.9	79.5	94.9	122.2	133.9	127.5
China (Shanghai SE)	100	38.6	73.2	73.5	63.8	68.9	67.6	106.4	123.1
Japan Exchange Group (previously - Tokyo Stock Exchange)	100	71.9	76.3	88.4	76.8	80.3	104.9	101.1	113.0
UK	100	48.0	72.5	80.5	75.2	77.5	89.9	90.3	83.1
Euronext	100	49.8	68.0	69.4	57.9	67.1	84.9	78.6	78.3
Germany	100	52.8	61.4	67.9	56.3	70.6	92.0	82.6	81.5
Hong Kong	100	50.1	86.8	102.1	85.1	106.7	116.8	121.8	120.0
Canada (TMX Group)	100	47.3	76.7	99.3	87.4	94.2	96.7	95.8	72.8
Australia (Australian SE)	100	52.7	97.2	112.0	92.3	106.8	105.2	99.3	91.4
Russia (S&P, Market Vector)*	100	26.4	57.3	91.7	72.9	71.8	69.3	34.4	30.7
Russia (Moscow Exchange)**	100	28.1	57.3	71.3	57.6	62.5	58.0	30.9	29.6
NASDAQ OMX Nordic Exchange	100	45.3	65.8	83.9	67.8	80.1	102.1	96.3	102.0

* Calculations based on data for 2007-2014 released by S&P, and data for 2015 released by *The Market Vectors Russia Index*.

** Calculations based on data on equity capitalization released by the Moscow Exchange

Source: own calculations based on data released by the World Federation of Exchanges, S&P, *The Market Vectors Russia Index*.

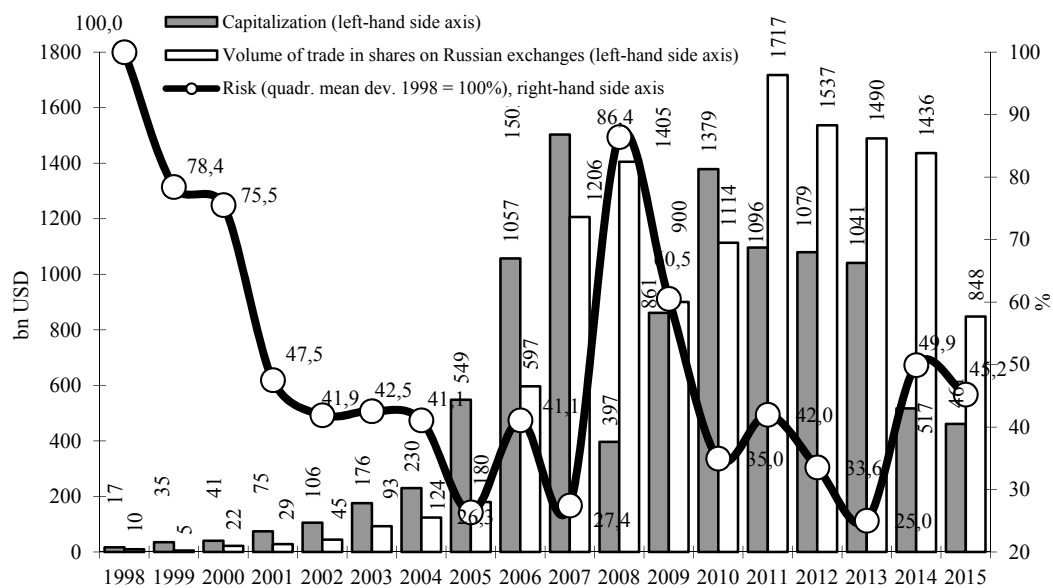


Fig. 18. Capitalization, liquidity and volatility of the Russian share market in 1998–2015

Source: own calculations based on data released by the Moscow Exchange; S&P (capitalization data).

The capitalization of Russian joint-stock companies in 2015 amounted to \$461bn, compared to \$517bn in 2014 (*Fig. 18*). When taken in terms of share in GDP, the capitalization index for 2015 amounts to 34.8%. The aggregate volume of transactions in shares carried on in all trade

modes on the Moscow Exchange decreased from \$1.436bn in 2014 to \$848bn в 2015, or by 41.0%. The turnover decline in the exchange market for shares has been continuing for a fourth year in a row. In 2015, the share market's volatility (measured in terms of standard deviation of the RTS Index's daily fluctuations) somewhat dropped on the previous year and amounted to 45.2% of its 1998 level. However, its index stayed at the same level as in the early 2000s, when the ratings of all Russian securities, including sovereign bonds, were significantly below the investment grade.

3.1.7. The role of government in the financial market

At present, Russia's financial market functions as a powerful channel for redistributing financial resources across the national economy in favor of the public sector. As estimated by Banki.ru,¹ as of February 1, 2016, four state-owned banks (VTB, Sberbank, Russian Agricultural Bank and Gazprombank) accounted for 71.8% of the banking system's total ruble-denominated debt owed to the Bank of Russia. Another 7.3% (approximately) was owed by *Otkritie* FC,² which over the last two years had been providing funding for the projects (important for the public sector) that involved the issuance of bonds by state-owned company Rosneft and support of the Eurobond market after Russia's sovereign rating was downgraded to junk by two international rating agencies in early 2015. That bank is also responsible for the bulk of the banking system's debt, denominated in foreign currency, to the Bank of Russia.

According to RBC, which relies on data released by Fitch, in 2014 the relative share of these four state-owned banks (VTB, Sberbank, Russian Agricultural Bank and Gazprombank) in the total volume of ruble-denominated refinancing loans provided to the banking system by the Bank of Russia, the RF Ministry of Finance and other government entities amounted to Rb 5.9 trillion, or 65.2% of all funding sources. Another Rb 0.9 trillion, or 9.7% of the total refinancing volume, was received by *Otkritie* FC.³

A number of indicators point to the constantly increasing role of government structures in stock exchange transactions. As shown in *Fig. 19* and *Table 5*, after the 2008 crisis the share of state-owned issuers of securities in the total volume of issued corporate bonds increased from 37.1% in 2010 to 59.7% in 2014. The value of that index for 2009 (55.9%) is largely an anomaly, because only big state-owned entities could place their bonds on the market in the aftermath of the crisis. The share taken up by state-owned companies on the Moscow Exchange increased from 36.3 in 2007 to 56.6% in 2015; they acted as financial intermediaries in the corporate bonds underwriting services market. The role of state-owned entities on the market for shares and bonds on the Moscow Exchange is also stably on the rise. This can largely be explained by the fact that in repo operations with shares and corporate bonds, big state-owned banks and the Bank of Russia were the main providers of liquidity for the other participants in the stock market. The share of state-owned companies and the Bank of Russia in the volume of exchange transactions with shares increased from 10.3% in 2006 to 27.8% in 2015, and the same index

¹ Khasanova S. *The permitted drug: can bans do without the CB's dope*. Banki.ru, March 14, 2016, see <http://www.banki.ru/news/daytheme/?id=8768464>

² An entity controlled by *Holding Otkritie*, where a 9.9% stake is held by state-owned bank VTB. Source: <http://www.open.ru/ru/about/stakeholders/>. In December 2015, Forbes named the *Otkritie* FC group as one of likely targets for takeover by VTB (Zubova E. *VTB will start growing: the bank plans to expand by takeovers*. Forbes, December 15, 2015, see <http://www.forbes.ru/finansy/rynki/308371-vtb-poidet-v-rost-bank-planiruet-ras-shiryatsya-za-schet-pogloshchenii>).

³ Sharoyan S. *In 2014, Sberbank and VTB received half of all the Central Bank's loans*. RBC, March 30, 2015, see <http://top.rbc.ru/finances/30/03/2015/5516aaed9a794763fa1878fb>

for transactions with corporate bonds increased from 20.5% in 2006 to 50.6% over the period of January-July 2015.¹

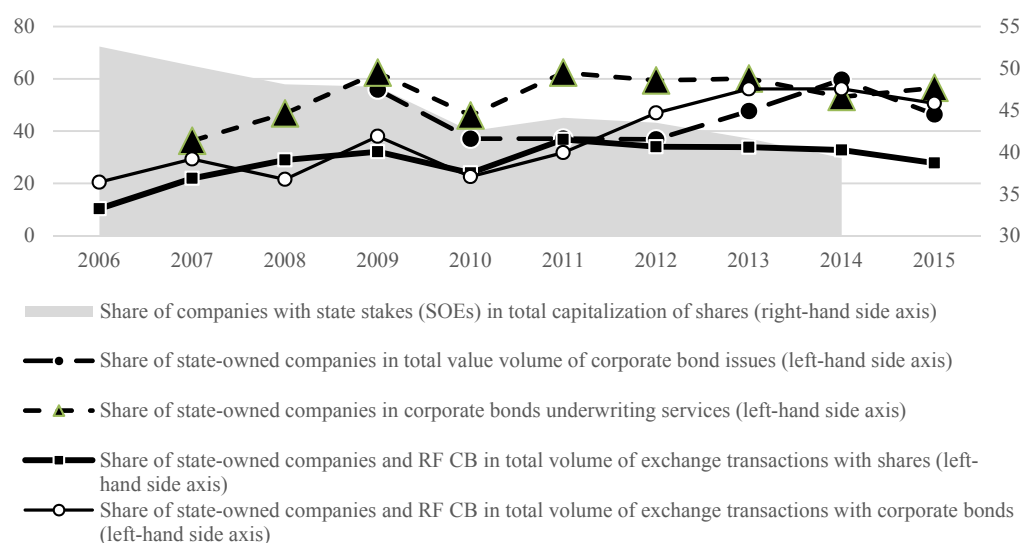


Fig. 19. The relative shares of the capitalization index of companies with state stakes (state-owned enterprises, or SOEs) in the capitalization index of corporate shares traded on the Moscow Exchange (as %); the relative shares of state-owned entities² in the volume of trade in the Russian stock market, as %

Source: own calculations based on corporate financial reports, data released by CBonds and the Moscow Exchange.

At the same time, the shifts towards state-owned enterprises (SOEs) displayed by the refinancing flow from the Bank of Russia, the corporate bond issue volume, and the exchange operations in the segment of investment and banking services and the transactions with shares and corporate bonds did not result in their better performance, as estimated by the market capitalization index. In this case, in accordance with the OECD terminology, state-owned entities (state-owned enterprises, or SOEs) are understood to be the enterprises controlled by the State who acts as their sole owner, or the owner of majority stakes or significant minority stakes (blocks of voting shares) in these companies. In this connection, a significant minority stake is understood to be a stake (block of voting shares) amounting to no less than 10%.³

During our 2015 study based on a sample of 54 listed companies and complying with the definition of a SOE, we found that their aggregate market capitalization volume shrank from Rb 13.4 trillion in 2006 to Rb 9.1 trillion in 2014, or by 32.1%. Over the same period, the aggregate market capitalization of all the companies operating on the MICEX and the Moscow

¹ Regrettably, without offering any explanation, from August 2015, Moscow Exchange PJSC, referring to Provision of the Bank of Russia as of October 17, 2014, No 437-P on organized traders, significantly reduced the scope of disclosed information on its activity; in particular, from then on it no longer released the statistics on transactions with different categories of bonds (corporate, regional and federal).

² Hereinafter, the state-owned entities under consideration are as follows: KIT Finans, CJSC Sberbank CIB, VTB-24, Gazprombank, Bank of Moscow, Sviaz-Bank, VEB, VTB, Sberbank of Russia, VTB Capital, TransCredit-Bank, Bank Saint Petersburg.

³ OECD Guidelines on Corporate Governance of State-Owned Enterprises, 2015 Edition, OECD Publishing, Paris, pp. 14–15.

Exchange likewise shrank from Rb 25.5 trillion to Rb 23.2 trillion, or by 9.0%. In other words, over the period 2006 to 2014, the decline rate of the capitalization index of SOEs was higher than that of the aggregate market capitalization of all the companies operating on the exchange. As a result, the relative share of the capitalization index of SOEs in the total capitalization of shares traded on the Moscow Exchange shrank from 52.6% in 2006 to 39.3% in 2014 (*Table 5*). This figure was not influenced by the privatization deals involving stakes in big state-owned companies that were completed over that period (Rosneft, Sberbank, VTB, Alrosa, etc.), because these companies, even after the state stakes in their capital had been reduced, were not deprived of their status of a SOE. Consequently, the shrinking capitalization share of SOEs in the aggregate capitalization index only means that the capitalization index of private companies operating on the exchange was growing faster than that of companies with state stakes, although state-owned entities had advantages over all other companies in terms of financial resources and activity on the exchange.

Table 5

The relative shares of the capitalization index of companies with state stakes (state-owned enterprises, or SOEs) in the capitalization index of corporate shares traded on the Moscow Exchange (as %); the relative shares of state-owned entities¹ in the volume of trade in the Russian stock market, as %

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Share of companies with state stakes (SOEs) in equities capitalization	52.6	50.3	48.1	47.8	42.5	44.1	43.5	41.6	39.3	
Share of companies with state stakes in value volume of corporate bond issues				55.9	37.1	37.2	36.9	47.7	59.7	46.4
Share of companies with state stakes in corporate bonds underwriting services market		36.3	46.8	62.4	46	62.4	59.4	60.1	53.1	56.6
Share of companies with state stakes and RF CB in total volume of equities exchange transactions	10.3	21.9	29.0	32.1	24.0	36.8	34.0	33.8	32.8	27.8
Share of companies with state stakes and RF CB in total volume of exchange transactions with corporate bonds	20.5	29.3	21.6	38.0	22.6	31.8	47.0	56.1	56.2	50.6*

* Based on data for January-July 2015.

Source: own calculations.

3.2. Stock market infrastructure²

3.2.1. The payment settlement infrastructure of the Moscow exchange

In 2011, the two largest Moscow-based exchanges - MICEX and RTS - were merged. This merger had important positive consequences for the development of Russia's stock market. The transactions on the stock and futures markets became easier. All liquidity necessary for carrying on transactions in the markets for government and corporate securities, as well as the futures and forex markets, could now be concentrated in the accounts of participants in trading in the exchange's single clearing and settlement system. The diversification of the exchange in servic-

¹ Hereinafter, the state-owned entities under consideration are as follows: KIT Finans, CJSC Sberbank CIB, VTB-24, Gazprombank, Bank of Moscow, Sviaz-Bank, VEB, VTB, Sberbank of Russia, VTB Capital, TransCreditBank, Bank Saint Petersburg.

² Author of this section: Abramov A. – RANEPА.

ing the transactions with different types of monetary and investment assets improved its financial sustainability in face of the widespread decline in the trade volume indices displayed by world stock exchanges and the reluctance of investors to buy risky assets.

After the merger, it now became possible to create, on the basis of the MICEX settlement chamber, the National Settlement Depository (NSD) and the Depository Clearing Company (DCC), a ‘fully-fledged’ central depository. In accordance with Order of the FFMS of 6 November 2012, No 12-2761/PZ-I, this status was granted to non-bank credit institution Close-end Joint Stock Company National Settlement Depository (NSD CJSC). In 2015, the NSD’s equity amounted to Rb 11.4bn vs. Rb 9.5 bn in 2014, thus having increased by 20.0%. The value of securities kept by the NSD rose from Rb 25 trillion in 2014 to Rb 31 trillion in 2015, or by 24.0%.

Over the past three year, the NSD succeeded in implementing a number of important projects. It was granted the official status of an eligible securities depository by the *US Securities and Exchange Commission (in accordance with New Rule 17f-7 under the US Investment Company Act of 1940)*, and so can hold the assets of the US biggest institutional investors. The depository opened accounts for global clearing and settlement systems - *Euroclear Bank S.A./N.V.* and *Clearstream Banking S.A.*, as well as for the central depositories of Armenia, Belarus, Kazakhstan and Ukraine. In 2015, *Euroclear* and *Clearstream* bought minority stakes in the NSD. The establishment of correspondent banking relationships with the world’s two biggest settlement systems enabled the NSD to make the resources of foreign investors accessible for transactions with OFZ and corporate bonds and shares in Russia’s stock exchange market. In accordance with the alterations introduced into the Federal Law ‘On the securities market’ by Federal Law of July 21, 2014, No 218-FZ ‘On introducing alterations into some legislative acts of the Russian Federation’, reform was launched towards transforming the stock market by switching over to an electronic document turnover system. The NSD is actively involved in the creation of a corporate information center, in order to make more transparent the information on securities and their issuers.

From February 6, 2013, the NSD has been performing the functions of a repository for the registration of off-floor transactions with different financial instruments. Currently, these are predominantly swaps and repo operations. The creation of such structures is envisaged by the decisions of G-20 adopted in 2009 at its Pittsburgh summit as one of the measures designed to reduce systemic risks. In 2015, the repository registered repository to the value of Rb 114 trillion vs. Rb 86 trillion in 2014.

Nevertheless, the key goal of the central depository, as it was initially envisaged by the lawmakers, has so far been achieved only in part. The case in point is that, in accordance with Federal Law of December 7, 2011, No 414-FZ ‘On the Central Securities Depository’, it was endowed with a special right: the registers of holders of securities were from then on to include a new personal account – that of the central depository’s nominal holder. So, all registered securities kept on the personal accounts of nominal holders in the registers of other depositories had to be re-registered to that account. In its turn, the depository was obliged to open the nominal holder accounts for all open-ended joint-stock companies, thus promoting the gradual involvement of their shares in operations on the public stock markets. Our estimations show that this goal has not been achieved. Regretfully, the NSD does not release the statistics on the number of joint-stock companies that have opened their personal accounts of nominal holders with it. From the NSD’s reports for 2013 we know that as of December 31, 2013, the accounts of nominal holders had been opened in the registers of more than 1,200 issuers of securities. Our selective calculations, based on the published list of securities for which the NSD has

opened nominal holder accounts, show that over the last two years their number increased by approximately 20% to 1,400 (less various collective investment schemes). However, only 254 among those 1,400 joint-stock companies, or 18% of those serviced by the NSD, are listed on the Moscow Exchange.

Another subsidiary of the Moscow Exchange is *Bank National Clearing Center* (NCC). Since November 2011, the NCC has been rendering clearing services in the securities market, and since December 2012 in the derivatives market. In October 2013, the Bank of Russia recognized Bank National Clearing Center CLSC to be the only qualified central counterparty (CCP) in the financial market. The NCC visualizes its strategic objective in providing the participants in the financial market's different segments with integrated clearing services, in particular the use of a single margin and single positions (limits) for all of them in all the exchange-based markets and over-the-counter markets. In recent years, the Moscow Exchange Group has invested serious effort in boosting the NCC's capitalization index. Over the course of two years, the National Clearing Center's equity increased threefold from Rb 13.2bn in 2012 to Rb 39.6bn in 2014.

3.2.2. Segmentation of the stock exchange market

The low yields of Russian shares after 2008, the high volatility of foreign-exchange rates and financial assets, the relatively high rate of refinancing in the banking system, the freeze of pension savings, and lack of any noticeable improvement in domestic investment have resulted in some serious shifts in the Moscow Exchange's market structure. Over slightly more than five years, the capital market share in the total volume of exchange transactions shrank from 13.2% in 2010 to 2.4% in January-February 2016 (*Table 6*). This is a manifestation of the overall negative trend displayed by the stock market in its functioning as a source of funding for the Russian economy and private savings.

On the contrary, the share of the monetary market increased from 72.0% in 2010 to 78.6% in January-February 2016. The highest growth rate over the period under consideration was displayed by the share of the forex market – from 38.1% to 45.8%. The relative share of transactions in the money market shrank from 33.9% to 32.8%, including that of repo transactions from 31.5% to 28.4%. On the one hand, the unstable exchange rate of the ruble against major world currencies and the access to forex operations granted to the private clients of brokers and banks conducted to rapid growth of the Moscow Exchange's forex segment. On the other, the downward trend (visible since 2015) in the volume of refinancing loans issued by the Bank of Russia to the banking system resulted in shrinkage of the money market's share. The positive development on the money market was the rapid growth of the volume of transactions in the repo sector carried on with the central counterparty. This index rose threefold, to 70–72% of the repo market.¹

Marked growth of the volume of transactions was noted in the futures market. The share of transactions with derivatives in the total trading volume increased from 14.8% in 2010 to 19.0% in January-February 2016. The accelerated growth in the futures market in 2015 and early 2016 was caused by the increasing use of hedging tools by market participants in their attempts to protect their assets from the risks associated with the leaps of the highly volatile exchange rate of the ruble and securities quotes. As estimated by Chairman of the Executive Board and CEO of the Moscow Exchange Alexander Afanasiev, the futures market in Russia, in contrast to the

¹ Year of the Moscow Exchange: results and plans. Financial One, December 24, 2015.

global futures exchanges with their high shares of forward rate agreements, is still dominated by forex and similar-type operations. In 2015, instead of the expected 5-fold increase, the volume of forward rate agreements shrank threefold.¹

Table 6

The market structure on the Moscow Exchange, %

	2010	2011	2012	2013	2014	2015	Jan-Feb 2016
Stock market	13.2	10.3	6.5	5.3	4.1	3.2	2.4
including:							
shares, Russian depository receipts (RDR), investment fund units	8.0	6.6	3.1	1.9	2.0	1.5	1.1
bonds	5.2	3.7	3.4	3.4	2.1	1.7	1.3
secondary turnover	3.4	2.9	2.8	2.8	1.7	1.3	1.0
new offering	1.8	0.8	0.6	0.6	0.4	0.4	0.2
Money and forex market	72.0	70.6	80.0	83.8	84.0	82.1	78.6
including:							
money market	33.9	41.3	48.3	49.1	39.7	33.5	32.8
repo transactions	31.5	38.3	45.8	46.2	35.6	28.3	28.4
lending market	2.4	3.1	2.5	2.9	4.1	5.1	4.4
forex market	38.1	29.3	31.6	34.7	44.4	48.6	45.8
spot trades	18.0	15.8	16.6	12.8	15.1	16.2	19.2
swap trades	20.1	13.4	15.0	22.0	29.3	32.5	26.6
Futures market	14.8	19.1	13.5	10.8	11.9	14.7	19.0
Commodity market	0.0	0.0	0.0	0.0	0.0	0.02	0.02
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: own calculations based on data on monthly trading volume on the Moscow Exchange.

Table 7

Secondary market on the Moscow Exchange in August-December 2015

Equity			Corporate bonds		
	m Rb	%		m Rb	%
1. Negotiated trades mode (NTM)	127,184	0.61	1. Main trading mode	657,519	3.23
2. Trading mode <i>Equities D – Negotiated trades mode</i>	1,004	0.005	2. Negotiated trades mode (NTM)	1,536,155	7.54
3. Trading mode <i>Equities D – Main trading mode</i>	876	0.004	3. Trading mode <i>T+ : repo</i>	836	0.004
4. Trading mode <i>T+ : repo</i>	3,321	0.02	4. Trading mode <i>Qualified investors – Main trading mode</i>	483	0.002
5. Trading mode <i>T+ : NTM</i>	13	0.0001	5. Trading mode <i>Qualified investors – NTM</i>	1 205	0.01
6. <i>Odd lots</i> trading mode	22	0.0001	6. Trading mode <i>Qualified investors – Repo</i>	678	0.003
7. Trading mode <i>Main trading mode T+</i>	3,469,309	16.72	7. Trading mode <i>Bonds D – Main trading mode</i>	979	0.005
8. Trading mode <i>Equities repo</i>	3,550,688	17.11	8. Trading mode <i>Bonds D - NTM</i>	55	0.0003
9. Trading mode <i>Repo with the Bank of Russia: repo auction</i>	443,176	2.14	9. Trading mode <i>Repo with the Bank of Russia: repo auction</i>	5,952,042	29.22
10. Trading mode <i>Repo with the Bank of Russia: fixed rate</i>	223,350	1.08	10. Trading mode <i>Repo with the Bank of Russia: fixed rate</i>	4,688,084	23.02
11. Trading mode <i>Repo with CCP - order book orders</i>	7,604,385	36.65	11. Trading mode <i>Bonds repo</i>	4,963,178	24.37
12. Trading mode <i>Repo with CCP - anonymous orders</i>	5,112,841	24.64	12. Trading mode <i>Repo with CCP – order book orders</i>	2,216,941	10.89
13. Trading mode <i>NTM with CCP</i>	154,054	0.74	13. Trading mode <i>Repo with CCP – anonymous orders</i>	347,711	1.71
14. Trading mode <i>Block trading (Dark Pool)</i>	38,425	0.19	14. Trading mode <i>NTM with CCP</i>	1,025	0.01
15. Trading mode <i>Delivery for futures contracts (FC)</i>	19,925	0.10			
Total secondary trades turnover	20,748,573	100.00	Total secondary trades turnover	20,366,891	100.00

Source: own calculations based on data released by the Moscow Exchange.

¹ Year of the Moscow Exchange: results and plans. Financial One, December 24, 2015.

In our opinion, the low turnover rates in the stock market segment on the Moscow Exchange have resulted not only from the objective external problems that are suppressing its growth, but also from some issues in trading organization. *Table 7* shows the turnover data for various segments of the exchange market for equities and corporate bonds over the period from August through December 2015; from these data, it follows that in the secondary market, with its insufficient liquidity, equities were traded in 15 different trading modes, and corporate bonds - in 14 trading modes respectively. In the equity segment, the shares of different trade modes varied from 0.0001 to 36.6%; and in the corporate bond segment – from 0.0003 to 29.2% respectively. Possibly, such a detailed segmentation of trade was not a factor that could boost the overall market liquidity.

3.2.3. Development projects and current operations

In 2015, the Moscow Exchange Group implemented the following major market development projects: the introduction of a simplified registration mode for bond issues (beginning with Rosbank's bonds); UC RUSAL's ordinary shares were listed on the Moscow Exchange; a single settlement cycle in T+1 trading mode with a partial deposit for OFZ was introduced; exchange-traded indexed OFZ (with face value adjustment for inflation) were placed on the market; settlements in US dollars were allowed for T+ transactions with foreign securities; the Corporate Governance Code was approved; new listing rules were introduced, with some additional requirements to shares, mortgage participation certificates (MPC) and bonds, including bond concessions; retail investors were allowed to open broker accounts in a remote mode.

Nevertheless, in 2015, the Moscow Exchange did not manage to run its trading systems faultlessly; within one-year's time, no less than 6 serious technical glitches occurred in its futures, equity and forex markets. As estimated by its Chairman and CEO Alexander Afanasiev, its accessibility coefficient (which describes the ability to maintain the IT systems in a properly functioning mode) for 2015 was below the norm¹ due to the rising rate of technical glitches on the market.

3.2.4. Equity structure, finances and capitalization

In 2015, the main equity structure of the Moscow Exchange remained relatively unchanged. From the official reports released by the National Settlement Depository (NSD) it follows that as of December 31, 2014 and June 30, 2015, the entities controlled by the Russian Federation held more than 50% of voting shares in Moscow Exchange PJSC - that is, the exchange remained a state-controlled company.² We estimate that, in 2015, the aggregate stake held by the Bank of Russia, Sberbank, VTB, VEB, Gazprombank and the RDIF amounted to 39.2% vs. 39.6% a year earlier (*Table 8*).

In accordance with Part 14 of Article 49 of Federal Law of July 23 2013, No 251-FZ 'On introducing alterations into some legislative acts of the Russian Federation in connection with the transfer, to the Central Bank of the Russian Federation the powers of regulation, control and supervision in the sphere of financial markets', the Bank of Russia was required to withdraw

¹ Year of the Moscow Exchange: results and plans. Financial One, December 24, 2015.

² The same fact was stated in the Consolidated Intermediate Shorter Financial Report of NPO NSD CJSC, released as of June 30, 2015, p. 21. https://www.nsd.ru/common/img/uploaded/files/disclosure/hyear/NSD_IFRS_cons_1HY_2015.pdf

its stakes from the Moscow Exchange and the Stock Company Saint-Petersburg Currency Exchange (SPCEX) before January 1, 2016. However, on April 2, 2015, the Bank of Russia officially announced that, 'considering the forthcoming developments in the geopolitical situation and, as a consequence, the necessity to maintain, for an indefinite period of time, the comprehensive control of a regulator over the functioning and development of Russia's national exchange infrastructure, the Bank of Russia believes that it is not feasible for it to fully withdraw from the capital of Moscow Exchange OSJC and SPCEX CJSC.¹ The corresponding amendments were introduced into legislation by Federal Law of June 29, 2015, No 210-FZ.

This decision was taken a result of the economic sanctions and aggravating geopolitical situation, as well as the changes in the Moscow Exchange's equity structure that occurred after a SPO undertaken on July 2, 2014. Then, the Bank of Russia sold a 11.7% stake in the Moscow Exchange, by way of an international offering on the market, in the amount of 267,274,238 ordinary shares traded at Rb 60 per share, to the total value of Rb 16.04bn.²

The principal buyers of these shares, according to the mass media, were the RDIF and big foreign investment funds.³ *Factiva* reports that, as of December 31, 2014, foreign institutional investors, with the exception of China Investment Corporation, held approximately 17.8% voting shares in the Moscow Exchange. So, together with the stakes held by China Investment Corporation and the EBRD (*Table 8*), in 2014 non-residents already held no less than 29.5% of voting shares. This group of shareholders, while not being a consolidated one, was second in importance. Any further sale of any part in the stake held by the Bank of Russia could result in the Moscow Exchange losing its status of a state-owned company, and the control over it being taken over by non-residents. And this would not be only the takeover of control over the exchange itself, but, more importantly, over the two major settlement and clearing systems - the NSD and the NCC.

After the Bank of Russia's decision to keep its stake in the Moscow Exchange, the aggregate stake held therein by foreign institutional investors remained practically unchanged, amounting in 2015, according to *Factiva*, to 17.6% of the total amount of traded shares vs. 17.8% in 2014. However, in February 2016, China's Chengdong Investment Corporation sold its stake, in the amount of 5.6%, with a 11% discount at Rb 89 per share.⁴ The Corporation offered no comment on that transaction, but on the whole it may be assumed that this move had largely to do not with its attitude to a one or other issuer of securities, but to a whole group of Russian issuers and the Corporation's policy with regard to restructuring its investment portfolio.

