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TRENDS AND OUTLOOKS**

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**RUSSIAN ECONOMY IN 2017. TRENDS AND OUTLOOKS** / [Alexander Abramov etc.; Doctor of sciences (economics) Sergey Sinelnikov-Murylev (editor-in-chief), Doctor of sciences (economics) Alexander Radygin]; Gaidar Institute for Economic Policy. – Moscow: Gaidar Institute Publishers, 2018. – 544 p. – ISBN 978-5-93255-530-9.

The review “Russian economy in 2017. Trends and outlooks” has been published by the Gaidar Institute since 1991. This publication provides a detailed analysis of main trends in Russian economy, global trends in social and economic development. The paper contains 6 big sections that highlight different aspects of Russia's economic development, which allow to monitor all angles of ongoing events over a prolonged period: the socio-political issues and challenges; the monetary and budget spheres; financial markets and institutions; the real sector; social services; institutional changes. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts confirming the conclusions.

Reviewers:

Lev Yakobson, Doctor of sciences (economics), professor, first pro-rector, NRU-HSE;

Alexey Vedev, Doctor of sciences (economics), Head of Structural Research Laboratory, RANEPА.

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## Financial markets and financial institutions

### 3.1. The stock market recovery<sup>1</sup>

In 2017, the Russian stock market once again reaffirmed its reputation of being one of the most volatile in the world. In contrast to the situation in 2016, when Russia's stock market, in terms of its rates of return, set a world record among the other 36 stock markets included in the analysis, in 2017 it joined the group of outsiders. Over that year, the RTS Index gained only 0.1 percent vs. 52.3 percent in 2016, and the MICEX Index (MOEX Russia Index)<sup>2</sup> at year-end demonstrated a negative rate of return of 5.5 percent, while over the previous year it had gained 26.8 percent (*Fig. 1*). The different movement patterns of the two Russian indexes with the same issuer portfolio can be explained by the higher rate of return of the RTS Index (which is denominated in foreign currencies) relative to the (ruble-denominated) MOEX Russia Index that it displays in response to the weakening USD-to-RUB exchange rate.

After the global financial crisis of 2008, Russia's stock market segment taken up by domestic issuers has never fully recovered, which is manifest in the negative accumulated rate of return of the RTS Index as the foreign-currency equivalent of the value of long-term domestic saving. The compound annual growth rate of the RTS Index over the 11 years encompassing the period from the pre-crisis year 2007 through 2017 amounted to -6.6 percent per annum (*Fig. 2*). Out of the stock market indexes of 36 countries, lower return rates (relative to the RTS Index) were demonstrated only by the indexes of Greece and Cyprus, the two countries that in the early 2010s were in the epicenter of the eurozone financial crisis. Over the same period, the MICEX Index was demonstrating a positive mean rate of return of 1.1 percent per annum, largely thanks to the ruble's weakening over a long-term horizon.

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<sup>1</sup> Sections 3.1–3.8 are authored by Alexander Abramov, IAES-RANEPA.

<sup>2</sup> From November 27, 2017, the Moscow Exchange's MICEX Index was renamed the MOEX Russia Index.

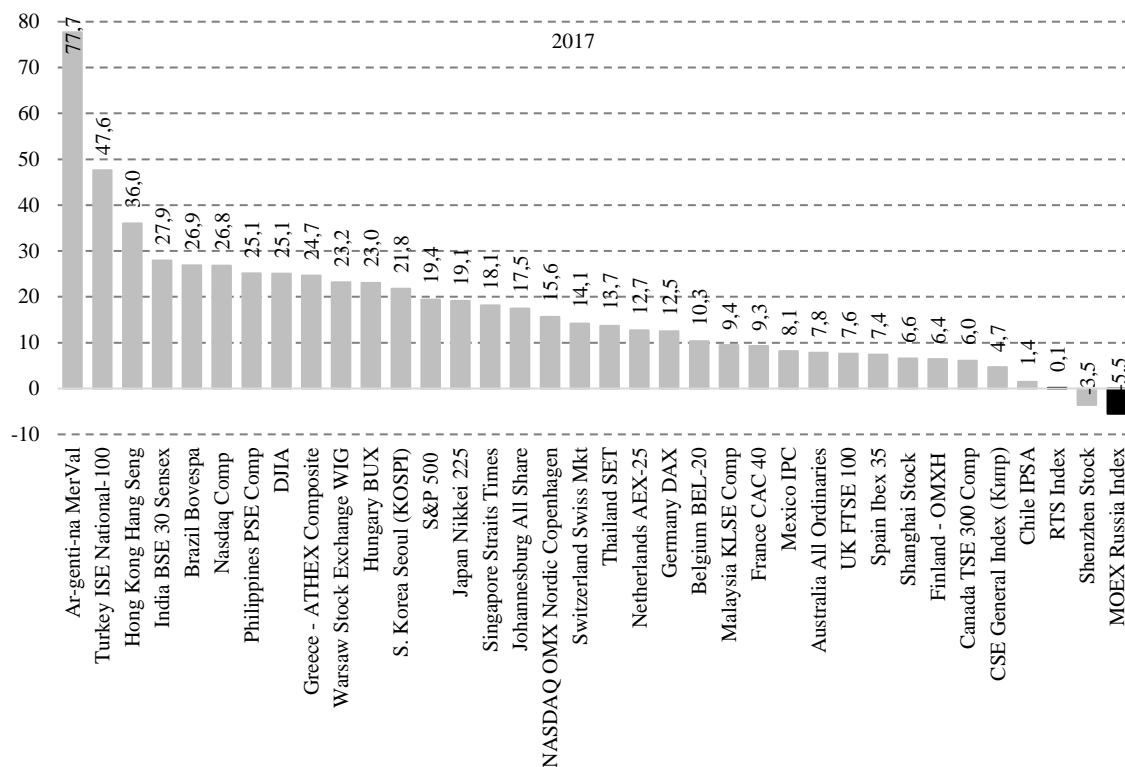


Fig. 1. The rates of return of the 36 major stock indices on the world's biggest exchanges in 2017, percent per annum

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

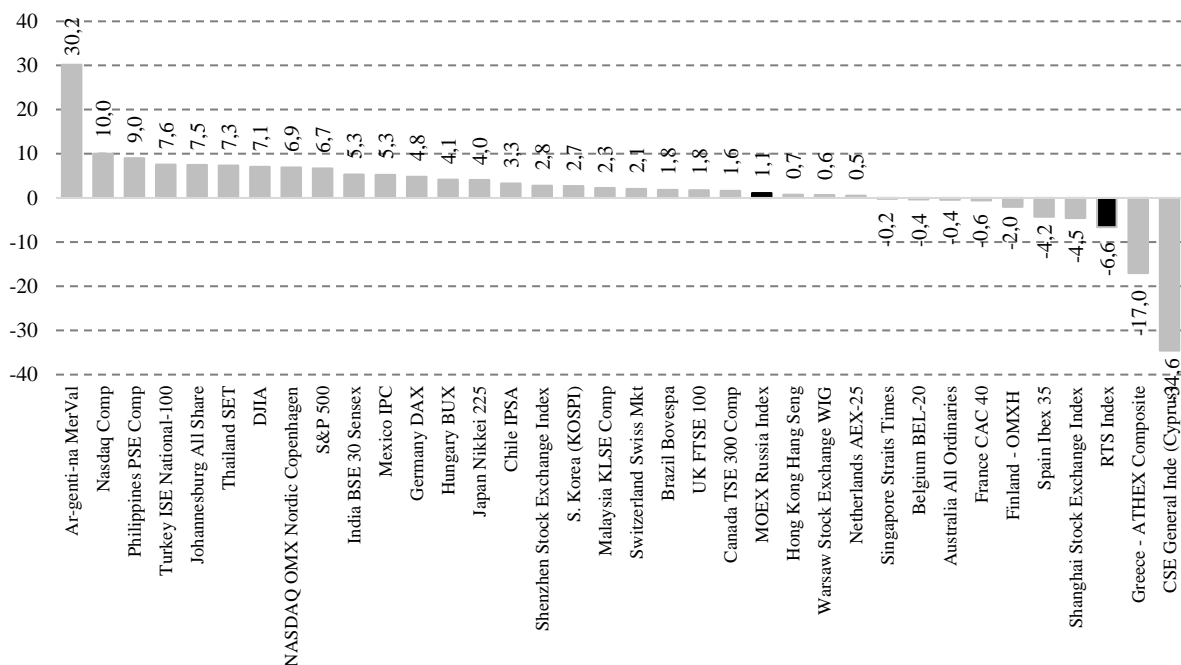


Fig. 2. The compound annual growth rates (CAGR) of 36 stock market indexes on the world's major stock exchanges in 2007–2017, in per annum terms

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

The low recovery rates of Russia's stock indexes after the 2008 crisis can be explained by the structural problems in the Russian economy, and by its dependence on the global prices of mineral resources. This specificity becomes distinctly visible if we compare two recovery scenarios – the domestic stock market recovery after the crisis of 1997–1998, which was cyclical in nature, and that after the 2008 crisis, which was structural. Formally, both those crises followed the same scenario: the collapse of stock indexes in response to plunging oil prices, depreciation of the ruble and foreign speculative capital outflow, followed by their recovery alongside rising prices of oil, stabilization of the ruble at a lower level, and the return of foreign portfolio investments. However, after the crisis of the late 1990s the stock market indexes rebounded relatively promptly, while now, 10 years after the 2008 crisis, the RTS Index still has not fully recovered. The essence of the current problem is that, for objective reasons (the shale oil and gas revolution due to the advent of new technologies, the progress in energy saving, etc.), prices of oil have failed to rise to their pre-crisis level, and some experts believe that they will not recover to that level in the foreseeable future.<sup>1</sup> Consequently, the necessary conditions for growth of Russia's stock market and its full recovery have been structural reforms in the Russian economy and qualitative changes in its investment climate.

The two recovery scenarios, mentioned earlier, of Russia's stock indexes are illustrated in *Fig. 3* and *4*. After its downfall in 1998, the ruble-denominated MICEX Index regained its pre-crisis quotes in just 8 months, largely due to the 5-fold depreciation of the ruble (*Fig. 3*). For the RTS Index, it took nearly 5 years (58 months) to recoup all its losses, and it happened thanks to the recovering prices of oil. Russia's stock market had fully recovered only by H2 2003, and this coincided with 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 investment grade ratings triggered an inflow of foreign portfolio investments and foreign loans.

Relative to its June 2008 level, the MICEX Index (MOEX Russia Index) recovered in 7.5 years, or 92 months; the RTS Index, after nearly 10 years, or 115 months, has regained only 50.8 percent of its pre-crisis quote as of March 31, 2018 (*Fig. 4*). The weak growth of both these indexes was influenced by the slow recovery of oil prices. Besides, the delayed recovery, after 2008, of the ruble-denominated MICEX Index in contrast to its behavior in the aftermath of the 1997–1998 crisis can be explained by the more moderate decline of the ruble over the recent decade compared with its breathtaking downfall in the late 1990s. Over the period from May 2008 through March 2018, the ruble plunged 2.4 times, compared with its previous 5-fold depreciation.

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<sup>1</sup> In the next few years, oil prices are going to stay at a moderate level, thus demonstrating a 'New Oil Reality', as Rector of the RANEPA Vladimir Mau put it (Mau, V. *To remember the 1980s*. *Vedomosti*, February 16, 2016). The International Energy Agency allows that, given the rising shale oil production factor and growth of the electromobile industry, price of oil may well stay at USD 50-70 per barrel until 2040 (IEA. *World Energy Outlook 2017*, Russian version, p. 9).

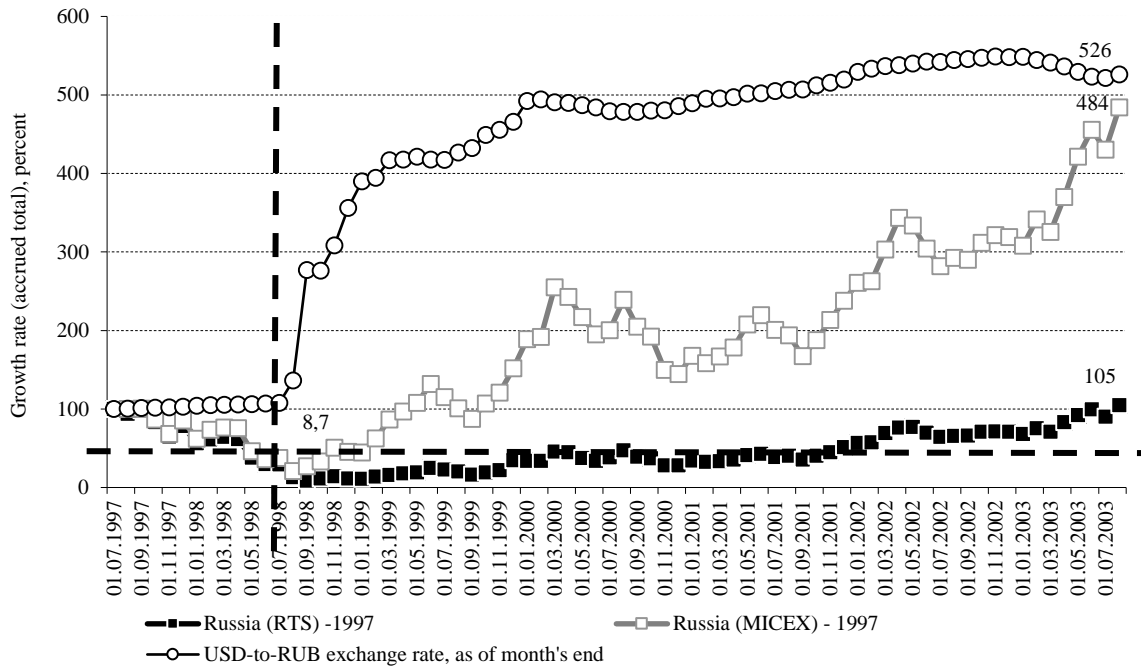


Fig. 3. The movement of the USD-to-RUB exchange rate, the RTS Index, and the MICEX Index in 1997–2003 (July 1997 = 100 percent)

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

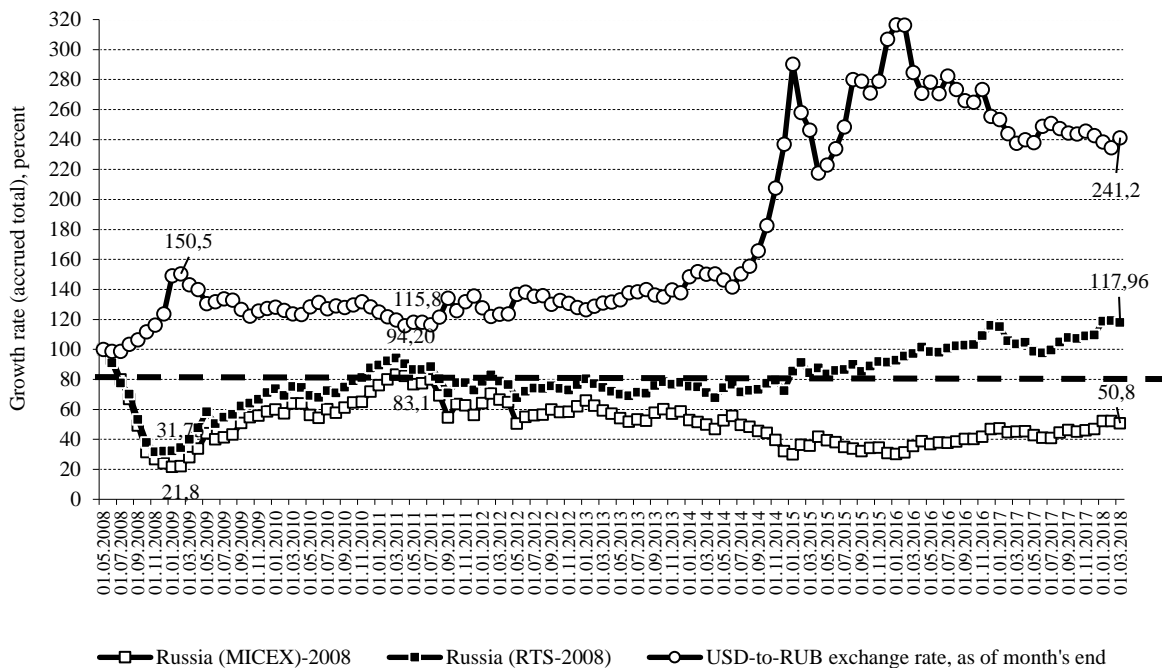
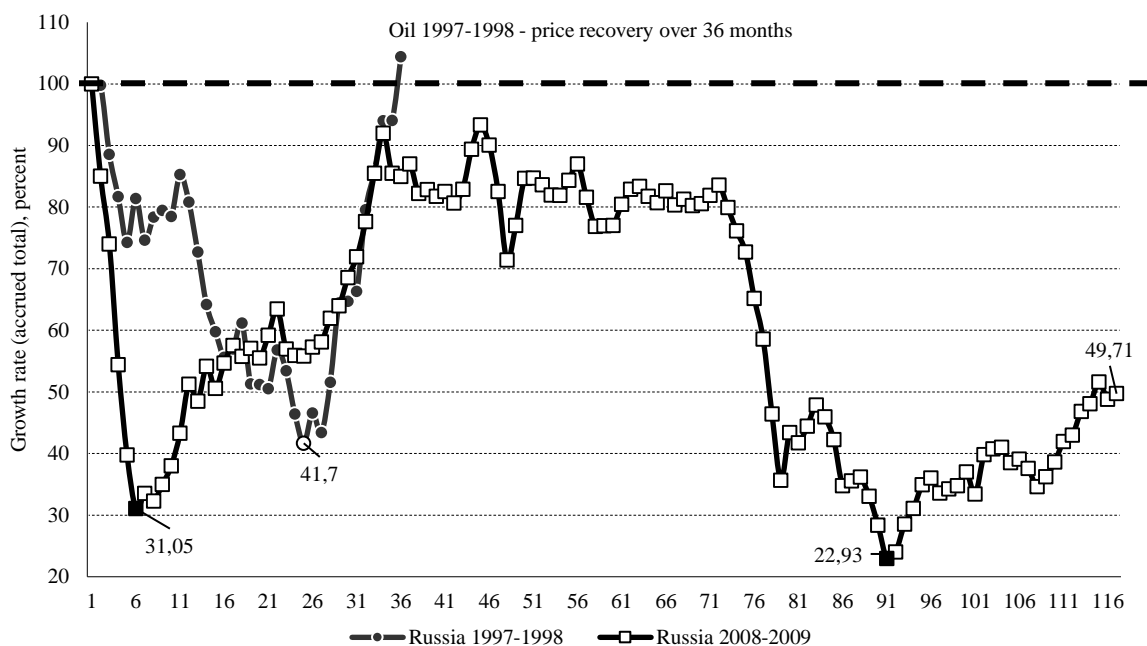


Fig. 4. The movement of the USD-to-RUB exchange rate, the RTS Index, and the MICEX (MOEX Russia) Index from May 2008 through March 2018 (May 2008 = 100 percent)

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

As shown in *Fig. 5*, after the 1997–1998 crisis and the plunge of oil prices to 31.1 percent of their pre-crisis record high of December 1996, the period of their full recovery lasted 3 years, or 36 months. So far, as of March 2018, over the 115-month period (or 9.6 years) since its peak of USD 133.90 per barrel in July 2008, to this day Brent prices have climbed to only 40.7 percent of that level. In absence of any notable structural reform shifts in the Russian economy, it is the stagnating oil prices that account in the main for the slow pace of recovery of the RTS Index.



*Fig. 5.* The growth rate of the price of Brent crude oil during the financial crises in Russia (peak price =100 percent), as of March 2018

*Source:* own calculations based on data released by IFS IMF and the International Energy Agency.

Against the backdrop of the previous short-term financial crises around the world (in the USA in 1987, 2000 and 2007; in Mexico in 1994; in Indonesia, Brazil and Russia – in 1997–1998), which lasted for 5–6 years, the current downturn of the RTS Index, followed by its slow 118-month long (9.8-years) recovery, has already become a record (*Fig. 6*). This crisis, which is being experienced by Russia alongside some other developing countries, has evolved into a medium-length one.

A W-shaped trajectory of an index recovery is typical of the 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 2000 (*Fig. 7*). Those crises lasted for 183 and 177 months respectively; however, both stock indexes are now above their pre-crisis highs. As shown in the graph, the current trajectory of the RTS Index, which after the 118 months elapsed since May 2008 reached the point of 50.8 percent of its pre-crisis record high, largely follows the recovery trajectories of KOSPI and NASDAQ.

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 (DJA) 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 March 2018 had been unable to recover its initial quote for 339 straight months (or slightly more than 28 years), amounting to only 55.1 percent of its average-monthly record high of 1989.

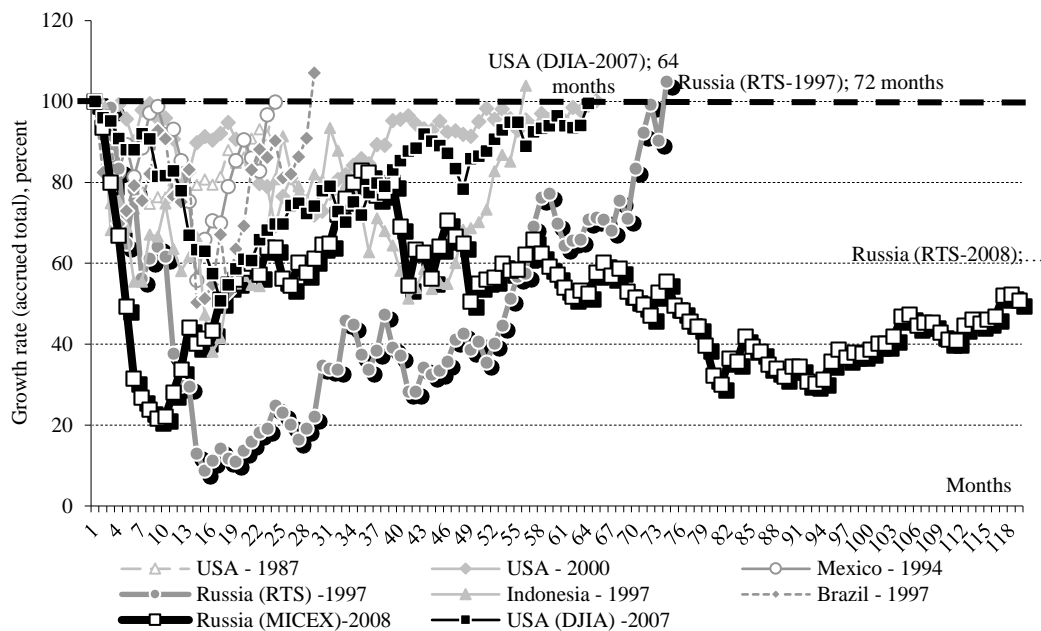


Fig. 6. The depth and length of short-term financial crises around the world, as of February 2017 (peak = 100 percent)

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

As shown in Fig. 7 (the area inside the dotted line), the current value of the RTS Index is now at the fork point, beyond it may follow either the recovery trajectory of KOSPI and NASDAQ after a medium-term crisis, or plunge in accordance with the Japanese scenario, where the stock index recovery lasts for an indefinitely long period. In a medium-term crisis, the market recovers alongside the disappearance of those structural problems that has triggered it in the first place: in South Korea it was financial stability regained by domestic banks, non-financial companies and households; in the USA, it was a new wave of innovations and investment in innovations. A typical situation under a long-term crisis scenario is when the accumulated structural problems, for a variety of reasons, cannot be resolved in the framework of government economic policy. In this sense, there is a risk that the recovery trajectory of the RTS Index may indeed follow the long-term crisis pattern, because the structural problems that have piled up across Russia's economy have so far been dealt with in a slow fashion.