In 2015, the Moscow Exchange's income hit a record high of Rb 46.0bn vs. Rb 30.4bn in 2014 (growth by 51.3% - see *Table 9*). However, beside the moderate growth, by 14.1%, of its commission incomes tied to trading turnover, the income was boosted in the main by the interest received on the temporarily free assets. In 2015, the sum of interest income and other financial incomes rose to Rb 27.0bn, having increased over the year by 93.4%. Some market participants feel critical about the high profitability of the exchange.

¹ http://www.cbr.ru/press/pr.aspx?file=02042015_102812if2015-04-02T10_23_50.htm

² In accordance with the norms stipulated in Article 2 of Federal Law of July 10, 2002, No 86-FZ 'On the Central Bank of the Russian Federation (the Bank of Russia)', the Bank of Russia's property is in federal ownership; so it is questionable if that transaction could indeed be regarded as a privatization deal.

³ RBC, July 1 2014. *The RDIF can buy half of the RF CB's stake in the Moscow Exchange*: <http://top.rbc.ru/economics/01/07/2014/933930.shtml>

⁴ M. Stulov. The Chinese withdrew from the Moscow Exchange's capital. *Vedomosti*, February 4, 2016.

Table 8

**The structure of shareholders of the Russian exchanges before
and after their merger**

	Prior to reorganiza- tion		Prior to reor- ganiza- tion	After merger: MICEX- RTS OJSC as of Feb- ruary 15, 2013 - esti- mated value ¹	As of May 12, 2014 ²	Estimates as of De- cember 31, 2014	Estimates as of De- cember 31, 2015
	RTS OJSC	RTS OJSC					
Bank of Russia		28.6	24.3	22.5	23.7	12.1	11.8
Sberbank of Russia		7.5	10.4	9.6	10.0	10.0	10.0
VTB		7.1	6.1	5.6	3.8	3.8	3.8*
VEB		10.5	8.7	8.0	8.4	8.4	8.4
Gazprombank		6.2	5.4				
RDIF		1.3	1.3	4.6	5.3	5.3	5.3
Stake held by state-owned structure	0	61.1	56.1	50.3	50.3	39.6	39.2
MICEX Finance		2.8	2.8	5.5	2.3	2.2	1.9
Chengdong Investment Corporation				5.4	5.6	5.6	5.6**
EBRD				5.8	6.1	6.1	6.1
Other shareholders	89.0	36.00	41.0	33.0	34.8	46.5	47.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* own estimations.

** Chengdong Investment Corporation, as of February 8, 2016, sold its shares in Moscow Exchange PSJC.

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

In April 2015, during brokers' meeting with Chairman of the Supervisory Board of the Moscow Exchange Alexey Kudrin, it was said that the Exchange had begun to display signs of misusing its monopolist status on the market for the sake of gain, and that its goal was not to provide services to issuers of securities, but to increase its income by investing the residuals in the accounts of its clients.³ However, its high income on the whole enabled the Moscow Exchange to successfully develop its business, pay high dividends on its securities, and secure its own high capitalization index.

Table 9

Incomes of the Moscow Exchange in 2014–2015, m Rb

	2014	2015	Change, %
1. Commission income	15,586	17,784	14.1
including:			
- in forex market	3,408	4,326.9	27.0
- in money market	3,235	3,874	19.8
- in equity market	3,150.9	3,275.8	4.0
- in futures market	1,636.6	1,470.8	-10.1
- depository services and settlement operations	3,188.6	3,464.6	8.7
- information services	436.2	688.4	57.8
- IT and technical services	496.2	526.7	6.1
- other	34.5	156.8	354.5
2. Interest and other financial incomes	13,989.7	27,050.0	93.4
including:			
- interests on monetary assets held by financial institutions	7,597.4	14,510.4	91.0
- interest on investment	5,910.8	11,930.1	101.8
3. Other incomes	818.3	1,156.0	41.3
4. Operating income, total	30,394	45,990	51.3

Source: own calculations based on data released by the Moscow Exchange (IFRS).

¹ Data released by the Moscow Exchange as of January 16, 2013; information on the biggest stakeholders in the Moscow Exchange published by *Kommersant* in its statistics section, February 18, 2013.

² Quarterly report of Moscow Exchange (MICEX-RTS) OJSC for Q4 2014.

³ Interfax, April 10, 2015, 17:54. Brokers told Kudrin about the drawbacks in the Moscow Exchange's performance.

The total capitalization index of the Moscow Exchange in 2015 amounted to Rb 211.2bn, or \$2.9bn compared to Rb 138.4bn, or \$2.5bn in 2014. As a result of a SPO placed in July 2014, the amount of shares in circulation offered by the Moscow Exchange rose above 50%, and after the sale of Chengdong Investment Corporation's stake it further increased to 57%, which is one of the best indices in Russia's stock market. However, in early 2012, as estimated by the Bank of Russia and the Moscow Exchange's board of directors, its capitalization index was expected to rise towards the year's end to \$6bn.¹ That is, the actual capitalization index amounted to less than half of the previously set target.

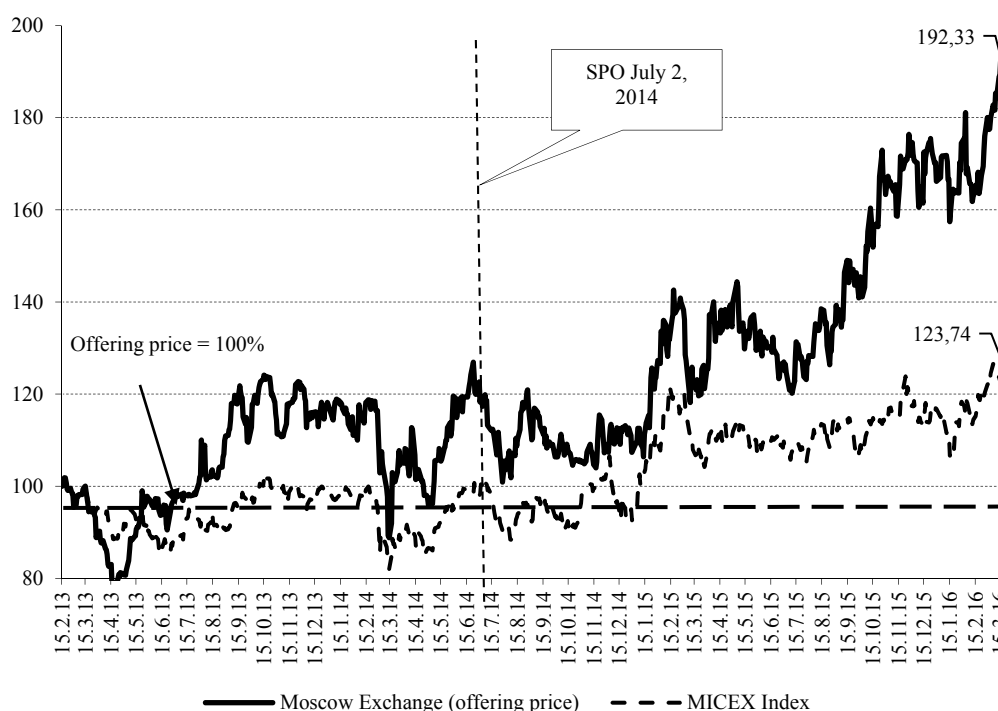


Fig. 20. The movement of offering prices of shares traded on the Moscow Exchange and the MICEX Index over the period from February 15, 2013 through March 17, 2016 (February 15, 2013 =100%)

Source: own calculations based on data released by the Moscow Exchange and the Finam investment company.

Over the period from February 4 to February 15, 2013, in the framework of an IPO, the Moscow Exchange placed shares to the total value of Rb 15bn, or \$500m. While the declared offering price was at Rb 55–63 per share, the actual price was set at its lower margin, or Rb 55 (*Fig. 20*). On the first day of trade, February 15, 2013, the price underestimation index compared to the offering price amounted to 0%. Usually, the low value of the price underestimation index recorded as of the first day of trade in the framework an IPO of Russian shares points to their being overestimated as of the date of the IPO. Later on, this often results in a negative excess yield, compared to the basis index, over many years.²

¹ Interfax-AFI. *The stock exchange valued itself for an IPO.* *Kommersant*, March 26, 2012.

² Abramov A. E. *The Problems of IPO-SPO Faced by Russian Companies.* The Economic and Political situation in Russia. Ye. T. Gaidar Institute for Economic Policy, No 10, 2012, pp. 58-54.

However, three years later after the IPO, the long-term yield of shares traded on the Moscow Exchange was steadily on the rise, and rose above the MICEX Index. As of March 17, 2016, compared to the offering price as of February 15, 2013, the cumulative yield of shares traded on the Moscow Exchange amounted to 92.3%, while the yield of the MICEX's portfolio was only 23.7%. Meanwhile, the ruble-denominated price of shares traded on the Moscow Exchange increased over the period under consideration from Rb 55.0 to Rb 105.8, or by 92.3%, whereas when taken in dollar terms, it declined from \$1.83 to \$1.49, or by 18.6%.

3.3. The market for shares in Russian companies¹

3.3.1. Factors determining the share market behavior²

The market for shares in Russian companies strongly depends on the behavior of oil prices. The coefficient of determination (R^2) between the absolute monthly values of the RTS Index and the price of Brent crude over the period from September 1995 through January 2015 is equal to 0.80 (see *Fig. 21*), which points to a very close interdependence of these two indicators.

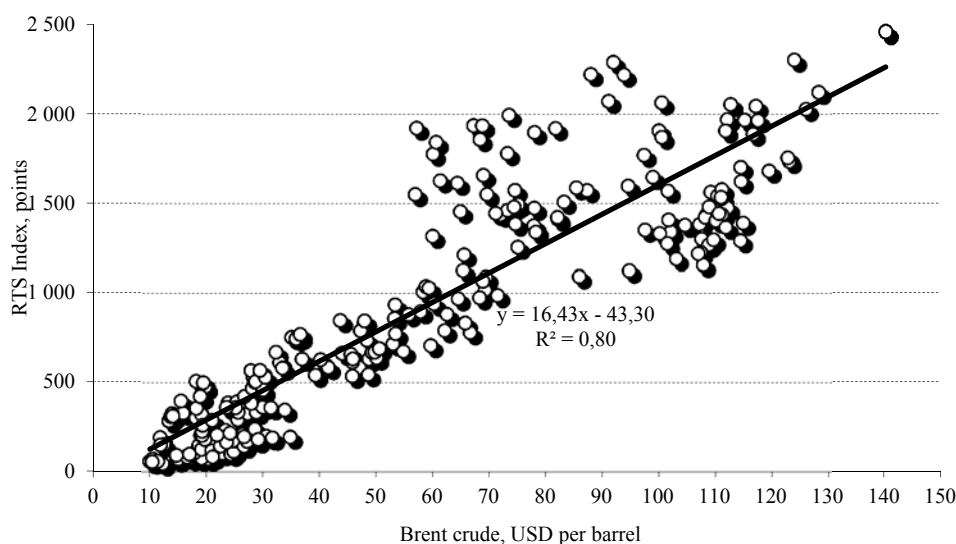


Fig. 21. The dependence of the RTS Index on the price of Brent crude, from September 1995 through February 2016

Source: own calculations based on data released by the Finam investment company and the Moscow Exchange.

However, in actual practice the behavior of Russian stock indexes depends not only on that of prices of oil. *Fig. 22* demonstrates the behavior of the coefficient of correlation between the monthly relative movements of the RTS Index and the price of Brent crude over a previous 12-month period. The sliding correlation curve that reflects the interrelation between the two indicators reveals a distinctly cyclical pattern. As a rule, during a period of growth on the stock

¹ Author of this section: Abramov A. – RANEPА.

² This section is co-authored with Researcher of the RANEPА *Institute of Applied Economic Research* M. I. Chernova.

market, the correlation coefficient declines towards -1 at a point near the RTS Index's peak value. In other words, when market is on the rise, the price of oil and the accelerating RTS Index begin to change in two different directions. When the share market is plummeting, the correlation between the changes in the Index's value and the price of oil begins to increase towards +1 while the stock index is at its bottom point. That is, when the market is on the decline, the movement patterns of the RTS Index and prices of oil become increasingly synchronous. Moreover, the U-turn point of the sliding correlation curve most often occurs in April or March, depending on a given year.

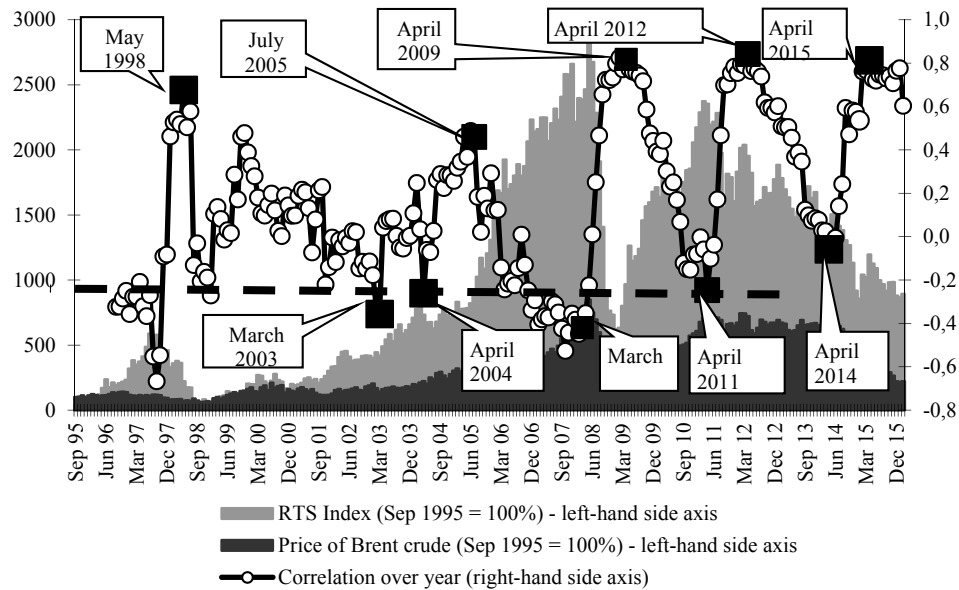


Fig. 22. Correlation between the movement patterns of the RTS Index and the price of Brent crude, from September 1995 through February 2016

Source: calculations based on data released by the IFS IMF and MICEX-RTS.

The cyclical behavior patterns displayed by the RTS Index and prices of oil, in our opinion, can be explained by the counter-cyclical effects (relative to the movement of oil prices) of the foreign portfolio investment flows in the stock market. This mechanism works as follows. As a rule, the strategy of foreign investment funds specializing on Russia is that they buy shares in Russian companies when a crisis reaches its bottom point, and the prices are low; later on, when the market starts its upward movement, they try to catch the moment when it is necessary to withdraw their money from the stocks that have become overestimated (too expensive). Our studies have demonstrated¹ that the signal for withdrawal is the significant decline of the forecast indices published by Consensus Economics Inc., a survey firm that is popular among institutional investors and international financial institutions. It follows the growth rate indices of the world's biggest economies and predicts downturns in the demand for oil and national currency devaluation in the developing countries. The timing of such investor decisions in March

¹ *IMF Financial Stability Report*. September 2011, pp. 11–18, see www.imf.org; Abramov A. *Differences in the behavior of domestic and foreign private investors on the Russian stock market*. *Russian Economic Development*, No 11, 2015, pp. 47–52.

or April can probably be explained by the release, during these two months, of the IMF's global economic reviews, which also rely on Consensus Economics' data.

So, Russia's stock market usually functions in accordance with the following scenario. Whenever the bottom point of a crisis is reached, which usually happens alongside the start of recovery growth displayed by prices of oil, foreign portfolio investors begin to buy Russian stocks. At that moment, the correlation between the RTS Index and oil prices is near +1. However, as the market grows, the inflow of foreign investment becomes slower, and at a certain point in time, while oil prices are still on the rise, non-resident investment funds begin to systematically withdraw their money from Russian stocks. Therefore the peak of oil prices usually coincides with the maximum value volume of funds being withdrawn from the Russian stock market. As a result, the correlation between the RTS Index and oil prices declines to -1 when oil prices and the stock index reach their highest points. One example of this behavior pattern displayed by foreign portfolio investors was their withdrawal from Russia's market for shares during the period from May 2006 through February 2009. They started to behave like this in spite of the continuing (until May 2008) growth of prices of oil, and changed their behavior only when the Russian stock market hit its bottom point during the 2008 crisis (see Fig. 12).

3.3.2. Segments of the domestic share market

In 2015 and early 2016, the growth rate of trading volume in the futures market was significantly ahead that of the equity market. The relative share taken up by the futures market increased to 71.6% in February 2016 vs. 52.2% as shown by the year-end results for 2014. On the one hand, this was a sign of the market participants' desire to rely on derivatives as a hedging tool against potential losses in a highly volatile market, especially in the segment of FX derivatives. On the other, the trading volume in the equity market was on the decline, and so their interest in the segment of equity derivatives was likewise declining. However, on the whole, as seen from Fig. 23 and Table 10, the share of equity market transactions in the spot segment shrank from 8.4% in 2014 to 4.0% in February 2016.

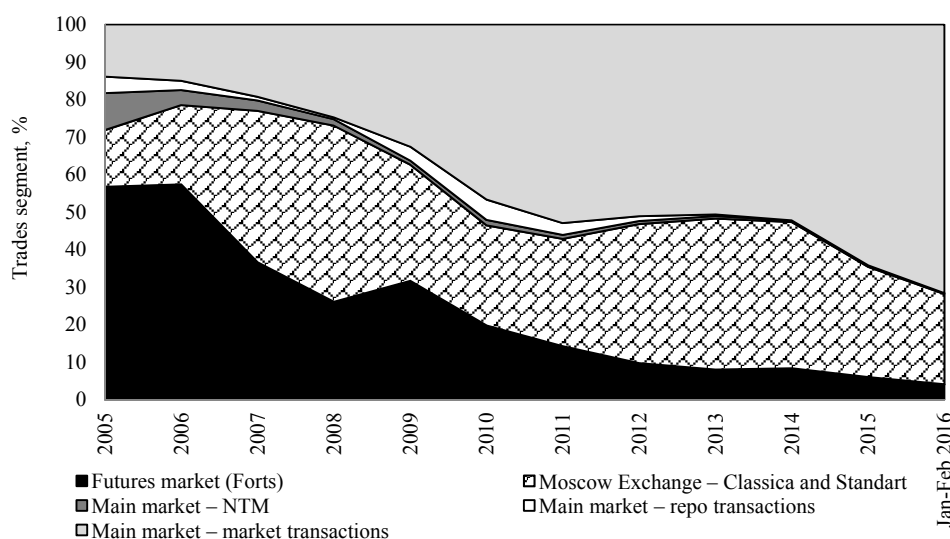


Fig. 23. The structure of markets for shares and derivatives on the Moscow Exchange from January 2005 through February 2016

Source: own calculations based on data released by Russian exchanges.

Table 10

**The structure of markets for shares and derivatives on the Moscow Exchange
from January 2005 through February 2016**

	2005	2010	2013	2014	2015	Jan-Feb 2016
Main market – market transactions	56.7	19.8	8.0	8.4	6.0	4.0
Main market – repo transactions	15.1	26.7	40.3	39.0	29.4	24.1
Main market – NTM	9.8	1.5	0.7	0.4	0.4	0.3
Moscow Exchange – Classica ¹ and Standart	4.4	5.4	0.4	0.0	0.0	0.0
Futures market (formerly Forts)	13.9	46.7	50.7	52.2	64.2	71.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: own calculations based on data released by Russian exchanges.

The relative index of market transactions with shares issued by Russian companies on the Moscow Exchange in February 2016 was 13.0% compared to 20.4% in 2014. That of repo transactions, on the contrary, rose from 77.2% to 85.5% over the same period (*Fig. 24*). At the same time, as seen from *Fig. 25*, since 2012 the volume of equity market transactions on the exchange in absolute terms has been on the decline, while the ruble-denominated repo turnover has been displaying an upward trend. Such disproportions in the structure of the exchange market for shares are fraught with increased risks for its financial sustainability and proper protection of the rights of private investors. Due to the continuing (for several years in a row) decline of trading activity in the segment of equity market transactions, the equity pricing mechanism has become less effective and less representative, given the higher discounts applied to the fundamental indices coupled with low market liquidity.

The accelerated growth of trades turnover in the money market, which is indicative of the scope of the use of financial levers (borrowed funds) in equity deals on the exchange, points to the fact that even while equity market transactions are on the decline, the volume of borrowed funds attracted by the participants in this market segment is constantly on the rise. Besides, according to our estimations, growth in the equities repo market is indirectly indicative of the increasingly widespread reliance on grey schemes of marginal lending by brokers to their clients, because the bulk of such transactions in the market is represented by money loans issued by big banks to offshore broker companies, which in their turn act as ‘marginal creditors’ of the clients of broker companies, their purpose being to bypass the ‘lending shoulder’ constraints established for the marginal transactions carried on by brokers’ clients.

¹ Trades in the Classica section were officially discontinued from August 3, 2015.

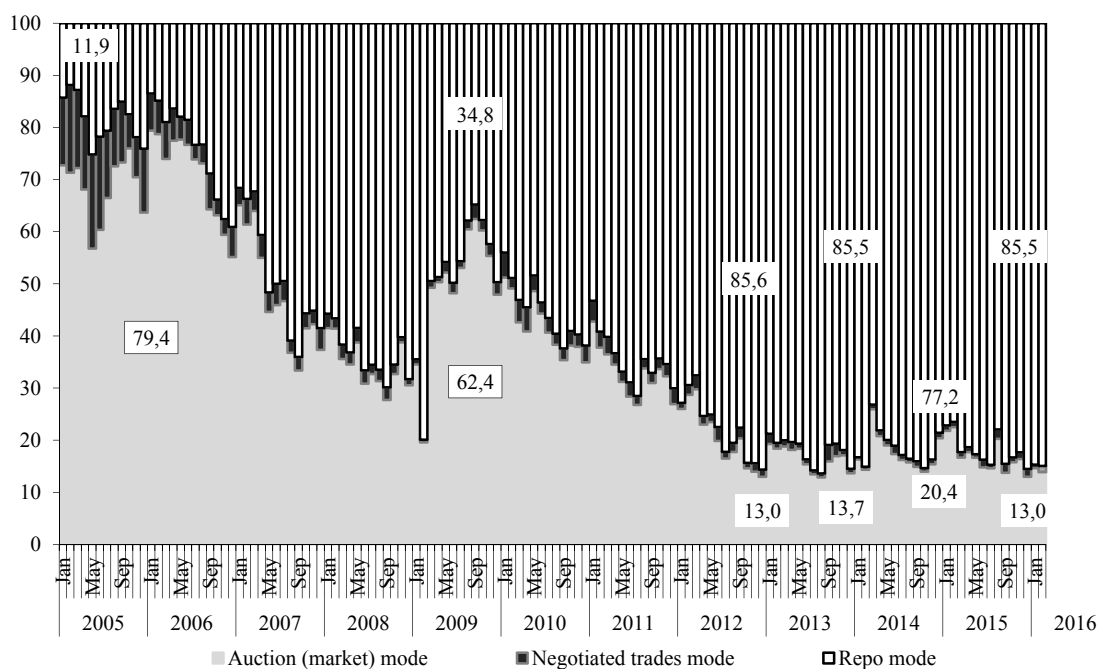


Fig. 24. The structure of trades in shares on the Moscow Exchange's Main Market from January 2005 through February 2016, %

Source: own calculations based on data released by the Moscow Exchange.

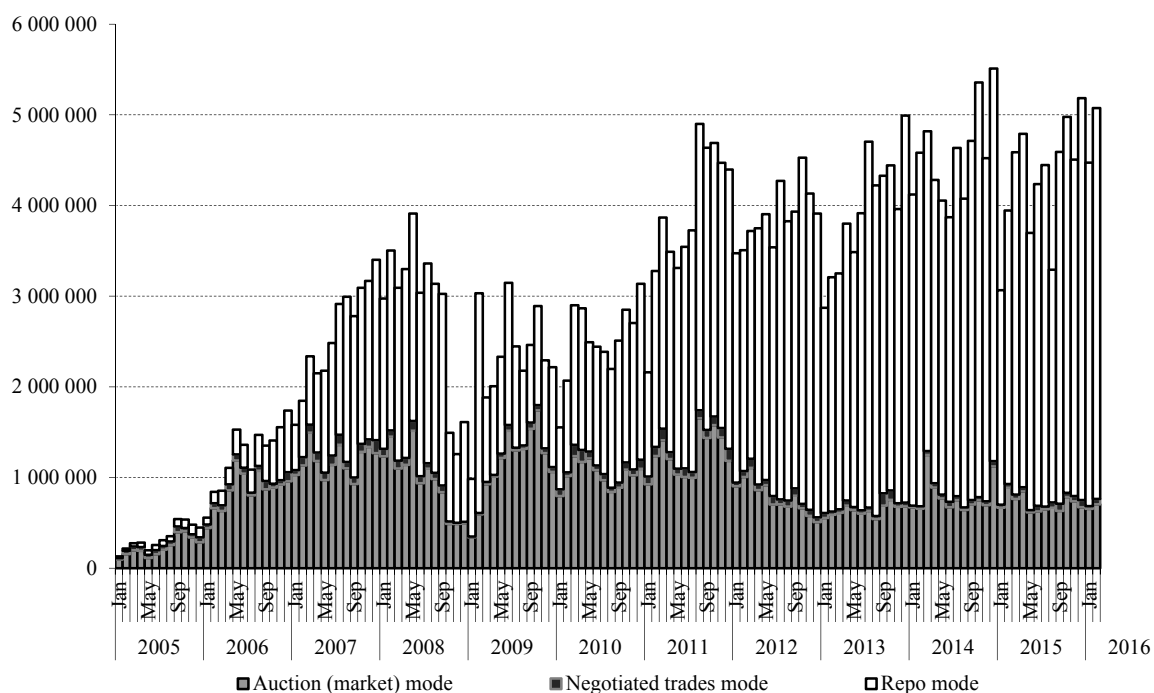


Fig. 25. The volume of trades in shares on the Moscow Exchange's Main Market from January 2005 through February 2016, m Rb

Source: own calculations based on data released by the Moscow Exchange.

Thus, the key issue that should be addressed by the exchange, in our opinion, is the need to find more ways to boost growth in the equity market transactions. One of the key solutions could be the development of alternative pension plans, collective investment schemes, individual investment accounts and other forms of money saving for private investors.

3.3.3. The institutional structure of and competition in the market for shares

In 2015 and early 2016, we could observe a downward trend in the activity of state-owned companies and the Bank of Russia in the main market for equities transactions on the Moscow Exchange. In February 2016, the participation of state-owned structures in the overall trading volume shrank to 17.8% compared to 28.5% in December 2014 (*Fig. 26*). From February 2016 onwards, the Bank of Russia took equities off its Lombard list, and so discontinued its equities transactions on the exchange. The shrinkage of the role of state-owned structures on the Moscow Exchange's equity market could largely be explained by the Bank of Russia's policy aimed at reducing the scale of its repo operations as the principal mechanism of refinancing the banking system. The upshot of this measure was that banks discontinued their transactions with the RF Central Bank in the equity market, and probably the volume of inter-dealer repos (which had been used by big banks for channeling liquidity to smaller market participants) was likewise reduced.

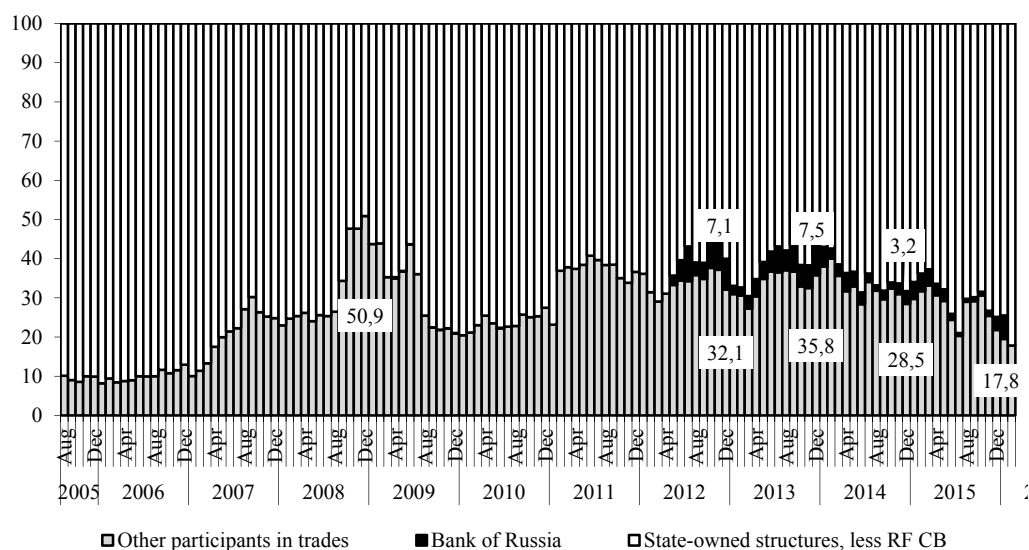


Fig. 26. The participation of private and state-owned broker companies in equity trades on the Moscow Exchange over the period from August 2005 through February 2016, %

Source: own calculations based on data released by the Moscow Exchange.