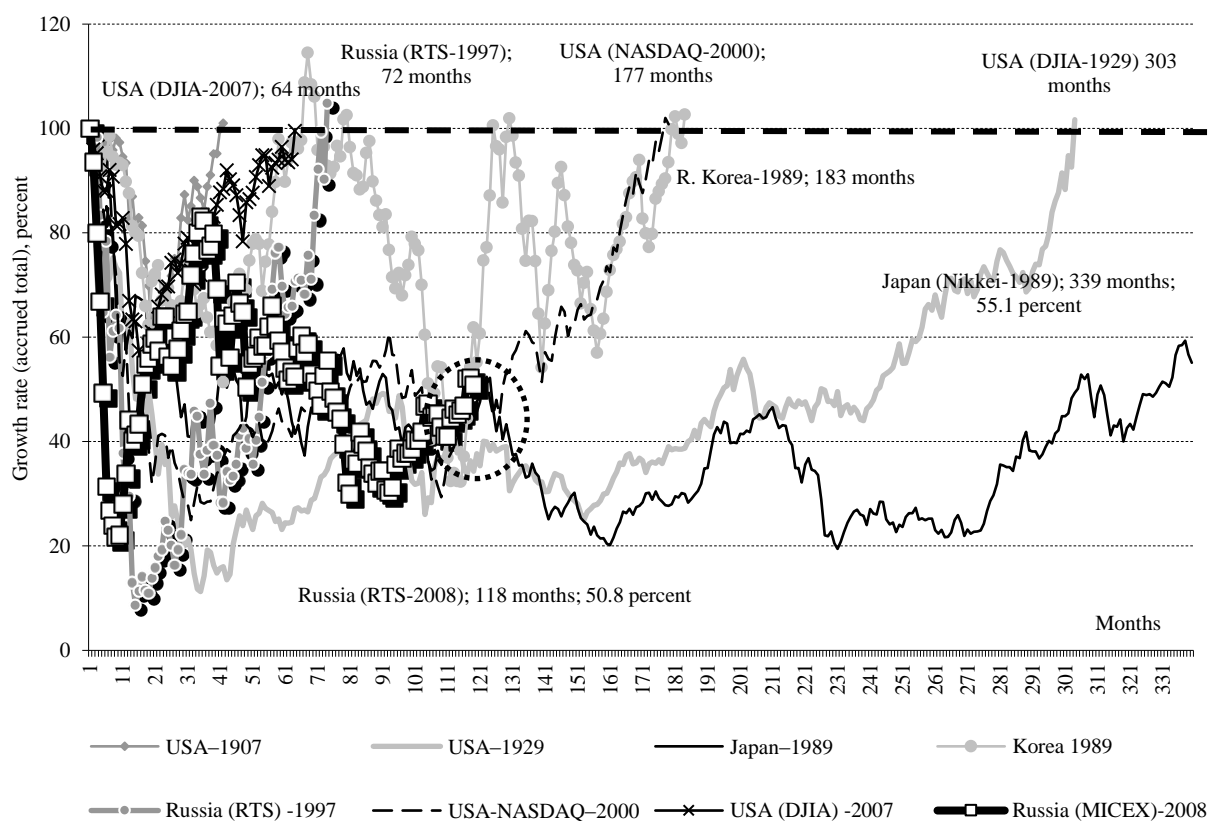


Fig. 7. The depth and length of long-term financial crises around the world, as of February 2017 (peak = 100 percent)

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

Among all the BRICS members, slow stock market recovery has been an issue not only for Russia, but also for China (Fig. 8). The indexes of the Johannesburg Stock Exchange (JTOPI), the Indian Stock Market (BSE Sensex), and the Brazilian stock index Bovespa regained their pre-crisis quotes over 44, 70, and 114 months respectively. In 2016, the list of recovered stock indexes in the BRICS group was joined by the MOEX Russia Index. The Shanghai Composite Stock Exchange Index (China), on the contrary, over the previous 125 months since its November 2007 plunge had gained only 53.2 percent of its pre-crisis peak level. The similar recovery patterns displayed by the RTS Index and the Shanghai Composite Stock Exchange Index can be explained by a variety of factors. The stock prices in both indexes are denominated in relatively stable currencies (USD and Yuan), and so the factor of national currency depreciation cannot be used as a growth level, as in the case of JTOPI, BSE Sensex, Bovespa, and MOEX Russia. At the same time, similarly to the RTS Index, the Shanghai Composite Stock Exchange Index reflects the existing structural problems, in particular the presence of bad debt on the balance sheets of major national financial companies alongside the measures designed to toughen the domestic financial market regulation by the Chinese authorities.

Thus, the slow recovery of the Russian stock market during the post-crisis decade was, for most part, the upshot of multiple problems in the Russian economy coupled with instability of the national currency's exchange rate. However, the stock market is also strongly influenced by its certain internal development factors.

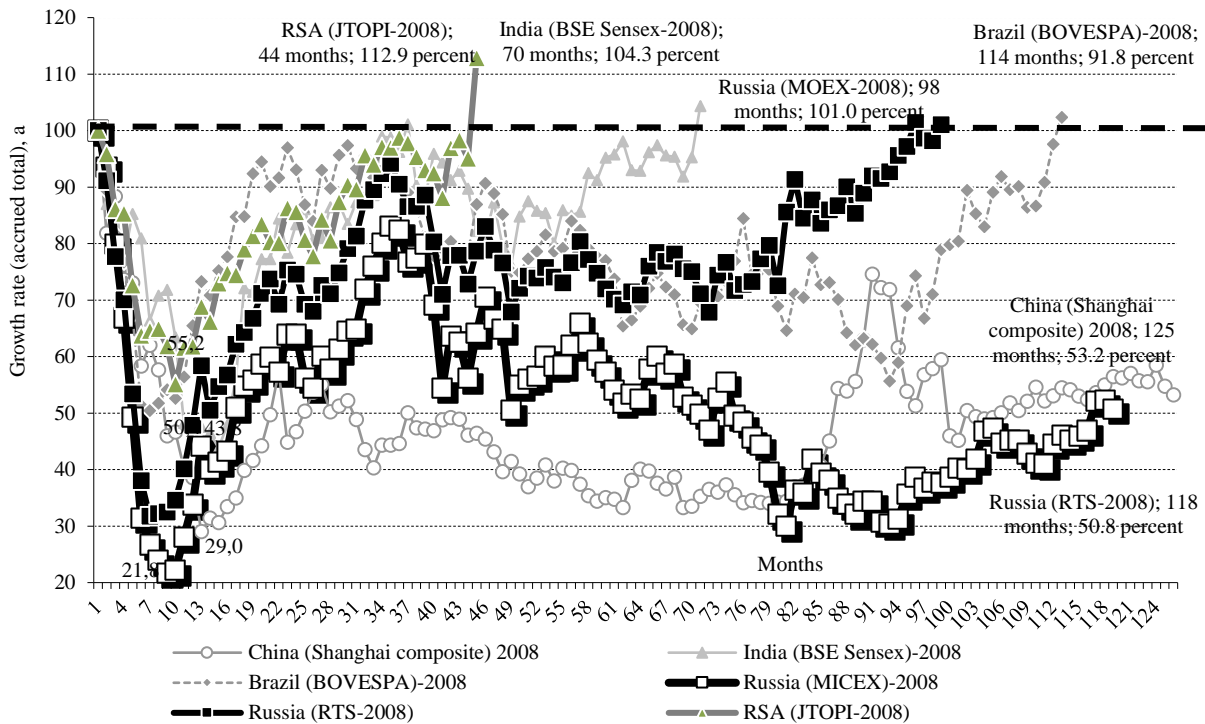


Fig. 8. The depth and length of the current financial crises in the BRICS countries, as of February 2017 (peak = 100 percent)

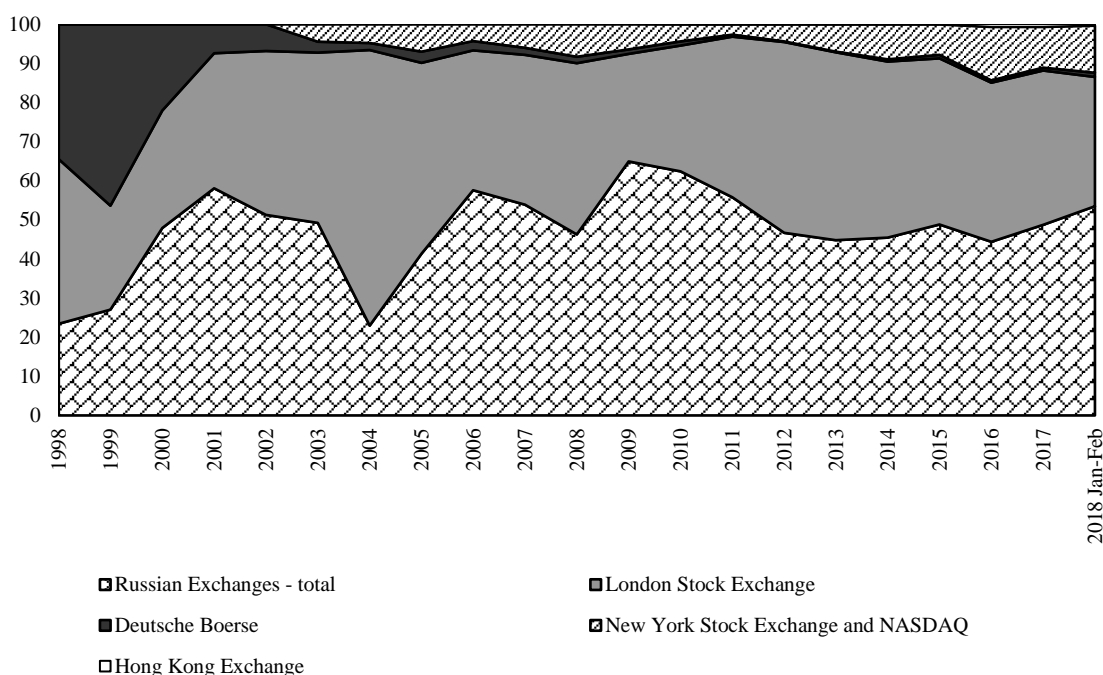
Source: own calculations based on data released by the Moscow Exchange, Factiva, and www.finance.yahoo.com

### 3.2. The stock market

The year 2017 saw some important positive developments in the domestic stock market: the IPO-SPO sector demonstrated a revival relative to the previous year; the market activity of households increased, first of all thanks to the advent of individual investment accounts; the basic broker activity standards were adopted; the volume of exchange market transactions increased, albeit slightly, in absolute terms. At the same time, the downward trend displayed by the number of listed issuers of securities could not be reversed, and the stock market liquidity and capitalization indices could not be significantly improved.

In its competition with the other global exchanges for the listings of shares issued by Russia's biggest market players, the Moscow Exchange has managed to hold its leading position as a major center for transacting, settlement and pricing with regard to these financial instruments. After the merger of the two Russian exchanges in late 2011, the relative share of the Moscow Exchange in the total volume of these transactions increased from 41.2 percent in 2012 to 48.7 percent in 2017 (Fig. 9). Over the same period, the relative share of the main rival of Russia's exchanges – the London Stock Exchange (LSE) – on the contrary, shrank from 48.8 percent to 39.4 percent; that of the other foreign exchanges increased from 10.0 percent to 11.9 percent.

A notable development in the market for Russian issuers of shares in 2017 was the listing, on the main market of the LSE, of the global depository receipts placed by EN+ GROUP PLC (controlled by Russian billionaire Oleg Deripaska and registered in Jersey Channel Islands) to the total value of USD 1.5 billion.



**Note.** Out of all trading modes on the Moscow Exchange, our calculations here include only data on the volume of market transactions.

*Fig. 9.* The relative shares of stock exchanges in the volume of trade in equity financial instruments issued by Russian JSCs over the period from 1998 through February 2018, percent

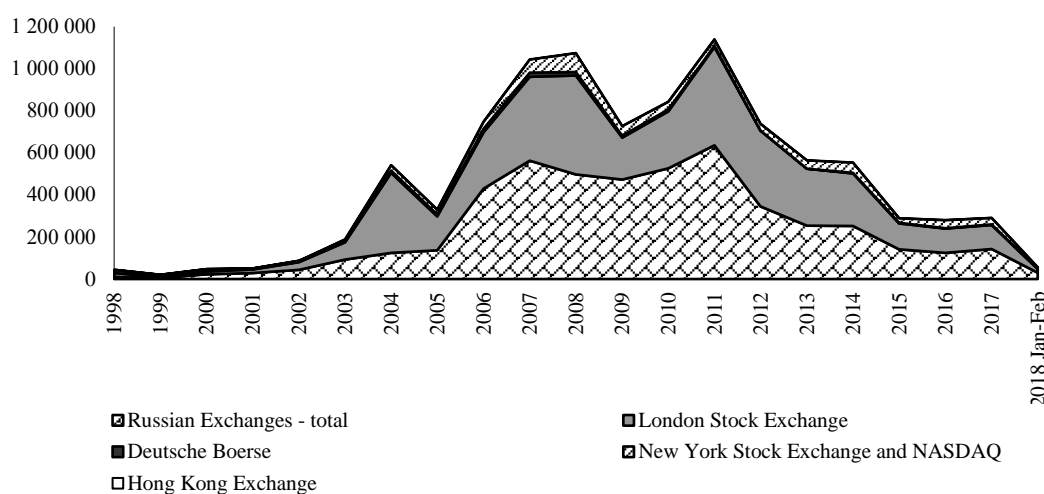
*Source:* own calculations based on data released by stock exchanges.

One serious issue typical of the equity financial instruments issued by Russian companies traded on various stock exchanges around the globe is the dramatic shrinkage, over the past few years, of the volume of market transactions, which has been pushing up the liquidity risk premium demanded by the investors in a given company. As shown in *Fig. 10*, the aggregate volume of market transactions in these equity securities on all exchanges shrank from USD 1.1 trillion in 2011 to USD 0.3 trillion in 2017, including from USD 0.6 trillion to USD 0.1 trillion on the Russian exchanges.

One of the key issues faced by the stock exchange market for equity securities issued by Russian JSCs has been its low liquidity. In 2017, by its volume of equity market transactions, the Moscow Exchange came 28<sup>th</sup> among the 82 world exchanges in the World Federation of Exchanges' database, having moved one place down relative to its 2016 index.

Nevertheless, the low exchange share market liquidity represents a problem not only for the Moscow Exchange, but also for the organized market in the majority of countries around the world. In 2017, the total volume of equity market transactions on all the exchanges amounted to only 92.7 percent of the exchange liquidity index for 2007 (*Table 1*). Such a situation was typical of the global exchange trade centers like the USA, Japan, the UK, Germany, Australia, Hong Kong, and major international exchanges like NASDAQ OMX Nordic Exchange and Euronext. Significant growth of their stock market volumes could be observed only on the two Chinese exchanges, where the aggregate trading volumes increased 2.7 times. Russia's stock exchange market differs only by its more pronounced liquidity shrinkage, as the volume of trade

in equity securities on the Moscow Exchange in 2017 amounted to only 26.4 percent of its 2007 level.



**Note.** Out of all trading modes on the Moscow Exchange, our calculations here include only data on the volume of market transactions.

*Fig. 10.* The volume of trade in equity financial instruments issued by Russian JSCs on various stock exchanges over the period from 1998 through February 2017, millions of USD

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

*Table 1*

**The movement of the value volume of market transactions in shares on major stock exchanges in 2007–2017 (2007 = 100 percent)<sup>1</sup>**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
USA (NYSE and NASDAQ)	100	120.1	72.6	71.0	71.7	54.2	54.3	65.5	69.9	66.2	60.3
China (two exchanges)	100	63.0	128.9	132.8	106.9	81.8	124.9	198.0	674.2	314.4	274.5
Japan	100	87.3	61.2	63.2	66.3	57.5	103.9	86.8	88.3	89.6	92.7
UK	100	89.0	62.9	63.5	65.7	50.8	51.7	64.1	60.2	52.9	53.9
Euronext	100	84.7	42.7	44.5	47.1	34.8	36.7	43.1	45.8	39.0	42.9
Germany	100	95.5	45.1	48.4	52.3	37.9	39.7	43.7	46.3	38.9	44.1
Hong Kong	100	77.3	70.1	74.1	71.5	54.7	65.5	75.3	105.2	66.8	96.9
Canada	100	105.3	75.5	83.0	93.5	82.3	83.2	85.4	71.9	71.3	75.5
Australia	100	77.5	57.9	77.1	86.8	67.9	63.9	58.6	58.0	59.7	60.2
Russia (MOEX – market transactions)	100	89.0	77.3	75.5	95.2	55.8	44.0	46.0	25.8	23.6	26.4
NASDAQ OMX Nordic Exchange	100	84.5	48.8	52.6	58.0	41.1	43.8	50.6	52.9	49.8	56.2
Total, all members of World Federation of Exchanges (WFE)	100	103.1	77.7	83.2	89.0	69.8	77.2	87.5	90.7	95.7	92.7

Source: own calculations on the basis of data released by the World Federation of Exchanges and the Moscow Exchange.

<sup>1</sup> Including transactions in securities issued by foreign companies on the corresponding stock exchanges.

For the reasons mentioned earlier, the explanation for the low liquidity phenomenon observed on the Moscow Exchange should be looked for among the factors that are common for the majority of other stock exchange markets around the world. Meanwhile, there is no commonly recognized reason behind the plunging liquidity indices on the world stock markets. Besides, their plunge, most likely, has been caused by several factors.

In response to the 2008, administrative constraints were imposed on risky transactions in securities, including toughening of regulation with regard to biggest market makers, in particular the introduction of requirement that the capital of banks and some other financial units should be increased when they choose to take additional risks when dealing in financial instruments.<sup>1</sup> One example is the enactment of the Dodd-Frank Act in 2010 in the USA, whereby banks were restricted in their ability to carry out risky operations and required to hold a higher percentage of their assets in cash.<sup>2</sup>

The effects of cyclical factors have made less profitable the traditional 'active management' investment strategies, such as stock-picking, market timing, and sectoral investment. Against this background, passively managed portfolios have become more attractive in the eyes of investors due to their lower costs, and the big collective investment markets (e.g., in the USA) demonstrated a reorientation of investors' money flows from actively managed equity funds to index funds.<sup>3</sup> Consequently, the continuing reduction in the turnover rate of securities held in the portfolios of US mutual funds and other portfolio investors<sup>4</sup> likewise translated into liquidity shrinkage.

And finally, yet another reason may be the growth of mistrust towards exchange markets due to a negative impact of high-frequency trading (HFT), strengthening of segmentation of share markets in the developed countries due to accelerated growth of alternative stock exchange systems,<sup>5</sup> etc.

In Russia, the liquidity shortage issues that were common to all world stock market were further aggravated by the ruble's depreciation, the geopolitical risks that emerged in 2014–2016, and by the deficient market regulation system that prevented domestic institutional investors from developing properly (one example being the pension savings freeze in 2014–2016).

By its market capitalization index in 2017, the Moscow Exchange was 22nd among the 78 world exchanges entered in the WFE database. Its capitalization index amounted to USD 623.4 billion, which represents a plunge by 2.0 percent relative to 2016.<sup>6</sup>

In contrast to stock indexes, the movement pattern of the market capitalization index is shaped not only by changes in stock prices, but also by the number of share issues listed on the

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<sup>1</sup> About the post-crisis regulation effects on the propensity of market participants to take risks and on the liquidity of different financial instruments see. e.g., PricewaterhouseCoopers. Global financial markets liquidity study. August 2015.

<sup>2</sup> For more details, see, e.g., IMF Financial Stability Reports released in October 2012 and October 2015.

<sup>3</sup> For example, according to Morningstar, investors pulled USD 318 billion out of actively managed US equity funds in 2016, and USD 7 billion in 2017. At the same time, net inflows into passively managed US equity funds amounted to USD 487 billion in 2016, and USD 693 billion in 2017. (Morningstar. Tom Lauricella. Tracking U.S. Asset Flows in 11 Charts. 01-20-18).

<sup>4</sup> According to Investment Company Institute (ICI), in 2016, the asset-weighted annual turnover rate experienced by equity fund investors was only 34 percent, well below the average of the period 1984-2016 which had amounted to 57 percent. (Investment Company Fact Book, 2017. ICI, 57<sup>th</sup> Edition, p.38).

<sup>5</sup> Lewes, M. Flash Boys: A Wall Street Revolt / Michael Lewis; Translated from the English. Moscow: Alpina Publishers, 2015, p. 51.

<sup>6</sup> Over the same period, the market capitalization index of Russian public companies increased from RUB 32,740 billion in 2007 to RUB 35,896 billion in 2017, or by 9.6 percent.

national exchanges. As shown in *Table 2*, the market capitalization indices of Russian companies after the 2008 crisis have been recovering at a slow pace. In 2017, the recovery rate in US dollar terms amounted to only 41.5 percent of the 2007 level. Over the same period, the market capitalization indices of practically all major stock exchanges around the world were significantly above their pre-crisis level of 2007.

*Table 2*

**The movement patterns of market capitalization indices, calculated in US dollars, on major stock exchanges in 2007–2017 (2007 = 100 percent)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
USA (NYSE and NASDAQ)	100	58.3	76.7	87.9	79.5	94.9	122.2	133.9	127.5	139.1	163.3
China (Shanghai SE)	100	38.6	73.2	73.5	63.8	68.9	67.6	106.4	123.1	111.1	137.8
Japan (Tokyo Stock Exchange)	100	71.9	76.3	88.4	76.8	80.3	104.9	101.1	113.0	116.9	143.7
UK	100	48.6	89.8	93.9	84.9	88.3	115.1	104.3	100.8	90.9	115.8
Euronext	100	49.8	68.0	69.4	57.9	67.1	84.9	78.6	78.3	82.7	104.0
Germany	100	52.8	61.4	67.9	56.3	70.6	92.0	82.6	81.5	82.3	107.5
Hong Kong	100	50.1	86.8	102.1	85.1	106.7	116.8	121.8	120.0	120.3	163.9
Canada (TMX Group)	100	47.3	76.7	99.3	87.4	94.2	96.7	95.8	72.8	93.4	108.3
Australia (Australian SE)	100	52.7	97.2	112.0	92.3	106.8	105.2	99.3	91.4	101.4	116.2
Russia	100	26.4	57.3	91.7	72.9	71.8	69.3	34.4	26.2	42.3	41.5
NASDAQ OMX Nordic Exchange	100	45.3	65.8	83.9	67.8	80.1	102.1	96.3	102.0	101.4	123.4

*Source:* own calculations on the basis of data released by the World Federation of Exchanges and the Moscow Exchange.

The stock market capitalization level depends not only on macroeconomic factors and the investment climate, but also on the performance of biggest corporations. The bulk of Russia's stock market capitalization has been created by a limited number of companies. In 2015, the top ten public JSCs taken together accounted to 46.1 percent of total market capitalization; as demonstrated by the period-end result of Q1 2018, their relative share jumped to 62.5 percent (*Table 3*). Meanwhile, in recent years, Russia's top four public corporations – Gazprom PJSC, Rosneft PJSC, Sberbank PJSC, and LUKOIL PJSC – have been tensely competing for leadership in terms of their market capitalization indices. In 2015, the indisputable and long-standing leader was Gazprom PJSC with its market capitalization index of RUB 3.2 trillion; second came Rosneft PJSC (RUB 2.7 trillion), followed by Sberbank PJSC and LUKOIL PJSC (RUB 2.2 trillion and RUB 2.0 trillion respectively). By the year-end result of 2017, the highest market capitalization index among Russian companies was demonstrated by Sberbank PJSC (RUB 4.9 trillion), while Gazprom PJSC with its market capitalization index of RUB 3.1 trillion was pushed to second place. As shown by the period-end result of Q1 2018, the highest market capitalization index of RUB 5.8 trillion was demonstrated by the same unrivaled leader – Sberbank PJSC, while Gazprom PJSC (RUB 3.4 trillion) was pushed to third place by the only private company on that list – LUKOIL PJSC with its market capitalization index of RUB 3.4 trillion.

Rosneft PJSC, which had topped the Russian stock market in 2016 with its market capitalization index of RUB 4.2 trillion, according to the period-end result of Q1 2018, came only fourth, its market capitalization index amounting to RUB 3.3 trillion.



Table 3

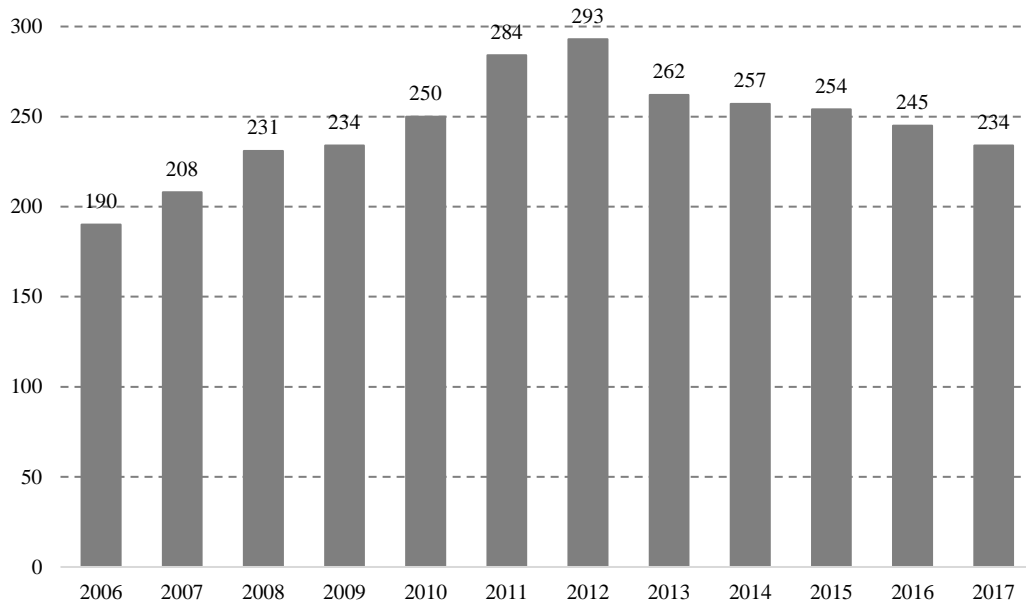
**The market capitalization indices of Russia's top 10 public joint-stock companies  
from 2015 through Q1 2018**

	Issuer	2015			Issuer	2016			Issuer	2017			Issuer	Q1 2018	
		capitalization, billions of rubles	Relative share, percent			capitalization, billions of rubles	Relative share, percent			capitalization, billions of rubles	Relative share, percent			capitalization, billions of rubles	Relative share, percent
1	Gazprom PJSC	3,226	8.5	1	Rosneft PJSC	4,240	11.2	1	Sberbank PJSC	4,859	13.5	1	Sberbank PJSC	5,479	14.2
2	Rosneft OJSC	2,715	7.2	2	Sberbank PJSC	3,710	9.8	2	Gazprom PJSC	3,074	8.6	2	LUKOIL PJSC	3,386	8.8
3	Sberbank PJSC	2,184	5.8	3	Gazprom PJSC	3,635	9.6	3	Rosneft PJSC	3,072	8.6	3	Gazprom PJSC	3,377	8.7
4	LUKOIL PJSC	2,001	5.3	4	LUKOIL PJSC	2,916	7.7	4	LUKOIL PJSC	2,823	7.9	4	Rosneft PJSC	3,343	8.6
5	NOVATEK OJSC	1,808	4.8	5	NOVATEK OJSC	2,379	6.3	5	NOVATEK PJSC	2,048	5.7	5	NOVATEK PJSC	2,255	5.8
6	Norilsk Nickel PJSC	1,452	3.8	6	Norilsk Nickel PJSC	1,589	4.2	6	Norilsk Nickel PJSC	1,701	4.7	6	Norilsk Nickel PJSC	1,704	4.4
7	Surgutneftegas OJSC	1,220	3.2	7	Surgutneftegas OJSC	1,105	2.9	7	Gazprom Neft PJSC	1,162	3.2	7	Gazprom Neft PJSC	1,406	3.6
8	Magnit PJSC	1,052	2.8	8	Magnit PJSC	1,031	2.7	8	Tatneft PJSC	1,035	2.9	8	Tatneft PJSC	1,334	3.5
9	VTB Bank (PJSC)	1,026	2.7	9	Gazprom Neft PJSC	1,024	2.7	9	Surgutneftegas OJSC	991	2.8	9	Surgutneftegas OJSC	1,021	2.6
10	Gazprom Neft PJSC	729	1.9	10	VTB Bank (PJSC)	960	2.5	10	NLMK PJSC	885	2.5	10	NLMK PJSC	865	2.2
	Capitalization, all issuers, MOEX	37,748	100.0		Capitalization, all issuers, MOEX	37,748	100.0		Capitalization, all issuers, MOEX	35,896	100.0		Capitalization, all issuers, MOEX	38,651	100.0
	Capitalization, top 10 issuers	17,412	46.1		Capitalization, top 10 issuers	22,591	59.8		Capitalization, top 10 issuers	21,650	60.3		Capitalization, top 10 issuers	24,170	62.5

Source: own calculations on the basis of data released by the World Federation of Exchanges and the Moscow Exchange.

In 2017, the Moscow Exchange, by its number of listed companies, ranked only 39th among the 78 exchanges included in the World Federation of Exchanges' reports. It still retained the same place in 2016. *Fig. 11* shows the movement pattern of the number of companies listed by the MICEX and the Moscow Exchange (its legal successor) over the period 2006–2017. These indices demonstrate that after the merger of Russia's two largest exchanges (MICEX and RTS), the number of listed companies hit its record high of 293 in 2012. Then, in 2013–2017, it began to steadily decline. In 2017, this index amounted to only 234, or 80.0 percent of its 2012 level. The main reasons for the shrinking number of listed companies were as follows: *OMPK OJSC*, *RAO Energy Systems of the East PJSC*, *Krasnoyarsk GES PJSC*, *Fort OJSC*, and *Pharmstandard PJSC* requested to be delisted; *Otkrytie FC Bank PJSC*, *Transaero Airlines OJSC*, *Razgulay PJSC*, *Platforma Utinet.ru PJSC*, and *Idzhat PJSC* were delisted for reasons of bankruptcy and reorganization in the framework of bankruptcy procedures; for *LIVE OFFICE OJSC*, *Selestra OJSC*, etc. delisting was recommended by the exchange; another reason was the reorganization of public companies into private entities as a result of their purchase by strategic investors, which was not followed by the entry of new companies on the exchange market for investment resources.

The problem of the shrinking number of companies listed on the Moscow Exchange has to do not only with the continual delisting, but, more importantly, the low number of new companies desiring to launch a public offering. In 2017, the Moscow Exchange, by its number of newly listed companies, ranked only 39th among the 62 exchanges submitting to the World Federation of Exchanges their new listing statistics. The number of new companies listed on the Moscow Exchange increased from 4 in 2016 to 5 in 2017. Meanwhile, according to the WFE statistics, the number of newly listed companies per stock exchange was 37 in 2016 and 48 in 2017.



**Note.** Data for the period 2006–2011 are taken from MICEX's reports; data for 2012–2016 – from the Moscow Exchange's listing reports.

*Fig. 11.* The number of companies listed on the Moscow Exchange in 2006–2017

*Source:* own calculations based on data for 2006–2008 released by NAUFOR (Russian National Association of Securities Market Participants) in *Russian Stock Market: 2015 Events and Facts*; and data for 2009–2017 released by the World Federation of Exchanges.

In 2017, according to data released by the National Settlement Depository (NSD), it opened issuer accounts for 636 joint-stock companies, and that number is much lower than the number of currently listed issuers. This fact point to the existence of an untapped potential for listing more new companies on the exchange.

The downward trend in the number of listed national issuers of shares 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 the new Article 7.1,<sup>1</sup> 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.

From July 2017, the Moscow Exchange, with the support of the Corporation for the Support of Small and Medium-sized Entrepreneurship (SME Corporation), the Industrial Development

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



Fund (IDF), the Russian Direct Investment Fund (RDIF), the Russian Export Center (REC), the RF Ministry of Economic Development, the RF Ministry of Industry and Trade, and the Bank of Russia, launched its Growth Sector in order to attract small and medium-sized businesses and help them raise capital via the exchange. This will probably translate into an increasing number of listed new companies and involving them in the public investment market.

Shares on the Moscow Exchange are traded in its three main segments: the stock market; the futures market; and the money market (repo transactions). The universality of the Moscow Exchange is its major competitive advantage over many other foreign exchanges. In an ideal model, the stock market should attract capital in the form of medium- and long-term investments, the futures market should help in hedging against the risks associated with such investments, and the money market should maintain an appropriate liquidity level for the participants in trading. The merger of the RTS and MICEX in late 2011 and the creation, in 2017–2018, of a single account and trading pool servicing the participants in trading on several markets, created even better advantages for the clients. As a result, a participant in trading can use a single account to handle transactions with different instruments in different segments of the financial market.

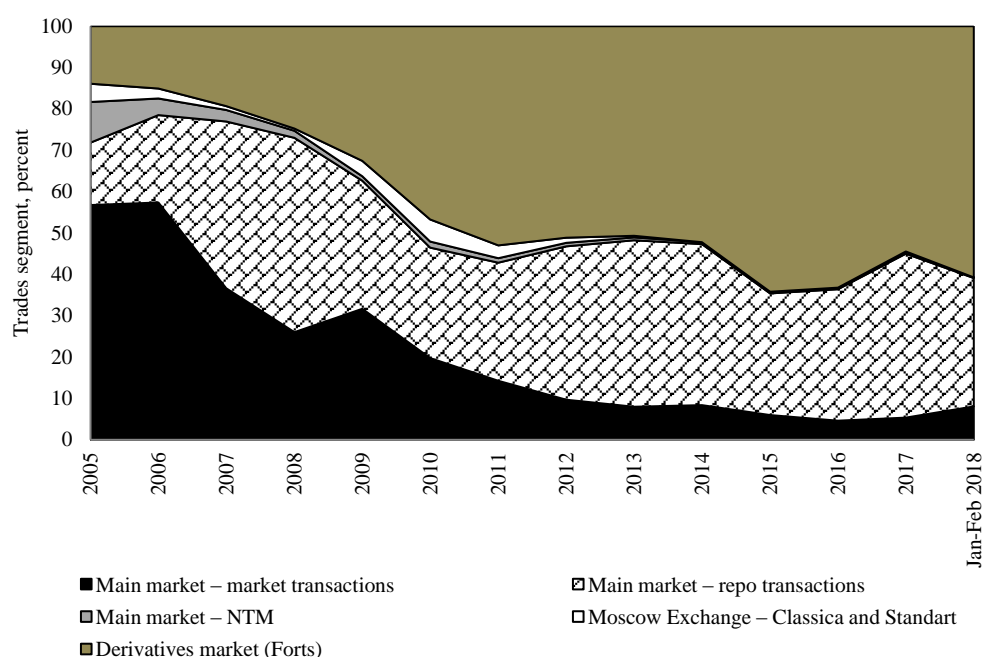
However, the situation with the development of different market segments for trading in shares is still far from being perfect. Contrary to expectations, the consolidation, in 2011, of the two Russian exchanges failed to trigger an accelerated growth of the futures market segment (FORTS) of the RTS due to the inflow of new liquidity from the MICEX. Other financial market infrastructure segments and the broadening range of its participants. The stock market, instead of expanding, lost some of its potential to the money market in the form of repo transactions. At present, the exchange market is dominated by short-term speculative deals, including repo.<sup>1</sup>

Shortly after the merger of the two exchanges, the futures market's share in the total volume of equity financial market transactions increased from 46.7 percent in 2010 to 64.2 percent in 2015 (*Fig. 12, Table 4*). However, in 2017, in response to the accelerated growth of the money market (repo), the relative share of the futures market shrank to 54.4 percent. A more dramatic plunge was demonstrated by the relative share of the market (auction) spot trades – from 19.8 percent in 2010 to 5.3 percent in 2017. The relative share of repo transactions, on the contrary, increased from 26.7 percent in 2010 to 39.7 percent in 2017.

In order to create a well-developed domestic equity market on the basis of exchanges, it will be necessary to provide it with more sustainable sources for financing its growth, by reducing the role of short-term resources redistributable between market participants through repo transactions, and promoting instead an accelerated growth of spot trades and stocks futures oriented to the medium- and long-term strategies of different groups of investors (domestic institutional and private investors, foreign investment and pension funds). In view of the shrinking relative share of repo transactions in the stock exchange market from 39.7 percent to 31.0 percent in Q1 2018 as a result of the lower-key activity on the money market of several banks whose licenses were suspended or revoked by the Bank of Russia, as well as the new opportunities for market participants to finance their operations by settling through the clearing center, it can be hoped that the stock exchange market will be evolving towards a better-performing model.

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<sup>1</sup> Repo is used as a money-making instrument that increases opportunities for brokers and their clients to borrow money against the collateral of shares.



*Fig. 12.* The structure of markets for shares and derivatives on the Moscow Exchange from January 2005 through February 2018

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

*Table 4*

**The structure of financial markets for shares on the Moscow Exchange from January 2005 through February 2018**

	2005	2010	2015	2016	2017	Jan-Feb 2018
Market transactions (auction market)	56.7	19.8	6.0	4.6	5.3	8.1
Repo transactions	15.1	26.7	29.4	31.8	39.7	31.0
NTM	9.8	1.5	0.4	0.4	0.5	0.1
Moscow Exchange – Classica <sup>1</sup> and Standart	4.4	5.4	0.0			
Derivatives market (formerly Forts)	13.9	46.7	64.2	63.2	54.4	60.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

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

*Fig. 13* and *14* show the structure of the equity market on the Moscow Exchange broken up into market transactions (anonymous auctions), negotiated trades (NTM) and repo transactions. A typical feature of that market has been the accelerated growth rate of the money market segment in the form of equities repos, which has been visible since mid-2006, with a short pause during the 2008 crisis. The relative share of this type of transactions in the total volume of trading in on the Moscow Exchange increased from 18.5 percent in 2005 to 85.9 percent in 2017 (*Fig. 13*). The essence of this phenomenon is that in conditions of low long-term return rates of investment in shares in the domestic market<sup>2</sup> and low investment demand for shares displayed by domestic investors, repo market participants, by resorting to leverage, could increase the return of their shares. At the same time, the programs launched by the Russian monetary authorities after the global financial crisis of 2008 and the Eurozone crisis of 2011–

<sup>1</sup> Trading in the Classica sector was officially terminated by the exchange from August 3, 2015.

<sup>2</sup>As was demonstrated in *Fig. 2*, over the 11-year period from 2007 through 2017 the return rate of the MICEX Index was 1.1 percent per annum, and that of the RTS Index was negative -6.6 percent per annum.

2012 with the purpose of ensuring the sustainability of banks and system-forming non-financial organizations produced a situation where some financial market participants acquired significant spare funds that they were ready to invest in the money market.

The accelerated growth in the equities repo market alongside liquidity stagnation in the market transactions and NTM segments resulted in a dramatic contraction of the share of market transactions in the total turnover on the main equity market on the Moscow Exchange. It fell from 69.5 percent in 2005 to 13.2 percent in 2017 (Fig. 13). The relative share taken up by the NTM segment likewise shrank from 12.3 percent in 2005 to 0.9 percent in 2017.

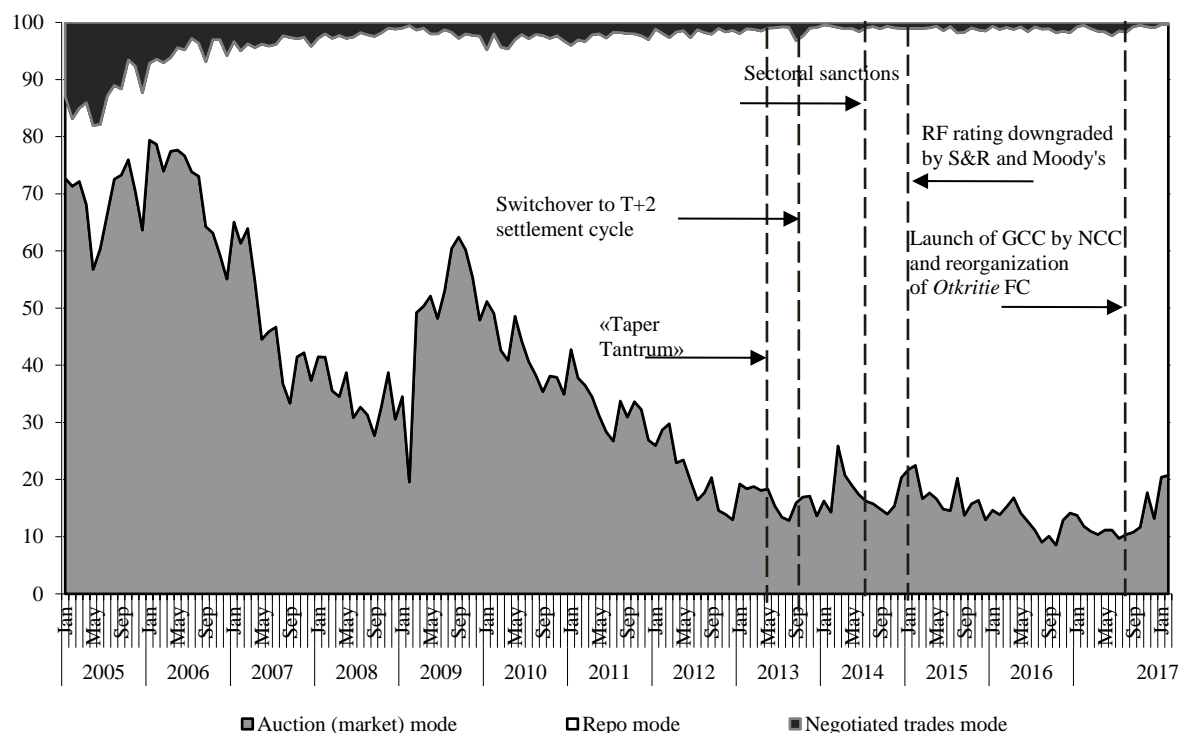


Fig. 13. The structure of trades in shares on the Moscow Exchange's Main Market from January 2005 through February 2018, percent

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

In Fig. 14, it can be seen that changes in the main equity market structure on the Moscow Exchange were produced, for most part, by the accelerated growth in the equities repo market alongside liquidity stagnation in the market (auction) transactions and NTM segments. Over the period from 2005 through 2017, i.e., in 13 years, the value volume of transactions in the auctionном market jumped from RUB 2.8 trillion to RUB 8.3 trillion, or 3 times; the volume of transactions in NTM – from RUB 0.5 trillion to RUB 0.8 trillion, or by only 60.0 percent; and the equity repo market turnover increased from RUB 0.7 trillion to RUB 61.5 trillion, or 87.9 times.

After the merger of the two exchanges in 2011, a number of events took place that triggered an accelerated growth of equity capital market in comparison with the spot market shares. The sudden foreign capital outflow in May 2013 in response to rumors that the US Federal Reserve was planning to raise its key rate (known as Taper Tantrum); the introduction of sectoral sanctions from July 2014; and Russia's sovereign credit rating downgraded below the investment grade by two out of the three global rating agencies (S&P and Moody's) in January-

February 2015, which had a very negative effect on the attractiveness of Russian market for shares in the eyes of investors, at the same time conduced to Russia's monetary policy easing and an inflow of liquidity into the domestic repo market in the form of a variety of financial instruments<sup>8</sup>, including shares (Fig. 14).

Meanwhile, another important event - the completion of the MICEX Equity & Bond Market's switchover to a T+2 settlements cycle in September 2013, which had been expected to trigger an inflow of new money from foreign investors into the stock market, - in fact, failed to produce any notable effects on liquidity in the market transactions and NTM segments. However, this could be prevented by some objective factors that restricted the entry of foreign investors into the domestic market, such as the introduction of sectoral sanctions in July 2014 and Russia's downgraded sovereign credit rating by international rating agencies. These developments have confirmed the hypothesis, put forth by the Bank of Russia, that the behavior of non-residents on Russia's stock exchange market, which exerts a strong influence on its liquidity, is largely determined by global factors, and not local ones,<sup>1</sup> because the switchover to a T+2 settlements cycle is more likely to be a specifically local factor.

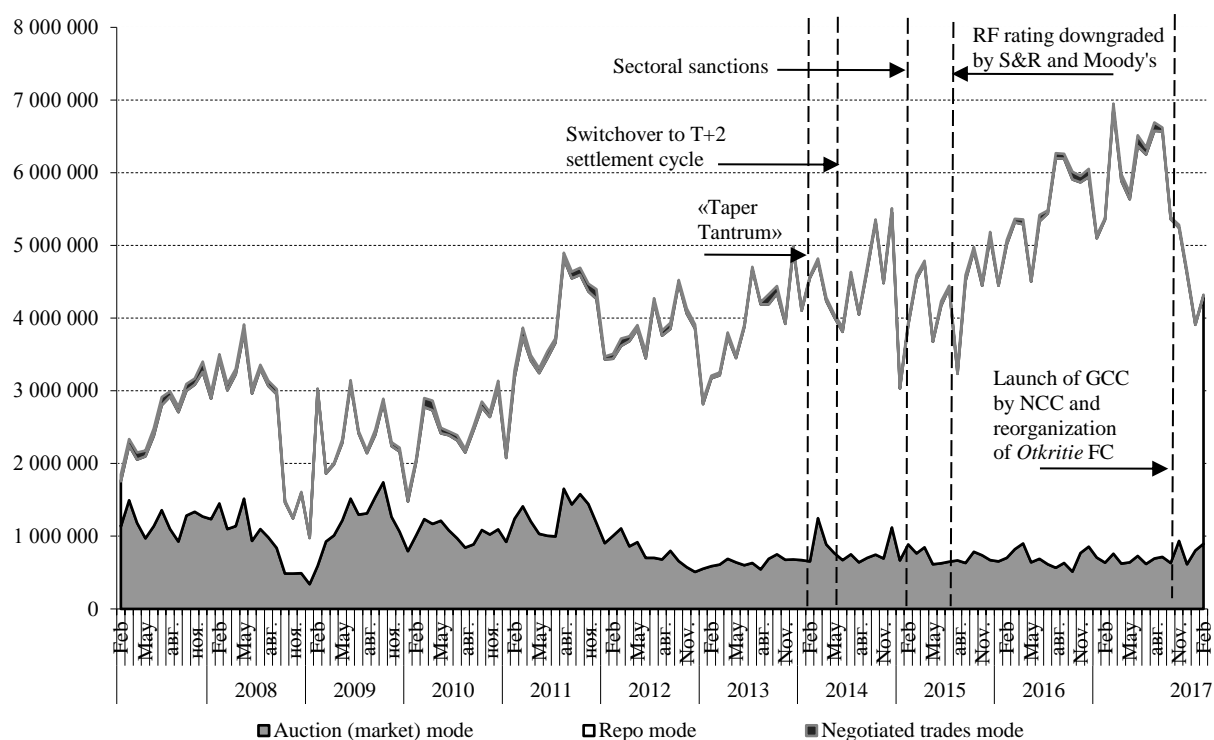


Fig. 14. The volume of trades in shares on the Moscow Exchange's Main Market from January 2005 through February 2018, millions of rubles

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

Fig. 15 shows the volume of trades in shares, less that of repo transactions. The graph clearly outlines two active growth periods: from 2005 through May 2008, when the domestic equity market was rapidly expanding in response to carry trading strategies and an inflow of foreign investment funds with their speculative strategies; and from March 2009 through September-October 2011, when the returns on equity were demonstrating a recovery growth after the

<sup>1</sup> Money Market Review. Information and Analytical Materials, Bank of Russia, No 4, Q3 2016, p. 15.

financial crisis of 2008. From the year-end of 2012 – that is, the first year after the merger of two exchanges – the volume of market transactions demonstrated practically a zero growth rate, despite certain internal and external developments that could influence the exchange market's behavior.