Fig. 27 demonstrates the movement of the Herfindahl–Hirschman Index, or HHI,¹ on the Moscow Exchange, by market segment, from January 2005 through January 2015. As estimated

¹ The market concentration Herfindahl–Hirschman Index (HHI) is defined as the sum of squares of the volumes of participation of each participant in trading on an exchange: $HHI = (D1)^2 + (D2)^2 + \dots + (Dm)^2$, where D_i is the per cent market share of i^{th} participant; $i = 1, 2, \dots, m$.

by the Federal Antimonopoly Service of the Russian Federation, the market has a low concentration if HHI is below 800; moderate concentration if $800 < \text{HHI} < 1800$; and high concentration if HHI is above 1,800.¹ In 2015 and the first few months of 2016, the HHI for the transactions on the Moscow Exchange’s main equity market remained stable at a level of approximately 500, which means that this market segment was low-concentrated.

From August 2015, the Moscow Exchange no longer discloses its by-category data on trades in bonds, making public only the generalized information on bonds turnover. As shown by the HHI curve describing its behavior in the market for bonds, from H2 2015 it has mostly stayed below 800. This is an indicator of an improving competitive environment in the Moscow Exchange's bonds market. This trend could have emerged due to the shrinkage of refinancing in the banking system, which in its turn suppresses the activity of the traditional big players in the repo market.

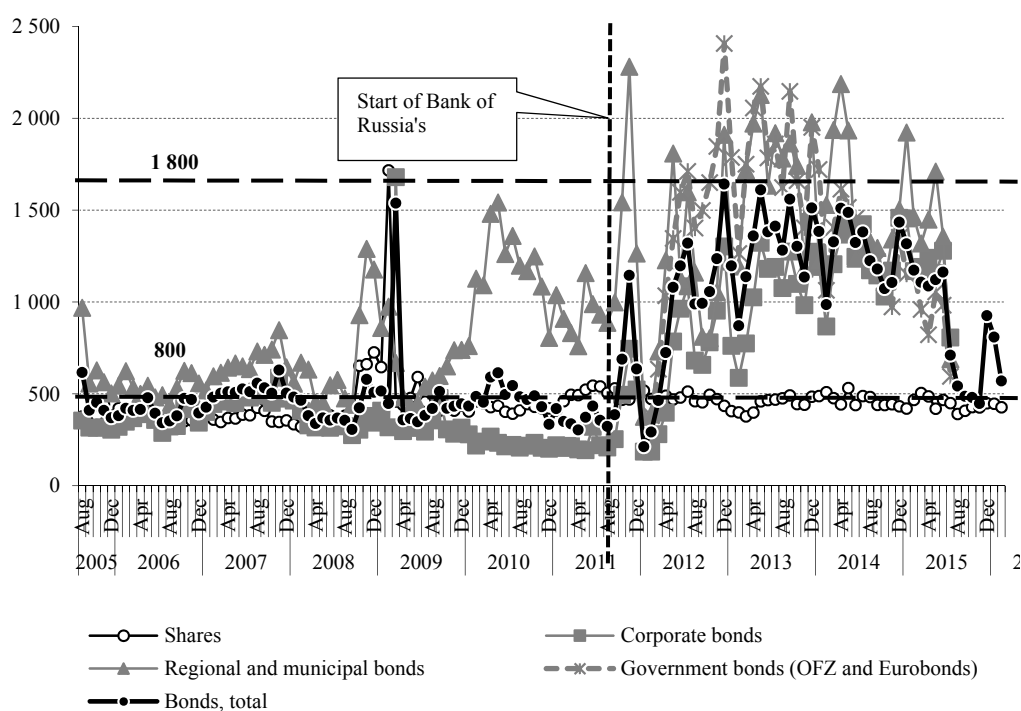


Fig. 27. The Herfindahl–Hirschman index, based on secondary trades volume in the MICEX-RTS’s Main Market (all trade modes)

Source: own calculations based on data released by the Moscow Exchange.

3.3.4. The impact of the market for shares on the national economy

The main channels whereby the market for shares conveys its impact on economic growth is through primary placements of securities by companies as a way of attracting investment resources, as well as through merger and takeover deals. As follows from *Table 11*, the biggest public offers of shares took place in 2006 and 2007, when the volume of attracted resources

¹ See section 2.6.4 of the Methodological recommendations for the procedure of analysis and evaluation of the competitive environment on the financial services market, approved by Order of the RF Ministry for Antimonopoly Policy as of March 31, 2003, No 86.

amounted to \$17.0bn and \$33.0bn respectively. In 2015, as an upshot of the generally unfavorable economic and geopolitical situation, the total volume of IPO-SPOs undertaken by Russian companies amounted to only \$0.6bn compared to \$1.7bn in 2014. In 2015, the amount of investment in fixed assets out of the total value of attracted capital over the year's first 9 months was \$0.9bn. In terms of capital volume, IPO-SPO transactions traditionally fall behind merger and takeover deals, which in 2015 generated \$51bn compared to \$71bn a year earlier. Thus, in spite of the overall decline both in the number of public offers of shares and mergers and takeover deals, it can be concluded that the companies operating in the domestic stock market were increasingly orienting towards the merger-and-takeover strategies, rather than towards natural growth.

Table 11

**The parameters of market for shares in Russian companies
(bn USD)**

	Capitalization	Secondary market, including on foreign exchanges	IPO	Investment in fixed assets of capital generated by IPOs			Volume of merger and takeover deals
				Bn USD	as % of capi- talization	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	1,057	914	17	3.2	0.3	18.8	62
2007	1,503	1,687	33	3.6	0.2	10.9	126
2008	397	1,983	1.9	2.1	0.5	110.5*	110
2009	861	1,156	1.7	2.0	0.2	117.6*	56
2010	1,379	1,431	6.3	2.4	0.2	37.9	56
2011	1,096	2,222	11.3	2.6	0.2	23.1	79
2012	1,079	1,931	9.5	3.1	0.3	32.6	135
2013	1,041	1,801	9.0	3.1	0.3	34.4	163
2014	517	1,739	1.7	3.1	0.6	182.0*	71.1
2015	461	996	0.6	0.9	0.2	150.0*	51.5

* - the value is above 100% because part of capital invested in fixed assets could be generated by way of private offering of shares.

Source: own calculations based on data released by the Moscow Exchange; cBonds; the Bank of Russia; Rosstat.

The volume of funding generated by companies through their market offers of shares and corporate bonds and invested in fixed assets accounts for only a fraction of their total investment in fixed assets. This assumption is confirmed by data in *Fig. 28*. The aggregate value volume of issued shares and bonds in the overall structure of investment in fixed assets is about 2%. The percentage of new offers of shares in that structure shrank from 1.1% in 2014 to 0.5% in 2015. At the same time, the percentage of new bond issues as a source of investment increased over the same period from 0.1% to 1.6%.

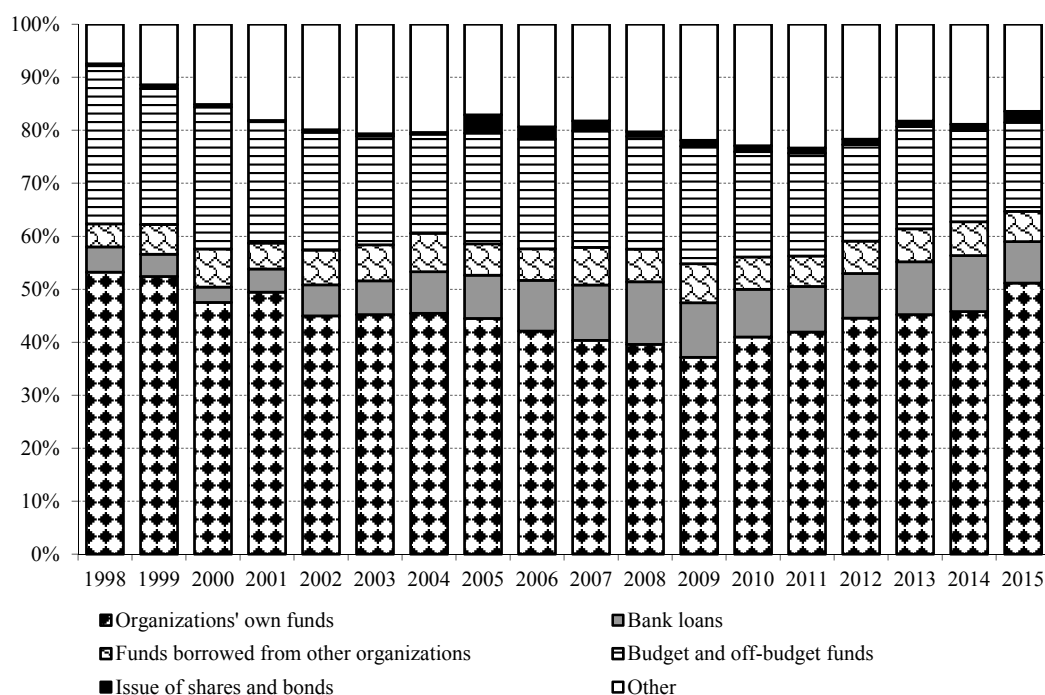


Fig. 28. The structure of sources for investment in fixed assets

Source: own calculations based on data released by Rosstat.

3.4. The bond market¹

3.4.1. General features of Russia's domestic bond market

In 2015, Russia's bond market continued to grow, in part setting off the increased demand for monetary resources displayed by issuers of securities after the introduction of foreign sanctions. The capitalization index of the market for ruble-denominated corporate bonds rose from Rb 6.6 trillion in 2014 to Rb 8.1 trillion on 2015, or by 20.8% (*Fig. 29*). The value volume of regional bonds over the same period increased from Rb 0.5 trillion to Rb 0.6 trillion, or by 8.3%, while the value volume of government securities remained practically unchanged, amounting in 2015 to Rb 5.6 trillion.

At the same time, in 2015, the value volume of domestic bond issues increased only with regard to corporate bonds, while the same index for the government and regional debt market declined (*Fig. 30*). The value volume of corporate bond issued in 2015 amounted to Rb 1,765bn compared to Rb 1,748bn in 2014, i.e. its total growth was 1.0%. The volume of government bond issues placed over the same period shrank from Rb 1,349bn to Rb 836bn Rb, or by 38.0%; that of regional bond issues – from Rb 111bn to Rb 100 bn, or by 9.9%.

¹ Author of this section: Abramov A. – RANEPA.

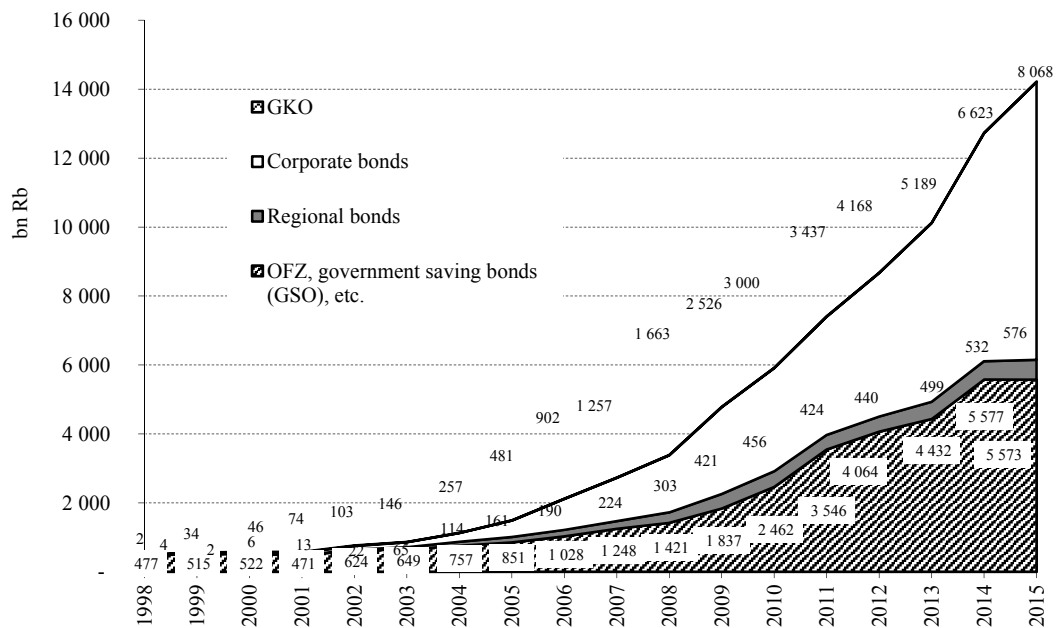


Fig. 29. The volume of ruble-denominated bonds in circulation, bn Rb

Source: own calculations based on data released by the RF Ministry of Finance and Cbonds.ru.

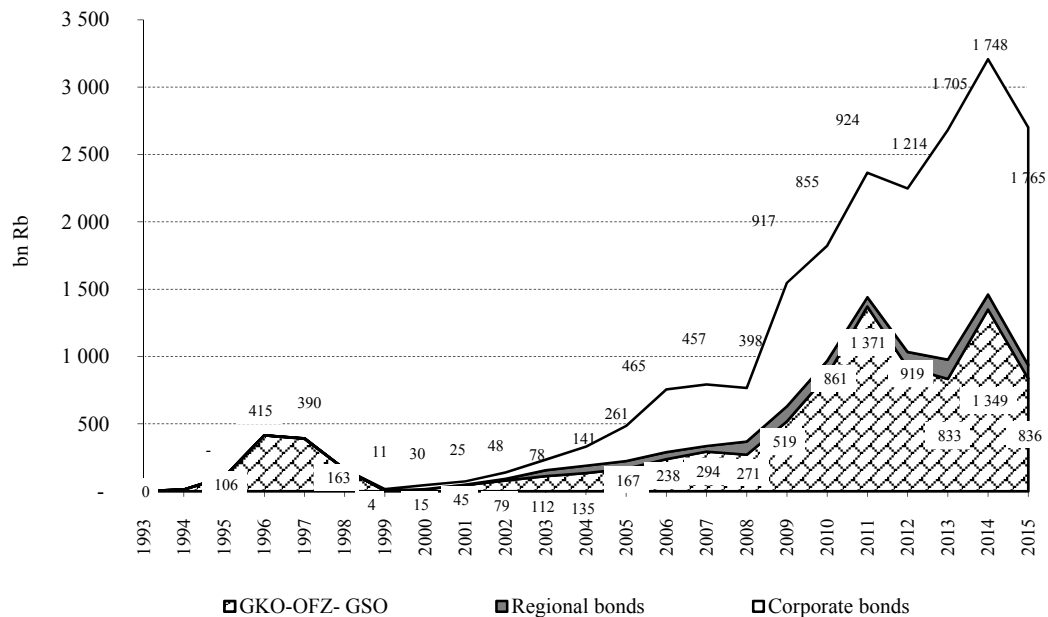


Fig. 30. The value volume of ruble-denominated bond issues placed in 1993–2014

Source: Moscow Exchange; Cbonds.

In 2015, the USD-to-ruble exchange rate jumped from Rb 56.26 to Rb 72.88. This was the factor that significantly influenced the estimated value of debt instruments issued by Russian companies (Fig. 31). Thus, for example, in response to the introduction of sectoral sanctions, the liabilities of Russian issuers of Eurobonds shrank from \$166bn in 2014 to \$139bn in 2015.

This happened because Russian companies, whose access to global lending markets had been restricted, redeemed part of their Eurobond debt.

At the same time, the shrinkage of the aggregate value of domestic corporate bonds in dollar terms from \$174bn in 2014 to \$133bn in 2015 was caused not by debt redemption, but by the revaluation of their bonds. As a result, the total debt owed by issuers of securities was reduced by approximately \$40bn, while part of investment in ruble-denominated corporate bonds had lost its value in foreign-currency terms for their holders (banks, pension funds, unit investment funds, insurance companies, etc.).

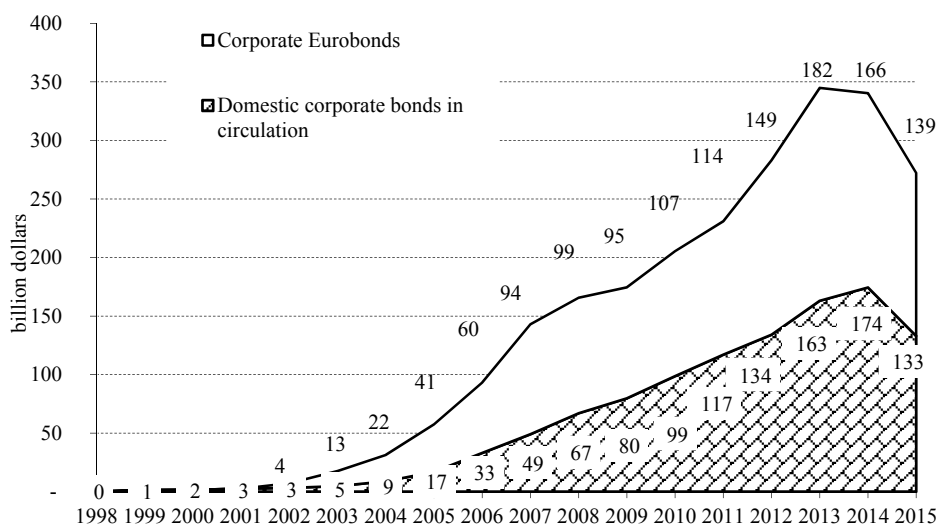


Fig. 31. The volume of Russian corporate bonds in circulation, bn USD

Source: own calculations based on data released by CBonds and the Moscow Exchange.

3.4.2. The growth factors of the market for corporate and regional bonds

The negative factors that influenced growth of the domestic corporate bond market in 2015 were the persistently high key interest rate and the instable exchange of the ruble against major world currencies in face of the plummeting oil prices. The raise, in December 2014, of the key rate to 17% pushed up the yields on the corporate bond market; in January 2015, the average yield to maturity of IFX-Bonds rose to 16.0% per annum (*Fig. 32*). However, as the key rate was reduced towards early June 2015, the yield to maturity of bonds dropped to 11.7%.

The reduction of the key rate, coupled with the restricted access to foreign financial markets, resulted in 2015 in an increased market offer of corporate bond issues. In 2014, the share of marketable bond issues in the total volume of issued bonds amounted to only 20.1% compared to 53.3% in 2013. In 2015, this index rose to 87.3%. The growth of marketable bond issues in 2015 was boosted in the main by the investment of Rb 550bn by private pension funds, funded by the monies received by them from the RF Pension Fund after the freeze, in 2013, of its accumulated pension savings.

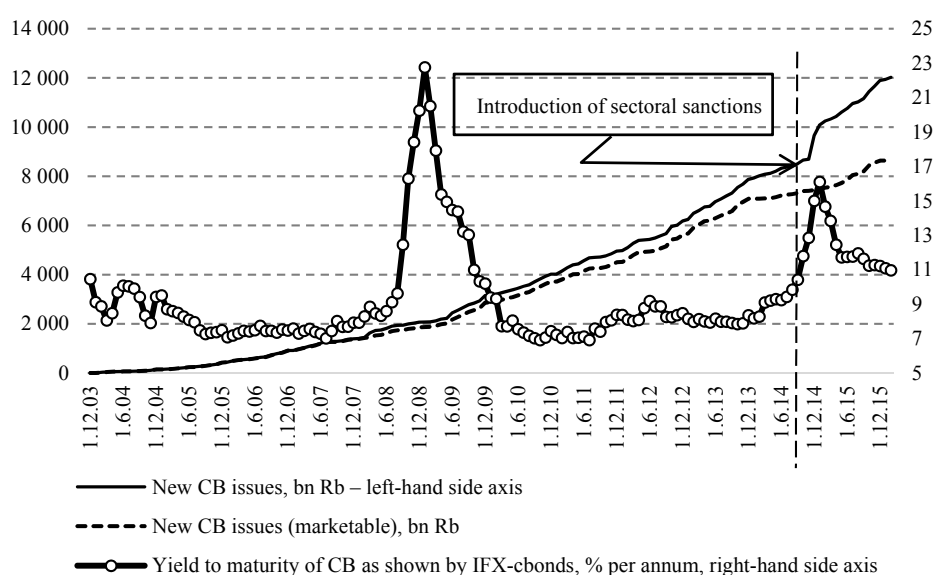


Fig. 32. The volume of corporate bond (CB) offer (accrued total) and their yield to maturity, as shown by IFX-cbonds behavior

Source: calculations based on data released by Cbonds.

The volume of the corporate bond market is strongly influenced by the banking system's liquidity index, which in its turn was influenced by varying factors over different periods of time. In the evolution of the corporate bond market, the following phases can be noted: moderate liquidity (January 2001 – July 2004); carry trading (August 2004 – March 2009); post-crisis recovery (April 2009 – December 2012); increasing volume of refinancing by the Bank of Russia (from 2013 through December 2014); the switchover to new forms of refinancing funded by the RF Ministry of Finance (*Fig. 33*).

The switchover to a new refinancing model in 2015 did not result in shrinkage of liquidity in the form of bank's residuals on their correspondent accounts and deposits with the Bank of Russia. While in 2014 their average daily index amounted to Rb 1,209bn, in 2015 it rose to Rb 1,595bn. The availability of liquidity in the banking sector made it possible, in 2015, to sustain not only the volume of corporate bond offers, but also the secondary market turnover at their current levels (*Fig. 33*). At the same time, due to the high volatility of the ruble's exchange rate and the key rate, the volume proper of market transactions with bonds dropped to its record low, while the secondary market for debt securities existed primarily in the form of repo transactions with the Bank of Russia or in the interbank lending market (ILM).

As is evident from *Fig. 34*, the switchover to a new refinancing model in the banking system not only did not result in any liquidity shrinkage (bank liquidity being the main prerequisite of the bond market's sustainability), but was also accompanied by declining interest rates in the interbank lending market (ILM) as the key rate was moving downwards. So far we cannot say with assurance just how stable these changes are going to be - for example, if the RF Ministry of Finance refuses to use the Reserve Fund for covering budget deficit. However, from the point of view of the situation in the market for bonds, this process is likely to bring about a redistribution of the functions of the Bank of Russia as the principal supplier of liquidity to the banking system, which will then be taken over by big state-owned banks, in whose accounts the monies allocated to budget recipients will be accumulated.

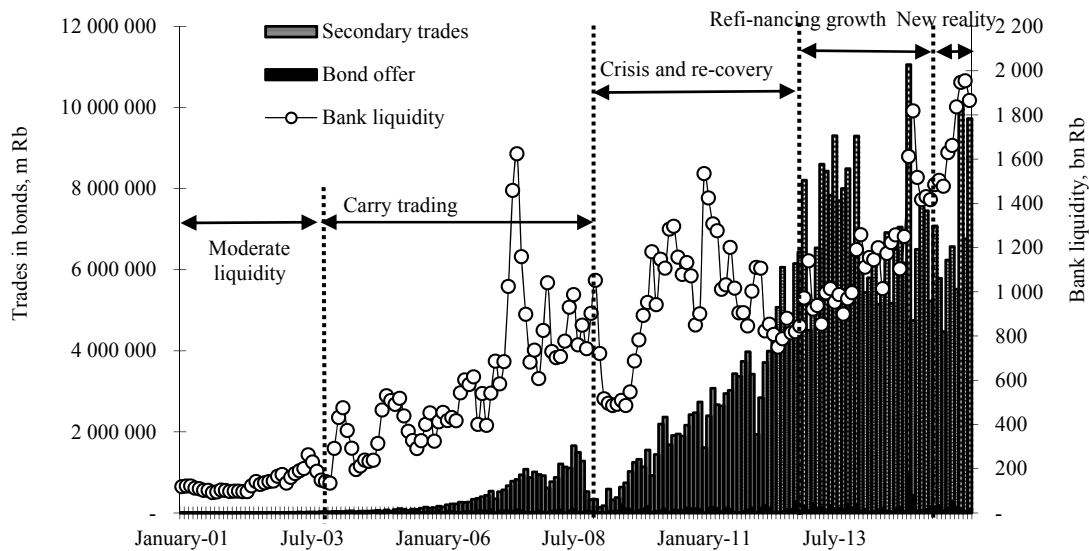


Fig. 33. Operations with corporate bonds and bank liquidity over the period from January 2001 through February 2016

Source: own calculations based on data released by the Bank of Russia and the Moscow Exchange.

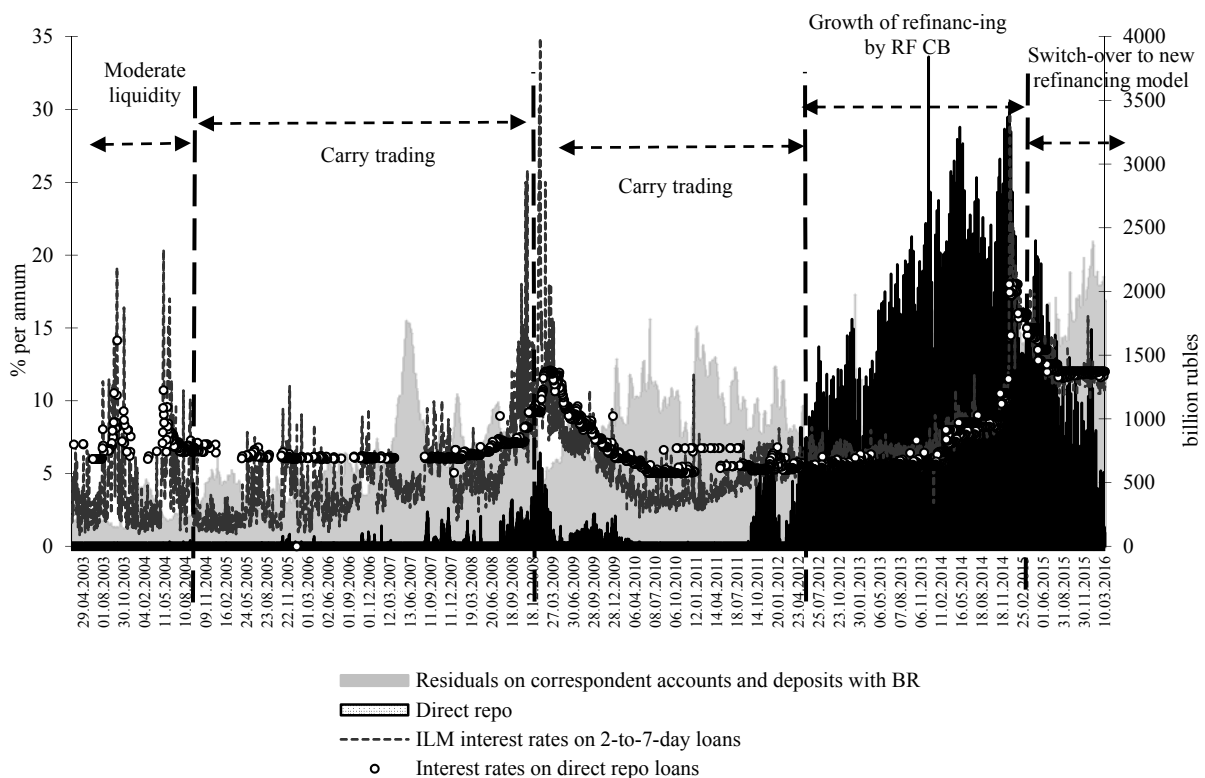


Fig. 34. The use of direct repo mechanism in regulating banks' liquidity over the period from 2003 through March 2016

Source: own calculations based on data released by the Bank of Russia.

3.4.3. The segmentation of the market for corporate and regional bonds

The fact that the market for corporate bonds is increasingly becoming a money market tool (the transformation that runs contrary to the essentially long-term nature of a corporate bond) is graphically illustrated by shifts in the structure of transactions with corporate bonds on the Moscow Exchange (*Fig. 35*). In February 2016, the share of repo transactions in the value volume of trades in corporate bonds hit its absolute record high of 97.1%. At the same time, only 1.0% of trades in corporate bonds were truly market transactions. Such an abrupt shrinkage of the relative share of market transactions significantly elevates the risks that the pricing of corporate bonds traded on the exchange will not be objective and realistic. Our 2014 study of the factors influencing the yield spreads of ruble-denominated corporate bonds demonstrates that fundamental factors like solvency of the issuers of securities, their financial performance indicators, and the liquidity of bond issues had no significant influence of the width of the yields.

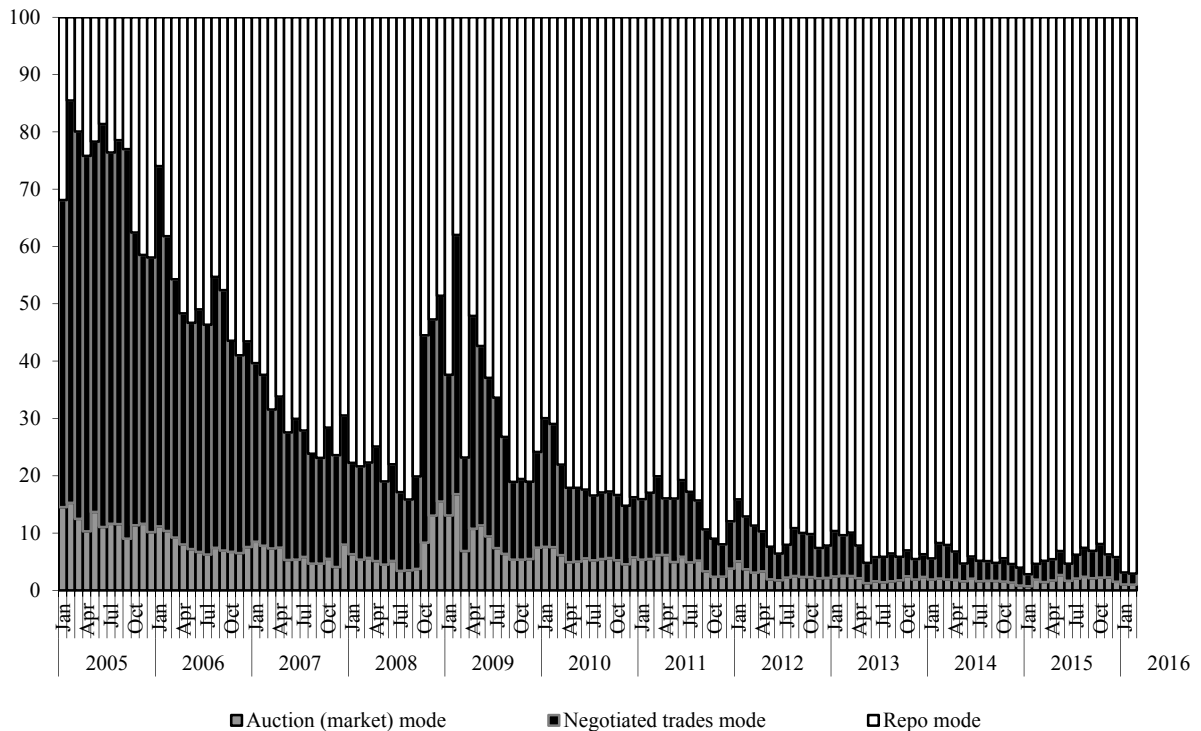


Fig. 35. The structure of trades in corporate bonds on the Moscow Exchange, %

Source: own calculations based on data released by the Moscow Exchange.