It seems that, when elaborating new strategic documents addressing Russia's domestic stock market, special attention should be paid to the issue of creating appropriate conditions for a positive shift in the liquidity situation specifically in its market trades in shares segment. To achieve this goal, it will be necessary, first of all, to promote accelerated development of non-bank financial organizations (private pension funds (PPF)), collective investment funds, life insurance companies, asset managers, brokers, and investment consultants). The measures designed to develop this particular segment of the stock market are described in detail in the Report of the Center for Strategic Research titled *Reform of Financial Markets and Non-banking Financial Sector*.<sup>1</sup>

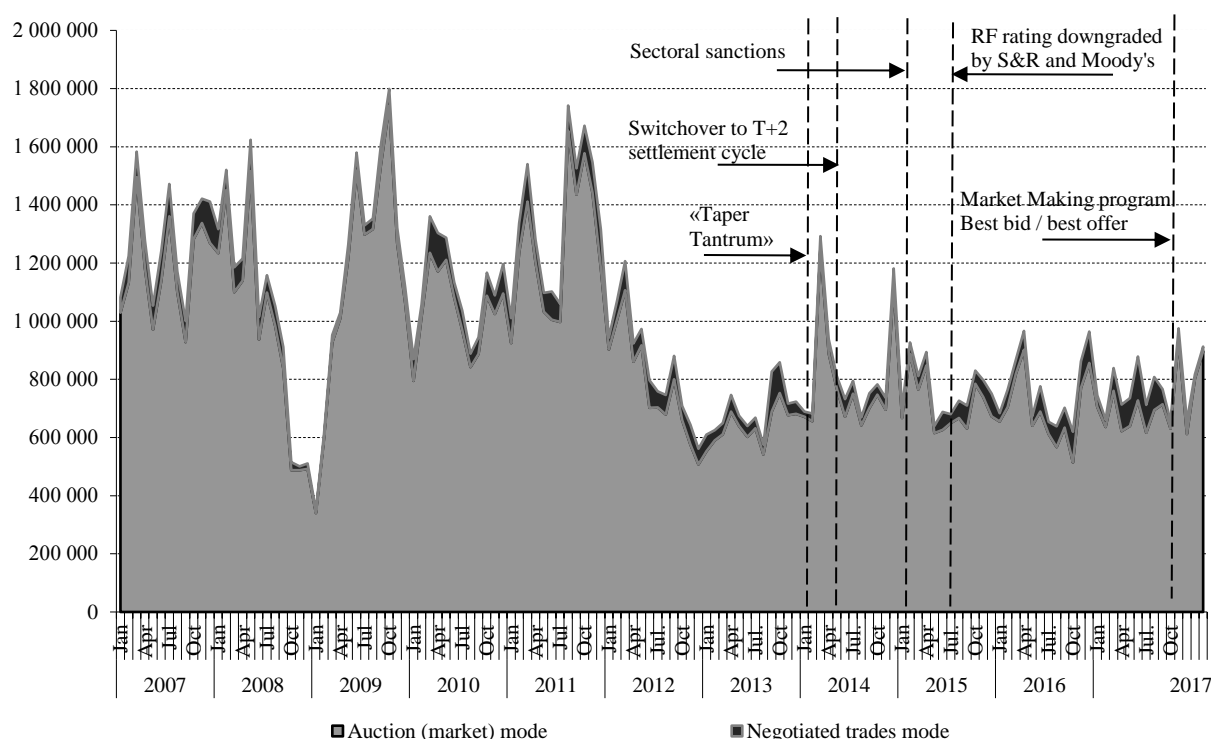


Fig. 15. The volume of market and negotiated trades in shares on the Moscow Exchange from January 2005 through February 2018, millions of rubles

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

The accelerated growth in the equities repo market poses certain threats. First of all, no information is publicly available as to how reliably the existing risks are being managed in this segment, especially the risks associated with those transactions that are settled inside broker companies and banks. The basic indicators of the scale of repo operations and the risks for their participants are disclosed neither by the regulator not by the brokers actually handling them.

<sup>1</sup> Danilov Yu. A., Abramov A. E., Buklemishev O. V. *Reform of Financial Markets and Non-banking Financial Sector*. CSR, Moscow, July, 2017. See <http://csr.ru/wp-content/uploads/2017/07/Report-Financial-markets-v2-web.pdf>

The public has no access to information concerning the asset coverage ratios<sup>1</sup> of brokers' or their clients', nor concerning the scope of the use of financial levers in equity deals by brokers, nor concerning the integrated asset turnover ratios of brokers' clients. Moreover, non-bank broker companies, in contrast to asset managers or private pension funds, are not required to release their financial reports drawn up in compliance with the IFRS, from which their estimated risks could be learned.

The plunge of the volume of repo transactions from September 2017 onward (*Fig. 13 and 14*)<sup>2</sup> was triggered by two factors: the bailout by the Bank of Russia of *Otkritie FC Bank* from May 2017 and the accelerated growth of repo transactions with general collateral certificates (GCC) issued by the National Clearing Center (NCC). The reorganization of *Otkritie FC Bank* reduced its short-term demand for borrowed funds that used to be satisfied through repo deals, as now it has been supplied with cheaper resources from the Bank of Russia via a non-market channel. And the advent of GCCs, together with the direct access to that market segment granted to major non-financial companies possessing surplus liquidity, has turned that instruments into a market source of cheaper short-term resources for financial companies, and so it has replaced the other, more costly mechanisms, including equity repo transactions.

As shown in *Fig. 16*, the monthly volume of equity repo transactions shrank from RUB 5.9 trillion in September 2017 to RUB 3.4 trillion in February 2018, or by 42.4 percent. Over the same period, the GCC repo segment, on the contrary, increased from RUB 0.8 trillion to RUB 1.9 trillion, or 2.4 times.

In *Fig. 17* and *Table 5*, the structure of equity deals with the participation of private brokers and state-owned enterprises (SOE) is shown.<sup>3</sup> As before, the bulk of trades in shares on the Moscow Exchange is carried on by private brokers; however, their share shrank from 79.8 percent in 2016 to 60.2 percent in 2017; meanwhile, in February 2018 the share of private participants in trading once again rose to 68.2 percent.

A notable phenomenon in recent years has also become the increasingly prominent role in equity deals on the Moscow Exchange of broker companies affiliated to big foreign banks (GIB-subs).<sup>4</sup> In spite of the tricky geopolitical situation and sectoral sanctions, the segment taken up by GIB-subs increased from 6.3 percent in 2016 to 9.2 percent in December 2017, and to 11.0 percent in February 2018. This is an indirect indication of the growing interest of foreign investor – clients of GIB-subs – in the shares issued by certain Russian market players, especially in view of the continuing strengthening, over the last few years, of the ruble relative to the US dollar.

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<sup>1</sup> The asset coverage ratio is the ratio of the current value of marketable assets functioning as collateral in repo transactions carried on by a broker or a broker's client to the total current value of their securities.

<sup>2</sup> The relative share of repo transactions on the stock exchange market contracted from 88.4 percent in September 2017 to 78.9 percent in February 2018.

<sup>3</sup> As of 2016, the study sample of state-controlled entities participating in trading on the exchange, was as follows: Sberbank of Russia, Sberbank CIB, VTB, VTB Capital and its affiliates, VTB-24, Gazprombank, Russian Agricultural Bank, Sviaz-Bank, KIT Finans, VEB. From August 2017, that group was joined by *Otkrytie FC Bank*; from September 2017, by B&N Bank and Rost Bank; and from December 2017, by Promsvyazbank.

<sup>4</sup> Our sample is as follows: Goldman Sachs, Deutsche Bank, UBS, ING Bank (Eurasia), Credit Suisse (Moscow), Raiffeisenbank, Citibank, UniCredit Bank, CB J.P. Morgan Bank International, Rosbank, Barclays Capital LLC, Merrill Lynch, Morgan Stanley Bank, HCBC Bank.



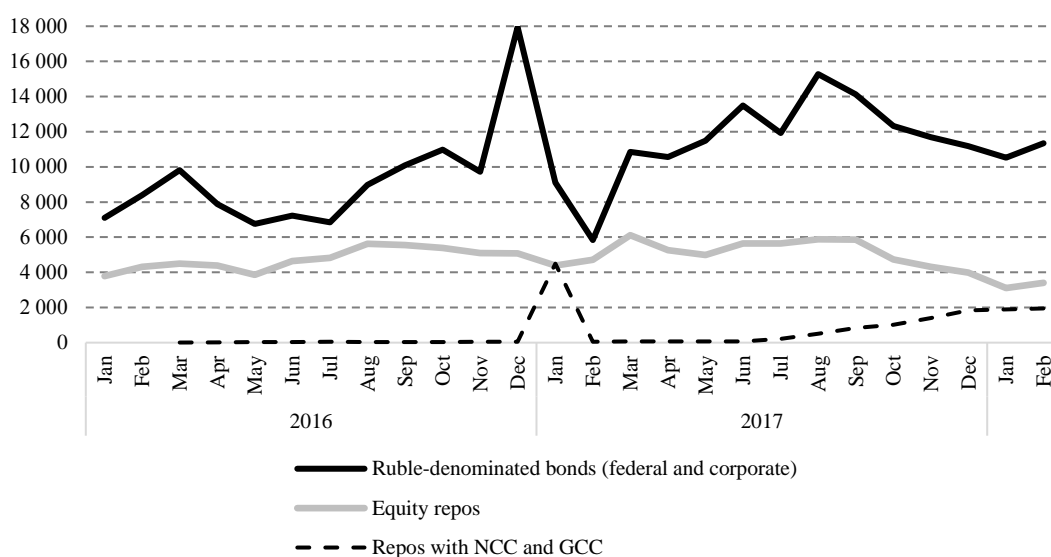
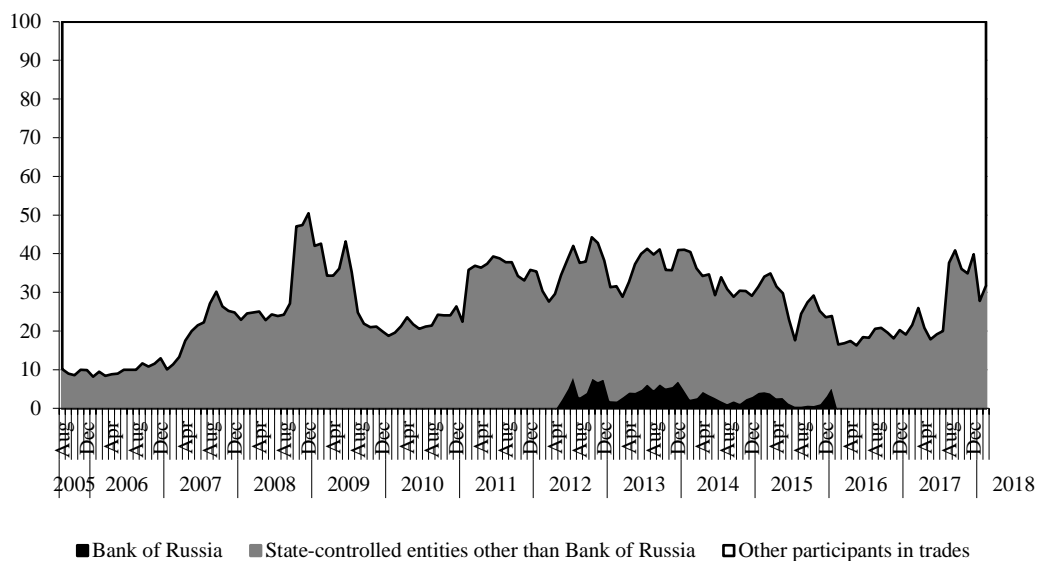


Fig. 16. The volumes of repo deals using equities, ruble-denominated bonds and general collateral certificates (GCC) on the Moscow Exchange from January 2016 through February 2018, billions of rubles

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

The relative share of state-controlled companies in the total volume of equity transactions on the exchange jumped from 20.2 to 39.8 percent, and then slid to 31.8 percent. This movement pattern can be explained by the reorganization into SOEs of the formerly private entities like *Otkrytie FC Bank*, B&N Bank, Rost Bank, and Promsvyazbank, where temporary administration teams were set up by the Bank of Russia in order to review and correct their activities. At the same time, these banks, as a result of the implementation of special programs aimed at increasing their capitalization and their financial recovery, are no longer in need of the more expensive repo deals as a sources of money, and this change is reflected in the February 2018 statistics.

Previously, a surge of SOEs' activity on Russia's stock exchange market could be observed whenever it was undergoing a difficult phase in its evolution – for example, in late 2008 and H1 2009, when special centralized loans were issued through *Vnesheconombank* (VEB) for the support of the domestic stock market. Another peak of their activity on the organized equity market occurred over the period 2011–2015 when, due to the restrictions on borrowing on the global capital market imposed on Russian financial organizations – first as a result of a crisis in the Eurozone, and then by way of sectoral sanctions, the Bank of Russia had to resort to active refinancing of banks through repo transactions, including with shares in Russian companies offered as collateral. Over that period, the aggregate share of SOEs and the Bank of Russia in the total volume of trades in shares increased from 26.4% in 2010 to 41.0% in 2013, and thereafter shrank to 23.5% in 2015.



*Fig. 17.* The relative shares of private broker companies and SOEs in equity trades on the Moscow Exchange over the period from August 2005 through February 2017, percent  
*Source:* own calculations based on data released by the Moscow Exchange.

*Table 5*

**The relative shares of private broker companies and SOEs in equity trades on the Moscow Exchange as of the end of reporting period, percent**

	2005	2010	2011	2012	2013	2014	2015	2016	2017	Feb 2018
Bank of Russia		0.0	0.0	7.9	7.5	3.2	3.3	0.0	0.0	0.0
SOEs	9.9	26.4	35.8	30.3	33.5	25.8	20.2	20.2	39.8	31.8
Other equity market participants	90.1	73.6	64.2	61.8	59.1	70.9	76.5	79.8	60.2	68.2
of these:										
GIB-subs*				7.3	8.9	4.8	5.7	6.3	9.2	11.0

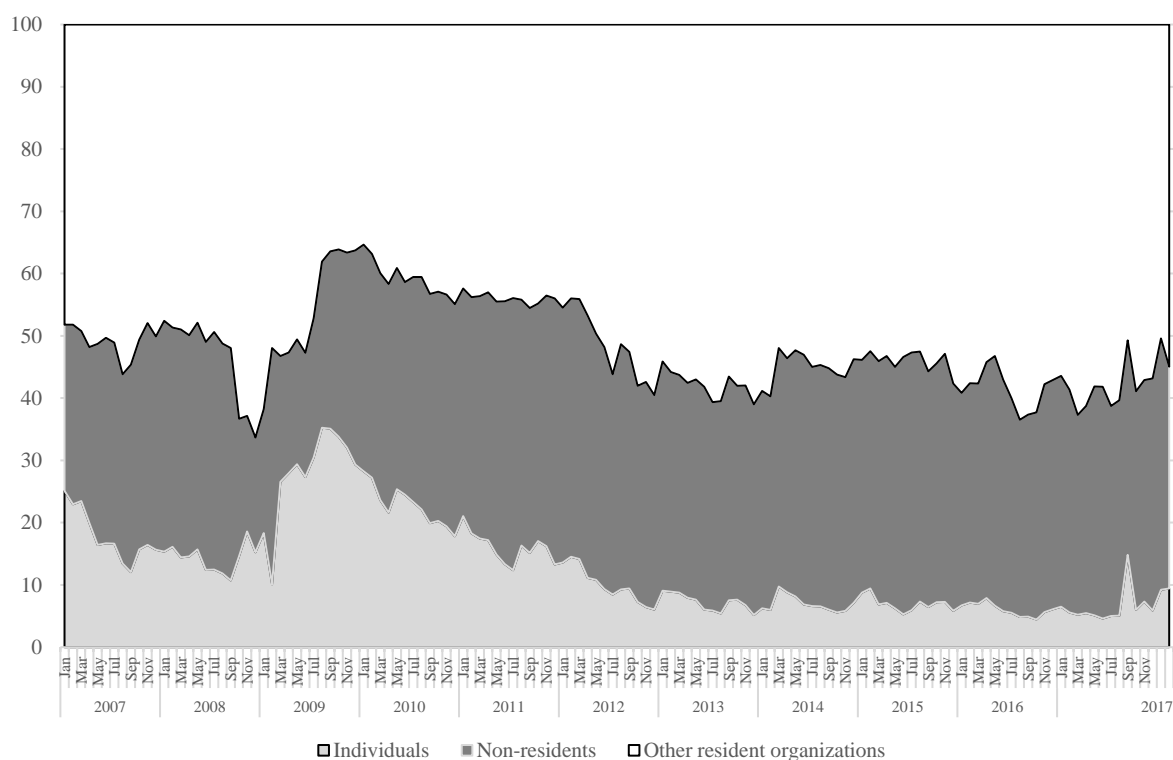
\* GIB-subs are companies affiliated to global investment banks, granted the status of a legal entity under legislation of the Russian Federation, and licensed to act as brokers in the securities market.  
*Source:* own calculations based on data released by the Moscow Exchange.

*Fig. 18* demonstrates the structure of equity transactions on the exchange relative to their final beneficiaries – i.e., investors.<sup>1</sup> As can be seen from the graph, private dealers and non-residents account for about a half of all equity deals; however, the relative share taken up by non-residents is much higher than that of private dealers. At the same time, their proportional distribution has remained approximately the same since 2013. The relative share of resident individuals slightly declined from 6.1 percent in December 2016 to 5.9 percent in December 2017, and then increased to 9.4 percent in February 2018. The relative share of non-residents over the same period increased from 36.8 to 37.3 percent, but then plunged to 35.6 percent. So far, it can be assumed that there is no visible sustainable growth trend displayed by the

<sup>1</sup> These data, calculated on the basis of available public exchange statistics, are far from being perfect. They do not show separately the net relative shares of domestic private investors and non-residents in market transactions and NTM. Besides, the group of non-residents does not include the affiliations of broker companies through which the latter frequently borrow money and then lend it to their clients. However, on the whole these data make it possible to estimate the relative shares of private dealers and non-residents in trades in shares on the Moscow Exchange.



relative share of domestic private investors in the equity market on the stock exchange. However, in this connection it should be remembered that in 2016–2017, citizens received additional incentives for investing in shares issued by Russian companies in the form of individual investment accounts (IIA) and certain categories of exemptions from personal income tax. However, in order to ensure comprehensive involvement of households in investing in the stock market, it will be necessary to de-freeze the pension saving system, create adequate conditions for the development of corporate and individual pension plans, and promote collective investment schemes.



*Fig. 18.* The structure of investors participating in trades in shares on the Moscow Exchange from January 2005 through February 2018, percent

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

Although domestic competition represents one of the most acute issues of Russia's stock market, it is relatively weakly outlined in the official reports of government bodies, both in terms of methodological approaches to its assessment and the quality of empirical data. Therefore, in this review we are going to discuss only some of its aspects.

*Fig. 19* demonstrates the movement of the Herfindahl–Hirschman Index, or HHI,<sup>1</sup> on the Moscow Exchange's Equity & Bond Market from January 2005 through February 2018. As estimated by the Federal Antimonopoly Service (FAS) of the Russian Federation, the market has a low concentration if HHI is below 800; moderate concentration if  $800 < \text{HHI} < 1,800$ ; and high concentration if HHI is above 1,800.

<sup>1</sup> 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:  $\text{HHI} = (D_1)^2 + (D_2)^2 + \dots + (D_m)^2$ , where  $D_i$  is the per cent market share of  $i^{\text{th}}$  participant;  $i = 1, 2, \dots, m$ .

Over the entire observation period, with some rare exceptions that occurred during the 2008 crisis, when the Bank of Russia was compelled to resort to repos where shares were used as collateral, and also in 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. The trends observed in the market for bonds followed their own patterns, and we can distinguish three periods there, over each of which HHI behaved differently. From August 2005 through August 2011, the HHI for the bonds market was hovering around 500, demonstrating signs of a low-concentrated market. From September 2011 until early 2015, when the Bank of Russia conducted a substantial number of repos using bonds as collateral, the HHI for this segment of the equity exchange market moved into the interval between 800 and 1,800, which is typical of a moderately concentrated market. As the volume of refinancing channeled by the Bank of Russia into the banking system by means of repo transactions began to decline, from February-March 2015 the bonds market once again became low-concentrated, with the HHI close to 500. From September 2017, when several big banks began reorganization procedures, the HHI for bonds dived below the corresponding index for shares, which point to a high competition level in the domestic bonds market. Some surges of the HHI over that period occurred in December 2015 and December 2016, in response to the placement, by PJSC *Rosneft*, by massive issues of its corporate bonds.



Fig. 19. The Herfindahl–Hirschman index, based on volume of trades in shares and bonds on the Moscow Exchange (all trade modes)<sup>1</sup>

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

<sup>1</sup> As from August 2015, the Moscow Exchange no longer discloses its by-category data on trades in corporate, regional and government bonds, and releases only aggregate data on deals involving all types of bonds, and considering the fact that information on OFZ transactions has been released by the exchange only from February 2012, our calculations of HHI values rely on a number of assumptions. For the period prior to February 2012, the HHI for the bonds market incorporates only trades in corporate and regional bonds, and from February 2012 onwards it incorporated all types of bonds.

The main channels whereby the equities market conveys its impact on economic growth is through primary offer of securities by companies as a way of attracting investment resources, as well as through merger and takeover deals.

As follows from *Table 6*, in 2016–2017, in spite of the difficulties in attracting foreign investors created by sectoral sanctions, there was a noticeable revival in the market for IPO-SPOs launched by registered in Russia or operating in RF territory. In 2017, there were IPO-SPOs by 12 companies to the total value of USD 4.4 billion; a year earlier, such deals, to the total value of USD 2.1 billion, were completed by only 7 companies. Meanwhile, the segment of merger and takeover deals continued to demonstrate a decline, and an annual shrinkage in the total number of deals over the period 2014–2017. In 2013, the volume of completed merger and takeover deals amounted to USD 156.1 billion, and in 2017 it tumbled to USD 31.4 billion.

*Table 6*

**The parameters of market for shares in Russian companies (billions of US dollars)**

	Capitalization	Secondary market, including on foreign exchanges	IPO-SPOs of shares	Investment in fixed assets of capital generated by IPOs			Volume of closed merger and takeover deals
				Bn USD	as percent of capitalization	as percent of IPO volume	
2000	41	47	0.5	0.2	0.5	40.0	5.0
2001	75	49	0.2	0.1	0.1	50.0	12.0
2002	106	87	1.3	0.2	0.2	15.4	18.1
2003	176	188	0.6	0.2	0.1	33.3	32.4
2004	230	541	3	0.1	0.0	3.3	27.1
2005	549	374	5.2	3.2	0.6	61.5	60.2
2006	1,057	914	17	3.2	0.3	18.8	61.9
2007	1,503	1,687	33	3.6	0.2	10.9	127.7
2008	397	1,983	1.9	2.1	0.5	110.5*	117.0
2009	861	1,156	1.7	2.0	0.2	117.6*	55.7
2010	1379	1,431	6.3	2.4	0.2	37.9	55.1
2011	1,096	2,222	11.3	2.6	0.2	23.1	94.3
2012	1,079	1,931	9.5	3.1	0.3	32.6	72.7
2013	1,041	1,801	9.0	3.1	0.3	34.4	156.1
2014	517	1,739	1.7	3.1	0.6	182.0*	58.7
2015	393	997	0.6	0.9	0.2	150.0*	56.9
2016	635	1,154	2.1	0.7	0.1	32.0**	41.7
2017	623	1363	4.4	no data	no data	no data	31.4

\* the value is above 100% because part of capital invested in fixed assets could be generated by way of private offering of shares; \*\* the amount of proceeds of IPOs by *Rosneft* and *Otkrytie Holding* on the Moscow Exchange in 2016.

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

In 2016, the proceeds raised by issuance of shares accounted for only 0.1 percent of total investments in fixed assets. This means that the bulk of new cash raised by Russian companies in the domestic market for shares and corporate bonds continued to be spent on refinancing projects, debt redemption, merger and takeover deals, and used for other purposes that had little to do with investing in fixed assets. From 2017, Rosstat has no longer disclosed this type of statistics, thus increasing uncertainty with regard to the information that is very important if we want to really understand the effects of IPO-SPO of shares.

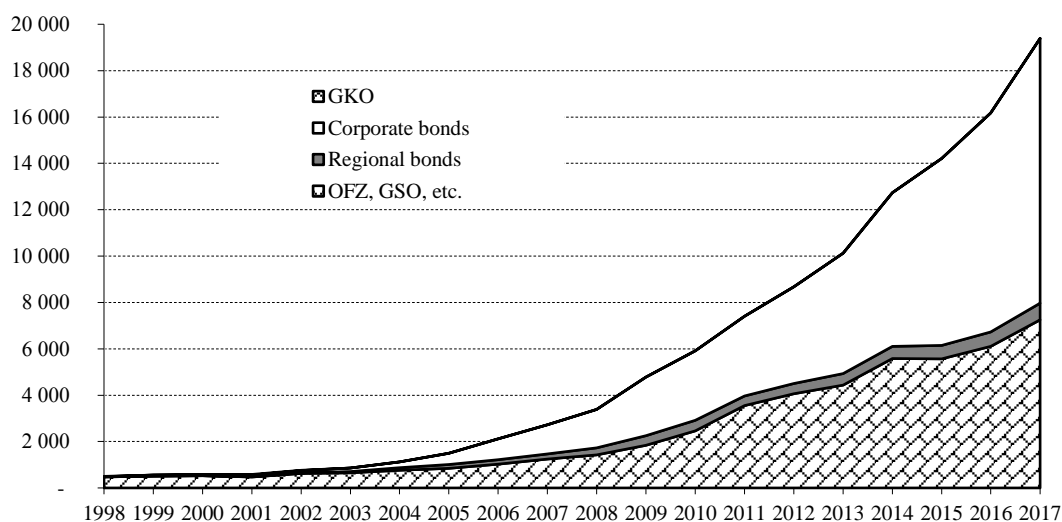
Thus, the exchange market for equities has so far contributed rather moderately to real asset accumulation by companies and to economic growth. The domestic stock market's potential has not yet been fully relied upon in dealing with the key problems faced by the Russian economy.

### 3.3. The market for non-government bonds

In 2017, the Russian financial market displayed relatively favorable conditions for growth of the domestic corporate bonds segment. Thanks to the ruble's stability and low inflation, the returns of corporate bonds finally climbed back to their 2013 level, prior to the introduction of sectoral sanctions. Besides, in spite of the year-end reduction of the key rate to 7.75 percent, the record-low inflation rate of 2.5 percent ensured high returns, in real terms, of fixed rate instruments. The returns of corporate bonds launched by reliable issuers rose significantly above the interest rates on bank deposits, thus making them an attractive instrument to be invested in by private dealers and collective investment funds.

Moreover, from January 1, 2017, in accordance with Federal Law No 242-FZ dated July 3, 2016, the rate of tax on bond yield for legal entities was reduced from 20 to 15 percent. From January 1, 2018, individuals were made exempt from personal income tax on the coupon yield of ruble-denominated corporate bonds issued over the period 2017–2020, if the coupon rate is not higher than the refinancing rate of the Bank of Russia. Thus the income tax rate for corporate bond holders was brought to the same level as the tax rate for interest rate on individual deposits.

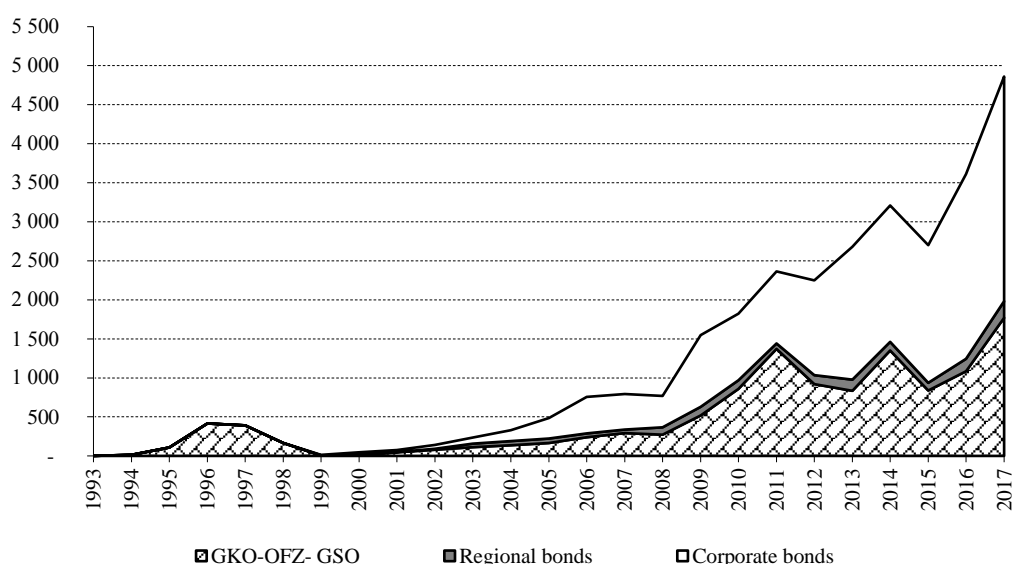
In 2017, the value of bonds loans in Russia continued to climb, amounting to RUB 19.4 trillion, which represents a 19.9 percent growth relative to 2016 (*Fig. 20*). Over that year, the value of corporate bonds, including non-marketable bond issues, increased from RUB 9.4 trillion to RUB 11.4 trillion, or by 21.3 percent; that of regional bonds – from RUB 0.63 trillion to RUB 0.72 trillion, or by 14.3 percent; and that of federal bonds (OFZ, government saving bonds (GSO), etc.) – from RUB 6.1 trillion to RUB 7.2 trillion, or by 18.0 percent. In spite of the high demand for money resources necessary for covering budget expenditure, the RF Ministry of Finance in 2017 took a moderate stance in its policy and abstained from dramatically increasing government domestic debt, leaving some room for growth of the borrowings of Russian companies and regional administrations.



*Fig. 20.* The movement of the volume of ruble-denominated bonds in circulation from 1998 through 2017, billions of rubles.

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

The specific feature of bond offers in 2017 was that the value volume of corporate bond issues was increasing at a faster rate than that of federal and regional bonds. The value volume of corporate bond issues increased from RUB 2.4 trillion in 2016 to RUB 2.9 trillion in 2017, or by 21.6 percent. The main factor behind that growth was the placement of a bond issue by *Rosneft*, its relative share in the total value volume of new bond offers over that year being 36.8 percent (*Fig. 21*). Meanwhile, the value volume of federal bond issues increased from RUB 1.1 trillion in 2016 to RUB 1.8 trillion in 2017, or by 63.1 percent. Over the same period, the value volume of regional bond issues soared from RUB 159.1 billion to RUB 210.9 billion, or by 32.6 percent. The growth drivers for all categories of bonds were the increasing demand of businesses and the government alike for money resources that they needed to cover their expenditures and fund their projects in conditions of restricted access to foreign financial markets and limited income sources, and on demand side - growth of excess liquidity in the banking sector and the demand for ruble-denominated assets displayed by some categories of foreign portfolio investors. In 2017, the first OFZ, corporate and regional bond issues targeting retail investors were launched.



*Fig. 21.* The value volume of ruble-denominated bond issues placed in 1993–2017, billions of rubles

*Source:* own calculations based on data released by the RF Ministry of Finance and the Moscow Exchange.

Although the Moscow Exchange now lists nearly 400 bond issuers, the primary market for corporate bonds is a highly concentrated one, being dominated by bond issues placed by state-owned enterprises (SOE). As follows from data presented in *Table 7*, over the period 2010–2017, 24 biggest issuers accounted for 58–88 percent of the total value volume of corporate bond offers; in 2017, this index amounted to 82 percent, thus getting near its record high of 2009.

Among big bond issuers, state-controlled companies prevailed; the top-24 alone, over the period 2009–2017, accounted for 37–75 percent of the total value volume of new corporate bond offers. In 2017, that index hit its record high of 75.0 percent. Thus, the corporate bond market

is currently functioning as a mechanism for redistributing financial resources in the market in favor of big players, represented in the main by SOEs.<sup>1</sup>

Table 7

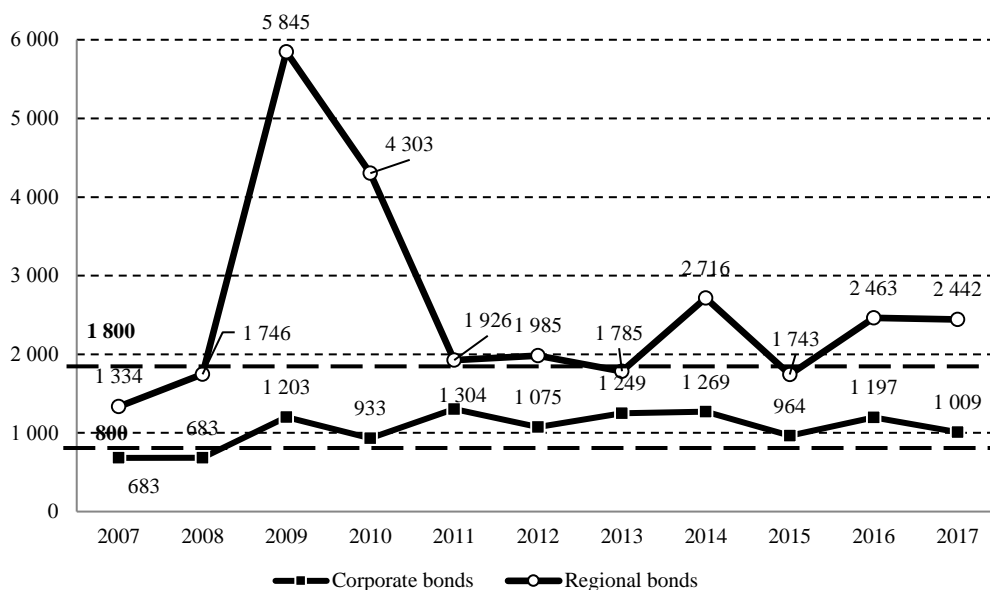
**The concentration rate of ruble-denominated corporate bond issues and the relative share of state-controlled issuers in 2009–2016**

	Top 5 issuers		Top 10 issuers		Top 24 issuers		Market, total
	Total	including SOEs	Total	including SOEs	Total	including SOEs	
<b>2009</b>							
Billions of rubles	440	390	610	441	803	513	917
Market share, percent	48.0	42.5	66.5	48.1	87.6	55.9	100.0
<b>2010</b>							
Billions of rubles	177	147	304	200	513	317	855
Market share, percent	20.7	17.2	35.6	23.4	60.0	37.1	100.0
<b>2011</b>							
Billions of rubles	241	191	389	309	642	405	1089
Market share, percent	22.1	17.5	35.7	28.4	59.0	37.2	100.0
<b>2012</b>							
Billions of rubles	265	265	429	334	690	443	1199
Market share, percent	22.1	22.1	35.8	27.9	57.5	36.9	100.0
<b>2013</b>							
Billions of rubles	550	550	705	640	1035	830	1741
Market share, percent	31.6	31.6	40.5	36.8	59.4	47.7	100.0
<b>2014</b>							
Billions of rubles	875	827	1051	934	1334	1038	1739
Market share, percent	50.3	47.6	60.4	53.7	76.7	59.7	100.0
<b>2015</b>							
Billions of rubles	683	683	861	788	1180	891	1919
Market share, percent	35.6	35.6	44.9	41.1	61.5	46.4	100.0
<b>2016</b>							
Billions of rubles	972	882	1228	1038	1653	1176	2439
Market share, percent	39.9	36.2	50.3	42.6	67.8	48.2	100.0
<b>2017</b>							
Billions of rubles	1518	1518	1890	1803	2329	2139	2852
Market share, percent	53.2	53.2	66.3	63.2	81.7	75.0	100.0

Source: own calculations based on data released by cBonds.ru, rusBonds.ru and the Moscow Exchange.

<sup>1</sup> For more details on the role of state-owned companies in the market capitalization of securities issued by Russian companies, see Abramov A., Radygin A., Chernova M. State-owned enterprises in the Russian market: Ownership structure and their role in the economy. Voprosy ekonomiki (in Russian), No 12, 2016).

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. 22*). 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 2017, the HHI in the segment of services for corporate bonds amounted to 1,009. From 2011, the market of services for issues of regional bonds has been balancing between moderately and highly concentrated zones. In 2017, when the HHI rose to 2,442, it shifted into the category of markets with a high concentration rate.



*Fig. 22.* The Herfindahl–Hirschman index, based on data on trade organization services for ruble-denominated corporate and regional bonds in 2007–2015

*Source:* own calculations based on data for 2007–2016 released by cBonds.ru.

After the introduction of sectoral sanctions in July 2014, Russian companies began to actively re-enter the Eurobond market only from 2016 onwards. In 2016, Russian corporate Eurobond issuers raised a total of USD 15.7 billion; in 2017, that index amounted to USD 27.4 billion, which represents a 74.5 percent rise on the previous year. Over the first three months of 2018 alone, they placed Eurobonds to the total value of USD 9.6 billion.

In 2016, the value volume of ruble-denominated corporate bonds was estimated to be USD 141 billion, that of Eurobonds – USD 136 billion; a year earlier, these two indices amounted to USD 133 billion and USD 139 billion respectively (*Fig. 23*). On the whole, over the period since the emergence of new geopolitical risks in 2014, the value volume of Eurobonds issued by Russian companies shrank from USD 182 billion in 2013 to USD 136 billion in 2016, or by 25.3 percent. Over the same period, the value volume of domestic corporate bonds in US dollar terms tumbled from USD 165 billion to USD 141 billion, or by 14.6 percent.



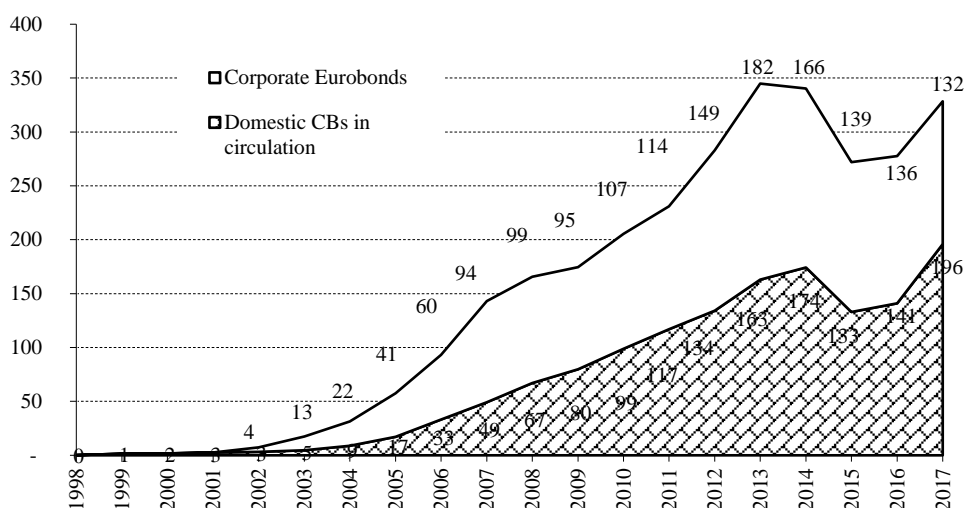


Fig. 23. The volume of Russian corporate bonds (CB) in circulation, billions of USD

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

Over the period 2015–2016, the Eurobonds issued by Russian companies became an integral part of the domestic financial market, thus greatly contributing to the reinstatement of the return rates of this type of securities at a normal level after their downfall in December 2014 – January 2015. Similarly to the liquidity level of ruble-denominated bonds, that of Eurobonds was actively sustained by resorting to the FX repo mechanism. In 2016, the value volume indices for repos in Eurobonds recalculated in ruble terms were stably above the corresponding index for repos in ruble-denominated bonds (Fig. 24). In 2017, as the Bank of Russia discontinued FX repos for the period of one year and 28 days, the FX repo segment gradually dwindled to zero.

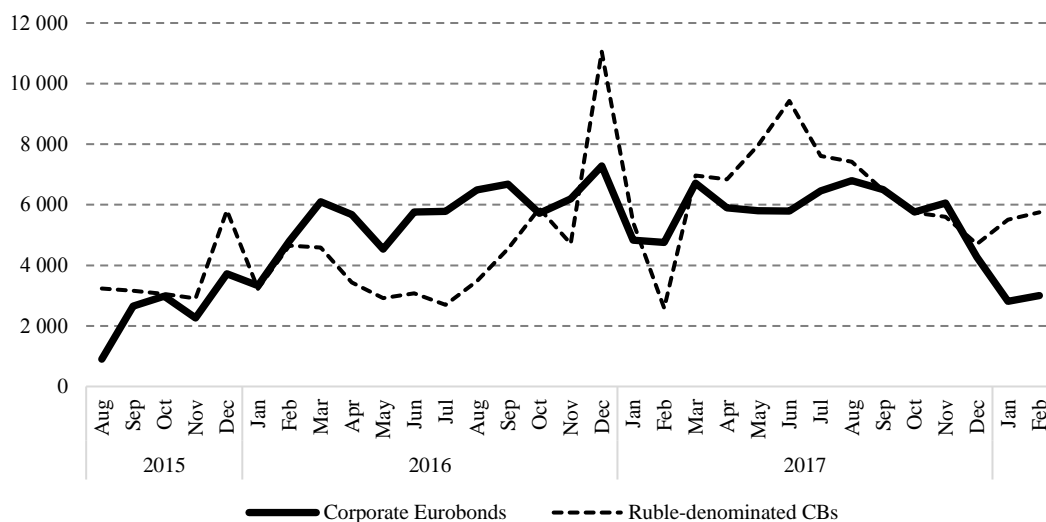


Fig. 24. The volume of repos in ruble-denominated corporate bonds and corporate Eurobonds on the Moscow Exchange, billions of rubles

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



In 2016, the primary market witnessed increased issuer and underwriter activity associated with the introduction of new forms of financial instruments. Among the most significant innovations we may point to the placement of perpetual subordinated bonds by Russian Agricultural Bank, the issuance of overnight bonds by VTB, and the asset-backed securities issued by the Agency for Housing Mortgage Lending in the framework of its Mortgage Factory project. In 2017, several big state banks – Sberbank of Russia, VTB Bank, and Russian Agricultural Bank began to actively sell their bonds to retail investors. In early 2018, Alfa Bank issued perpetual Eurobonds likewise oriented to retail investors.

The demand for new corporate bond issues and the volume of transactions on the secondary market was largely determined by the domestic money market's liquidity index. Since the early 2000s, we may note several periods, each of them differing by the specific factors that were responsible for market liquidity behavior, which in its turn influenced the market for corporate bonds (*Fig. 25*). This, over the period from January 2001 through July 2004, the liquidity index was moderate, the demand for corporate bonds being sustained by domestic banking sources and the monies in the type-C accounts of non-residents, which had been frozen after the default. Over the period from August 2004 through August 2008, after Russia was granted an investment grade rating by international rating agencies and until the onset of crisis in 2008, alongside the ruble's stabilization, carry trading strategies were employed,<sup>1</sup> when both the liquidity index and the demand for bonds were sustained by cheap foreign loans. The period from September 2008 through August 2011 was that of crisis and post-crisis recovery, when the monetary authorities were keeping the banking system's liquidity at an acceptable level by relying on centralized funding sources, while at the same time imposing a constraint on it being used as corporate and consumer loans in the form of a high rate of refinancing. Over the period from September 2011 through January 2016, liquidity was sustained in the main by the Bank of Russia's repo transactions designed to refinance banks.

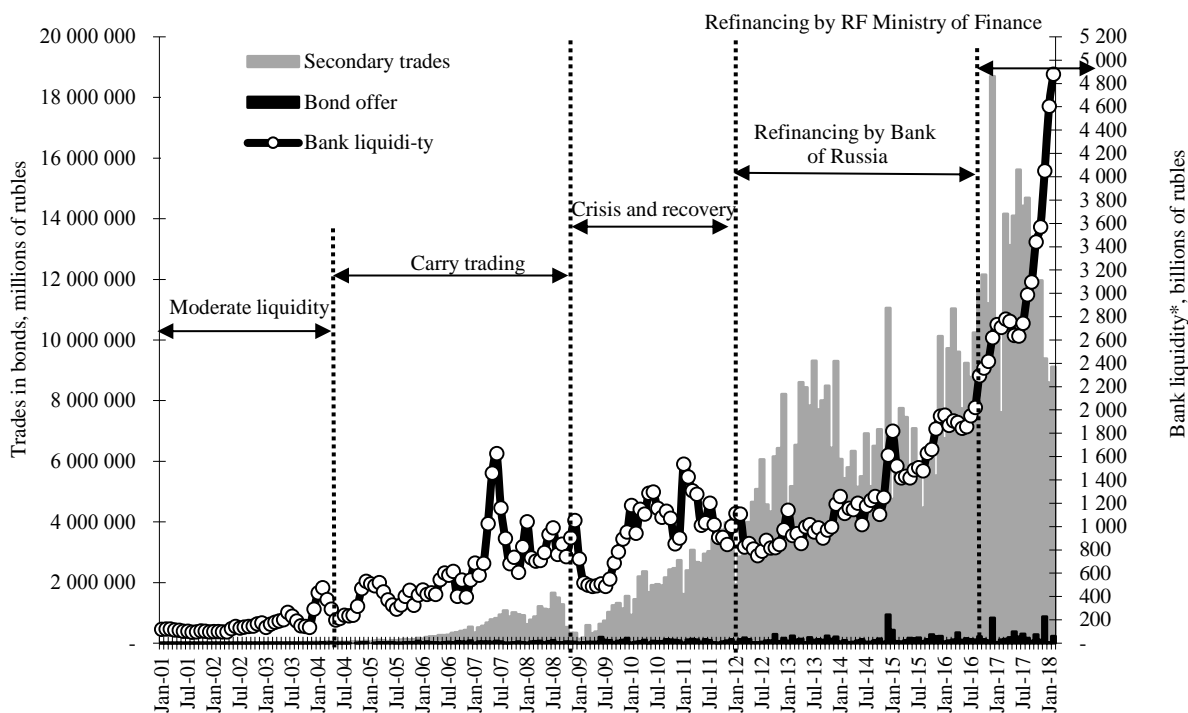
From January 2016 until the present day, the principal factor sustaining the banking system's liquidity has been the accumulation of funds in the bank accounts of budget funding recipients resulting from budget expenditures being covered by allocations from the Reserve Fund, i.e. budgetary sources. It is this particular factor that produced, from 2016 onwards, the excess liquidity phenomenon (money overhang) in the banking system, when ruble-denominated bonds and the Bank of Russia's deposit auctions became the main liquidity absorption mechanisms. In 2017, yet another mechanism was launched - general collateral certificates (GCC) issued by the National Clearing Center of the Moscow Exchange. The low returns of these instruments were secured by the direct access of biggest non-financial companies to the National Clearing Center's services.

In 2017 and in January-February 2018, the rapid money overhang growth in the banking system, its mean index for February 2018 amounting to RUB 4.9 trillion, was followed by a sharp plunge in the volume of trades in corporate bonds, from RUB 15.6 trillion in June 2017 to RUB 9.1 trillion in February 2018, or by 41.7 percent. That plunge was caused by the shrinking value volume of repos in corporate bonds resulting from the reorganization, by the Bank of Russia, of three major Russian banks and the switchover of borrower demand from

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<sup>1</sup> According to the Bank of Russia's definition, carry trade is a trading strategy that involves borrowing at a low interest rate and investing in a financial asset that provides a higher rate of return. It is employed by forex and stock market participants for deriving income in the form of the positive interest rate differential between two currencies or two different forward points. (Financial Overview: Monetary Policy. Information and Analytical Materials, Bank of Russia, No 4, Q4 2016, pp. 36–37).

repos in bonds to repos in GCCs caused by their desire to reduce the cost of short-term loans, and also some other factors.



\* Bank liquidity is understood as banks' residuals on correspondent accounts and deposits with the Bank of Russia.