The value volume of trades in corporate bonds on the Moscow Exchange in 2015, which amounted to Rb 77.5 trillion, remained near its previous year's level of Rb 77.2 trillion. However, this value is significantly below the index for 2013 of Rb 90.3 trillion (*Fig. 36*). Meanwhile, the volume of neither market transactions nor negotiated trades in corporate bonds had increased in absolute terms since 2010, which can be explained by the limited base of domestic and foreign investors. This problem can be resolved if the President of the Russian Federation approves the initiative that the coupon payments received by domestic investors should be made

exempt from PIT and profits tax;¹ it is expected that amendments to this effect, which have been introduced into the RF Tax Code, will be approved in mid-2016.

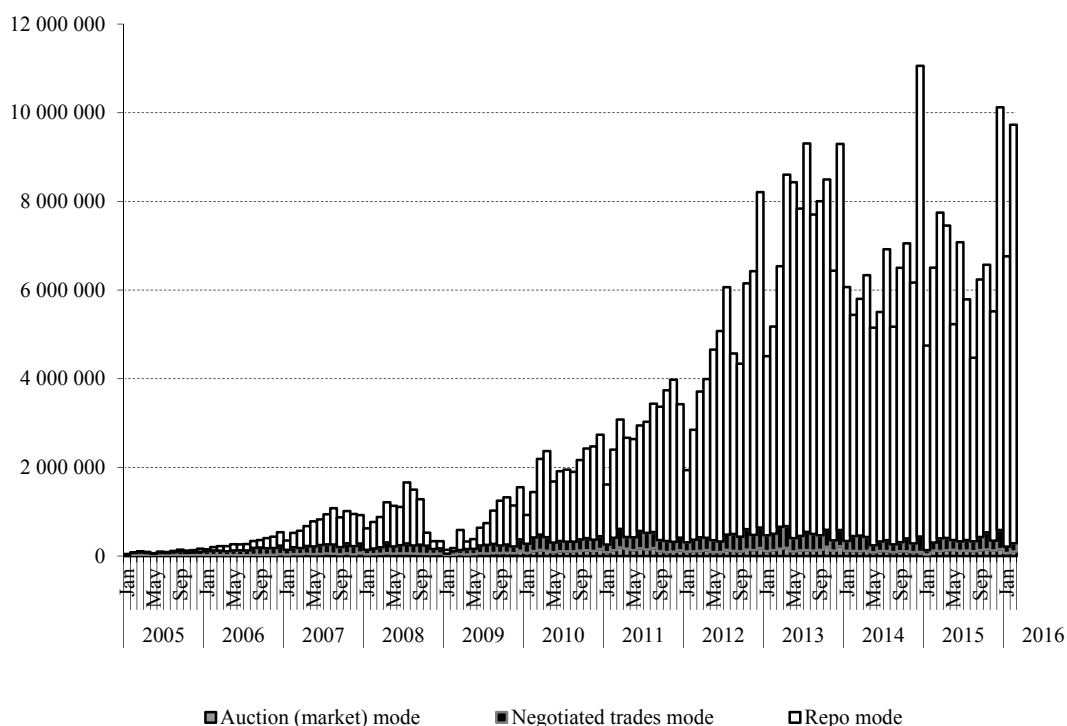


Fig. 36. The value volume of trades in corporate bonds on the Moscow Exchange, m Rb

Source: own calculations based on data released by the Moscow Exchange.

Similar problems caused by the shrinking relative share market transactions were observed in the exchange market for regional bonds (*Fig. 37*). In February 2016, market transactions amounted to 5.1%, and repo transactions to 91.7% of the total trade volume compared to 1.2% and 90.2% respectively in 2014. In view of this proportional distribution of market and non-market transactions, the objectivity of the market valuation of regional bonds used as a pledge against repo loans issued by the Bank of Russia becomes doubtful as well.

The relative share of market transactions in the main market for regional bonds on the Moscow Exchange somewhat increased in 2015 not because of a higher trading activity of the participants in that segment, but due to the sharp plunge of the volume of repo transactions with regional bonds (*Fig. 38*). The total volume of exchange trades in regional bonds shrank from Rb 7.5 trillion in 2014 to Rb 2.8 trillion in 2015, or 2.7 times; simultaneously, over the same period, the volume of repo transactions shrank from Rb 7.1 trillion to Rb 2.3 trillion, or 3.1 times. The main cause of these dramatic changes in the parameters of trades in regional bonds was the less frequent use of these securities as a pledge against loans issued to financial market participants.

¹ Interfax, December 3, 2015; see <http://www.interfax.ru/business/482987>.

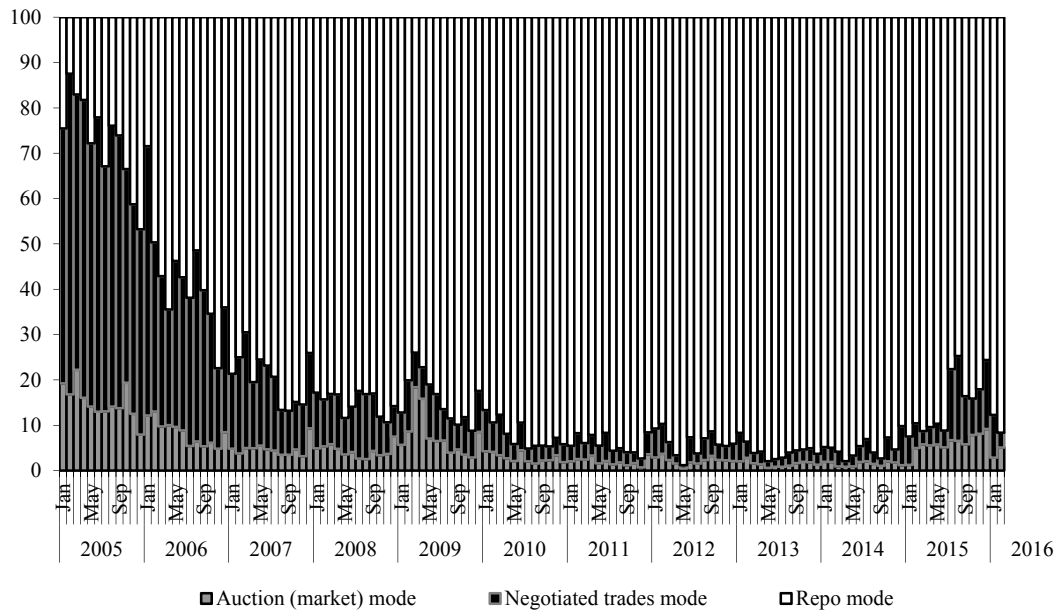


Fig. 37. The structure of trades in regional bonds on the Moscow Exchange, %

Source: own calculations based on data released by the Moscow Exchange.

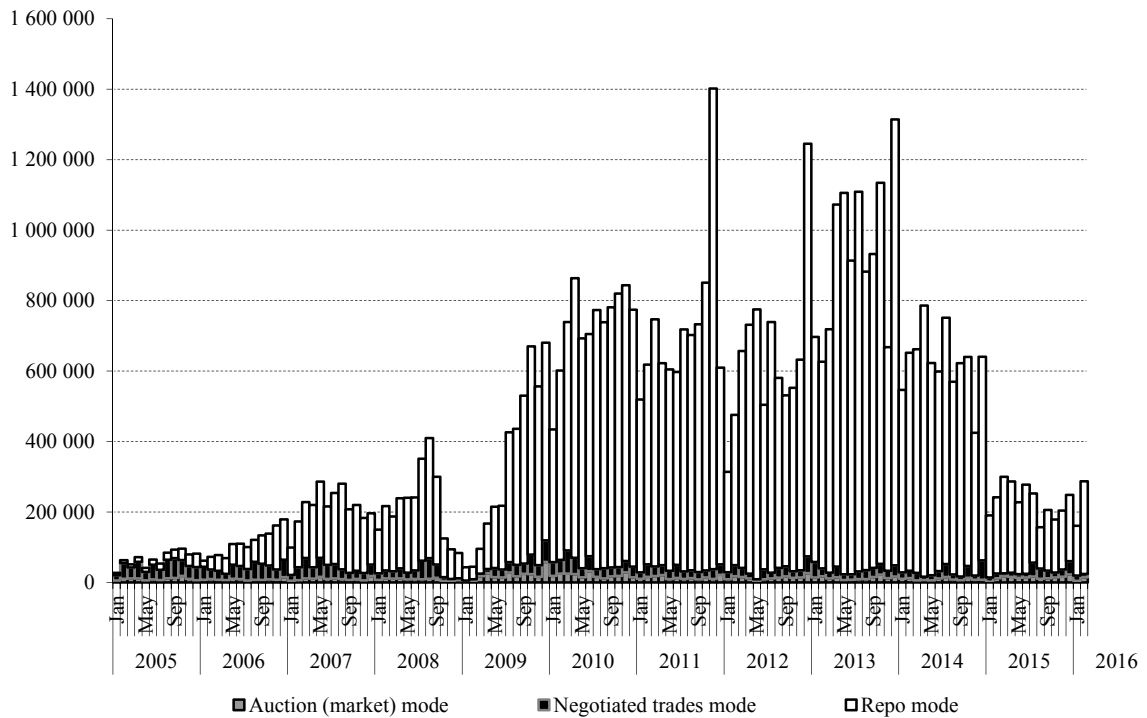


Fig. 38. The value volume of trades in regional bonds on the Moscow Exchange, m Rb

Source: own calculations based on data released by the Moscow Exchange.

3.4.4. Competition in the bond market

Fig. 39 analyzes the relative participation rates of different groups of trading participants (private and state-owned financial institutions,¹ the Bank of Russia) in the total volume of exchange trades in bonds in all trade modes on the Moscow Exchange, including market transactions, negotiated trades and repo operations.² In February 2016, the participation of state-owned structures and the Bank of Russia in transactions with bonds amounted to 25.4% and 25.0% respectively compared to 21.9% and 34.5% respectively in December 2014. The significantly reduced scale of the Bank of Russia's direct participation in trades in bonds reflects the change in the mechanism of refinancing the banking system that had taken place beginning from 2015, namely the decline in the volume of lending in the form of direct repo. The somewhat increased participation of state-owned structures in the total volume of transactions with bonds points to their more prominent role, and first of all the role of suppliers of liquidity to the banking system in the repo market. However, this function is also performed by a number of big private banks where major recipients of budget funding hold their accounts.

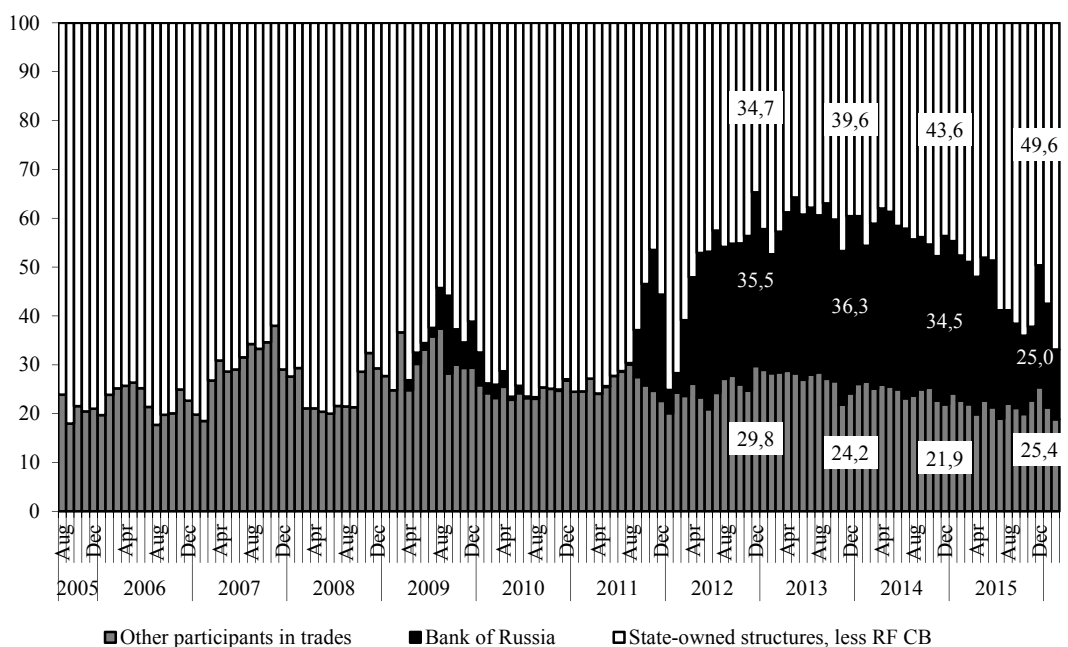


Fig. 39. The participation of private and state-owned broker companies in trades in bonds on the Moscow Exchange, %

Source: own calculations based on data released by the Moscow Exchange.

Based on a variety of data on the concentration of corporate bond issues (presented in Table 12), it can be said that over the period 2014 to 2015, the concentration rate of bond issues placed by biggest issuers of securities, including state-owned companies, was on the decline. Thus, for example, in 2015 the relative share taken up by 10 issuers of largest corporate bond issues amounted to 44.4% compared to 60.4% in 2014. Of these, the share taken up by state-owned companies in the total volume of corporate bond issues shrank from 53.7 in 2014 to

¹ For a list of state-owned structures, see note to Fig. 19.

² Including corporate, regional and government bonds. From August 2015 onwards, the Moscow Exchange no longer discloses its monthly by-category trades volume data for bonds.

41.1% in 2015. The lower concentration rate of the market for corporate bonds and the smaller share of big state-owned companies in 2015 can be explained by the presence of two factors. On the one hand, due to the inflow of approximately Rb 550bn of additional resources from private pension funds, the share of marketable issues of bonds surged, including that of issues placed by private companies and banks. On the other hand, the reported data, for 2014, on the concentration rate of issues of corporate bonds and the relative share of state-owned structures turned out to be overestimated due to the anomalously high volume of the non-marketable bond issues to the value of Rb 625bn placed by Rosneft OJSC.

However, on the whole the concentration rate of corporate bond issues has remained high. In 2015, the 24 biggest issuers of securities accounted for 61.5% of the total value volume of issued corporate bonds, including state-owned companies (46.4%). So, this market continues to function as a mechanism for redistributing financial resources in favor of big state-owned structures.

Table 12

**The concentration rate of ruble-denominated corporate bond issues
in 2009–2015**

	Top 5 issuers of securities		Top 10 issuers of securities		Top 24 issuers of securities		Market, total
	Total	including state-owned ones	Total	including state-owned ones	Total	including state-owned ones	
2009							
bn Rb	440	390	610	441	803	513	917
Market share, %	48.1	42.5	66.8	48.1	87.8	55.9	100.0
2010							
bn Rb	177	147	304	200	513	317	855
Market share, %	20.6	17.2	35.4	23.4	59.9	37.1	100.0
2011							
bn Rb	241	191	389	309	642	405	1089
Market share, %	22.0	17.5	35.7	28.4	58.9	37.2	100.0
2012							
bn Rb	265	265	429	334	690	443	1199
Market share, %	22.1	22.1	35.7	27.9	57.8	36.9	100.0
2013							
bn Rb	550	550	705	640	1035	830	1741
Market share, %	31.6	31.6	40.5	36.8	59.4	47.7	100.0
2014							
bn Rb	875	827	1051	934	1334	1038	1739
Market share, %	50.3	47.6	60.4	53.7	76.7	59.7	100.0
2015							
bn Rb	683	683	861	788	1180	891	1919
Market share, %	35.6	35.6	44.9	41.1	61.5	46.4	100.0

Source: own calculations based on data released at www.Cbonds.ru, www.rusbonds.ru and by the Moscow Exchange.

With each passing year, the corporate bond market is getting increasingly involved in servicing the cash flows between state-owned structures. State-owned companies borrow money from state-owned structures. The secondary market is also sustained in the main by state-owned banks and the Bank of Russia. Moreover, state-owned investment banks also act as underwriters and investment consultants when corporate bond issues are placed on the market (*Table 13*). In 2009–2015, the participation of state-owned banks in the market for underwriting services was stably at the level of 50–60% for corporate bond issues, and 50–80% for regional bond issues.

Table 13

The participation of state-owned and private financial institutions in the market for services of organizers of domestic bonds issue offers in Russia

	Organizers of trade:					
	corporate bonds			regional bonds		
	State-owned financial institutions	Private financial institutions	Total	State-owned financial institutions	Private financial institutions	Total
2007						
m Rb	169,668	298,302	467,970	7,551	45,481	53,032
Share, %	36.3	63.7	100.0	14.2	85.8	100.0
2008						
m Rb	219,892	249,900	469,792	42,227	29,716	71,943
Share, %	46.8	53.2	100.0	58.7	41.3	100.0
2009						
m Rb	620,044	373,978	994,022	133,325	22,511	155,836
Share, %	62.4	37.6	100.0	85.6	14.4	100.0
2010						
m Rb	393,743	461,292	855,035	86,613	28,288	114,901
Share, %	46.0	54.0	100.0	75.4	24.6	100.0
2011						
m Rb	620,698	374,146	994,844	7,767	46,177	53,944
Share, %	62.4	37.6	100.0	14.4	85.6	100.0
2012						
m Rb	734,697	502,831	1,237,528	61,925	57,637	119,562
Share, %	59.4	40.6	100.0	51.8	48.2	100.0
2013						
m Rb	1,033,849	686,894	1,720,743	79,980	74,259	154,239
Share, %	60.1	39.9	100.0	51.9	48.1	100.0
2014						
m Rb	621,007	548,729	1,169,736	81,283	29,705	110,988
Share, %	53.1	46.9	100.0	73.2	26.8	100.0
2015						
m Rb	840,664	644,626	1,485,290	57,380	41,075	98,455
Share, %	56.6	43.4	100.0	58.3	41.7	100.0

Source: rankings by organizers of trade in bonds, data for the period 2007 to 2015 released at www.Cbonds.ru.

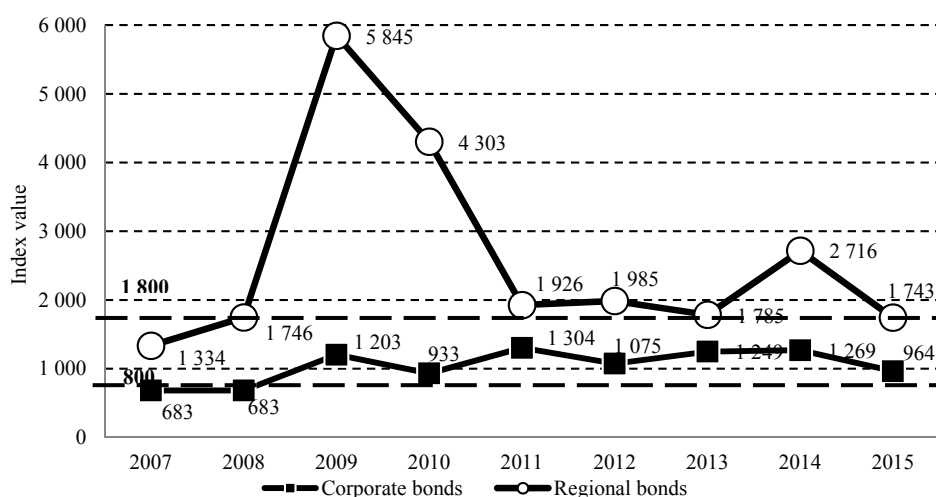


Fig. 40. The Herfindahl-Hirschman index, based on data on trade organization services for ruble-denominated corporate and regional bonds in 2007–2015

Source: rankings by organizers of trade in bonds, data for the period 2007 to 2015 released at www.Cbonds.ru.

The low competition rate in the markets for underwriting and consulting services associated with offers of corporate and regional bonds is confirmed by the movement of the Herfindahl–Hirschman index (*Fig. 40*). From 2009 onwards, the market for investment and banking services rendered in the corporate bond market began to transform from a highly competitive into a moderately concentrated one, when the monthly HHI moved within the interval between 800 and 1,800. In 2015, the HHI in the segment of services for corporate bonds amounted to 964. From 2011, the market of services for issues of regional bonds was balancing between moderately and highly concentrated zones. In 2015, when the HHI rose to 1,743, it shifted into the category of markets with a moderate concentration rate.

3.4.5. Corporate bonds and economic growth

An important criterion of the corporate bond market's performance is its ability to attract investments in the assets of companies operating in the real sector and banking structures. The information on how the resources attracted by Russian companies through bond offers are used by them to ensure growth of their fixed assets is released by *Rosstat* on the basis of surveys of companies-issuers of securities. *Rosstat's* data demonstrate that, over the period 2000 to 2015, only a small fraction of resources generated by corporate bond issues was actually invested in fixed assets.

In 2014, out of the total annual value volume of bond offers, which amounted to \$46bn, only \$ 0.2bn, or 0.4% was invested in fixed assets; in 2015, out of \$ 26bn of attracted resources, only \$ 2.6bn, or 10% was invested in fixed assets (*Table 14*). The statistics point to the fact that the market for corporate bonds has no noticeable effect either on investment in fixed assets or on the rate of economic growth. Evidently, corporate bonds issues, which are funded by the money market, are *de-facto* the sources of short-term finance, and so companies prefer to use the income generated by bond placement for replenishing their current assets and refinancing their old debt. All these facts point to the need for some alternative forms of refinancing of the banking system by the Bank of Russia, which should rely on a mechanism that will really be capable of making it truly worthwhile for banks to invest in long-run projects in the real sector of the economy, so as to boost economic growth.

Table 14

The parameters of market for ruble-denominated corporate bonds (bn USD)

	Capitalization	Secondary market, including repo	offer	Investment in fixed assets generated by bond offer		
				bn USD	the same, as % of capitalization	the same, as % of 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	1,237	31	0.014	0.01	0.05
2012	134	1,866	39	0.14	0.1	0.4
2013	163	2,839	54	0.05	0.03	0.1
2014	174	2,032	46	0.2	0.1	0.4
2015	133	1,277	26	2.6	1.9	10.0

Source: own calculations based on data released by the Moscow Exchange, cBonds, the Bank of Russia, and *Rosstat*.

3.4.6. The market for government securities

In 2014–2015, the market for federal securities was faced with some troublesome developments. The introduction of international sanctions curtailed the opportunities for new foreign borrowings, while the increasing volatility of the domestic financial market suppressed the demand for ruble-denominated OFZ and pushed up the interest rates. After the freeze of the funded part of pension in 2014–2015, the domestic government debt market could no longer be fed by the inflow of pension savings. The access to the OFZ market granted to non-residents in February 2013, when *Euroclear* and *Clearstream* opened their accounts with the NSD, helped attract new financial resources from non-residents in conditions of restrictions imposed on purchases of RF government securities by EU and US investors, while at the same time increased the risk of a sudden outflow of non-residents' funds from OFZ (which, however, did not happen).

In 2015, the volume of issued OFZ declined from Rb 1,349bn in 2014 to Rb 836bn in 2015. In an attempt to make government securities more attractive to potential investors, in 2015, the RF Ministry of Finance launched an issue of OFZ bonds with a floating coupon tied to the RUONIA rate, as well as an OFZ-IN issue with a face value tied to the inflation rate and a moderate coupon rate. In response to the indexation of government bonds, the demand of domestic institutional investors for them surged, generating approximately Rb 150bn for the RF Ministry of Finance.

In the opinion of the Bank of Russia, the nominal holder accounts opened in early 2013 by foreign settlement and clearing institutions with the Russian central depository triggered a rising inflow of foreign investment into Russia's domestic government debt market. The available foreign investment base is sufficiently diversified and consists of market participants following a variety of investment strategies¹. In 2013, the share of non-residents in the structure of OFZ holders rose to 24.9%. This sudden growth of the participation of non-residents in the OFZ market was unexpected, even for the RF Ministry of Finance. In accordance with the *Guidelines for the public debt management policy in the Russian Federation for 2013–2015* (p. 25), it was expected that this index would rise to only 10% in the medium term, and to 25% in the long-term perspective.

In face of the sanctions coupled with the expected downgrade of the Russian Federation's sovereign rating by the world's top three international rating agencies below the investment grade in late 2014, the risk of an outflow of non-residents' funds from OFZ surged. However, when the sovereign credit rating was downgraded to junk by S&P as of 25 January 2015 and by Moody's as of 20 February 2015, no large-scale sales of OFZ followed. The relative share of non-residents in the structure of OFZ holders shrank from 24.2% in December 2014 to 18.7% in January 2015, and this was the upshot of an increased OFZ offer due to the registration of non-marketable issues, rather than of RF government securities being sold out by foreign investors. However, later on the relative share of non-resident holders of OFZ increased once again - from 18.7% in January 2015 to 21.5% in January 2016 (*Fig. 41*).

In 2012–2015, thanks to the statistics released by the Moscow Exchange, the data on trades in government bonds in different modes became publicly available. Until then, in its financial market overviews, the Bank of Russia had been disclosing only information on the volume of market (auction) transactions and negotiated trades with OFZ. *Fig. 42* shows that the share of

¹ *Central Bank of the Russian Federation. Overview of the money market, Q4 2014, p.22.*

repo transactions in the government bond market in December 2015 was 96.1%. Market transactions accounted for only about 1.1% of the total trading turnover. In this situation, the function of market transactions is not quite clear, and we cannot say just how accurately, on the basis of these data, we can glean objective information on the actual parameters of the market for OFZ and Eurobonds.

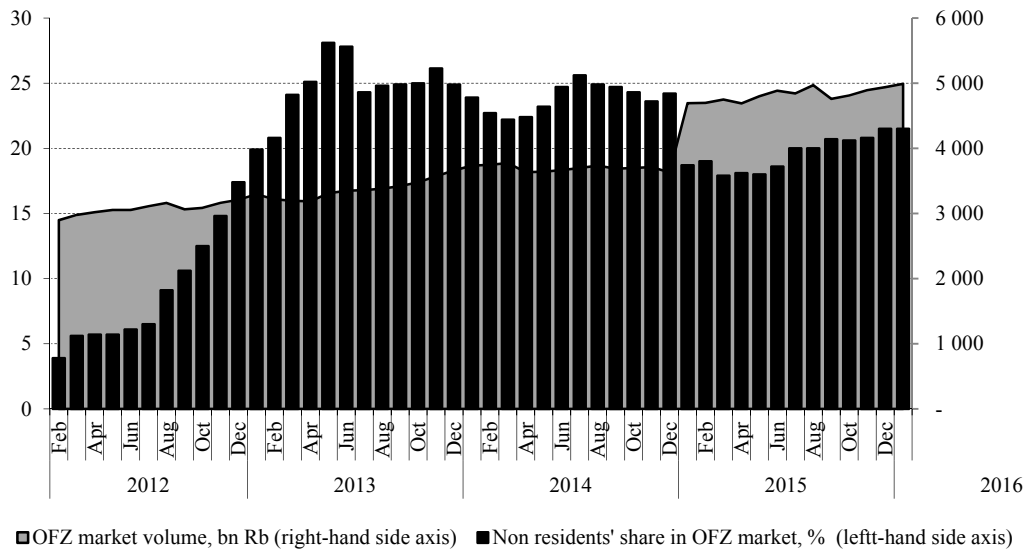


Fig. 41. The participation of non-residents in the OFZ market from February 2012 through January 2016

Source: data released by the Bank of Russia; own calculations based on data released by the Moscow Exchange.

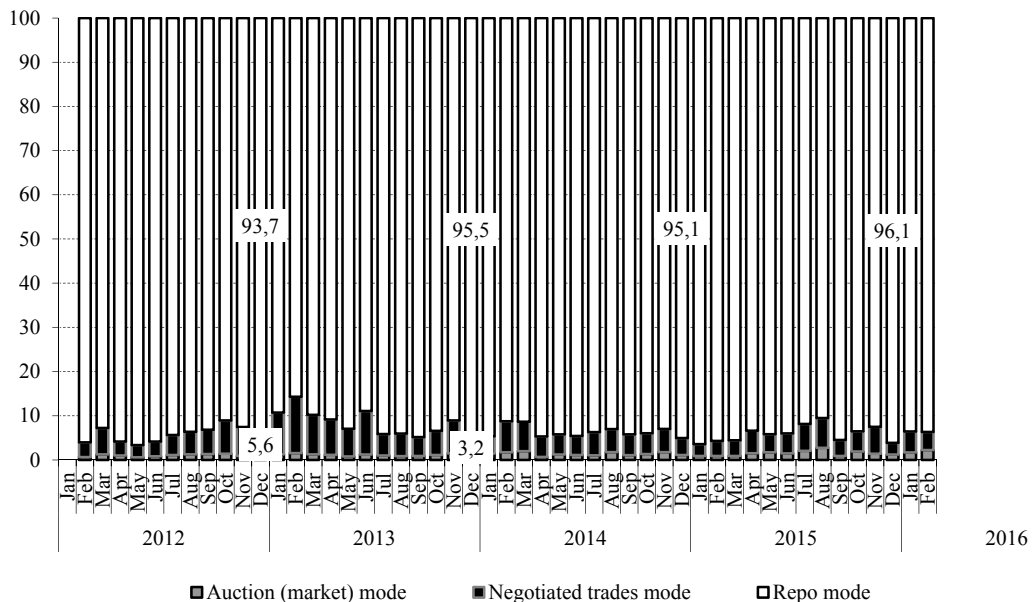


Fig. 42. The structure of transactions with federal bonds on the Moscow Exchange from February 2012 through February 2016, %

Source: own calculations based on data released by the Moscow Exchange.