Fig. 25. Operations with corporate bonds and bank liquidity over the period from January 2001 through February 2018

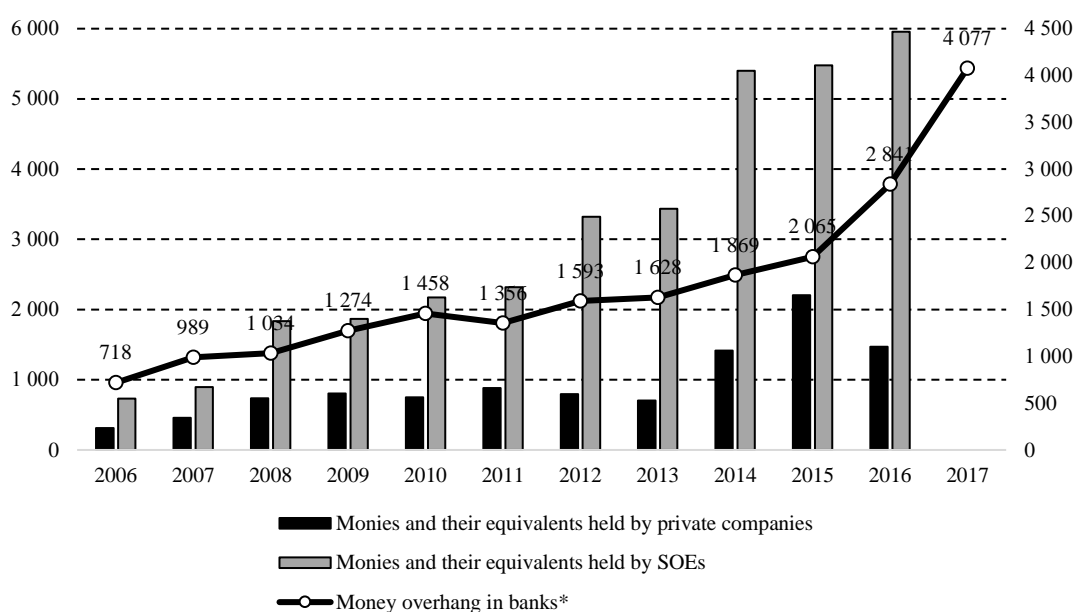
Source: own calculations based on data released by the Bank of Russia and the Moscow Exchange.

The speedy money overhang growth in the banking system, which over the period 2006–2017 jumped from RUB 0.7 trillion to RUB 4.1 trillion, or 5.7 times, can largely be explained by the increasing idle money kept as residuals on the accounts of non-financial companies with banks, meaning first of all biggest state-owned enterprises (SOE). This is confirmed by data in Fig. 26, describing the amount of cash residuals kept by 145 public companies with the highest capitalization indices, including 44 SOEs.<sup>1</sup> The total amount of residuals kept by SOEs on their bank accounts increased from RUB 2.3 trillion in 2011 to RUB 6.0 trillion in 2016, or 2.6 times; over the same period, the amount of residuals kept by private companies increased from RUB 0.9 trillion to RUB 1.5 trillion. The residuals growth peak in the SOE sector occurred in 2014–2016.

In a sense, the emergence of money overhang demonstrated by the banking system and biggest public companies, and primarily by SOEs, is an irrational process, because it actually means a redistribution of resources from investment in and development of businesses in the real sector to short-term speculative deals like repos in the financial market. The factors preventing the overflow of these resources into the real sector have to do with the investment climate issues and the Bank of Russia's high key rate relative to the current inflation index. The

<sup>1</sup> In this case, SOEs are understood as those companies where the aggregate stake held by the state, both directly and indirectly, is above 25 percent of voting shares.

existence of money overhang in the economy and the banking system is one more factor that is fraught with inflation and national currency depreciation risks.



\* Banks' residuals on correspondent accounts and deposits with the Bank of Russia.

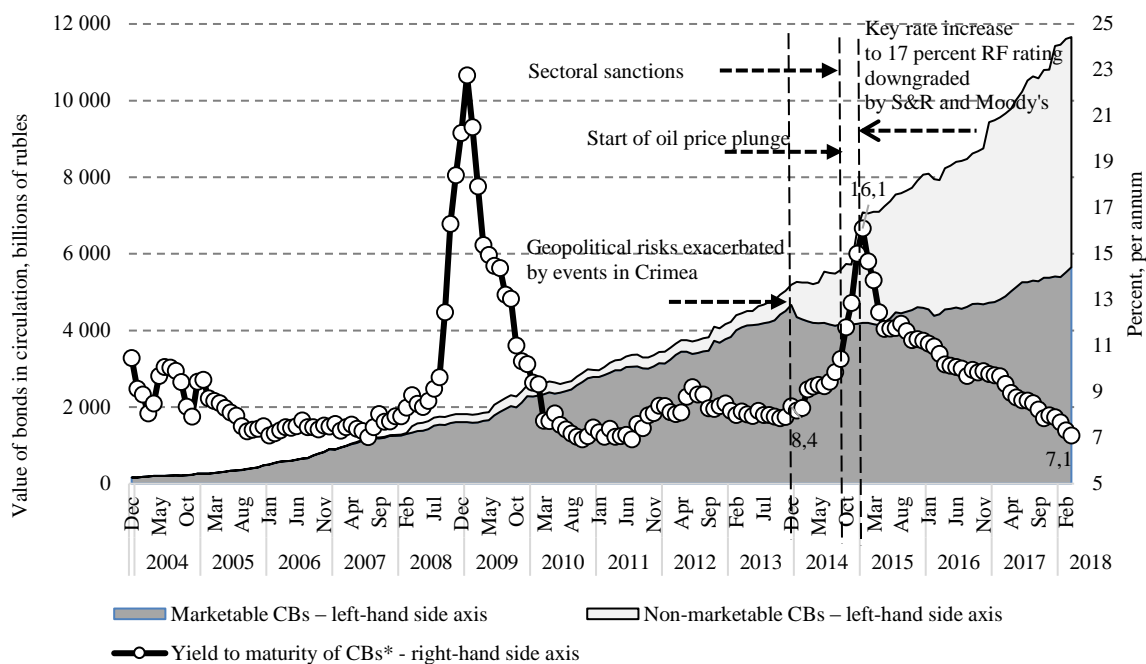
*Fig. 26. Banks' money overhang and the cash residuals in the accounts of private and state-owned companies (SOEs), billions of rubles*

*Source:* own calculations based on data released by the Bank of Russia and financial reports released by public companies.

In February 2018, the average yield of IFX-Cbonds portfolio amounted to 7.1 percent per annum, thus diving below its 2013 index,<sup>1</sup> the latter being observed prior to the geopolitical shocks and the introduction of sectoral sanctions in 2014 (*Fig. 27*). This was achieved in the main by the moderately tough monetary policy, maintained sustainability of the budgetary system, and lowering inflation.

At the same time, in 2014, growth of the corporate bond market began to be secured by the increasing volume of non-marketable bond issues that had no market quotes on the exchange. In 2017, the relative share taken up by the marketable issues of ruble-denominated corporate bonds in their aggregate market capitalization index shrank to 47.3 percent vs. 50.1 percent in 2016. In 2017, the value growth rate of marketable corporate bond issues in circulation was 14.5 percent, while that of non-marketable issues amounted to 27.7 percent. The lower value growth rate of marketable corporate bond issues was strongly linked to the freeze of pension savings, the latter previously having been one of the major sources of new money inflow on the corporate debt market.

<sup>1</sup> The yield to maturity of IFX-Cbonds portfolio in December 2013 was 8.4 percent per annum.



\* The yield to maturity of IFX-Cbonds portfolio.

*Fig. 27.* The value of Russian corporate bonds in circulation and the yield to maturity of IFX-Cbonds portfolio over the period from December 2003 through March 2018

Source: own calculations based on data released by cBonds.ru

As demonstrated in *Fig. 28*, over the period from July 2003 through March 2018, Russia's domestic corporate bond market experienced two shocks: in February 2009, when the yield index of IFX-Cbonds portfolio rose to 24.8 percent per annum with the subsequent plunge of its duration index to 0.8 years; and then in late December 2014, when its average yield increased to 17.0 percent per annum, and its duration index declined to 0.7 years. The shock of 2014 was caused in the main by the introduction of sectoral sanctions in July 2014 and the sharp tumble of oil prices from September 2014.

From H2 2015 onwards, thanks to the efforts of Russia's monetary authorities, the situation in the domestic debt market became more stable. By April 2, 2018, the yield index of IFX-Cbonds portfolio had dropped to 7.24 percent per annum, and its duration index increased to 2.82 years. These parameters are significantly better than those recorded as of December 30, 2013, when its yield index amounted to 8.39 percent per annum, and its duration index – to 1.99 years.

Among the corporate bonds issues, the highest volume of trades on the exchange market in 2017 was demonstrated by Issue 3 of Transneft bonds, several issues of Rosneft bonds, and one issue of VEB bonds.

Thus, the drivers of growth in the corporate bonds market differed over time, but were nevertheless represented in the main by short-term sources of funds and short-term strategies. The deficit on the market for long-term assets and investment climate instability are the factors that suppress growth in the market for non-government borrowing.

The dominating role of the money market in the overall structure of transactions in the secondary market for corporate bonds on the Moscow Exchange is illustrated by *Fig. 29*. In February 2018, the relative share of repos in the total value volume of trades in corporate bonds

amounted to 96.0 percent. At the same time, only 1.6 percent of these were market transactions, i.e., corporate bonds were traded in an anonymous auction market; and 2.4 percent, in terms of their value volume, were traded in the NTM segment. For reference: in 2005, the relative share of repos was 28.0 percent, and that of market transactions – 11.5 percent; the remaining 60.6 percent were negotiated trades.

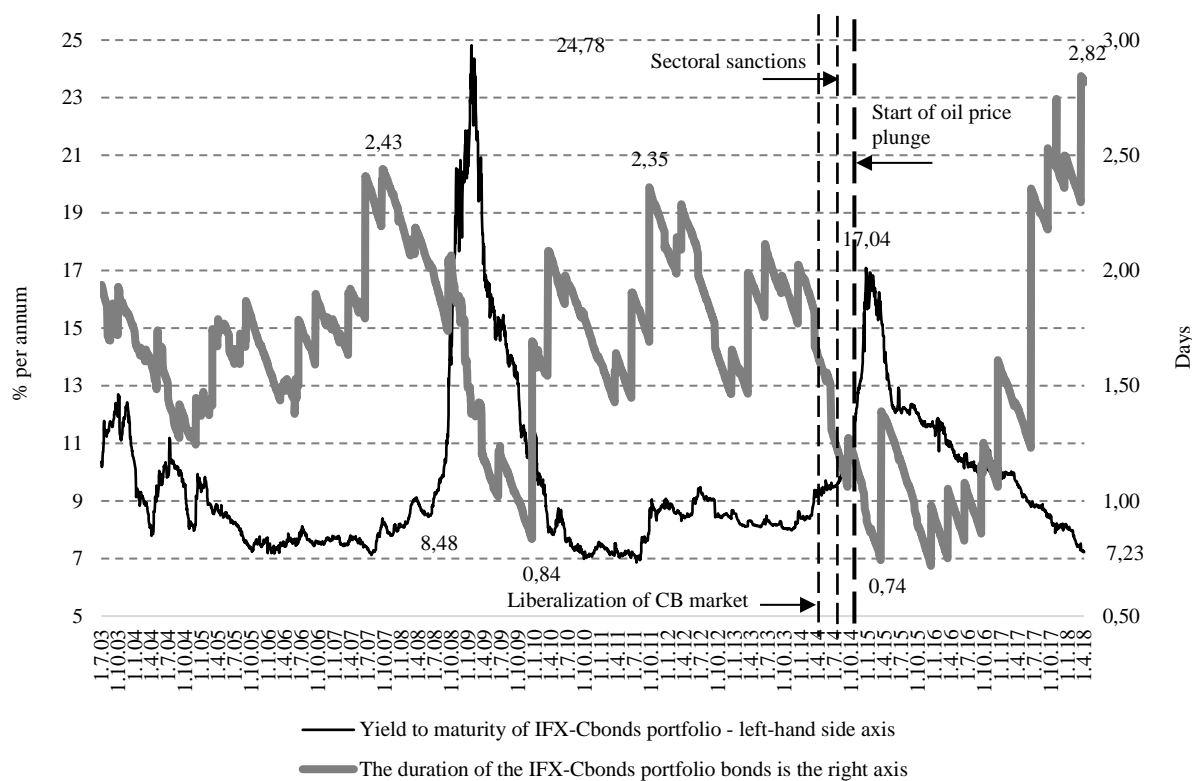


Fig. 28. The yield to maturity and duration indices of IFX-Cbonds portfolio over the period from July 1, 2003 to April 2, 2018

Source: own calculations based on data released by cBonds.ru

The low liquidity of market transactions in corporate bonds on the exchange makes market-based and fair pricing of these instruments difficult and gives rise to risks for the accounting policies of financial institutions.

As shown in Fig. 30, a surge in the volume of repo deals in the corporate bond market usually coincides with the 'government support wave' sweeping across the money market in response to shock-triggered situation. The first wave occurred after the 2008 crisis and continued until H2 2011. The next wave of the Bank of Russia's support for the market through the repo mechanism was launched in late 2011 in response to the Eurozone crisis and continued until December 2015. From January 2016 onwards, the major money market growth factors became the support provided by the RF Ministry of Finance and the increasing money overhang in banks, the latter being redistributed through the repo market by settlements with the National Clearing Center. In this connection, an important role in supporting the Eurobond market was played by FX repos, their volume increasing from 2015 until H2 2017( Fig. 24).

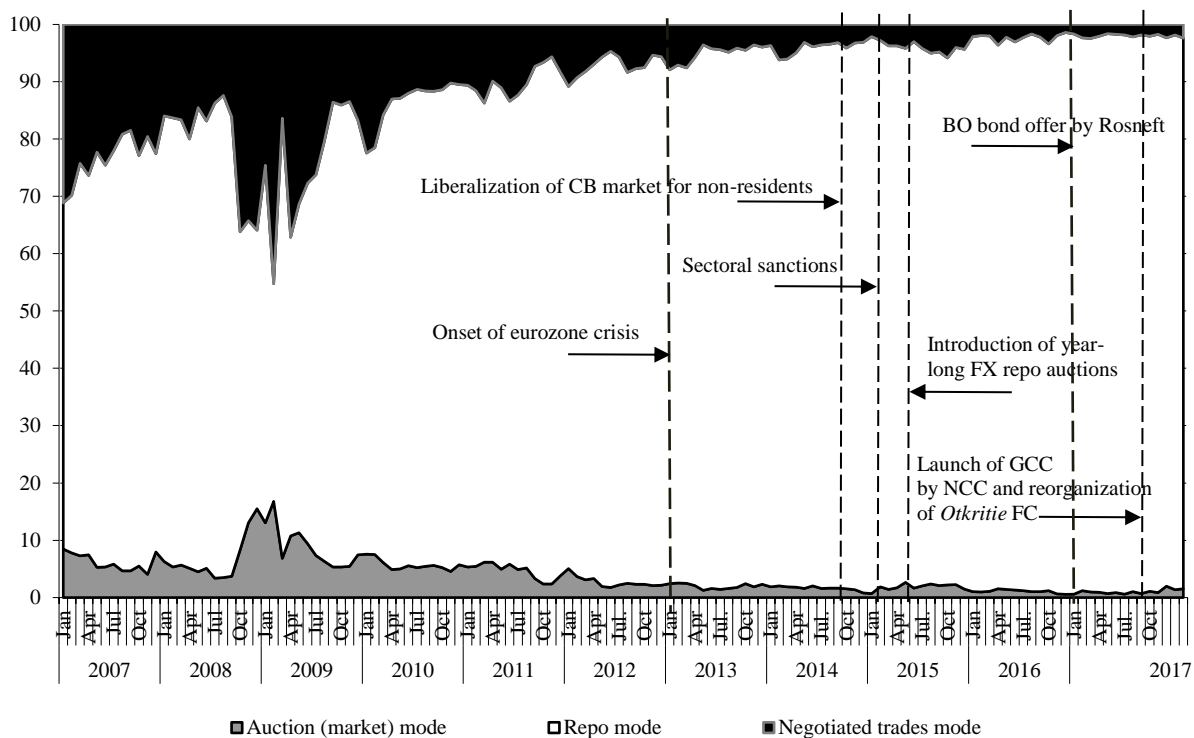


Fig. 29. The structure of trades in corporate bonds, including Eurobonds, on the Moscow Exchange, percent

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

The total value volume of trades in corporate bonds on increased from RUB 126.8 trillion in 2016 to RUB 150.7 trillion in 2017, or by 18.9 percent. Meanwhile, over the same period, the volume of repo transactions was increasing at an accelerated rate relative to the other trading modes. Thus, the volume of repo deals jumped from RUB 122.6 trillion in 2016 to RUB 146.4 trillion in 2017, or by 19.4 percent; that of market transactions increased from RUB 1.3 trillion to RUB 1.4 trillion, or by 5.1 percent; and that of negotiated trades increased from RUB 2.9 trillion to RUB 3.0 trillion, or by 3.1 percent.

However, from H2 2017 onwards, the value volumes of trades in corporate bonds began to shrink at a significant rate, the deepest plunge being demonstrated by the money market segment. In February 2018, relative to August 2017, the monthly volumes of trades in corporate bonds declined as follows: in the repo segment – from RUB 14.2 trillion to RUB 8.7 trillion, or by 38.4 percent; in the segment of market transactions – from RUB 154 billion to RUB 143 billion, or by 7.3 percent; in the segment of negotiated trades – from RUB 321 billion to RUB 220 billion, or by 31.6 percent. If the plunging volume of market transactions can be explained by the fewer workdays in February than in August, the plunge of the repo market was caused by more serious factors, the three most important ones being as follows: The reorganization procedures in several major bank; the curtailing, by the Bank of Russia, of FX repo deals; and growth of the alternative liquidity market in the form of GCC. In H2 2017, the Bank of Russia appointed temporary administration teams and began to audit several big banks that had previously been active players in the repo market: in August – *Otkrytie FC Bank*; in September – *B&N Bank* and *Rost Bank*; in December – *Promsvyazbank*. Their reorganization and recovery, financed from the central source, saved them from the necessity to refinance by resorting to the more expensive repo market instruments. In November 2017, the Bank of



Russia announced that it would discontinue FX repos for the period of 28 days and one year, this being an important method of maintaining the liquidity of corporate Eurobonds. Besides, the fast growth of the market for repos with GCCs made it unnecessary, in many cases, to resort to the more expensive repos in bonds.

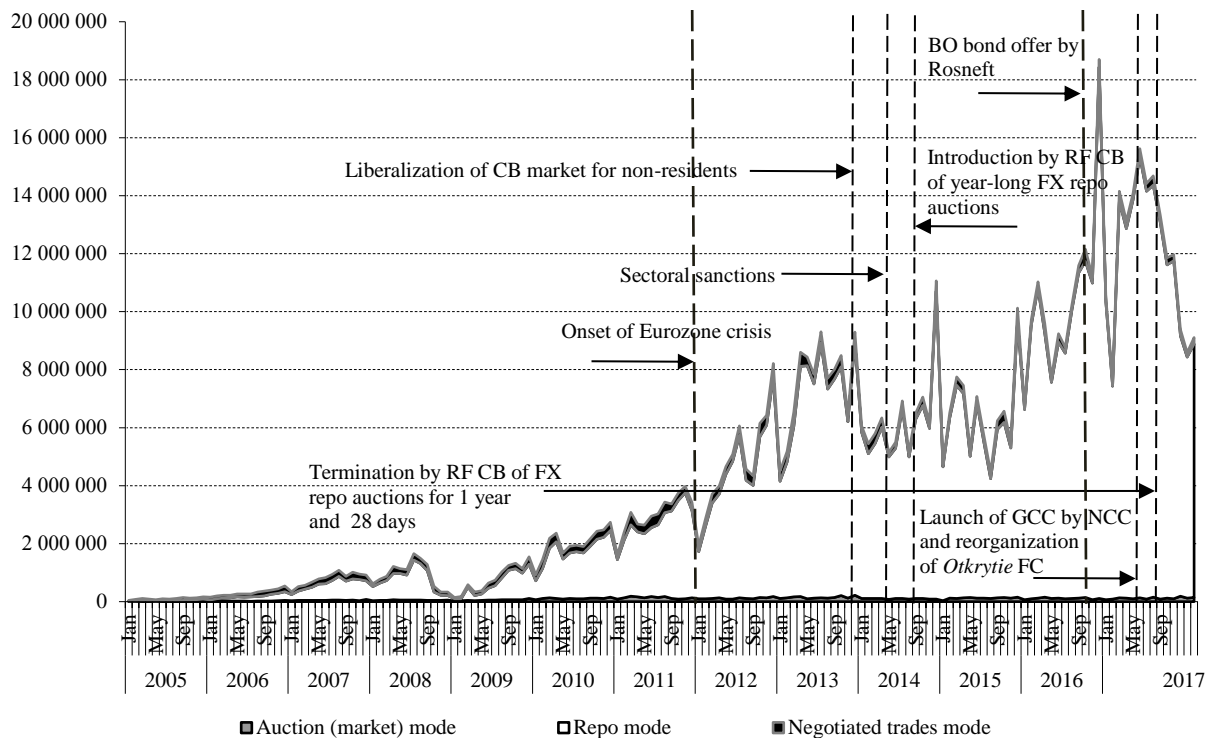


Fig. 30. The value volume of trades in corporate bonds, including Eurobonds, on the Moscow Exchange, millions of rubles

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

Thus, over the past 10–12 years, the corporate bonds market's behavior has been shaped in the main by changes in the money market segment. So far, the role of the segments of market transactions and negotiated trades has been relatively modest. As shown in Fig. 31, from 2011 onwards, market transactions and negotiated trades have not been demonstrating such strong growth trends as the repo segment that we discussed in the previous subsection. Among all the events that influenced the market transactions and NTM segments, the most noteworthy one is the decision concerning the pension savings freeze, introduced from January 1 2014, and still in effect.

As can be seen from Table 8, the average annual volume of market trades in corporate bonds over the three year preceding the pension savings freeze (2011–2013) was RUB 1.6 trillion vs. RUB 1.3 trillion over the three subsequent years (2014–2016), i.e., after the freeze the volume of market trades in corporate bonds shrank by 17.0 percent. It is also demonstrated that the freeze caused a shrinkage in the NTM segment by 24.1 percent. At the same time, over the same period, the average trading volume in the money market gained nearly 60 percent. With certain reservations, on the basis of these facts it can be assumed that the pension savings freeze from 2014 onwards produced a significant negative effect on the liquidity index of the corporate bonds market on the stock exchange. This negative effect could not be offset by the effects of

liberalization of depository services in the corporate bonds market for non-residents, introduced from February 2014.