The total volume of trades in RF government securities on the Moscow Exchange increased from Rb 62.6 trillion in 2014 to Rb 63.7 trillion in 2015, or by 2.0%. The volume of repo transactions over the same period increased from Rb 58.6 trillion to Rb 60.1 trillion, or by 3.0% (Fig. 43). Over 2015, the volume of market transactions rose to Rb 0.9 trillion compared to Rb 0.8 trillion in 2014, or by 8.0%. Nevertheless, when taken in absolute terms, growth of the volume of market transactions with RF government bonds has halted since 2012.

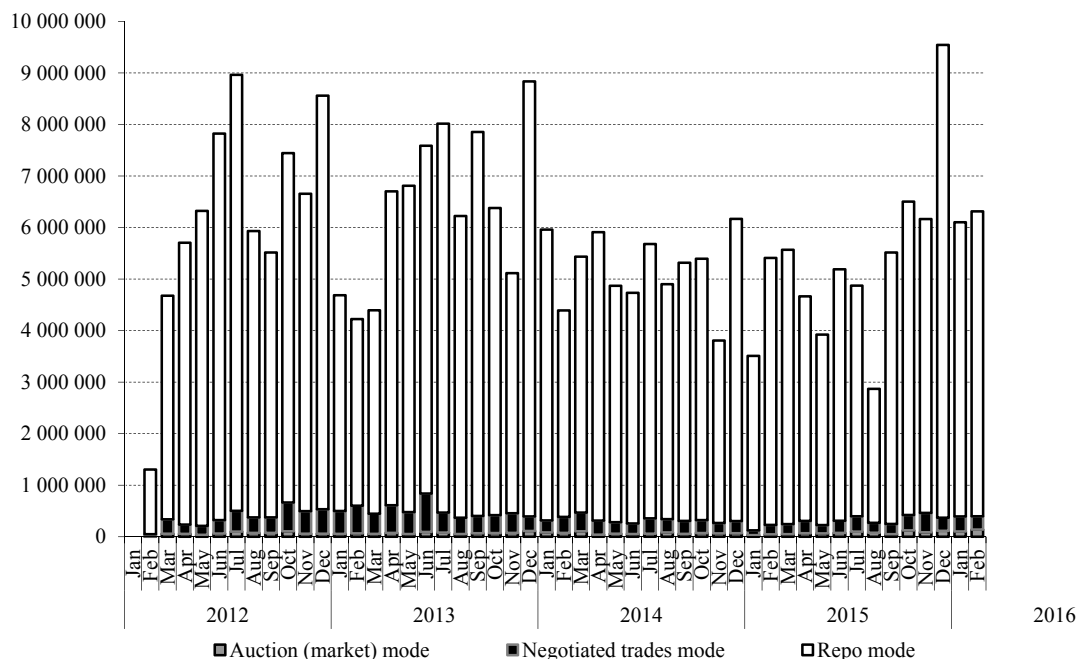


Fig. 43. The value volume of trades in federal bonds on the Moscow Exchange from February 2012 through February 2016, m Rb

Source: own calculations based on data released by the Moscow Exchange.

By early 2014, against the backdrop of a short-run foreign exchange crisis and the key rate being raised to 17%, the conditions for government borrowing sharply deteriorated, as indicated by data shown in Fig. 44, where the behavior of the ruble's exchange rate is comparable with the upward movement of the value of credit default swaps (CDS)¹ involving RF sovereign bonds with 5-year maturity. Over the period from 11 July 2014 through 31 January 2015, the USD-to-ruble exchange rate rose from Rb 33.84 to Rb 68.73, or 2.0 times, while the value of *CDS Russia 5Y* jumped from 173.3 basis points (b.p.) to 629 b.p., or 3.5 times. However, from February onwards, the situation in the market for Eurobonds gradually began to return to normal, and by May 25, 2015, *CDS Russia 5Y* had fallen to 289 b.p. Thereafter, the value of CDS remained noticeably volatile, while on the whole hovering around 300–310 b.p. Interestingly, from the end of May 2015, the premium for *CDS Russia 5Y* was no longer tied to the movement of the foreign exchange rate, although up to that point they had been moving synchronously. Now the default swap premium began largely to follow the movement of the key rate. These changes probably occurred as a result of the bulk of RF Eurobonds having been bought up by

¹ A credit default swap is a particular type of swap where the seller pays the buyer the security's premium in an event of the debt issue's default. CDS is an indicator of the bond issuer's credit risk.

Russian market participants, who were oriented to the ruble-denominated yield rather than to the yield denominated in foreign currency.

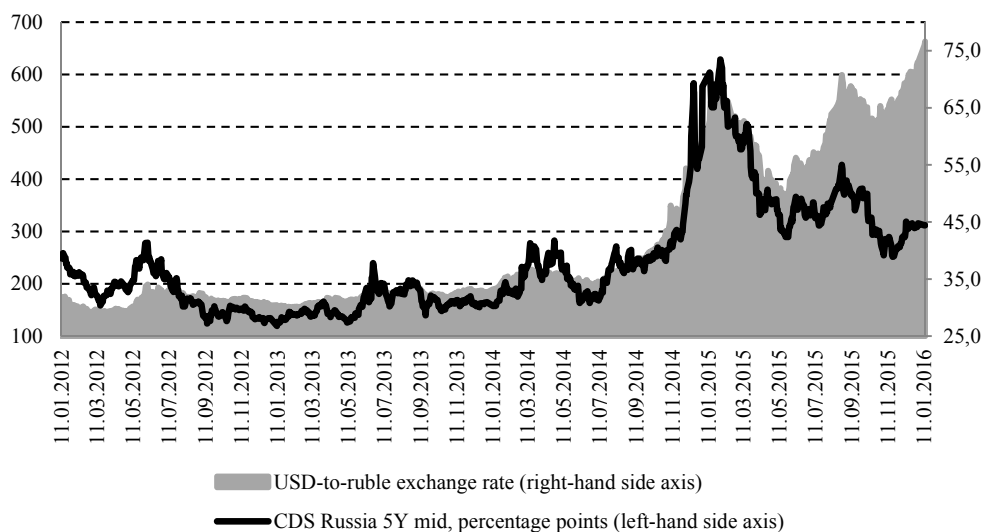


Fig. 44. The movement of *CDS Russia 5Y* and the USD-to-ruble exchange rate in 2012 – January 2016

Source: own calculations based on data released by CBonds.

In accordance with the *Guidelines for the public debt management policy in the Russian Federation for 2013–2015* (p. 25), it was expected that the increasing share of foreign investment in OFZ will inevitably pull down their yield by one percentage point. In fact, this is exactly what happened in 2012, which was the year when the highest surge in the inflow of non-residents to the OFZ market occurred. The inflation rate in 2012 rose to 6.6% compared to 6.1% in 2011, while the OFZ monthly average long-term rate in December 2012 declined to 7.10% per annum compared to 8.10% a year earlier (*Fig. 45*). In 2013, another trend came to the fore. In spite of the continuing (although at a slower rate) growth of the share of non-residents in the OFZ market and inflation's decline to 6.5%, the OFZ long-term rate increased from 7.1% per annum in December 2012 to 7.53% per annum in December 2013.

In 2014, at the annual inflation rate of 11.4%, the OFZ long-term rate rose from 7.53% per annum in December 2013 to 12.48% per annum in January 2015. In 2015, the Bank of Russia and the RF Government on the whole succeeded in controlling the shock in the forex market and the inflation leap in January. As seen by the year-end results, the inflation rate was at the level of 12.9%, and the OFZ long-term rate – 11.36%. By February 2016, the Consumer Price Index in per annum terms dropped to 10.0%, and the OFZ average monthly long-term rate – to 10.8%.

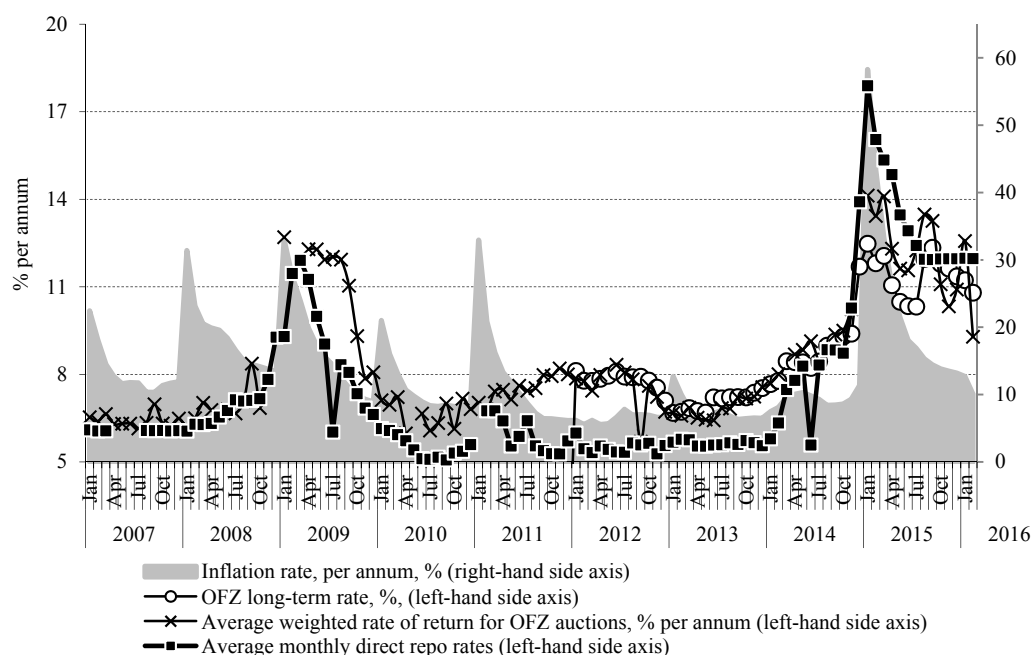


Fig. 45. The average monthly rates on the market for OFZ, direct repo and the inflation rate, % per annum

Source: own calculations based on data released by the Bank of Russia, the RF Ministry of Finance, and Rosstat.

3.5. Futures market¹

In 2015, the futures exchange market demonstrated some serious changes. These had to do, first of all, with a surge of market participants' trading activity, especially in the futures market. Its growth rate was significantly ahead of the growth rates observed in the stock and money markets. The number of clients in the futures market rose from 34,200 in 2014 to 44,900 in 2015, of by 31.2%, whereas the number of active clients of brokers in the stock market shrank from 83,000 to 81,900, or by 1.0%.

The futures trading volume increased from Rb 7.6 trillion in December 2014 to Rb 26.5 trillion in February 2016, or 3.5 times (Fig. 46). Over the same period, the number of transactions in the futures market increased from 12.9m to 41.5 m, or 3.2 times. Futures became a popular hedging tool - first of all against the risks associated with the forex rate volatility. The options trading segment, on the contrary, was shrinking in terms of value volume and displaying growth in the number of transactions. The volume of options trading shrank from Rb 1.0 trillion in December 2014 to Rb 0.5 trillion in February 2016, or 2.0 times. At the same time, the number of transactions in the options market increased from 0.5m to 0.6m, or by 20.0%. The more active development of the futures market compared to the options market can be explained by the accelerated growth of futures transactions in the forex market, where futures contracts prevailed. Due to the volatility of the key rate, the market for interest rate options, which in 2015 had been viewed by the exchange as an important and promising driver of futures market growth, likewise declined.

¹ Author of this section: Abramov A. – RANEPА.

In 2015, the smooth operation of the Moscow Exchange's futures market was frequently disrupted by technical errors and technology glitches. So, the key projects set by the Moscow Exchange for 2016 are the improvement of the operating systems' reliability and the introduction of a mechanism that will allow a market participant to open one position for different types of assets.

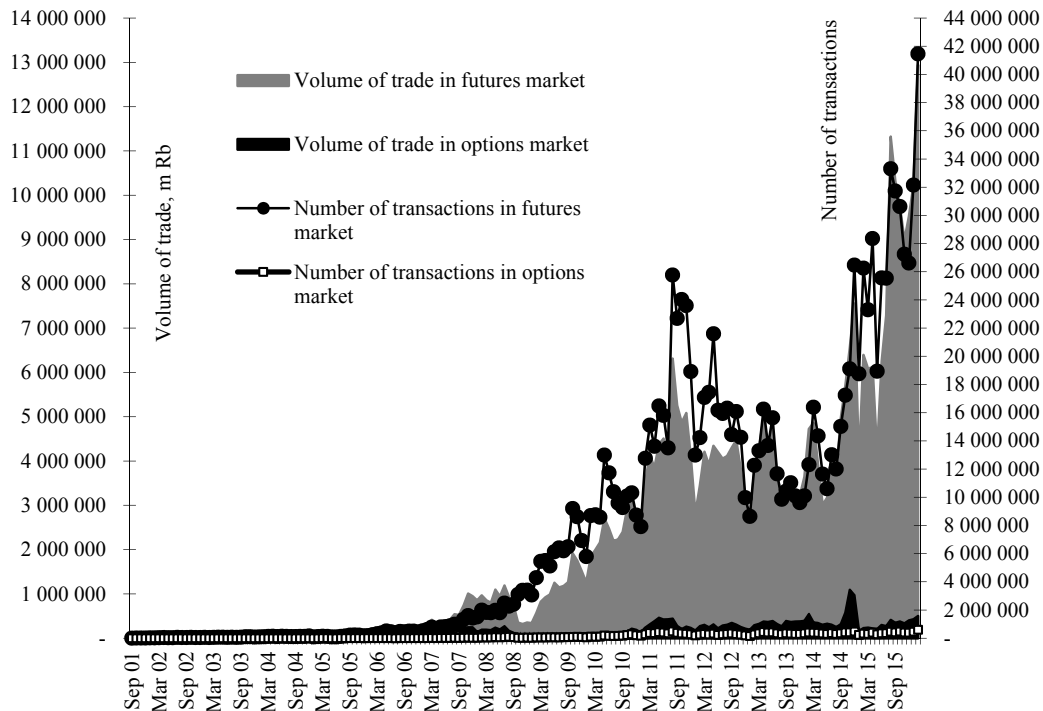


Fig. 46. The trading volume and number of transactions in the Moscow exchange's futures market from September 1, 2001 through February 29, 2016

Source: own calculations based on data released by the Moscow Exchange

The futures market is becoming increasingly slanted towards forex transactions, while the share of index futures is shrinking at a significant rate (*Fig. 47*). The share of transactions with forex instruments in the futures market increased from 65.1% in December 2014 to 71.9% in December 2015, while that of transactions with index futures over the same period shrank from 28.4% to 19.3%. This trend means that during the acute phase of the current crisis, market participants, in an attempt to hedge against market risks, were relying on forex futures rather than on securities and index futures. In 2015, the volume of trades in index futures shrank, even in absolute terms, from Rb 2.1 trillion Rb in December 2014 to Rb 1.8 trillion Rb in December 2015, or by 14.0%. The role of interest rate futures remained modest.

In the options market, the share of transactions with forex instruments, on the contrary, declined from 77.1 in December 2014 to 46.0% in December 2015, while that of transactions with index options over the same period increased from 22.2% to 50.7% (*Fig. 48*). Nevertheless, these processes were taking place against the backdrop of a decline, in absolute terms, of the trading volume in the options market (from Rb 971bn in December 2014 to Rb 400bn in December 2015).

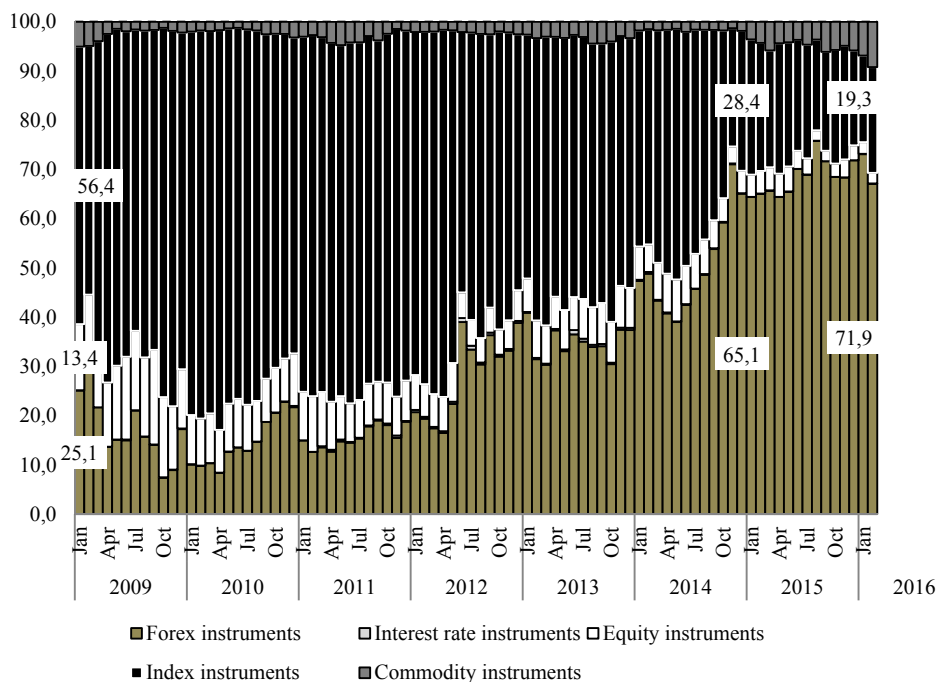


Fig. 47. The futures market structure on the Moscow Exchange over the period from 2009 through February 2016, as % of value volume

Source: own calculations based on data released by the Moscow Exchange.

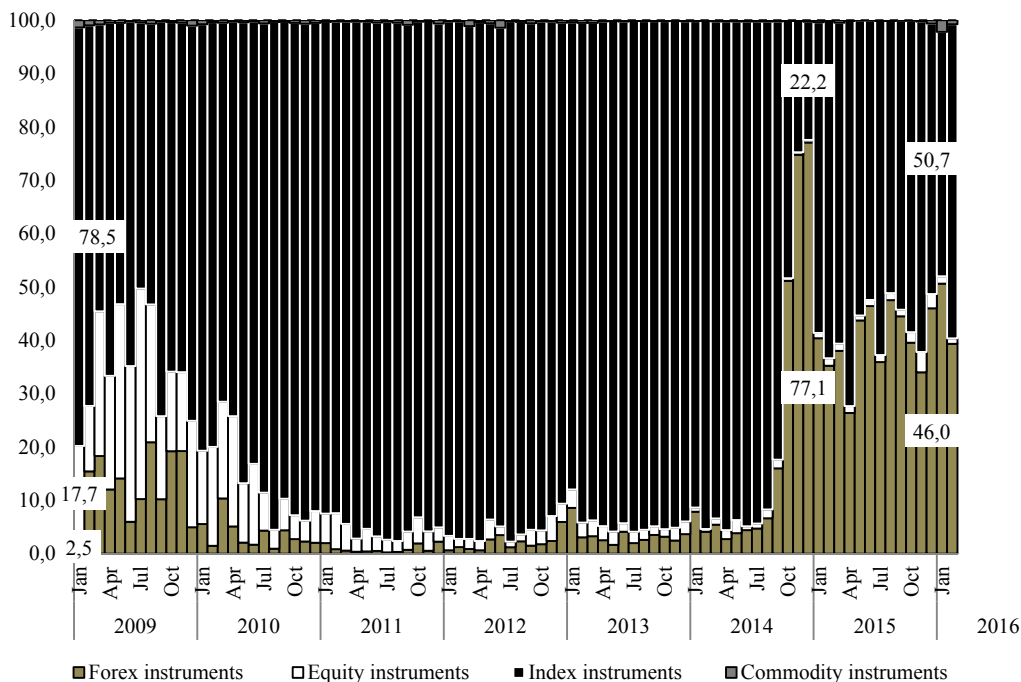


Fig. 48. The options market structure on the Moscow Exchange over the period from 2009 through February 2016, as % of value volume

Source: own calculations based on data released by the Moscow Exchange.

3.6. Investors and financial intermediaries¹

3.6.1. Domestic institutional investors

In order to increase the household saving norm and attract long-term investment resources, the participation of institutional investors operating on a sustainable basis is necessary (just as in the case of government reserves). The relatively low development level of institutional investors in Russia is the key problem currently faced by this country's financial market. The first phase of pension system reform resulted in a slowdown of the growth rate of pension savings. This happened because insured individuals were granted the right of choice between a zero rate and the 6% deduction to the funded component of pension, as well as due to the temporary freeze of pension savings in 2014–2016.

In 2014, the process of reorganization into joint-stock companies of non-governmental (private) pension funds (NPF) handling the accumulated mandatory pension savings was launched; besides, these funds were incorporated into the system of government guarantees on the *contributions* held by *pension* funds, and subjected to large-scale audits of their financial performance and sustainability. In 2015, the centralization process in the sector of non-governmental pension funds continued. According to the Bank of Russia's *Review of key indicators in non-credit institutions*, the number of NPFs holding pension reserves declined from 115 in 2014 to 103 in September 2015. Over the same period, the number of NPFs acting as managers of pension savings declined from 87 to 78. In accordance with data released by the National Association of Non-governmental Pension Funds (NAPF), as of the end of November 2015, the register of non-governmental pension funds participating in the system government guarantees for insured individuals contained information on 32 NPFs. These funds taken together managed approximately 95.2% of total pension savings. According to data released by the Bank of Russia, the number of insured individuals serviced by NPFs was 26.7m.

In Q3 2015, the volume of pension savings held by NPFs amounted to Rb 1.7 trillion, while that of pension savings held in the RF Pension Fund's accounts and serviced by state-owned and private asset managers, was Rb 1.9 trillion. The bulk of pension savings, amounting to 41% of their total value volume, was invested in corporate bonds. Only 12% of the pension saving portfolio was invested in shares.

The volume of pension reserves held by NPFs as of September 2015 amounted to Rb 984.3bn. The moderate growth of these resources was sustained by contributions to corporate private pension plans. In spite of the existing exemptions from PIT, individuals have taken almost no part in generating pension reserves. According to the period-end results of the first 9 months of 2015, about 24% of the pension reserve portfolio was invested in shares and corporate bonds, and another 18% in units.

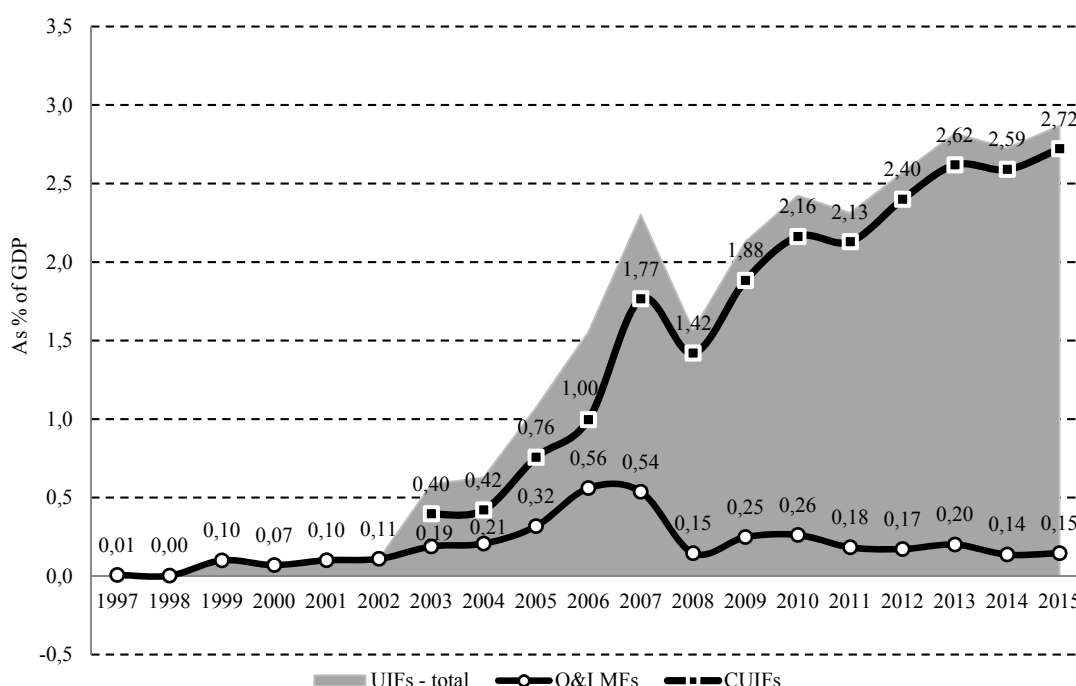
According to data released by the Bank of Russia, over the first nine months of 2015, the average weighted return on pension savings held by NPFs was 10.8% per annum, and that on pension savings held by State Trust Management Company VEB – 12.2% per annum.

Uncertainty with regard to the future prospects for pension savings was one of the main risks faced by the stock market in 2015. As demonstrated by the results of our studies, the majority of countries around the world, with the exception of Argentina and Hungary, have managed to reverse the negative attitudes to funded pension plans and are continuing to successfully develop their national pension system in that direction. In 2016, Russia will likewise have to make

¹ Author of this section: Abramov A. – RANEPА.

a conscious choice concerning the prospects for her pension system and the role to be played by non-governmental pension funds. In our opinion, the country whose development trend in this field is closest to Russia's, is the Czech Republic. In 2014–2015, the Czech Republic abolished its mandatory pension saving system and switched over to a system based on individual pension plans. According to data released by insurance company *Allianz*, approximately 95% of its population engaged in economic activities currently participate in individual pension plans.

An active participation of private investors in the domestic stock market will be impossible without an accelerated growth of collective investment. In 2015, the total net value of assets held by unit investment funds (UIF) amounted to Rb 2.3 trillion, or 2.9% of GDP compared to Rb 2.1 trillion and 2.7% of GDP in 2014. Of these, the amount of net assets held by closed-end funds (CUIF) increased from Rb 2.0 trillion or 2.6% of GDP in 2014, to Rb 2.7 trillion or 2.7% of GDP in 2015 (*Fig. 49*).



* The estimates for 2015 on assets held by closed-end funds for qualified investors are based on corresponding data released by the Bank of Russia for the first 9 months of 2015.

Fig. 49. The relative value of assets held by unit investment funds, as % of GDP

Source: own calculations based on data released by the National League of Management Companies (MLMC), the Bank of Russia, and *Rosstat*.

Due to the low yields of securities offered by Russian companies, the high volatility of Russia's financial market and the lack of trust in private financial institutions on the part of the population, open-ended and interval (mutual) funds (O&I MF), which are oriented to the savings of private investors, have a very low profile in Russia. Meanwhile, in many other economies around the globe, including BRICS, mutual funds are powerful institutions that handle investment of private savings, and are second only to banks. However, in 2015, the Russian financial market also began to display some signs that private investors are beginning to get interested in

O&I MFs. The assets held by these funds increased from Rb 106.8bn in 2014 to Rb 117.3bn in 2015, or by 10.0% (Fig. 50).

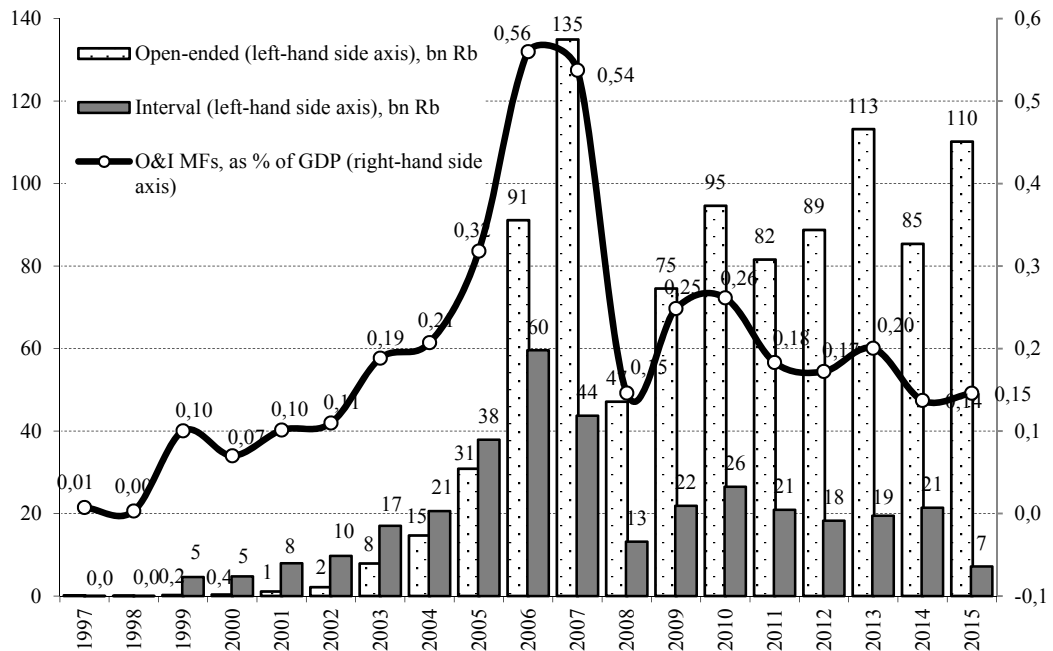


Fig. 50. The size of open-ended and interval MFs, in relative and absolute terms

Source: own calculations based on data released by the National League of Management Companies (MLMC), the Bank of Russia, and Rosstat.

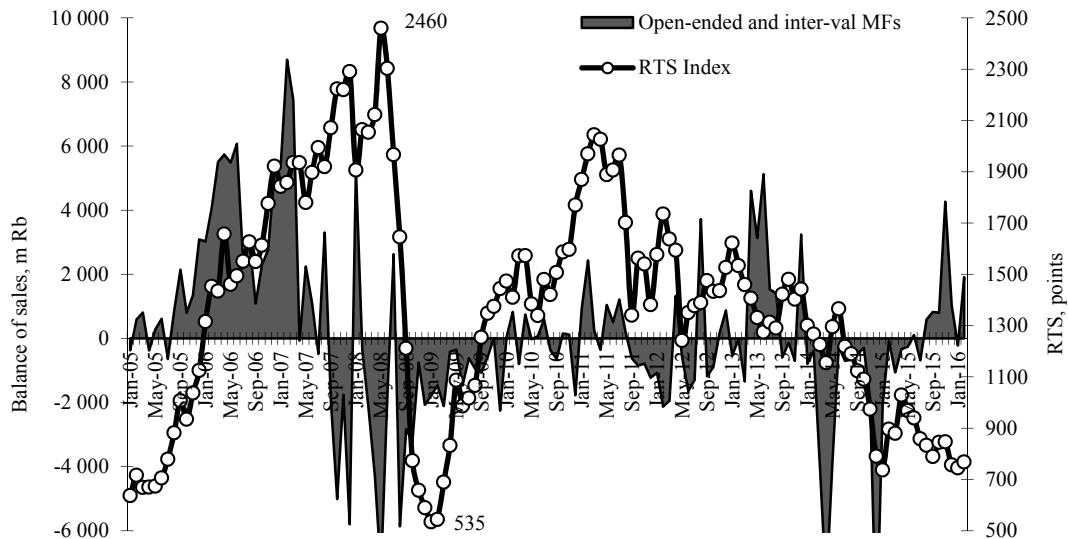


Fig. 51. The balance of sales by open-ended and interval MFs and the RTS Index over the period from January 2005 through February 2016

Source: own calculations based on data released by the National League of Management Companies (MLMC) and the Moscow Exchange.

In 2015, even though the RTS Index (which describes the value of investment in Russian securities denominated in foreign currencies) continued its downfall, from August onwards, for the first time since 2013, a small but stable new private investment inflow into O&I MFs was observed (Fig. 51). These funds demonstrated high rates of return due to their use of mixed investment strategies, global diversification of assets, and by-sector asset allocation strategies.

In order to sustain the investment activity on a proper level, Russia needs to catch up with the developed countries in promoting growth of domestic institutional investors. It means that the banking system must become more reliable and function better, and that pension funds, insurance companies, open-ended and interval funds must implement effective development policies and set the goal of winning public confidence. The government must encourage competition in the financial services market and ensure proper protection of investor rights - that is, exercise its regulatory rather than supervisory function.

3.6.2. Brokers and individual domestic investors

In order to get onto an economic growth trajectory, Russia must maintain a high domestic saving norm. The source of saving growth is a rising household saving norm. According to official statistics derived on the basis of *Rosstat's* methodology, Russian households saved 9.8% of their disposable income in 2013, 6.9% in 2014, and 14.1% in 2015 (Fig. 52). In the countries whose economies are leaders in economic growth and modernization (China, India, Singapore, Hong Kong), the ratio of household saving norm to disposable income is much higher. The social and demographic situations in these countries are certainly different from that in Russia, but it must be admitted that any large-scale modernization implies reliance on domestic sources of financing. This rule gained in importance in 2014, after the introduction of economic sanctions against Russia, when opportunities for Russian companies and banks to attract foreign investment became very limited.

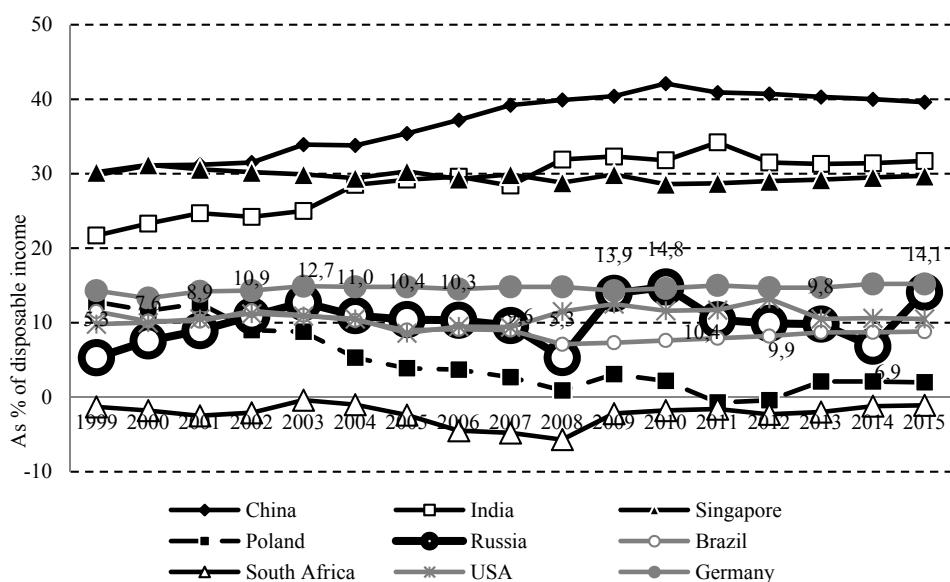


Fig. 52. Household saving norm, as % of disposable income, in 1999–2015

Source: calculations based on data released by *Rosstat*; data for Russia released by *Euromonitor International*.

The declining activity of private investors on the exchange market and the increasingly prominent role of government structures in the financial market, with their privileged status enabling them to rely on the financial resources supplied by monetary authorities, has increased the likelihood of disappearance from the market of many private broker companies and trust managers. In this connection, an important positive development in that sector was the Bank of Russia's initiative that the size of equity capital required for professional securities market participants should be reduced. In accordance with the Bank of Russia's directive of July 21, 2014, No 3329-U *On the requirements to the size of equity capital of professional participants in the securities market and trust managers of investment funds, mutual funds and non-governmental pension funds*, which came into force as of September 1, 2014, the minimum size of equity capital for those dealers and brokers who do not rely on the monies of their clients was reduced from Rb 35m to Rb 3m, and that for depositories – from Rb 60m to Rb 15m. The required minimum size of equity capital for brokers relying on their clients' assets is reduced from Rb 35m to Rb 15m, and that of managers of securities - from Rb 35m to Rb 5m, on condition that they should become members of a self-regulatory organization (SRO), which has approved and coordinated with the Bank of Russia their operational standards of performance. For prime brokers and managers of securities who are not members of a SRO, the requirements to the size of their equity capital have remained unchanged - Rb 35m and Rb 60m respectively. On February 18, 2015, the Board of Directors of the Russian National Association of Securities Market Participants (NAUFOR) adopted the basic standards of professional securities activities and submitted them for the approval by the Bank of Russia. This is an indication that the operating SROs wish to switch over to the new standards as soon as possible.

However, it turned out that it was not enough to simply relieve the excessive administrative pressure on non-bank financial institutions. For six years in a row beginning from 2009, the number of professional securities market participants was on the decline (*Table 15*). The number of brokers shrank from 803 in 2014 to 633 in 2015, and that of dealers over the same period of time shrank from 817 to 651, or by 20.3%. According to data released by the Bank of Russia, the total number of professional participants in the securities market declined from 1,079 in 2014 to 875 in 2015, or by 18.9%. The shrinking number of market participants in the current situation is a positive sign, but the cause of real concern is the absence of new market participants, which should be viewed as a manifestation of the insufficient competition rate on the financial market.

Table 15

The number of professional participants in the stock market

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of organizations holding licenses to									
1. Brokerage activities	1,445	1,475	1,335	1,213	1,090	983	885	803	633
change on previous period, %	0.8	2.1	-9.5	-9.1	-10.1	-9.8	-10.0	-9.3	-21.2
2. Dealer activities	1,422	1,470	1,337	1,198	1,088	994	888	817	651
change on previous period, %	2.0	3.4	-9.0	-10.4	-9.2	-8.6	-10.7	-8.0	-20.3

Source: data released by the Federal Financial Markets Service (FFMS) and the Bank of Russia.

Fig. 53 shows data on the number of individual investment accounts (IIA) opened by brokers and the number of individual accounts in the registers of unitholders in UIFs. In 2015, the Moscow Exchange registered a total of just over 1m private clients of brokers, of which only 82,000 were active clients - that is, those who completed at least one transaction per month on the

Moscow Exchange. The downward trend displayed by the number of active brokers' clients over recent years points to the fact that the existing model applied in dealing with clients on the Russian stock market has exhausted its potential. That model is oriented to clients desiring short-run profit, whereas in all the developed countries the majority of clients of big broker companies are long-term private investors. The outflow of brokers' clients was caused, among other things, by the slow pace of Russia's stock market recovery after the crisis.

In 2014–2015, the most noteworthy event in the sphere of private savings was the introduction of some revolutionary amendments to legislation, whereby it was envisaged that, from January 1, 2014, significant exemptions from PIT should be applied to income generated by securities, provided that the individual to be made exempt from tax had held those securities for no less than three years; and from January 1, 2015 - also to the contributions made by individual to their so-called individual investment accounts (IIA)¹.

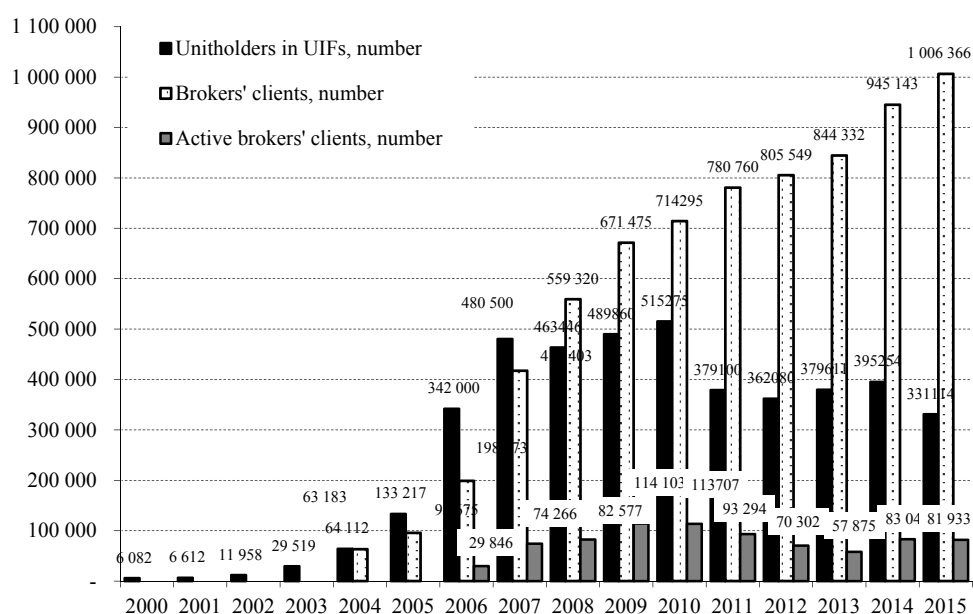


Fig. 53. The number of retail clients of trust managers and brokers

Source: own calculations based on data released by the Moscow Exchange, the National League of Management Companies (MLMC), and RAEX.

In accordance with Federal Law of December 28, 2013, No 420-FZ ‘On introducing alterations into Article 27.5-3 of the Federal Law “On the securities market” and Parts One and Two of the Tax Code of the Russian Federation’, the income derived in the form of return on investment in newly purchased securities is to be made exempt from tax if their individual owner has been holding them for three or more years. Previously, all incomes derived by citizens in the form of return on investment in securities (held through UIFs, trust management or directly through brokerage accounts) was levied by PIT at 13% rate. The cap on deduction from the tax base is set at Rb 3m for each year of holding a security or a unit. The exemption from PIT is not applicable to income derived in the form of dividends paid on shares and coupons paid on

¹ In terms of their status, these accounts are similar to two investment mechanisms popularly applied in many countries: individual retirement accounts (IRAs) (in the USA, Poland, the Republic of Korea, Canada, etc.) and individual savings accounts (ISAs) (in the UK).

bonds, except in cases when individuals hold securities indirectly through open-ended mutual funds. For this reason, the exemption will be most beneficial for long-term unitholders of open-ended funds.

Besides, the Federal Law 'On the securities market' and the RF Tax Code are augmented by the notion of an individual investment account, which can be opened by a private investor with a broker or trust manager from January 1, 2015. A citizen is granted the right to enter in only one IIA agreement. The limit on the amount of money to be placed on such an account is Rb 400,000 per annum¹. Based on the choice of an IIA owner, one of the two forms of tax deduction can be applied. The first one implies that, once an IIA is closed, provided that this happens after no less than three years have elapsed since it was opened, the investor is entitled to a 13% tax deduction from the total amount of money placed on that account. In this case, the tax refund is granted on an annual basis. In order to receive this type of exemption, the IIA owner must secure a statement issued by his broker concerning the amount of money received on that account, and attach that statement when filing his tax return. The second scheme does not envisage a deduction from the money received on an IIA, but the entire sum returned to the IIA owner by way of settlement is exempt from PIT.

In our opinion, both these exemptions have created significant incentives for those who invest their private savings in securities for a period of at least three years. According to data released by the Moscow Exchange as of the end of February 2016, the number of IIAs was 103,600 compared to 25,900 as of the end of May 2015 (Fig. 54). In other words, over 9 months, the total number of IIAs opened with brokers and trust managers increased 4.0 times.

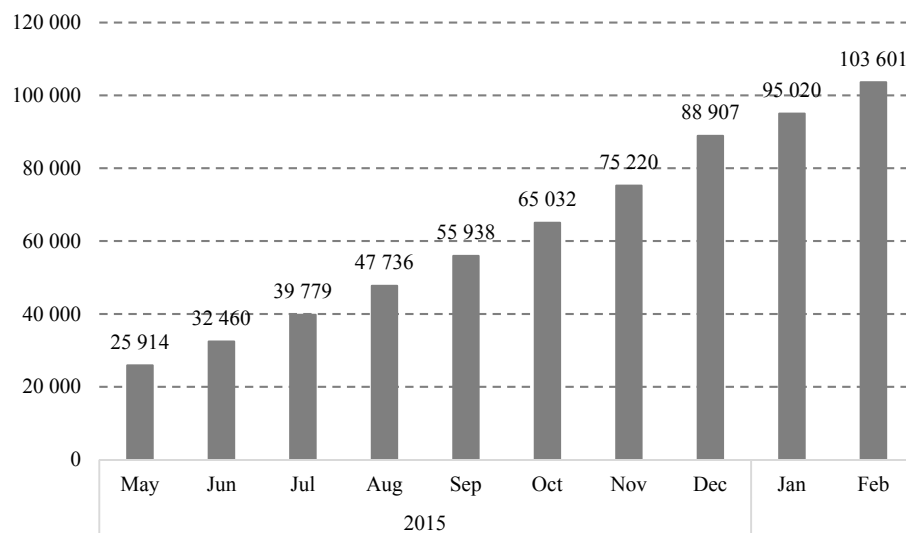


Fig. 54. The number of individual investment accounts (IIA) on the market over the period from May 2015 through February 2016

Source: own calculations based on data released by the Moscow Exchange

Over recent years, a typical feature of the market for shares has been an accelerated growth of trading volume compared to that of assets held by market participants and their clients. High-

¹ As of now, a draft law has been submitted to the State Duma whereby that cap is to be increased to Rb 1m.

frequency trading is becoming increasingly popular. The data on exchange operations periodically released to the mass media have made it possible to assume that on the average, the private clients of big broker companies completely renew their portfolios every two to three days.¹ Out estimations demonstrate that the average portfolio turnover rate for private investors operating through brokers is 150 per annum, which means a 100% portfolio renewal every two days.

3.6.3. The banking system

Despite the unfavorable situation observed in the financial market, the banking system has on the whole remained stable. This conclusion is confirmed by the surplus of the value of banks' foreign exchange assets over that of their foreign exchange liabilities to non-residents (*Fig. 55*). In 2015, for seven years in a row, the value of banks' foreign exchange assets had stayed above that of their aggregate foreign exchange liabilities to non-residents, amounting 8.2% of the total value of banks' assets. During the previous crises in 1998 and 2008, it was the disproportion between the indexes of banks' foreign exchange assets and liabilities that served as the main factor triggering a liquidity crisis in the banking sector in response to the ruble's devaluation following a plunge of prices of oil.

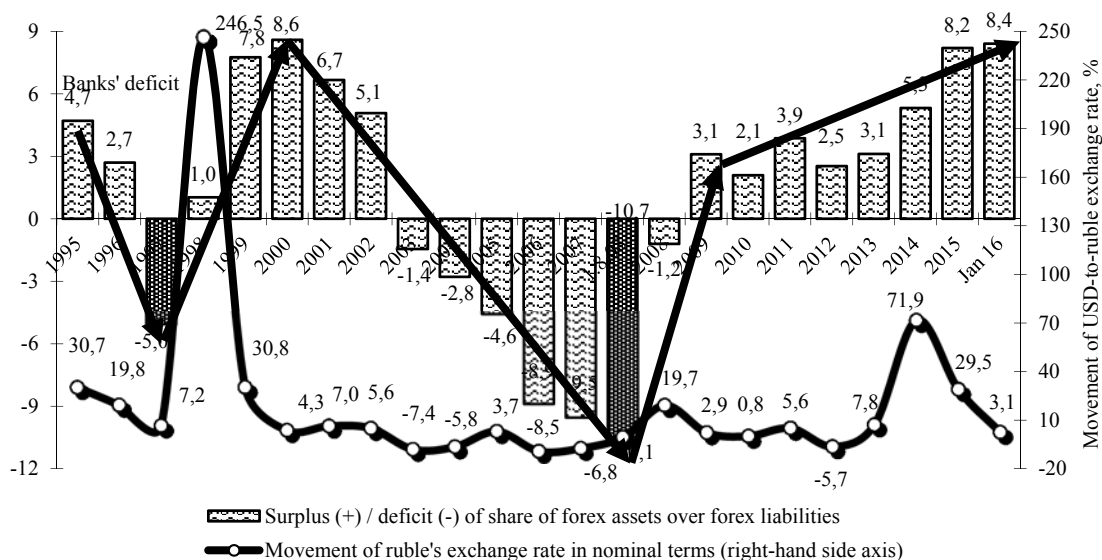


Fig. 55. The surplus (+) / deficit (-) of banks' foreign exchange assets over their foreign exchange liabilities (relative share in the value of bank assets (liabilities), as % – left-hand side axis)

Source: own calculations based on data released by the Bank of Russia.

From 2012, the deleverage trend became once again visible in the banking system² (*Fig. 56*) – that is, a slowdown in the credit portfolio's rate of growth compared to that of the amount of bank deposits. In 2015, the surplus of the credit portfolio's value over that of bank deposits (vs. the index of bank assets) amounted to 2.3 pp. compared to 9.7 pp. in 2014. On the one hand, this is an indicator of the banking system's increasing stability, while on the other, it points to a slowdown in the rate of growth of lending in response to the high risk and high interest rates.

¹ *BCS develops plans. Vedomosti*, June 22, 2010.

² The ratio of banks' net liabilities to individuals and businesses to their aggregate assets.

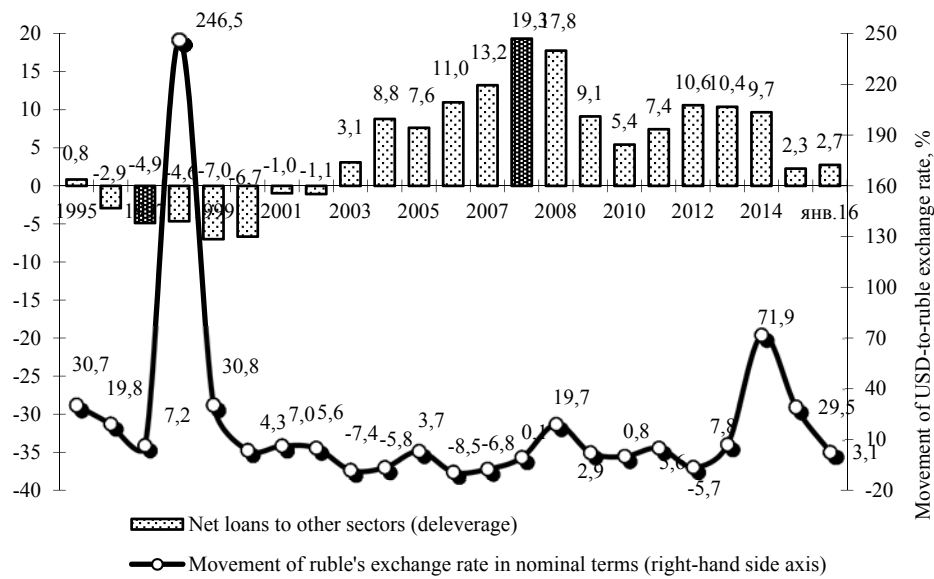


Fig. 56. The surplus of loans over deposits (as % of the value of banks' assets – left-hand side axis)

Source: estimations based on data released by the Bank of Russia.

In 2015, the banking system on the whole remained stable. However, due to the high key rate, the increasing volatility of the ruble's foreign exchange and the financial market in general, and plummeting personal incomes in real terms, the index of ruble-denominated loans increased only in the corporate sector, while that of ruble-denominated retail loans was on the decline.

The amount of personal incomes in nominal terms increased from Rb 47.9 trillion in 2014 to Rb 53.2 trillion in 2015, or by 11.0%. The volume of retail credit portfolio over the same period shrank from Rb 12.2 trillion to Rb 11.5 trillion, or by 5.7%. To a certain extent, this helped to somewhat shorten the gap between the growth of personal incomes and the amount of debt against retail loans that had become rather considerable over the last 10 years (Fig. 57). The size of retail credit portfolio increased 9.8 times on 2005, while that of the personal income index in nominal terms increased only 3.8 times.

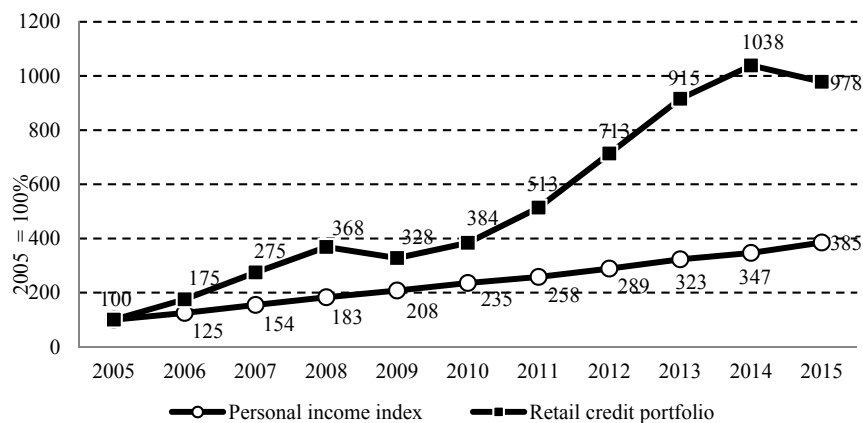


Fig. 57. The movement of personal income and retail credit portfolio indices, %

Source: estimations based on data released by the Bank of Russia and Rosstat.

Some concerns have been associated with the growth rate of the investment index in the business sector (less small-sized businesses) funded by bank loans (*Fig. 58*). The amount of loans issued to non-bank companies rose 8.2 times on 2005, whereas that of investment funded by bank loans - only 3.4 times. While the volume of the non-financial sector's credit portfolio increased from Rb 30.1 trillion in 2014 to Rb 34.0 trillion in 2015, or by 13.0%, that of investment in fixed assets funded by bank loans across the Russian economy declined from Rb 1.1 trillion to Rb 0.8 trillion, or by 27.3%.

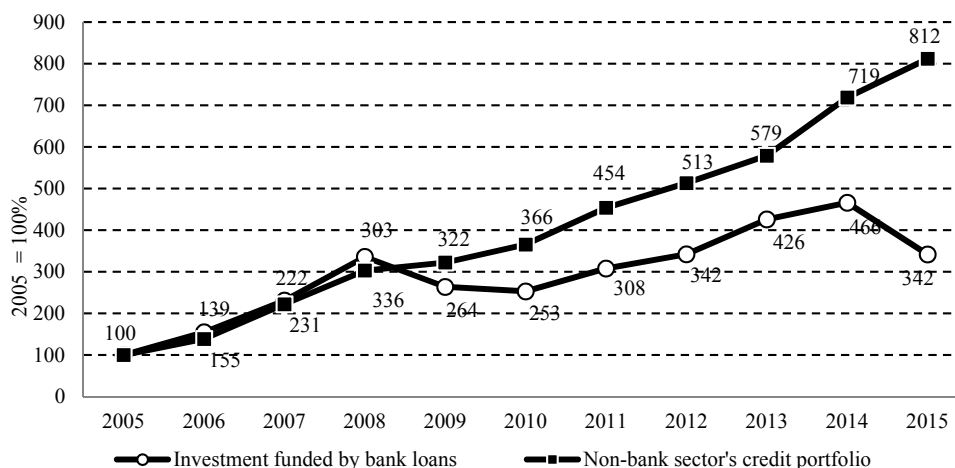


Fig. 58. The movement of investment funded by bank loans¹ and the non-bank sector's credit portfolio, %

Source: estimations based on data released by the Bank of Russia and Rosstat.

3.6.4. Foreign portfolio investors

As shown by statistics collected by EPFR, foreign portfolio investors in Russian stocks, similarly to investors in other major developing markets, often display herd behavior patterns. This means that their strategies applied in different developing markets are basically uniform, and that the decision-making concerning capital inflow or outflow are based predominantly on the cyclical movement of the global economy, rather than on the individual features of each developing economy. *Fig. 59* shows summary data on the size of assets, cash flows and the cumulative return on portfolios held by international funds investing in eight major developing economies. As seen from these data, from 2011 onwards, although private investors were mostly withdrawing their monies from these funds, the aggregate assets of the latter were on the rise - due in the main to the high cumulative return on their investment. Each \$100 invested in the early 2000s, over the next 16 years (by 2015) generated net profit in the amount of \$536, which is equivalent to compound interest of 12.3% per annum in dollar terms.

In spite of the somewhat declining returns of these funds in 2015, the stable long-term cumulative return generated by the eight developing markets suggests that in the future, an investment inflow into these markets will occur once again. At present, in response to the existing global risks, private investors are striving to withdraw their principal from the developing markets, leaving there only their cumulative return.

¹ The value of the IV quarter of 2015 to determine the design properly.

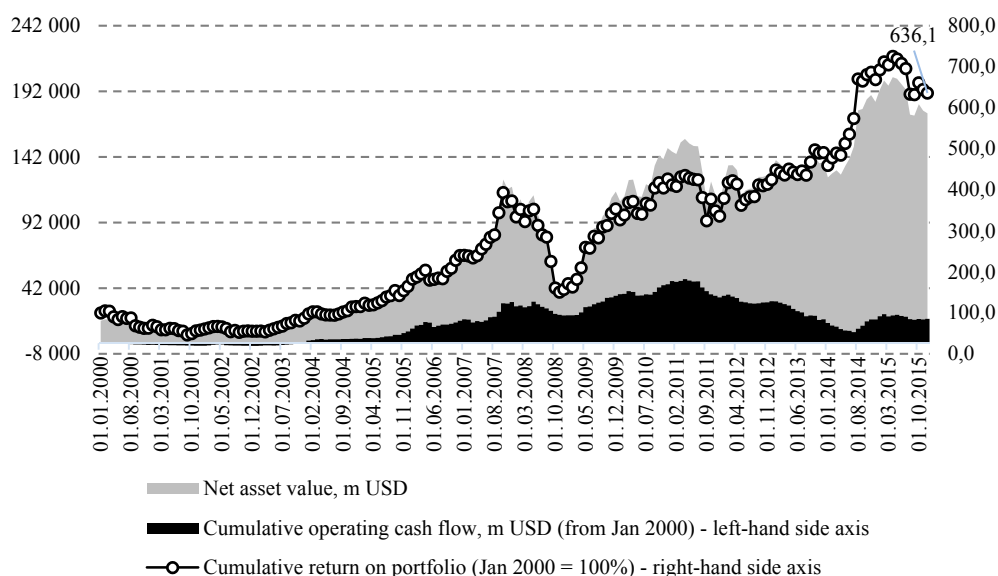


Fig. 59. Total size, cash flow and cumulative return of funds specializing on investment in Russia, China, India, Brazil, South Africa, the Republic of Korea, Indonesia, and Mexico, from January 2000 through December 2015

Source: own calculations based on data released by EPFR.

More details on each of the eight developing markets, Russia including, are presented in *Fig. 60*. They all can be roughly divided into three groups. The first group consists of mainland China and the Republic of Korea (*Fig. 60b* and *Fig. 60f*). Over the 16-year horizon, they demonstrate a relatively stable return on portfolio growth rate. The geometric mean of return on investment in shares of Chinese and Korean companies over that period amounts to 11.1 and 9.3% per annum respectively. The assets of these investment funds demonstrate upward trends. At the same time, private investors have withdrawn from China's market practically all of their previously invested capital, while in the market of the Republic of Korea those same investors have not withdrawn even their principal. All these development can be interpreted as a sign of the generally positive attitude, by investors, to these two markets.