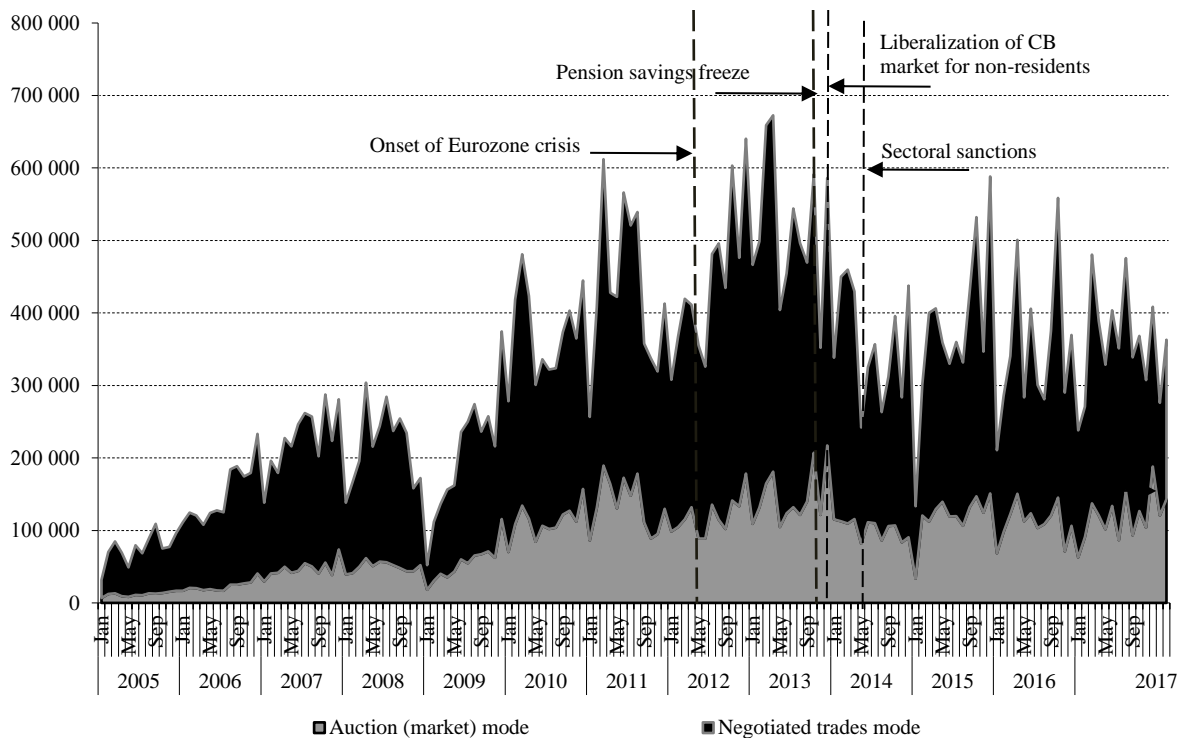


Fig. 31. The value volume of market transactions and negotiated trades in corporate bonds, including Eurobonds, on the Moscow Exchange, millions of rubles

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

Table 8

### Analysis of the effects of pension savings freeze on liquidity in the corporate bonds market on the Moscow Exchange

Trading modes	Average annual trading volume on Moscow Exchange, billions of rubles		Change, percent
	2011–2013	2014–2015	
Market transactions	1,604	1,332	-17.0
NTM	3,961	3,006	-24.1
Repo	55,977	89,468	59.8

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

Fig. 32 analyses the relative shares of different groups of financial organizations (private and public companies, the Bank of Russia) in the aggregate volume of trades in bonds on the Moscow Exchange, including market transactions, negotiated trades and repos.<sup>1</sup> The distribution of relative shares of various participants in trades in bonds in the total trading turnover on the exchange strongly depends on the banking system's refinancing methods. During the period of the Bank of Russia's active refinancing of the banking system through repo operations from September 2011 through January 2016, the role of Bank of Russia and big state

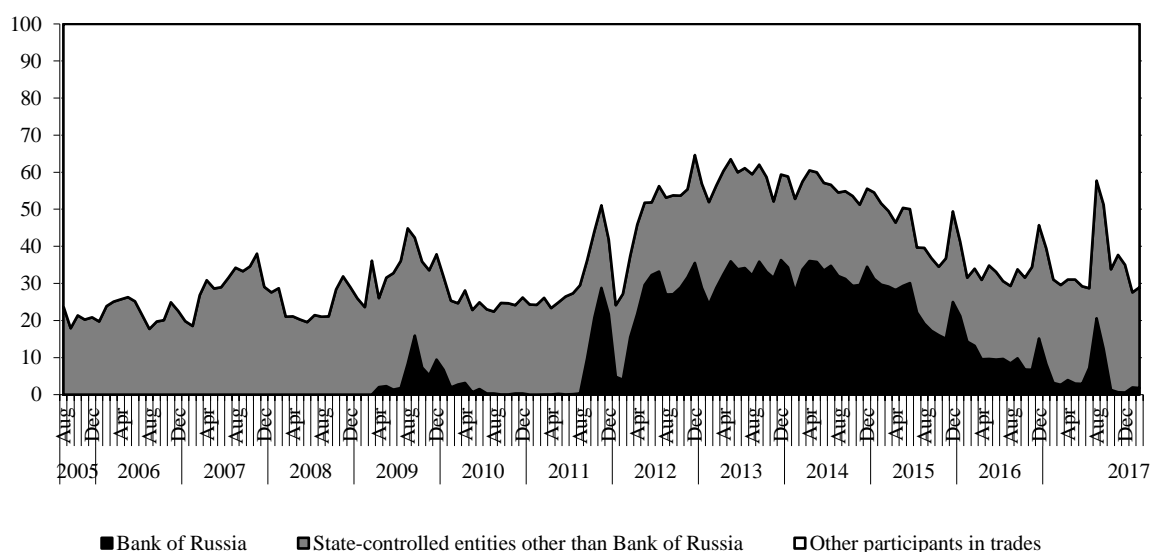
<sup>1</sup> Including corporate, regional and government bonds. From August 2015, the Moscow Exchange no longer discloses information on its monthly trades volume for each bond category.



banks in exchange trades in bonds was very prominent. Thus, for example, in 2012 the Bank of Russia and SOEs accounted for 35.5 percent and 29.1 percent respectively of the total volume of exchange trades in bonds, or for 64.6 percent if taken together.

As direct repos with the Bank of Russia gave way to refinancing through repos with the central counterparty where bonds were used as collateral, the relative share of the Bank of Russia shrank significantly, while that of SOEs increased, reflecting their increasing importance as liquidity sources in the banking system.

In H2 2017, several big banks (*Otkrytie FC Bank*, B&N Bank, Rost Bank, and Promsvyazbank), which used to play a major role in exchange trades in bonds, especially in the repo segment, were taken over by the Bank of Russia, and so became state-controlled entities. This translated into a soaring relative share of SOEs and the Bank of Russia as their source of borrowing in the total volume of trades in bonds. Thus, for example, in August 2017, the relative shares of SOEs and the Bank of Russia amounted to 37.1 percent and 20.6 percent respectively. However, later on, after the reorganization of those banks and their switchover to other centralized funding sources instead of repo deals, the relative shares of the Bank of Russia and SOEs shrank back to their previous level. In February 2018, the Bank of Russia's relative share amounted to 1.8 percent, that of SOEs – to 27.2 percent. It may be assumed that alongside the reorganization of these banks, the volume of repos in bonds will decline further, because these deals will no longer be used as funding sources by the banks experiencing financial difficulties.



*Fig. 32.* The relative shares of private brokers and state-owned entities in trades in bonds on the Moscow Exchange, percent

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

As shown in *Fig. 33*, the role of non-residents and domestic private investors in exchange trades in bonds (all bond categories) has been relatively modest. In February 2018, non-residents accounted for only 7.4 percent of their total value volume, and individuals – for 0.8 percent. One exception is the category of federal bonds (OFZ), where non-resident take up more than a third of total investment.

In 2017, the OFZ-N issue was launched that targeted retail investors. Some regional administrations and corporations likewise began to encourage individuals to buy their bonds. However, the progress so far achieved in that sphere has been modest in qualitative terms. It

could be said that some additional measures are needed in order to encourage households to get more actively involved in the domestic market for debt-based financial instruments.

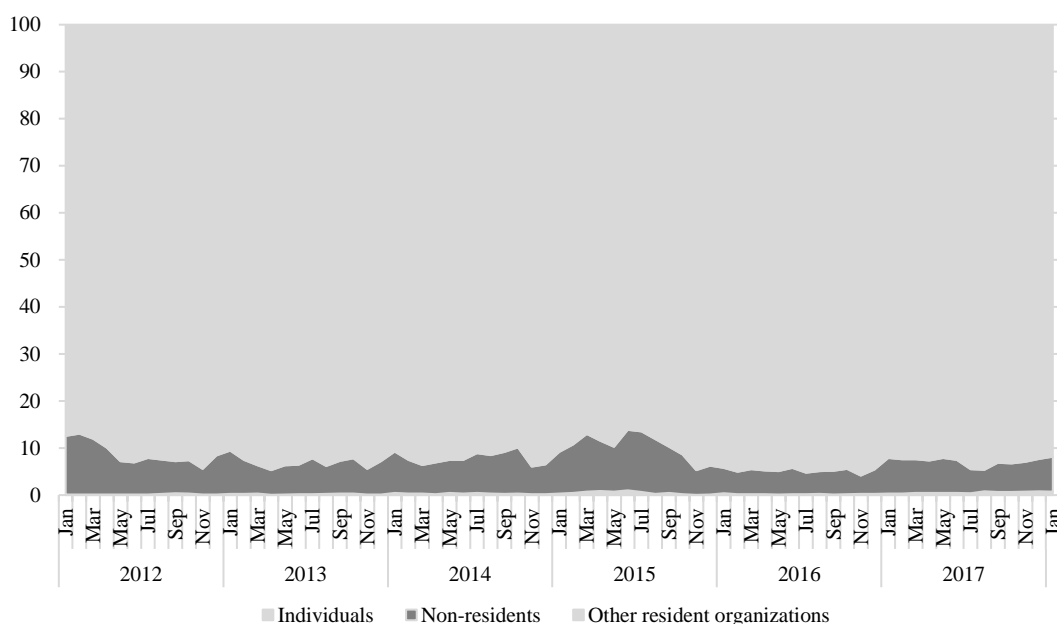


Fig. 33. The structure of investors participating in trades in bonds on the Moscow Exchange from January 2005 through February 2018, percent

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

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 as well as in the assets held by 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 2015, out of the total annual value volume of bond offers, which amounted to USD 26 billion, only USD 2.6 billion, or 6.6 percent, was invested in fixed assets (*Table 9*). Available statistics most clearly indicate that the market for corporate bonds has no noticeable effect either on investment in fixed assets or on the rate of economic growth. As was mentioned earlier, corporate bonds issues are *de-facto* the sources of short-term finance, and so companies prefer to use the income generated by bond placement mostly for replenishing their current assets and refinancing their old debt.

Since 2016, *Rosstat* no longer releases information on the relative share of bond issues in the structure of source of investment in fixed assets, which may be interpreted as the recognition of the insignificance of the stock market for this type of investment. However, this fact does not rule out the importance of the issue represented by the still insufficient use of corporate bonds as a source of targeted funding for investment in the real sector and fixed assets.

Table 9

### The parameters of domestic market for ruble-denominated corporate bonds (billions of USD)

	Bonds in circulation	Secondary market, including repo	Bond offer	Investment in fixed assets generated by bond offer		
				billions of USD	the same, as percentage of capitalization	the same, as percentage 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	29	2.6	1.9	6.6
2016	141	1,895	35	no data	no data	no data
2017	196	2,732	49	no data	no data	no data

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

#### 3.4. The market for government bonds

Over the period 2016–2017, in contrast to the situation in 2014–2015, the volume of borrowings attracted by the RF Ministry of Finance though the issuance of government securities was higher than the volume of government debt redemption. Thus, these debt instruments became a true source of budget deficit financing, raising net borrowing, according to CBonds statistics, in the amount of RUB 547 billion and RUB 1,270 billion respectively.

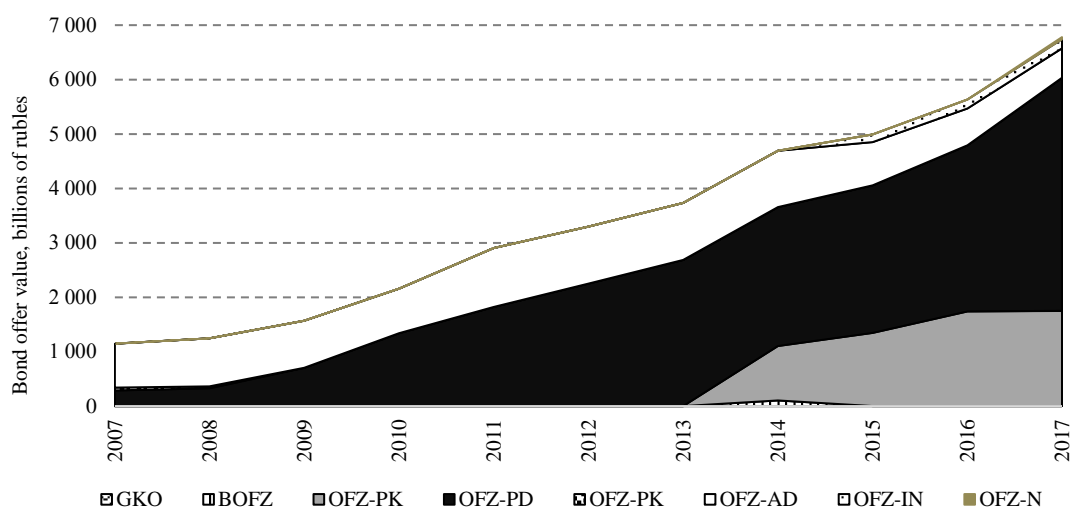
The evolution of the OFZ structure (*Fig. 34*) was largely determined by the RF Ministry of Finance's debt policy priorities and the roles of various categories of investors. In the study by Lu and Yakovlev,<sup>1</sup> three phases in the OFZ market's development are identified: prior to the 2008 crisis; from mid-2009 through mid-2011; from mid-2011 onwards.<sup>2</sup>

Prior to the onset of financial crisis in 2008, when the budget was always drawn up with a surplus, the government had little interest in increasing the OFZ market. Against this background, the key sources of demand for government bonds were pension savings and bank assets, which were often targeted by the carry trading strategies. The participation of non-residents was still low-key, and they were represented in the main by speculative funds. Consequently, major roles in the structure of government bond issues were played by OFZ-AD (debt amortization federal loan bonds), because their parameters were convenient for pension funds, and by OFZ-PD (constant coupon income federal loan bonds) that were more oriented to market investors because the coupon income was predetermined for the entire period until their maturity date. The less marketable issues of OFZ-FK (federal loan bonds with a fixed coupon yield), which had been used as a tool of renewing the government domestic debt after the default on GKO, were gradually leaving the market. In 2008, the relative shares of OFZ-AD,

<sup>1</sup> Lu, Y., Yakovlev, D. Exploring the Role of Foreign Investors in Russia's Local Currency Government Bond (OFZ) Market. IMF Working Paper, No WP/17/28, February 2017.

<sup>2</sup> It should be noted that this classification of phases in the OFZ market's development is very similar to the division of the corporate bond market's history periods suggested in our comments to *Fig. 25*.

OFZ-PD and OFZ-FK in the structure of government securities amounted to 70.9 percent, 26.4 percent, and 2.7 percent respectively.



**Note.** Hereinafter, the following abbreviations are used:

BOFZ – zero-coupon federal loan bonds;

GKO – short-term zero-coupon government bonds;

OFZ – federal loan bonds;

OFZ-AD – debt amortization federal loan bonds;

OFZ-IN – federal loan bonds with a face value tied to the Russian Federation's official inflation rate;

OFZ-PD – constant coupon income federal loan bonds;

OFZ-PK – federal loan bonds with a floating coupon tied to the RUONIA rate;

OFZ-N – federal loan bonds for retail investors ('people's bonds').

*Fig. 34.* The value volume of GKO-OFZ offering over the period from 1993 through March 2018

*Source:* own calculations based on data released by the RF Ministry of Finance.

From 2009 through mid-2011, the RF Ministry of Finance was interested in borrowing as a source for covering budget deficit. To achieve that goal, it relied on OFZ-PD issues oriented to banks with surplus liquidity. The new bond issues were offered at a premium of 5–10 basis points.<sup>1</sup> Non-residents' demand for OFZ was low due to the uncertainty concerning the interest rate.

Since mid-2011 and until the present time, the OFZ market has experienced many important developments that significantly boosted the role of the market for government securities and caused some shifts in its structure. The key change was that from mid-2012 onwards, non-residents became the main providers of liquidity in the OFZ.<sup>2</sup> Their high demand for OFZ-PD, and from 2015 also for OFZ-PD, resulted in further shrinkage of the relative share of OFZ-AD. Another factor that worked in the same direction was the freeze of pension savings in 2014–2018, which curtailed the demand of pension funds for OFZ-AD pension funds. It was in the interests of the RF Ministry of Finance that the relative share of OFZ-AD should be reduced: in 2016, the replacement, uninitiated by the Ministry, of OFZ-AD with a face value of RUB 63.7 billion by OFZ-PD with a face value of RUB 56.4 billion raised a significant amount of

<sup>1</sup> Lu, Y., Yakovlev, D. Exploring the Role of Foreign Investors in Russia's Local Currency Government Bond (OFZ) Market. IMF Working Paper, No WP/17/28, February 2017, p.10.

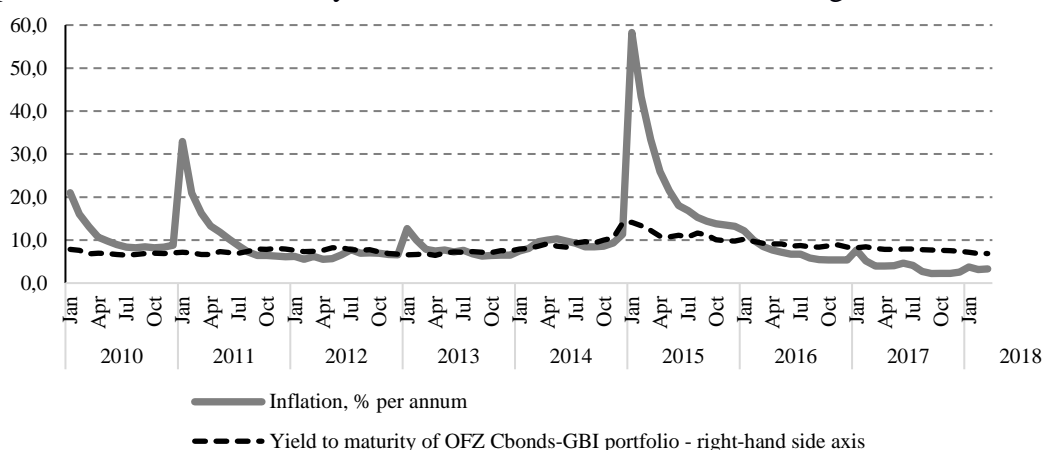
<sup>2</sup> Ibid, p.14.

cash for the budget. At the same time, from 2015, federal loan bonds with a face value tied to the inflation rate (OFZ-IN) for institutional investors, and from April 26, 2017, similar bonds targeting retail investors (OFZ-N), were launched onto the market. As a result, the topmost positions in the structure of OFZ issues as of March 31, 2018 were occupied by constant coupon income federal loan bonds (OFZ-PD) and bonds with a floating coupon (OFZ-PK), their relative shares amounting to 65.0 percent and 24.9 percent respectively. The relative shares of debt amortization federal loan bonds (OFZ-AD), bonds with a face value tied to the inflation rate (OFZ-IN), and federal bonds for retail investors (OFZ-N) amounted to 7.0 percent, 2.5 percent, and 0.6 percent respectively.

In 2017, the highest trading indices among OFZ issues were OFZ-PK 29006 maturing in January 2025; OFZ-PD 26207 maturing in February 2027; OFZ-PD 26221 maturing in March 2033; and OFZ-PD (26218 and 26219) maturing in 2026–2031.

One of the key issues that must be dealt with in order to make an investment in OFZ an attractive option is to make the portfolio's yield to maturity move ahead of the inflation rate (*Fig. 35*). The positive phenomena observed since early 2016, including the notable decline in the rate of inflation and the stabilization of the ruble's exchange rate against foreign currencies, made it possible to once again, from March 2016 onwards, to offer positive yields of OFZ Cbonds-GBI portfolio in real terms.

The month-end results of March 2018 demonstrated that, while inflation in per annum terms amounted to 3.3%,<sup>1</sup> the yield of the OFZ portfolio was 8.4%. At the same time, on the whole over the period under consideration (January 11, 2010 – March 31, 2018), the average yield of 8.3% per annum was still notably below the inflation rate, whose average index was 10.0%.



*Fig. 35.* The movement of inflation and yield to maturity of OFZ Cbonds-GBI portfolio over the period from January 11, 2010 to March 31, 2018

*Source:* own calculations based on data released by Rosstat and cBonds.ru

So, in spite of the complicated geopolitical and macroeconomic situation, the government securities market continued to develop smoothly and began to play an increasingly important role in budget deficit financing. Over the last three and a half years, the government and the Bank of Russia managed to stabilize the situation in the forex and financial markets. In terms

<sup>1</sup> When calculated as the inflation growth index for a current months relative to the previous month. According to Rosstat data, inflation in March 2018 amounted to 2.4 percent per annum relative to March 2017.

of its yield indices in early 2017, the RF market for OFZ and Eurobonds was below its 2013 level, which was a time of relative geopolitical stability.

Similarly to the market for corporate bonds, the OFZ market displays more features of a money market than those of a stock market. The main stimulus for its domestic participants to acquire government bonds is the possibility to use them as collateral when borrowing money (Fig. 36). In February 2018, the share of repo transactions in the total value volume of trades in government bonds rose amounted to 90.5 percent. Only about 4.7 percent of all trades in government bonds were market transactions. In early 2017 – late 2018, the share of repo transactions in the total trades in government bonds gained 2–3 percentage points as a result of the shrinking repo market volume, for the same reasons as in the corporate bond market on the stock exchange (see comments to Fig. 30).

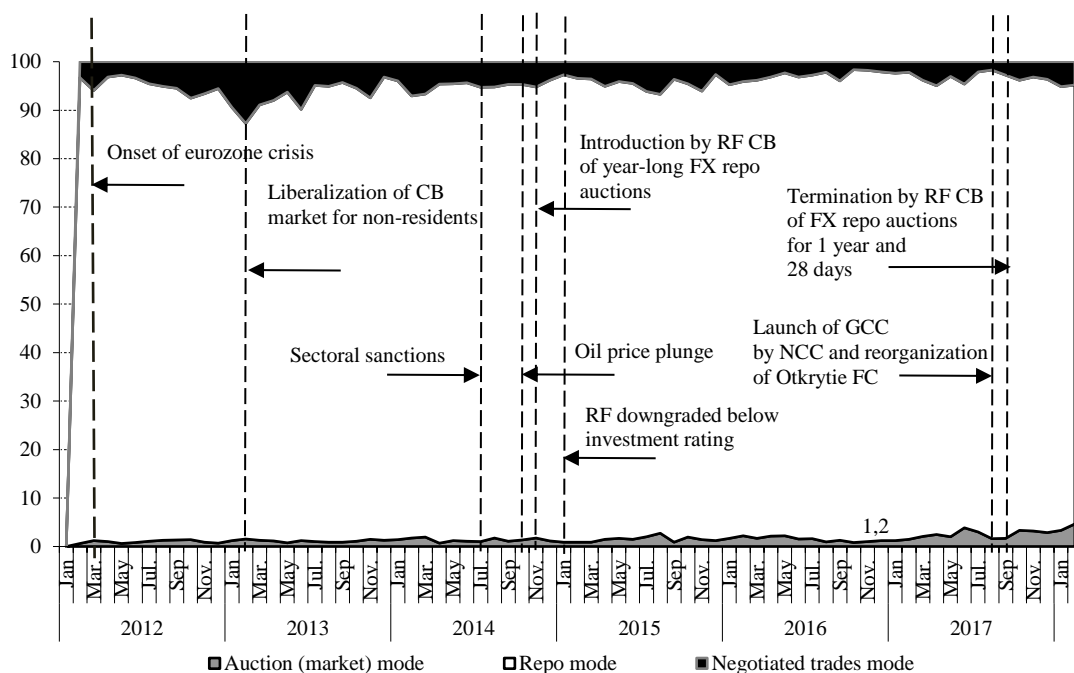


Fig. 36. The structure of transactions in federal bonds, including Eurobonds, on the Moscow Exchange from February 2012 through February 2018, percent

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

In 2017, the volume of repo transactions in government bonds increased relatively moderately, to RUB 117.2 trillion from RUB 113.6 trillion in 2016, or by only 3.2 percent (Fig. 37). A quite different situation was observed in the market transactions segment, where the volume of trades in government bonds soared from RUB 1.7 trillion in 2016 to RUB 2.9 trillion in 2017, or by 67.6 percent. The trading volume also increased in the negotiated trades sector - from RUB 3.3 trillion in 2016 to RUB 3.8 trillion in 2017, or by 12.7 percent. The growth rate slowdown in the government bonds sector of the money market occurred for the same reasons as in its corporate bonds segment: the reorganization of several formerly active participants in the repo market, the termination of FX repos by the Bank of Russia, and a rise in the use of GCCs.