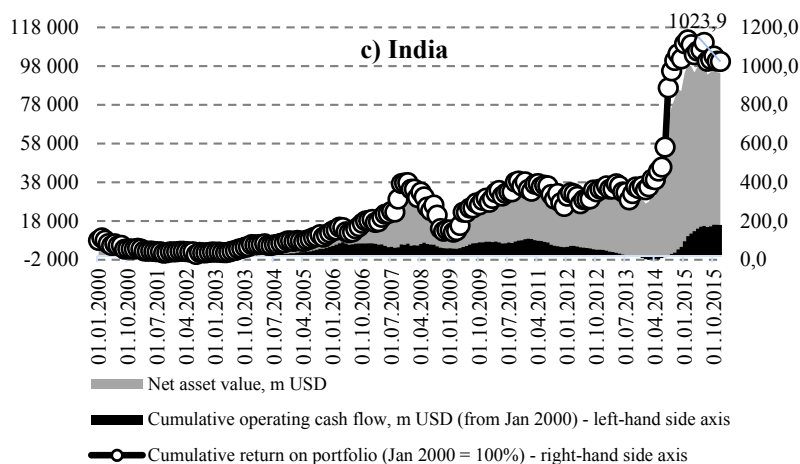
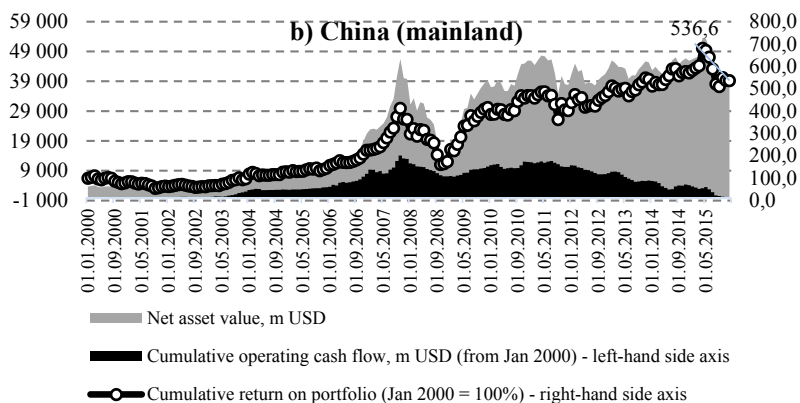
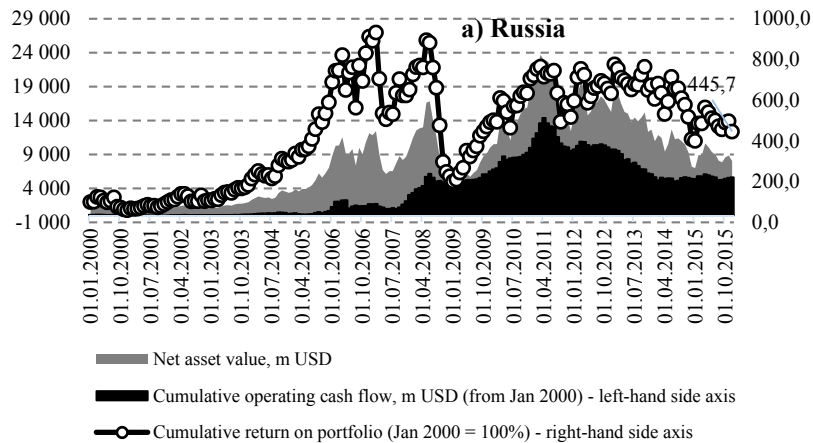
The second group includes foreign investment funds specializing on Russia (*Fig. 60a*), Brazil (*Fig. 60d*) and Indonesia (*Fig. 60g*). For several years in a row, these markets were characterized by plummeting returns on portfolio investment, and so the assets held by foreign investment funds were shrinking. The geometric mean of return for shares issued by companies based in Russia, Brazil and Indonesia amounted to 9.8, 7.3 and 16.7% per annum respectively. Due to the deteriorating investment indices and economic decline observed in these markets, investors have been withdrawing their previously invested capital. So far, Russia has been faring better than Brazil and Indonesia, because capital withdrawal by non-residents from her market is still on a much lesser scale.

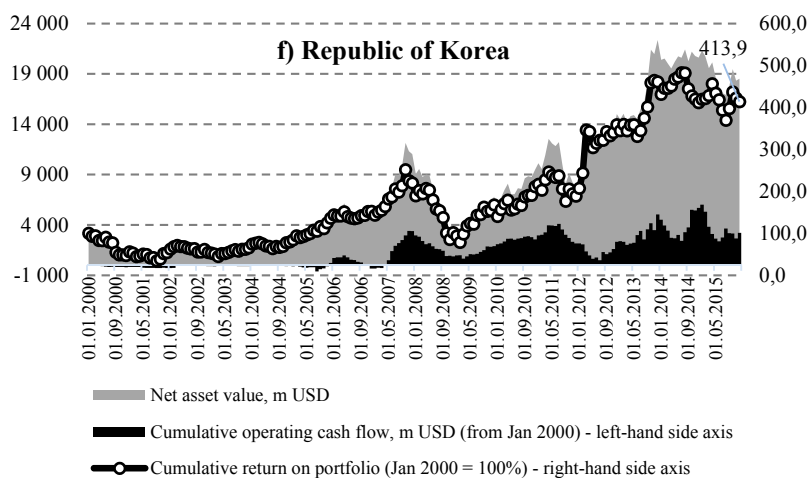
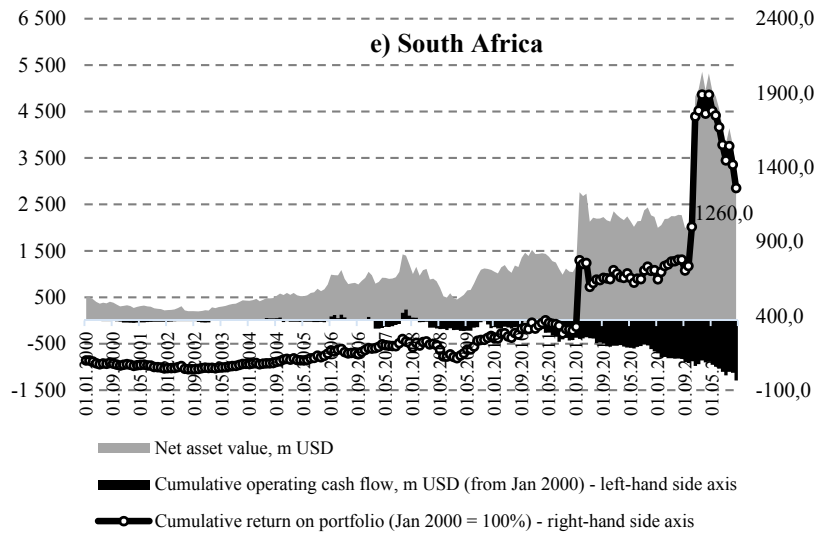
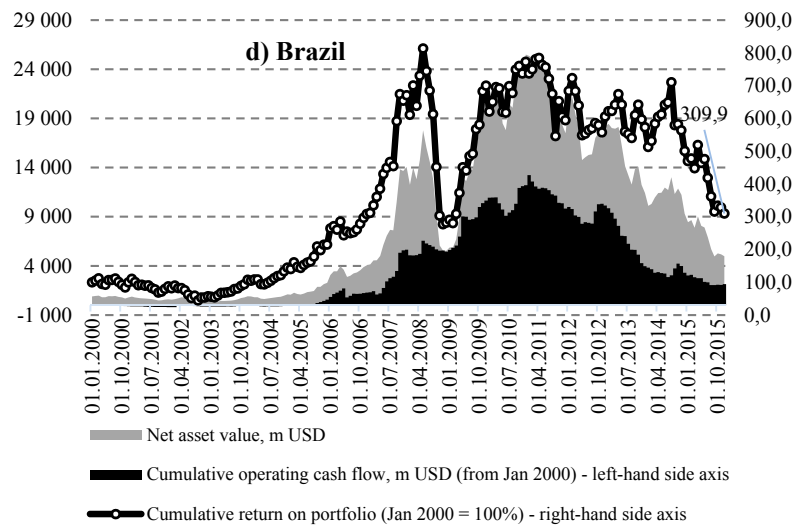
The third group is comprised by the investment funds specializing on India, South Africa and Mexico. These countries are characterized by high volatility of the portfolios held by foreign investors. Meanwhile, over the last 2–3 years, stock quotes in these three countries were recovering to their pre-crisis level at a fastest rate, and so portfolio investors received the highest returns. The geometric mean of return for shares issued by companies based in India, South Africa and Brazil over the 16-year period was 15.6, 17.2 and 22.0% per annum respectively.

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However, investors think that these markets are too volatile, and so the total amount of capital withdrawn from South African and Mexican companies up until the present moment is much higher than the amount of principal. As for the investment funds specializing on Indian shares, in 2015 they demonstrated an inflow of capital.





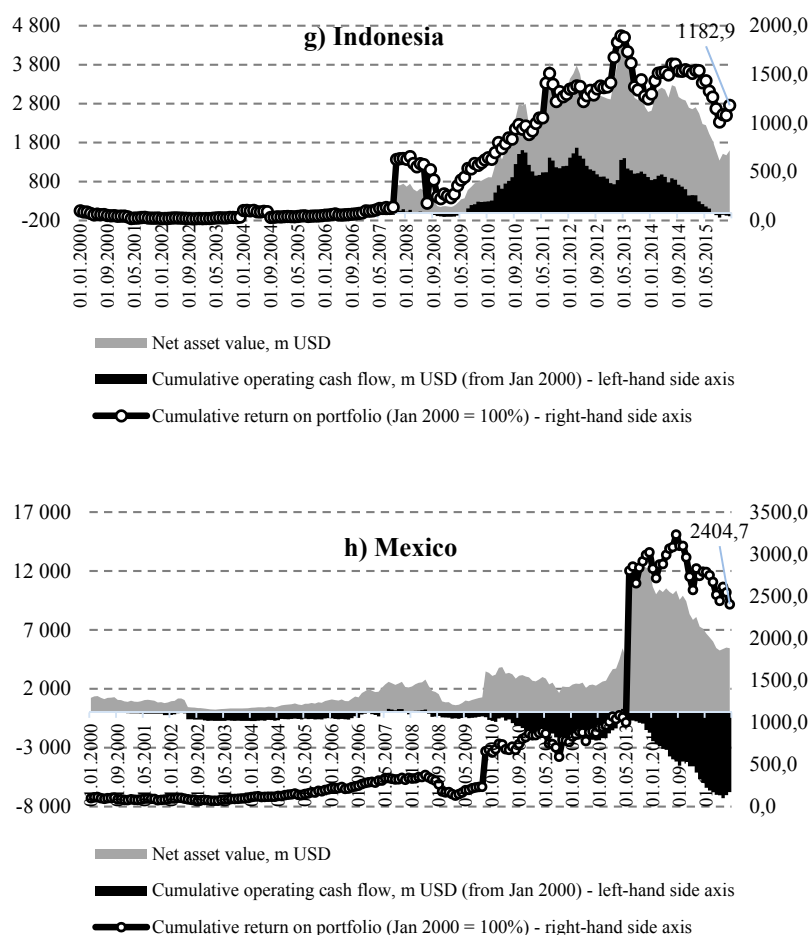
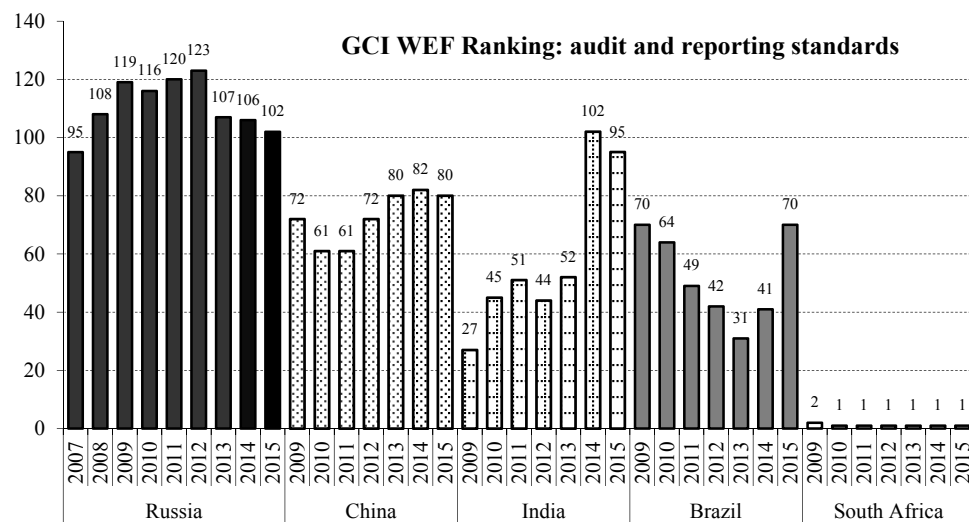
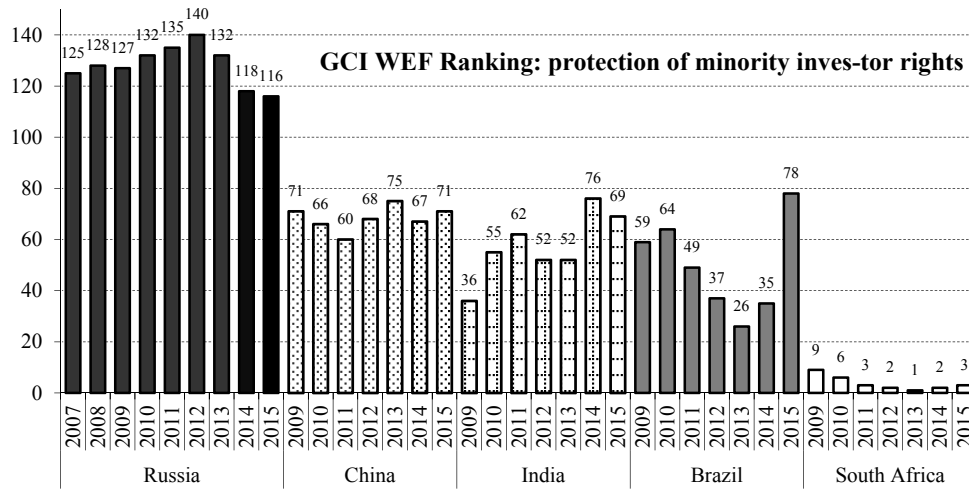
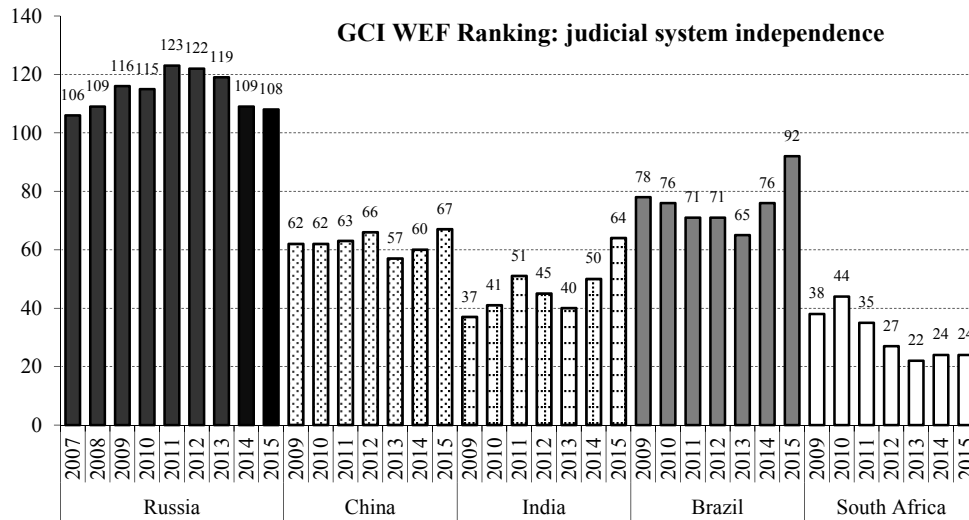


Fig. 60. Total size, cash flow and cumulative return of funds specializing on investment in Russia, China, India, Brazil, South Africa, the Republic of Korea, Indonesia, and Mexico, from January 2000 through December 2015

Source: own calculations based on data released by EPFR.

So, the outflow of foreign portfolio investment from the Russian stock market is the reflection of the general cyclical trend displayed by the developing economies, rather than the upshot of the specific risks created by the economic sanctions, plummeting prices of oil and protracted recession in the national economy. Nevertheless, it is necessary to rely more on the experiences of countries like China, the Republic of Korea and India which, the currently unfavorable conditions notwithstanding, have continued to be attractive for foreign investors.

In our previous reviews of the situation in Russia's financial market, we identified several investment climate criteria applicable to Russia, which in the mid-2000s were viewed by conservative US investors as factors that made it undesirable to invest in shares and bonds of Russian issuers of securities. By way of example, we cited the data released by CalPERS (California Public Employees' Retirement System), a big US public pension fund. Until 2006, CalPERS published the list of criteria and indicators applied as a basis for its decision-making concerning investing in one or other developing market. Here, we present the investment climate estimates for Russia arranged in accordance with Countries' Ranking Based on the World Economic Forum's Global Competitiveness Index (Fig. 61).



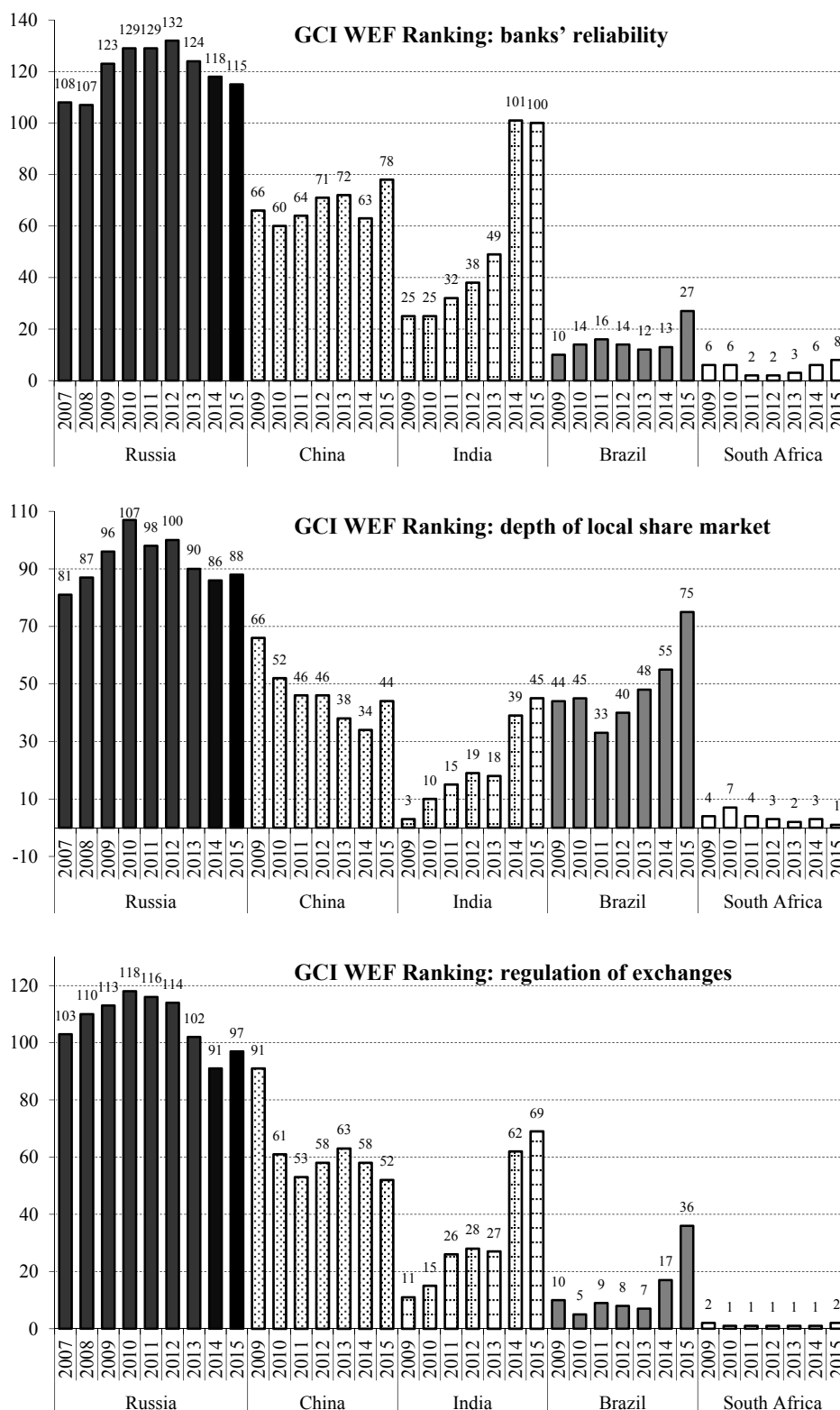


Fig. 61. BRIC members' rankings in the World Economic Forum's Global Competitiveness Index, by several criteria relevant for conservative portfolio investors' decision-making

Source: GCI WEF Rankings for several years.

In terms of the most problematic issues – independence of the judicial system, the level of protection of minority investor rights, the audit and reporting standards, the depth of the share market, the proficiency of the regulation of exchanges and banks' reliability, Russia's market falls significantly behind the markets of the other BRIC members. However, according to the indexes for 2015–2016 released in September 2014, this gap became noticeably narrower. This happened due to improvement of all of the six ranking parameters. Thus, for example, in terms of judicial system independence in 2015–2016, Russia was ranked 108th compared to 109th in the previous year. Besides, Russia moved ahead with regard to the following criteria: the use of international audit standards – from 106th to 102nd; protection of minority investor rights – from 118th to 116th; reliability of banks – from 118th to 115th. Somewhat unexpectedly, the 2015–2016 rankings for Brazil and especially for India were moved rather far down. However, two of Russia's indexes also worsened: with regard to access to financing in the local share market, Russia moved from 86th to 88th place; and with regard to regulation of exchanges – from 91st to 97th.

3.7. Risks on the financial market¹

3.7.1. Financial risks in 2015

The year-end results of 2015 demonstrate that the various risks analyzed in our previous year's overview had become reality. The downfall of oil prices pushed down the ruble's exchange rate against the world's major currencies and triggered yet another plunge of the stock indexes. The situation was further aggravated by the continuing foreign capital outflow. The introduction of international sanctions against Russia dramatically reduced the opportunities for foreign debt refinancing, first of all for banks and non-financial companies. So, corporate borrowers were forced to redeem their foreign debts by their proceeds denominated in foreign currency or other domestic sources, thus imposing additional pressure on the forex market and the ruble's exchange rate. In order to stabilize the national currency and help businesses in settling their foreign debts, the government had to tap on the national gold and foreign currency reserves.

Many public discussions were triggered by the changed priorities of the Bank of Russia's monetary and lending policies and the regulator's decisive switchover to inflation targeting and liberalization of the foreign exchange rate. In our opinion, such a turn was well-justified, both strategically and tactically, in view of the complicated situation in the financial markets. In the long run, such policy may produce useful levers that will help control both the inflation rate and inflation expectations, and ensure macroeconomic stability – a necessary precondition for investment inflow. From the point of view of anti-crisis regulation, this measure conduced to safeguarding the gold and foreign currency reserves and applying market principles to the ruble's exchange rate, which is essential in view of the new economic reality.

In 2016, the main financial market risks will be associated with the following factors: stagnation in the share market (due to slow recovery of oil prices) and foreign investment flows; moderate weakening of the ruble (due to slow recovery of oil prices) and the need to repay corporate foreign debt in spite of the ban on refinancing loans in the foreign markets; an increasing volatility of the foreign exchange rate if the monetary and lending policies should

¹ Author of this section: Abramov A. – RANEPА.

become increasingly inefficient due to lack of any improvement in the investment climate and liberalization of the conditions for doing business.

3.7.2. The risks associated with the domestic financial market's high dependence on foreign investors' behavior

The specific feature of the Moscow Exchange's market for shares, in which it differs from global exchanges, is its high dependence on foreign portfolio investors. As estimated by Sberbank CIB, about 70% of free-float Russian stocks are currently held by non-residents. At the same time, the 14 biggest investment funds jointly accounted for 28% of total foreign portfolio investment in Russia¹. The list of these funds, according to Sberbank CIB, includes the Government Pension Fund of Norway, Vanguard Emerging Markets Stock Index Fund, Oppenheimer Developing Markets Fund, ISHARES MSCI Emerging Markets ETF, BlackRock, and Lazard Emerging Market Equity Portfolio. The significantly simpler procedures for foreign investors to buy and hold Russian securities, that have been recently introduced on the domestic market, make it more attractive to foreign investors on the one hand, while on the other, they may increase market volatility due to the risk of a speedy foreign capital outflow in response to sudden shocks.

3.7.3. The risks associated with the ruble's exchange rate decline in the medium term

The experiences of the previous crises in Russia point to the necessity of maintaining a certain stable ratio between the ruble-denominated money supply (M2) and gold and foreign-exchange reserves (*Fig. 62*). The graphs below demonstrate the relationship between the end-of-month USD-to-ruble official exchange rate (in Rb) and its estimated value, determined by dividing money supply (M2) by the value of RF gold and foreign-exchange reserves.² When the estimated exchange rate, which reflects the ratio of ruble-denominated money supply volume to that of gold and foreign-exchange reserves, displays accelerated growth compared to the official rate, this can usually be interpreted as a manifestation of a softer policy of the monetary authorities and the rising risks of the ruble's devaluation. After the 2008 crisis, growth of the gold and foreign-exchange reserves halted, and the monetary authorities resorted to boosting economic growth by increasing money supply. The gap between the estimated and actual official exchange rate once again began to widen. Interestingly, every time that these two indices moved apart by approximately Rb 30 (in both instances when the estimated rate was about twice as much as the official rate), the monetary authorities launched some extraordinary measures designed to shorten this gap.

¹ Gaidarov V. *Foreign control over free float*. *Kommersant*, January 17, 2014.

² This index is by no means universally relevant for every country, especially for countries with highly diversified economies; however, as the ruble's exchange rate is highly dependent on the amount of export proceeds denominated in foreign currencies, its analytical value for Russia's financial system is significant.

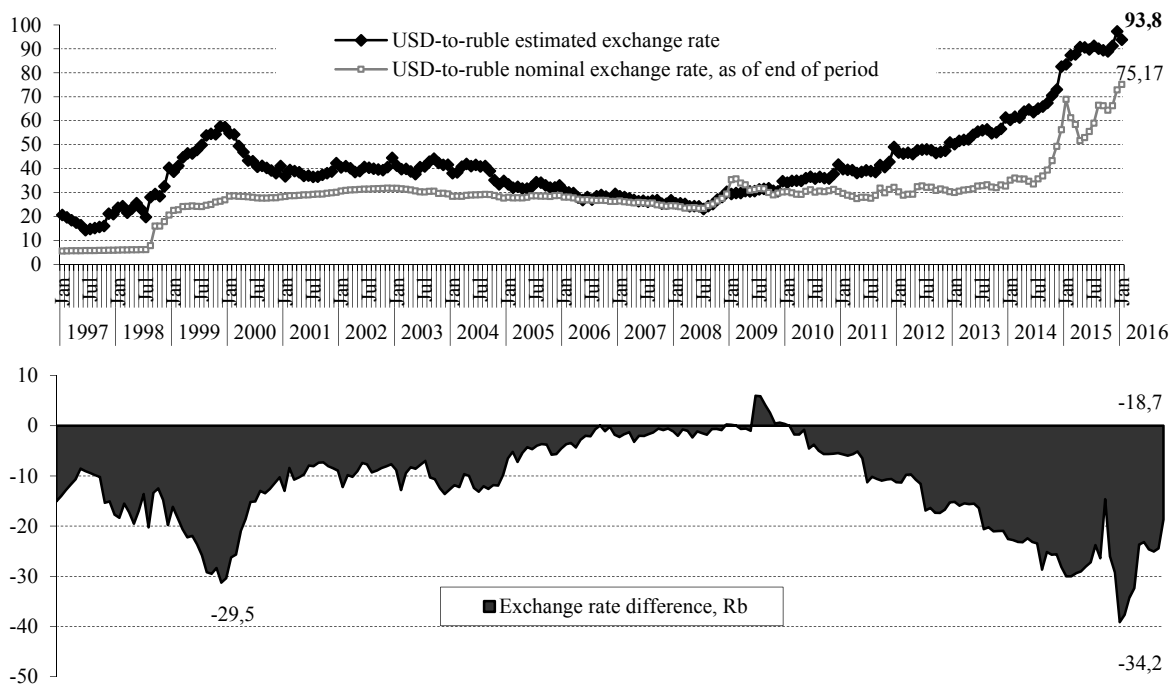


Fig. 62. The dependence of the USD-to-ruble nominal exchange rate on its estimated value, January 1997 – January 2016

Source: calculations based on data released by the Bank of Russia and the RF Ministry of Finance.

3.7.4. The risks associated with foreign debt servicing by banks and non-financial companies

The economic sanctions prevented Russian companies and banks from getting refinancing loans in international markets, and so in order to repay their foreign debts, they had to purchase foreign currency in the domestic forex market. As a result of the sanctions, the amount of foreign debt shrank from \$651bn in 2013 to \$473bn in 2015, or by \$178bn (Fig. 63). At the same time, the volume of gold and foreign exchange reserves declined in 2015 from \$512bn to \$368bn, or by \$144bn. This sum was spent in order to sustain the ruble's position on the forex market in 2014, while simultaneously, in indirect ways, it replenished the forex reserves of Russian organizations necessary for repaying their foreign debts. For reference: during the period of controlled devaluation of the ruble from August 2008 through February 2009, the volume of gold and foreign exchange reserves shrank by \$212bn, hitting its record low of \$384bn.

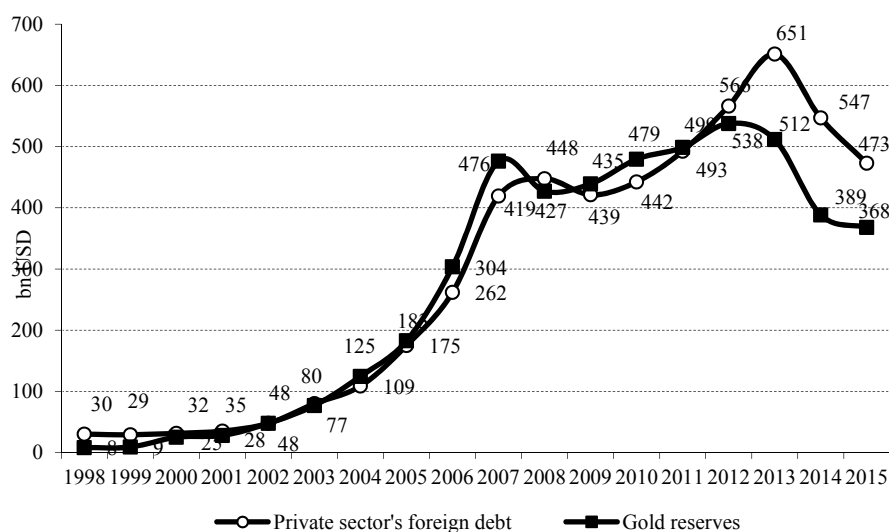


Fig. 63. Growth of debt in the private sector and government budget surplus

Source: own calculations based on balance of payments data for several years.

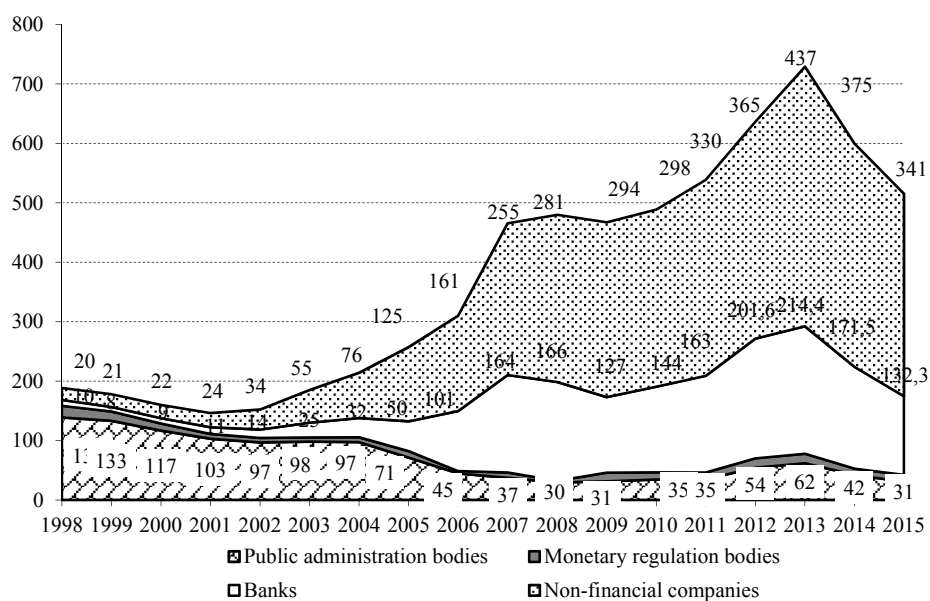


Fig. 64. Foreign debt of the Russian Federation in 1998–2015, bn USD

Source: balance of payments data for several years.

In 2015, the decline of foreign debt occurred in the main in the sector of banks and non-financial companies (*Fig. 64*). The debt owed by banks to non-residents shrank from \$214bn in 2013 to \$132bn in 2015, or by 38.3%. The foreign debt of non-financial companies over the same period shrank from \$437bn to \$341bn, or by 22.0%. The troubles experienced by Russia in 2014–2015 in connection with the need to repay the foreign debts of national businesses under the constraints imposed by the international sanctions point to the vital necessity of careful regulation of the foreign debt burden taken on by Russian companies. In 2014–2015, without the urgent measures in the form of forex interventions, forex loans to banks issued by the Bank

of Russia in the form of FX swaps and repo, and part of government gold and foreign-exchange reserves being spent on financial support provided to the business sector, Russian companies would have been unable to service their foreign debts.

3.8. Municipal and subfederal loan market¹

3.8.1. Market development dynamics

The regions' consolidated budgets and the budgets of subnational state off-budget funds ran with a deficit of Rb 178.7bn (0.22% of GDP) at the 2015 year-end. In terms of percentage of GDP, the regions' consolidated budget deficit was over three times as little as the value recorded in 2014. For example, in 2014, subnational budgets ran a deficit of Rb 485.6bn (0.68% of GDP).

In 2015, the subjects of the Russian Federation ran a budget deficit of Rb 108.2bn, urban districts ran a budget deficit of Rb 52.1bn, municipal units of Moscow and St. Petersburg ran a budget surplus of Rb 1.4bn, municipal districts ran a budget deficit of Rb 10.5bn, urban and rural settlements ran a budget surplus of Rb 2.2bn, subnational state off-budget funds ran a budget deficit of Rb 7.1bn.

In 2014, the subjects of the Russian Federation ran a budget deficit of Rb 393.2bn, urban districts ran a budget deficit of Rb 38.4bn, municipal units of Moscow and St. Petersburg ran a budget surplus of Rb 1.2bn, municipal districts ran a budget deficit of Rb 20.1bn, urban and rural settlements ran a budget surplus of Rb 2.6bn, subnational state off-budget funds ran a budget deficit of Rb 37.8bn.

Table 16

Ratio of regions' consolidated budget surplus (deficit) and of regions' budgets to budget expenditure, %

Year	Regions' consolidated budgets*	Regions' budgets
2015	-1.6	-1.3
2014	-4.6	-4.9
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
2008	-0.7	-0.7
2007	0.8	0.6

* including state off-budget funds.

Source: Gaidar Institute's own calculations based on the data released by Russia's Federal Treasury.

As of January 1, 2016, 76 subjects of the Russian Federation ran a consolidated budget deficit (including subnational state off-budget funds) (75 regions in 2014). The total deficit stood at Rb 377.6bn, or 5.1% of the revenue side of budgets (Rb 559.5bn, or 6.3% in 2014).

¹ Shadrin A. – Ministry of Economy of Russia.

Table 17

**Ratio of subnational budget surplus (deficit) to budget expenditure
in 2007–2015, %**

Year	Budget of municipal units of Moscow and St. Petersburg	Budget of urban districts	Budget of municipal districts	Budget of urban and rural settlements
2015	6.7	-3.0	-0.7	-0.6
2014	6.0	-2.2	-1.4	0.7
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: Gaidar Institute's own calculations based on the data released by Russia's Federal Treasury.

The median budget deficit was 5.7% to the revenue side of budget. The biggest ratio of budget deficit to the revenue side of budget was seen in Republic of Mordovia (20.3%), Magadan Region (18.2%), Murmansk Region (16.5%), Smolensk Region (15.2%), Republic of Khakasia (14.7%) (see Table 19).

In 2015, nine subjects of the Russian Federation ran a consolidated budget surplus (10 subjects ran a consolidated budget surplus in 2014). In total, these regions ran a budget surplus of Rb 199.0bn, or 6.0% of the revenue side of the budgets (Rb 73.9bn in 2014, or 6.1% of the revenue side of the budgets). The median budget surplus was 7.2% to the revenue side of budget.

The biggest ratio of surplus to consolidated budget revenues was seen in Sevastopol (11.7%) and in Moscow (8.0%).

With a budget surplus of Rb 145.7bn, Moscow accounted for the biggest share (73.2%) of the regions' total consolidated budget surplus.

3.8.2. Change in structure of accumulated debt

According to the data released by Russia's Ministry of Finance, the volume of debt accumulated by the subjects of the Russian Federation in 2015 increased by Rb 239.6bn to Rb 2318.6bn and the volume of debt accumulated by municipalities increased by Rb 28.1bn to Rb 341.3bn.

Table 18

Net borrowing of regional and subnational budgets, as % of GDP

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Net borrowing subfederal and local government authorities	0.17	0.29	0.74	0.51	0.21	0.33	0.61	0.53	0.33
Including:									
repayable loans from budgets at other levels	-0.01	0.03	0.33	0.37	0.15	0.01	0.06	0.24	0.21
subfederal (municipal) bonds	0.08	0.17	0.24	0.07	-0.11	0.06	0.12	-0.01	-0.01
Other borrowings	0.10	0.09	0.17	0.07	0.17	0.26	0.43	0.30	0.13

Source: Gaidar Institute's own calculations based on the data released by Russia's Federal Treasury.

3.8.3. Loan structure

Regions and municipalities borrowed a total of Rb 2541.2bn. The top-ranked borrowers were Sverdlovsk Region (Rb 165.6bn), Novosibirsk Region (Rb 147.1bn), Omsk Region (Rb 129.2bn), Stavropol Territory (Rb 102.1bn), Perm Territory (Rb 98.3bn), Republic of Tatarstan (Rb 96.4bn), Smolensk Region (Rb 51.7bn).

Securities accounted for 3.9%, loans from upper-level budgets (budget loans) for 49.5%, loans from commercial banks and international credit institutions for 46.6% of the total volume of regions' consolidated budget loans.

The total net borrowing of the regions' consolidated budgets stood at Rb 263.1bn. The highest ratio of net borrowing to budget revenues was seen in Magadan Region (21.0%), Republic of Mordovia and Republic of Khakasia (17.0% each) (see *Table 19*).

The top-ranked net borrowers were Krasnoyarsk Territory (Rb 19.0bn), Sverdlovsk Region (Rb 17.7bn), Rostov Region (Rb 14.6bn), Krasnodar Territory (Rb 12.1bn), Samara Region (Rb 11.5bn).

Thirteen regions reduced their accumulated debt because the amount they repaid on their previous loans was bigger than the amount they raised through new loans, including Moscow (down Rb 22.0bn), Moscow Region (down Rb 3.9bn), Yamalo-Nenets Autonomous Area (down Rb 2.3bn), Chelyabinsk Region (down Rb 2.0bn), Sakhalin Region (down Rb 1.3bn).

Table 19

Execution of consolidated budgets of subjects of the Russian Federation in 2015

	Budget revenues, rubles in billions	Budget deficit (surplus), rubles in billions	Ratio of deficit (surplus) to revenues, %	Ratio of borrowing to revenues, %	Net borrowing to revenues, %	Loan repayment costs to revenues, %	Net borrowing to deficit (surplus), %
1	2	3	4	5	6	7	8
Central Federal Okrug							
Belgorod Region	94.1	2.5	2.7	13.5	2.3	10.9	83.0
Bryansk Region	60.38	3.0	5.0	18.3	2.5	8.2	50.4
Vladimir Region	69.6	-0.5	-0.7	2.9	0.0	16.9	3.2
Voronezh Region	118.3	6.6	5.6	29.4	4.0	38.3	71.4
Ivanovo Region	45.5	3.5	7.7	109.3	8.1	56.9	104.8
Tver Region	73.4	0.6	0.9	12.6	-0.2	7.0	-21.7
Kaluga Region	63.9	7.3	11.4	27.9	10.5	26.1	91.7
Kostroma Region	30.9	3.4	11.1	68.2	6.7	108.9	60.2
Kursk Region	61.0	0.4	0.7	66.6	0.3	35.6	37.7
Lipetsk Region	68.6	0.3	0.5	8.3	2.0	41.8	444.3
Moscow Region	611.1	0.7	0.1	5.9	-0.6	2.6	-584.0
Orel Region	38.7	2.8	7.3	22.4	6.1	11.6	83.4
Ryazan Region	59.9	1.5	2.5	10.8	-0.1	51.2	-4.6
Smolensk Region	46.7	7.1	15.2	110.7	11.8	58.7	77.4
Tambov Region	57.4	3.6	6.2	54.8	3.8	51.4	60.8
Tula Region	88.6	0.8	0.9	12.9	-0.2	25.9	-25.9
Yaroslavl Region	75.8	4.4	5.8	50.4	3.8	22.3	64.5
Moscow	1 828.6	-145.7	-8.0	0.0	-1.2	1.2	15.2
Baikonur	3.7	0.1	3.4	0.0	0.0	3 235.5	0.0
Total	3 495.7	-97.4	-2.8	11.1	0.3	6.0	-9.0
North-West Federal Okrug							
Republic of Karelia	44.0	3.8	8.7	42.6	6.1	86.8	69.8
Republic of Komi	81.3	8.7	10.8	80.4	6.3	82.7	58.6
Arkhangelsk Region	95.9	2.7	2.8	71.2	4.9	35.3	176.2
Vologda Region	69.4	1.9	2.7	18.6	0.2	20.7	6.4
Kaliningrad Region	67.2	11.1	16.5	21.4	5.0	14.2	30.5
Leningrad Region	147.0	-11.4	-7.7	3.0	-0.5	13.1	6.0
Murmansk Region	79.5	1.6	2.0	40.2	1.5	27.3	74.7

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1	2	3	4	5	6	7	8
Novgorod Region	35.3	1.3	3.8	56.9	3.6	41.5	94.8
Pskov Region	32.4	2.2	6.8	41.8	4.3	19.0	63.4
St. Petersburg	503.0	-7.7	-1.5	1.6	0.0	1.6	-1.4
Nenets Autonomous Area	19.3	2.1	11.0	5.3	5.3	247.2	48.3
Total	1.174.2	16.4	1.4	22.0	1.7	10.6	124.1
South Federal Okrug							
Republic of Kalmykia	13.6	1.1	8.1	28.4	8.0	93.9	98.1
Krasnodar Territory	281.8	17.1	6.1	14.8	4.3	14.0	70.9
Astrakhan Region	47.0	3.9	8.3	63.8	3.1	45.2	36.8
Volgograd Region	121.8	7.2	5.9	29.5	5.8	16.8	96.9
Rostov Region	205.6	14.2	6.9	9.1	7.1	0.8	103.0
Republic of Adygei (Adygei)	20.7	1.1	5.5	10.9	1.5	477.2	27.8
Total	690.5	44.6	6.5	19.2	5.3	7.0	81.9
North-Caucasian Federal Okrug							
Republic of Dagestan	111.7	4.1	3.6	11.7	2.2	22.7	60.0
Kabardino-Balkar Republic	35.8	3.3	9.3	108.5	2.2	65.7	23.9
Republic of Northern Ossetia-Alania	30.832.150.860.8	0.8	2.7	56.5	2.1	26.3	76.6
Republic of Ingushetia	28.2	2.0	7.1	13.2	3.5	189.8	48.9
Stavropol Territory	116.5	10.3	8.8	87.7	6.4	44.3	72.3
Karachayevo-Cherkessian Republic	26.1	0.7	2.5	60.4	2.2	29.1	85.4
Chechen Republic	84.3	0.8	0.9	0.9	0.0	321.0	0.0
Total	433.3	21.9	5.1	44.2	3.0	20.5	58.6
Privolzhskiy Federal Okrug							
Republic of Bashkortostan	214.6	2.6	1.2	2.3	0.4	1.4	31.0
Republic of Mariy-El	33.3	2.4	7.2	36.7	7.2	77.8	99.1
Republic of Mordovia	44.7	9.1	20.3	109.3	17.0	65.2	83.6
Republic of Tatarstan (Tatarstan)	274.0	6.7	2.4	35.2	3.2	33.2	130.0
Udmurt Republic	80.7	8.0	10.0	43.0	5.6	45.5	56.2
Chuvash Republic — Chuvashya	55.1	3.0	5.7	63.7	5.2	252.9	92.1
Nizhniy Novgorod Region	179.9	12.1	6.7	117.6	5.2	54.1	77.4
Kirov Region	67.0	43.0	5.9	49.1	4.8	51.0	81.7
Samara Region	186.4	14.0	7.5	23.5	6.2	12.1	81.8
Orenburg Region	111.2	4.3	3.9	17.1	2.4	6.5	61.8
Penza Region	60.0	3.0	5.0	15.2	1.2	76.3	23.5
Perm Territory	151.6	6.8	4.5	64.8	4.7	38.7	104.6
Saratov Region	108.9	5.7	5.3	30.0	3.1	25.1	59.3
Ulyanovsk Region	56.2	7.7	13.8	27.3	9.3	182.5	67.1
Total	1.623.7	89.5	5.5	42.8	4.3	22.0	78.2
Urals Federal Okrug							
Kurgan Region	42.3	5.1	12.1	19.5	9.5	175.5	78.4
Sverdlovsk Region	264.3	18.1	6.8	62.6	6.7	29.1	98.0
Tyumen Region	166.0	-11.9	-7.2	0.0	0.0	6.6	0.0

Cont'd

1	2	3	4	5	6	7	8
Chelyabinsk Region	186.7	2.2	1.2	5.2	-1.1	1.7	-89.0
Hanty-Mansiysky Autonomous Area – Yugra	301.1	-6.1	-2.0	0.7	-0.1	4.0	4.8
Yamal-Nenets Autonomous Area	149.4	0.5	0.3	6.6	-1.6	150.7	-516.7
Total	1.109.9	7.8	0.7	17.6	1.5	7.4	218.6
Siberia Federal Okrug							
Republic of Buryatia	65.1	1.1	1.6	20.2	3.4	7.6	207.7
Republic of Tyva	25.8	1.4	5.5	10.0	3.5	10.7	62.6
Altai Territory	118.5	2.5	2.1	2.0	0.5	8.8	21.4
Krasnoyarsk Territory	249.8	21.2	8.5	17.8	7.6	16.3	89.8
Irkutsk Region	160.0	10.0	6.2	53.5	6.3	34.0	100.6
Kemerovo Region	159.0	8.9	5.6	13.3	4.9	51.4	87.3
Novosibirsk Region	158.0	13.6	8.6	93.1	8.0	83.2	92.6
Omsk Region	97.3	5.1	5.3	132.8	4.2	81.4	80.4
Tomsk Region	74.7	2.8	3.7	85.9	4.9	52.3	132.0
Republic of Altai	20.1	0.7	3.4	11.5	0.1	35.2	3.8
Republic of Khakasia	34.9	5.1	14.7	63.9	17.0	37.9	115.8
Zabaikalsky Territory	66.5	6.6	9.9	39.3	10.0	94.9	101.0
Total	1.229.7	79.0	6.4	45.6	6.0	21.8	93.0
Far East Federal Okrug							
Republic of Sakha (Yakutiya)	207.3	4.4	2.1	5.0	2.8	7.9	130.2
Primorsky Territory	130.4	0.6	0.4	11.1	0.0	15.7	8.8
Khabarovsk Territory	109.9	11.3	10.3	39.2	8.1	19.6	78.0
Amur Region	62.7	4.2	6.8	28.8	3.8	17.1	55.4
Kamchatka Territory	72.1	0.7	0.9	9.2	2.1	7.8	222.6
Magadan Region	30.8	5.6	18.2	43.8	21.0	20.0	115.0
Sakhalin Region	232.6	-10.7	-4.6	0.0	-0.6	0.7	12.2
Jewish Autonomous Region	12.6	1.4	10.9	57.8	10.9	34.8	99.7
Chukotka Autonomous Region	29.4	-2.1	-7.2	17.7	-3.4	21.1	46.7
Total	887.8	15.5	1.7	13.4	2.7	5.5	155.8
Crimean Federal Okrug							
Sevastopol	24.5	-2.9	-11.6	0.0	0.0	0.0	0.0
Republic of Crimea	112.1	4.3	3.8	0.0	0.0	0.0	0.0
Total	136.6	1.4	1.0	0.0	0.0	0.0	0.0
Total Russian Federation	10.781.5	178.7	1.7	23.6	2.4	12.7	147.2

Source: Gaidar Institute's own calculations based on the data released by Russia's Federal Treasury.

Domestic bonded loans

In 2015, 18 subjects of the Russian Federation and 3 municipalities registered bond prospectus (compared with 31 regional and 5 municipal bond prospectuses issued in 2014). The fol-

lowing regions registered bond prospectuses with Russia's Ministry of Finance in 2015: Volgograd Region, Krasnoyarsk Territory, Nizhniy Novgorod Region, St. Petersburg, Tomsk Region, Republic of Sakha (Yakutiya), Yaroslavl Region, Udmurt Republic, Samara Region, Republic of Bashkortostan, Belgorod Region, Tula, Orenburg, Irkutsk Region, Republic of Mordovia, Republic of Komi, Republic of Khakasia, Krasnodar Territory, Novosibirsk, Tomsk, Volgograd.

In 2015, the volume of placed bonds stood at Rb 98.5bn, a decline of 18% in nominal terms from the volume seen in 2014. Hence subfederal and municipal bonds decreased in volume from 0.16% to 0.12% of GDP during the year (see *Table 20*).

Table 20
Volume issued subfederal and municipal securities, % of GDP

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Issuance	0.26	0.43	0.41	0.25	0.10	0.19	0.23	0.16	0.12
Redemption	0.18	0.26	0.16	0.18	0.21	0.13	0.12	0.17	0.13
Net financing	0.08	0.17	0.24	0.07	-0.11	0.06	0.12	-0.01	-0.01

Source: Gaidar Institute's own calculations based on the data released by Russia's Ministry of Finance.

The top-ranked security issuers were Krasnoyarsk Territory (Rb 16.8bn, or 17.0% of the total volume of internal loans), Samara Region (Rb 7.0bn, or 7.1%), Nizhniy Novgorod Region (Rb 12.0bn, or 12.2%), Republic of Komi (Rb 9.9bn, or 10.0%).

Hence, the top-4 issuers accounted for 46.3% of the total volume of placed regional and municipal bonds (see *Table 21*).

Table 21
Placement of subfederal and municipal securities in 2015

	Issuing volume, rubles in billions	Issuer's percentage of total issuing volume, %	Issuing volume to internal loans, %
Central Federal Okrug			
Belgorod Region	5.25	5.3	41.5
Tula Region	5.00	5.1	43.9
Yaroslavl Region	1.89	1.9	5.0
North-West Federal Okrug			
Republic of Komi	9.87	10.0	15.1
South Federal Okrug			
Krasnodar Territory	4.80	4.9	11.5
Volgograd Region	6.30	6.4	17.5
Privolzhskiy Federal Okrug			
Republic of Bashkortostan	1.50	1.5	30.5
Republic of Mordovia	3.00	3.0	6.1
Udmurt Republic	3.00	3.0	8.6
Nizhniy Novgorod Region	12.00	12.2	5.7
Samara Region	7.00	7.1	16.0
Orenburg Region	5.00	5.1	26.3
Siberia Federal Okrug			
Krasnoyarsk Territory	16.75	17.0	37.7
Novosibirsk Region	2.00	2.0	1.4
Omsk Region	4.07	4.1	3.1
Tomsk Region	2.16	2.2	3.4
Republic of Khakasia	2.84	2.9	12.8
Far East Federal Okrug			
Republic of Sakha (Yakutiya)	5.50	5.6	53.2
Magadan Region	0.52	0.5	3.9
Russian Federation Total	98.46	100.0	3.9

Source: Gaidar Institute's own calculations based on the data released by Russia's Federal Treasury.

The highest level of securitization (43.9%) was seen in Tula Region.

The volume of redeemed securities exceeded the volume of placed securities by Rb 5.8bn versus Rb 9.2bn in 2014 (see *Table 22*).

Table 22

**Volume of net borrowing in domestic market
of subfederal and municipal securities,
thou. rubles**

	Regions' consolidated budgets	Regions' budgets	Municipalities' budgets
2015			
Net borrowing	-5.817.814.4	-7.108.555.7	1.290.741.3
Fundraising	98.458.019.0	94.251.869.0	4.206.150.0
Repayment of principal	104.275.833.3	101.360.424.7	2.915.408.6
2014			
Net borrowing	-9.235.928.1	-7.410.458.9	-1.825.469.2
Fundraising	111.494.394.7	110.094.379.7	1.400.015.9
Repayment of principal	120.730.322.8	117.504.838.6	3.225.484.2
2013			
Net borrowing	77.610.485.8	75.454.011.5	2.156.474.3
Fundraising	154.642.004.9	149.641.823.0	5.000.181.9
Repayment of principal	77.031.519.1	74.187.811.5	2.843.707.6
2012			
Net borrowing	38.175.959.8	36.797.479.3	1.378.480.5
Fundraising	119.855.045.4	115.953.169.3	3.901.876.1
Repayment of principal	81.679.085.5	79.155.690.0	2.523.395.5
2011			
Net borrowing	-58.202.600.7	-57.113.066.4	-1.089.534.3
Fundraising	55.050.750.6	53.366.195.4	1.684.555.1
Repayment of principal	113.253.351.3	110.479.261.9	2.774.089.4
2010			
Net borrowing	29.774.599.3	28.611.970.0	1.162.629.3
Fundraising	111.106.318.3	105.854.346.2	5.251.972.1
Repayment of principal	81.331.719.0	77.242.376.2	-4.089.342.8
2009			
Net borrowing	95.457.576.8	97.916.509.1	-2.458.932.3
Fundraising	158.114.034.3	153.992.570.1	4.121.464.2
Repayment of principal	62.656.457.5	56.076.061.0	6.580.396.5
2008			
Net borrowing	68.851.271.9	72.984.947.8	-4.133.675.9
Fundraising	178.565.731.4	177.324.359.3	1.241.372.1
Repayment of principal	109.714.459.5	104.339.411.5	5.375.048.0
2007			
Net borrowing	25.867.011	23.691.970	2.175.041
Fundraising	84.159.197	79.889.761	4.269.436
Repayment of principal	58.292.185	56.197.791	2.094.394

Source: Gaidar Institute's own calculations based on the data released by Russia's Federal Treasury.

Most of the regions that raise money by issuing bonds on a regular basis continued to issue bonds in 2015. Volgograd Region has been issuing bonds every year since 1999, Krasnoyarsk Territory since 2003, Nizhniy Novgorod Region since 2004 (see *Table 23*).

Registration of prospectuses of subfederal and municipal securities in 1999–2015

Issuer	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Subjects of the Russian Federation																	
Volgograd Region	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Krasnoyarsk Territory					*	*	*	*	*	*	*	*	*	*	*	*	*
Nizhniy Novgorod Region						*	*	*	*	*	*	*	*	*	*	*	*
St. Petersburg	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*
Tomsk Region		*	*	*	*	*	*	*	*	*		*	*	*	*	*	*
Republic of Sakha (Yakutiya)				*	*	*	*	*	*	*		*	*	*	*	*	*
Yaroslavl Region					*	*	*	*	*	*		*	*	*	*	*	*
Udmurt Republic							*		*	*		*	*	*	*	*	*
Samara Region					*		*	*	*	*	*		*	*	*	*	*
Republic of Bashkortostan			*	*		*	*	*	*				*	*	*	*	*
Belgorod Region				*	*		*	*		*				*	*	*	*
Tula Region								*						*	*	*	*
Orenburg Region														*	*	*	*
Republic of Mordovia				*											*	*	*
Republic of Khakasia													*	*	*	*	*
Republic of Komi		*	*	*	*	*	*	*		*		*	*	*	*	*	*
Republic of Karelia						*	*	*	*	*	*	*	*	*	*	*	*
Tver Region				*	*		*	*	*	*	*	*	*	*	*	*	*
Stavropol Territory			*							*			*	*	*	*	*
Lipetsk Region						*	*	*	*	*				*	*	*	*
Voronezh Region						*	*	*	*					*	*	*	*
Novosibirsk Region	*				*	*	*	*	*						*	*	*
Smolensk Region															*	*	*
Omsk Region															*	*	*
Sverdlovsk Region												*	*	*		*	*
Chuvash Republic — Chuvashia	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*
Republic of Mariy-El														*	*	*	*
Hanty-Mansiysky Autonomous Area				*	*						*				*	*	*
Leningrad Region			*	*	*	*									*	*	*
Magadan Region															*	*	*
Kostroma Region				*	*		*		*				*		*	*	*
Moscow	*	*	*	*	*	*	*	*	*	*	*	*			*	*	*
Kemerovo Region															*	*	*
Kaluga Region						*		*	*	*			*	*			
Vologda Region													*	*			
Ryazan Region														*			
Krasnodar Territory					*	*		*	*			*	*	*			*
Irkutsk Region			*	*	*	*	*	*	*	*	*			*			*
Ivanovo Region									*				*				
Republic of Buryatia													*				
Murmansk Region				*	*							*					
Penza Region								*	*	*							
Ulyanovsk Region								*	*	*							
Kurgan Region								*	*	*							
Moscow Region				*	*	*	*	*	*	*							
Republic of Kalmykia									*								
Khabarovsk Territory				*	*	*	*										
Kabardino-Balkar Republic		*					*										

Cont'd

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Yamal-Nenets Autonomous Area					*	*											
Bryansk Region						*											
Sakhalin Region				*													
Kursk Region				*													
Primorsky Territory		*															
Municipalities																	
Novosibirsk					*	*	*	*				*	*	*	*	*	*
Volgograd	*	*	*	*	*		*	*		*	*	*	*	*	*	*	*
Tomsk					*	*		*	*	*		*		*		*	*
Omsk																	*
Volzhskiy, Volgograd Region																*	
Kazan							*	*	*		*	*	*				
Krasnodar												*	*				
Krasnoyarsk					*	*	*		*	*	*	*	*	*			
Ufa				*	*	*						*					
Elektrostal, Moscow Region									*		*						
Smolensk											*						
Lipetsk								*	*	*							
Magadan								*	*	*							
Bratsk										*							
Novorossiysk										*							
Yekaterinburg		*	*	*	*	*	*	*	*								
Klin District, Moscow Region							*	*	*								
Noginsk District, Moscow Region						*		*	*								
Blagoveshchensk								*	*								
Cheboksary	*						*		*								
Balashikha, Moscow Region									*								
Odintsovo District, Moscow Region							*	*									
Astrakhan								*									
Bryansk								*									
Voronezh								*									
Orekhovo-Zuevo, Moscow Region								*									
Yaroslavl								*									
Yuzhno-Sakhalinsk					*	*	*										
Novocheboksarsk	*		*			*	*										
Angarsk							*										
Vurnask Region, Chuvash Republic							*										
Sumerlya, Chuvash Republic							*										
Barnaul						*											
Perm						*											
Nizhniy Novgorod				*													
Kostroma	*	*															
Arkhangelsk	*																
Dzerzhinskiy	*																

Source: Russia's Ministry of Finance.