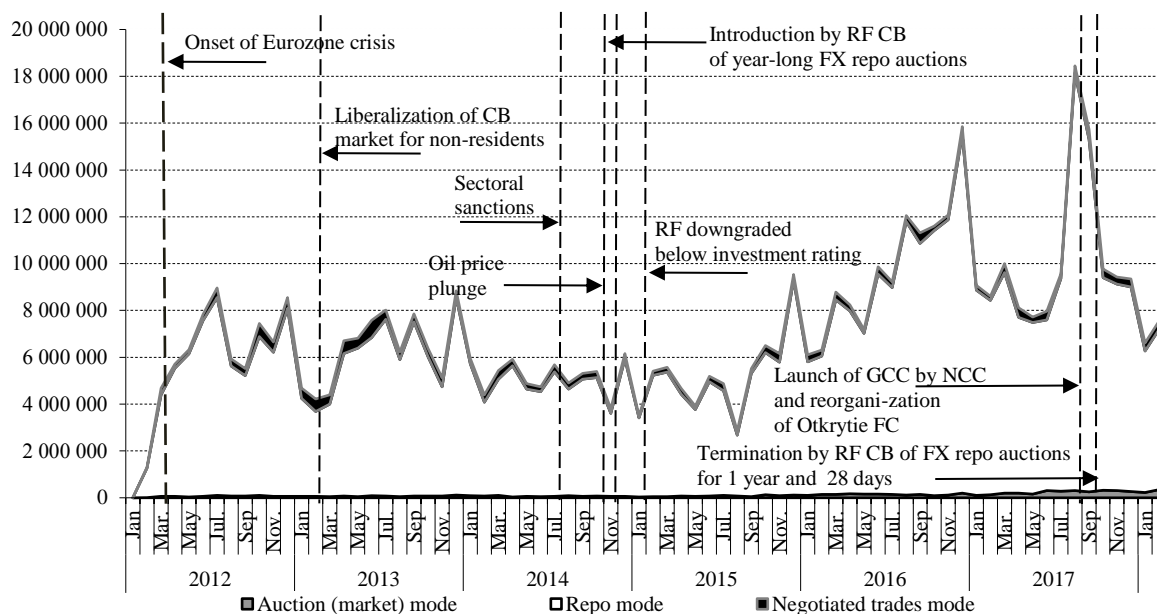


Fig. 37. The value volume of trades in federal bonds, including Eurobonds, on the Moscow Exchange from February 2012 through February 2018, millions of rubles

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

The decline of trading volume in money market for government bonds since September 2017 was even deeper than that in the corporate bond segment. The probable reason is that, in 2016–2017, in contrast to the situation in the market for corporate bonds, the most prevalent type of repos in government bonds, in terms of their value volumes, were RF Eurobond refinancing deals (Fig. 38). Therefore the ban on FX repos imposed by the Bank of Russia translated into a deeper plunge of the value volume of repos in government bonds compared with that of repos in bonds issued by private borrowers.

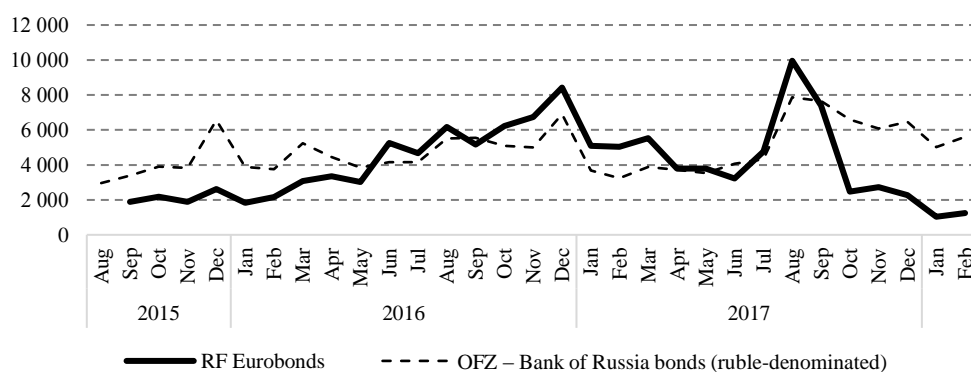


Fig. 38. The value volume of repos in OFZ and RF Eurobonds on the Moscow Exchange, billions of rubles

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

In contrast to the situation with corporate bonds (see Fig. 31), over the period from early 2015 through February 2018, the segment of market transactions in government bonds was demonstrating a positive growth trend. The value volume of market transactions in government



bonds amounted to RUB 1.4 trillion in 2015, RUB 1.7 trillion in 2016, and RUB 2.9 trillion in 2017 (Fig. 39). The growth of market transactions in federal bonds was caused by an active inflow of non-residents into that market segment and the increasing interest in OFZ displayed by private investors in view of the high return rates of government securities in real terms, when the return rates of OFZ overshot those of bank deposits.

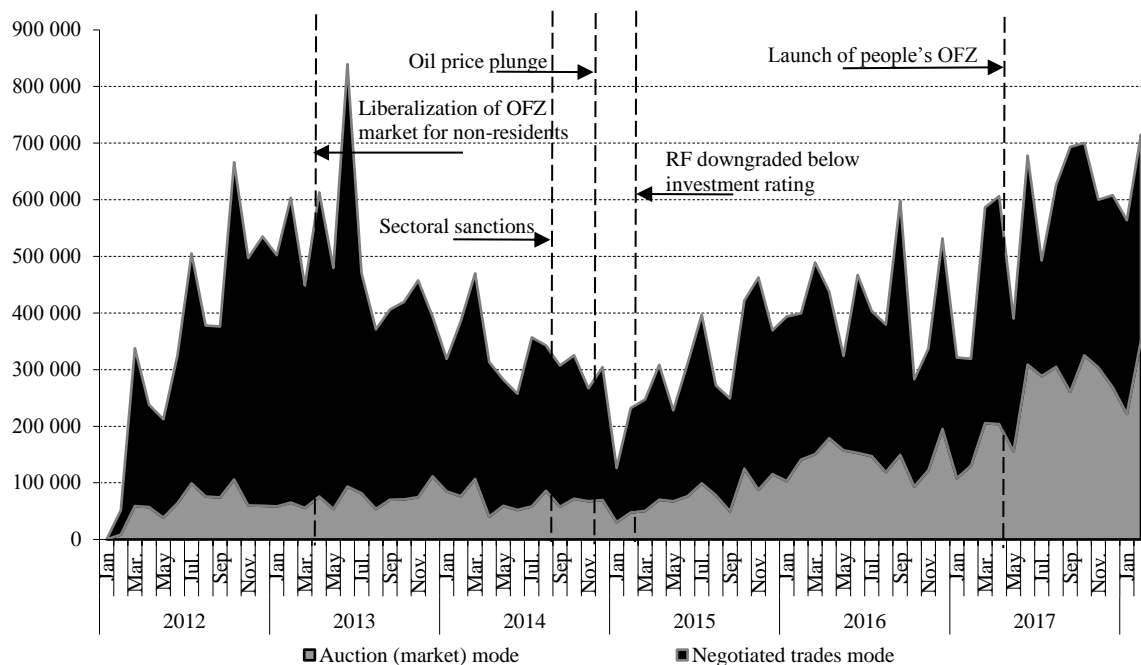
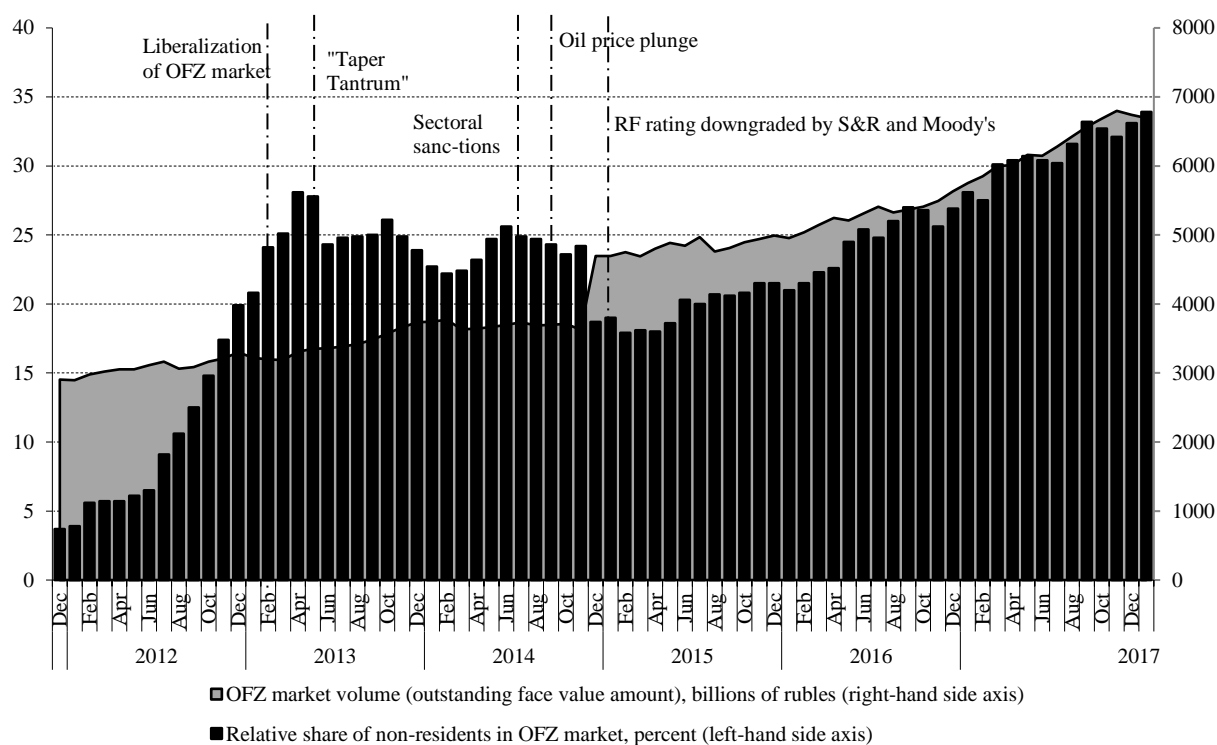


Fig. 39. The value volumes of market transactions and negotiated trades in federal bonds, including Eurobonds, in the Moscow Exchange from February 2012 through February 2018, millions of rubles

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

The opening, by Russia's central depository in February 2013, of nominal holder accounts for foreign clearing and settlement systems triggered an inflow of foreign investment into the domestic government debt market. The relative share of non-residents in the secondary market for OFZ increased from 6.5 percent in July 2012 to 28.1 percent in May 2013 (Fig. 40). After May 2013, it somewhat declined to 24.9 percent in December 2013 in response to the behavior of the global financial market caused by huge capital outflows from the developing markets after the US Federal reserve's announcement of its intention to raise its key rate. The period between January 2014 and January 2015 saw a succession of events that produced a very negative effect on Russia's financial market: the ever increasing geopolitical risks associated with the situation in the Crimea; the introduction of sectoral sanctions in July 2014; the downfall of prices in the oil market from September 2014; the ruble's depreciation; Russia's sovereign credit rating downgraded to junk by S&P as of 25 January 2015 and by Moody's as of 20 February 2015. As a result, in January 2015, the relative share of non-residents in the structure of trades in OFZ shrank to 18.7 percent. The measures introduced by Russia's monetary authorities helped stabilize the situation in the financial and forex markets, thus creating incentives for non-residents to return to Russia's domestic market for OFZ, and so in January 2018 their relative share amounted to 33.9 percent.



*Fig. 40. The participation of non-residents in the OFZ market<sup>1</sup> from February 2012 through January 2018*

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

Thus, due to the modest relative shares taken up in the domestic OFZ market by retail investors, pension savings and collective investments, and the concentration of banks predominantly in the money market for OFZ, non-residents were the most active group of investors trading in OFZ on the spot market (market and NTM transactions). In the future, the growth prospects of Russia's OFZ market will largely depend on whether or not it will manage to attract domestic institutional investors, and also, to a certain extent, retail investors, to the spot market for OFZ.

### 3.5. The derivatives market

The year 2017 saw a continuation of the trading activity decline in the market for derivatives with underlying securities, which had first become visible in March 2016 (*Fig. 41*).

The futures trading volume declined from RUB109.5 trillion in 2016 to RUB 77.6 trillion in 2017, or by 29.1 percent; the number of contracts – from RUB 1.89 billion to RUB 1.50 billion, or by 20.6 percent; and the number of transactions – from RUB 341.2 million to RUB 254.1 million, or 25.5 percent. After having peaked in February 2016, the futures market turnover indices began to tumble rapidly.

The main factor behind the dwindling trading activity in the futures market for contracts with underlying securities from March 2016 onwards was the ruble's stabilization alongside the growth of Russian stock indexes in 2016 followed by their stagnation in 2017, which reduced the needs of market participants to hedge on the stock prices by trading in the derivatives

<sup>1</sup> In this case, it is the relative share of transactions closed by non-residents in the total volume of market transactions and negotiated trades in OFZ on the Moscow Exchange.

market. The trading activity in the equity futures market was also kept in check by the raised stock exchange tariffs in that market segment and the replacement of flat fee by commission charged as a percentage of transaction value (introduced from October 2016), which made the derivatives market operations less attractive to high frequency traders.<sup>1</sup>

In contrast to the futures market, the equity options trading segment managed to avoid a contraction in trading activity, both in 2017 and in 2016. The volume of options trading increased from RUB 3.9 trillion in 2015 to RUB 5.8 trillion in 2016, and to RUB 6.9 trillion in 2017, or by 47.9 percent and 18.9 percent respectively; the number of contracts jumped from 53.7 million to 72.5 million, and then to 83.7 million, or by 35.0 percent and 15.4 percent respectively; and the number of transactions – from 4.9 million to 6.1 million, and then to 6.7 million, or by 22.9 percent and 10.2 percent respectively.

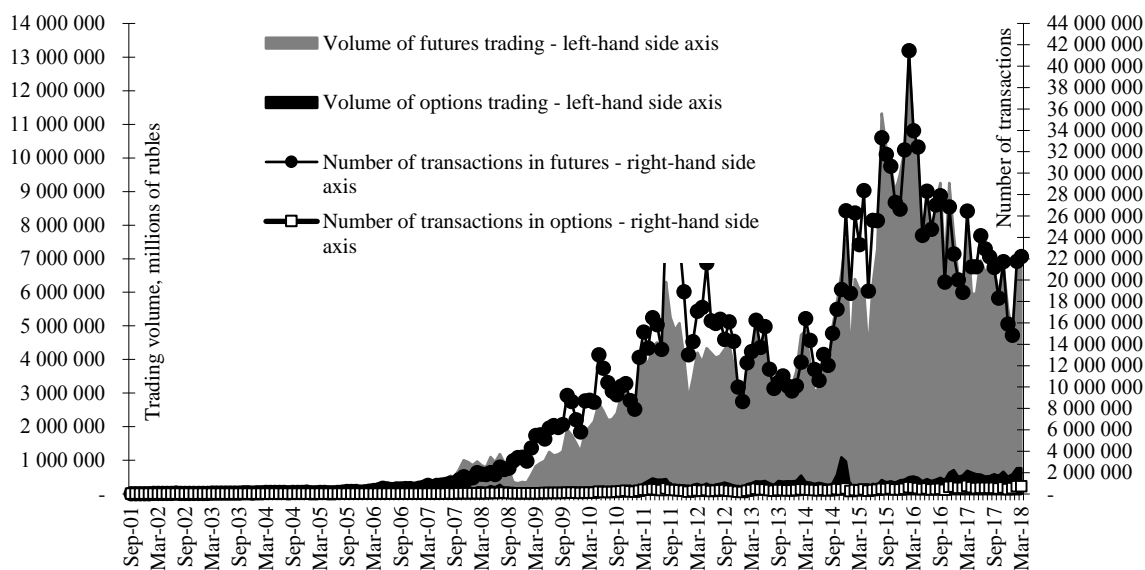


Fig. 41. The trading volume and number of transactions in the Moscow Exchange's futures market from September 1, 2001 through March 31, 2018

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

In response to the stabilization of the national currency's exchange rate, rising return rates of the stock indexes, and volatile commodity prices, the futures market structure on the Moscow Exchange in 2016–2017 tipped towards commodity and index futures, as the relative share of forex futures was shrinking (Fig. 42). The highest growth was demonstrated by the relative share of commodity futures; it was caused by the increasing demand for futures contracts for Brent crude, copper, sugar, and precious metals.

In the futures market structure, the relative share of index futures jumped from 19.3 percent in 2015 to 28.6 percent in March 2018; that of equity futures – from 3.0 percent to 5.7 percent; and that of commodity futures – from 5.8 percent to 21.6 percent respectively. Meanwhile, the relative share of forex futures dived from 71.9 percent to 43.2 percent. As before, over the period 2016–2017 the demand for security futures remained low.

<sup>1</sup> M. Mesropyan. A lucrative October. Vedomosti, November 6, 2016.

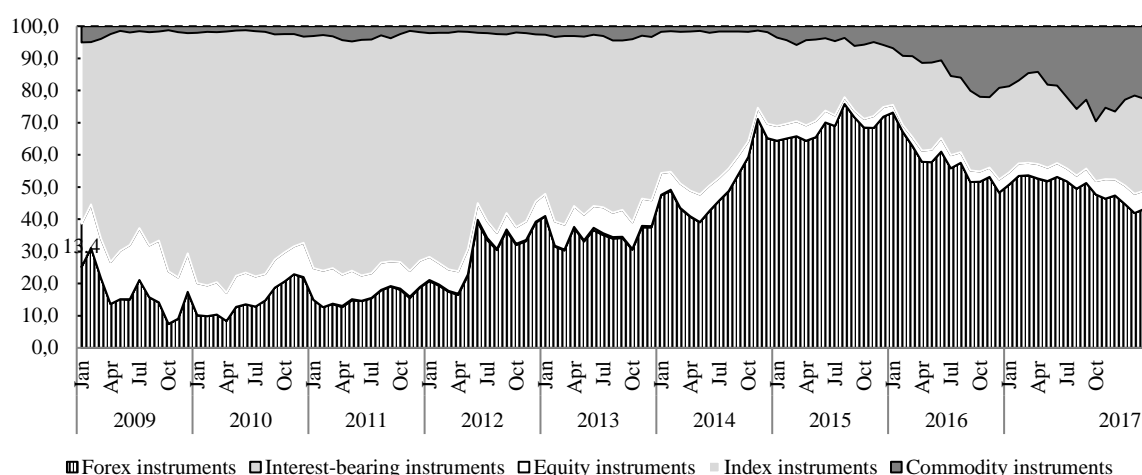


Fig. 42. The futures market structure on the Moscow Exchange over the period from January 2009 through March 2018, percent of value volume

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

In 2016–2017, the aforesaid factors were also shaping the structure of option transactions on the exchange market (Fig. 43). Within their structure, the relative share of transactions with index options increased from 50.7 percent in 2015 to 71.6 percent in March 2018, and that of commodity options – from 0.6 percent to до 2.6 percent. Over the same period, the relative share of forex options, on the contrary, shrank from 46.0 percent to 25.4 percent; and that of equity options – from 2.7 percent to 0.5 percent.

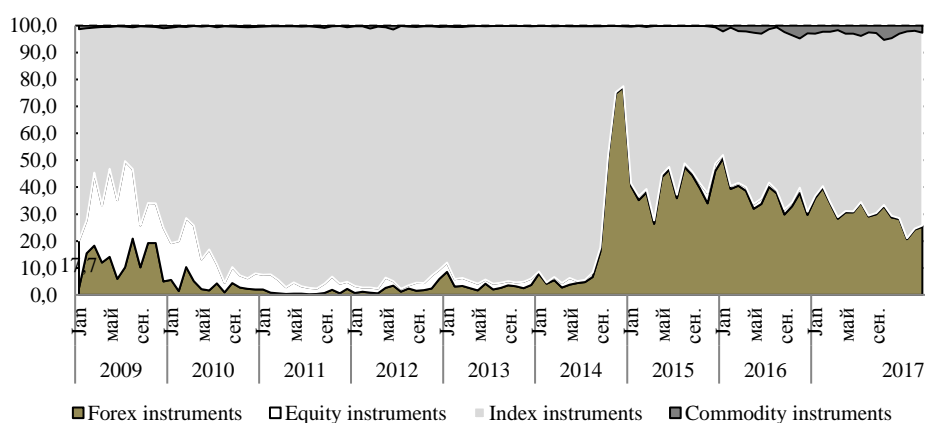


Fig. 43. The options market structure on the Moscow Exchange over the period from January 2009 through March 2018, percent of value volume

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

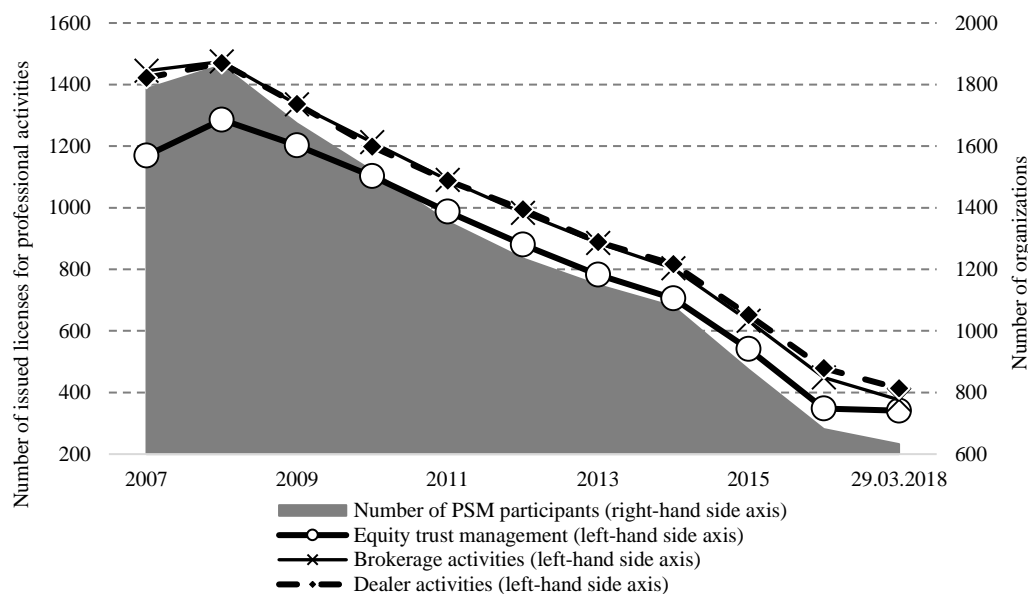
### 3.6. Financial intermediaries and exchange infrastructure

The slow progress in the development of Russia’s domestic stock market coupled with the tougher regulation of the activities of financial intermediaries have inevitable resulted in a shrinkage of the number of professional securities market participants (Fig. 44). The number of brokerage license holders plunged from 449 in 2016 to 376 in March 2018, or by 16.3

percent. Although a decade has passed since 2007, the number of active brokerage licenses in 2016 amounted to only 26.0 percent relative to 2007 (the pre-crisis year).

The number of market participants licensed to act as equity trust managers shrank from 348 in 2016 to 341 in March 2017, or by 2.0 percent. In 2016, the number of active licenses in this category amounted to only 29.2 percent relative to 2007.

Overall, the number of professional securities market participants in Q3 2017 was 632 vs. 681 in 2016, which represents a decline by 7.2 percent. The number of professional securities market participants in Q3 2017 amounted to only 35.4 percent relative to 2007.



\* as of Q3 2017.

Fig. 44. The number of issued licenses covering brokerage activities, dealer activities, equity trust management and professional securities market (PSM) participants

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

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 servicing 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.

Alongside positive changes, the merger of the RTS and the MICEX also produced some controversial effects for the domestic financial market development. First of all, now there was no competition between the two exchanges, while previously it had acted as a powerful tool that boosted stock exchange activity in the interests of domestic investors and financial intermediaries. Table 10 shows the cardinal changes that occurred in the ownership structure of Moscow Exchange PJSC. Initially after the merger in 2011, a 59.0 percent stake in its capital was held by the Bank of Russia and several other state-controlled entities, while the other 41.0 percent was held by Russian participants in exchange trading and other resident entities.

In 2017, the stake held by state-controlled structures now amounting to 43.1 percent, the aggregate stake held by non-residents had increased to 56.5 percent. In this connection, the main issue associated with the ownership structure of the Moscow Exchange is the absence therein of Russian private financial intermediaries, while those intermediaries, as was shown earlier (see *Fig. 17* and *32*), account for the bulk of transactions in financial instruments effected on the exchange market.

Table 10

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

	Before reorganization, as of 2011		After merger, as of February 1, 2012	2013	2014	2015	2016	2017
	RTS OJSC	MICEX CJSC						
State stake – total	0.0	64.0	59.0	64.5	51.0	53.4	44.3	43.1
including:								
Bank of Russia	0.0	28.6	24.3	24.7	12.1	11.8	11.8	11.8
Sberbank of Russia	10*	7.5	10.4	9.8	10.0	10.0	10.0	10.0
Vnesheconombank	0.0	10.5	8.7	8.0	8.4	8.4	8.4	8.4
Non-residents	0.0	0.0	0.0	14.9	25.9	36.0	52.3	56.5
Residents – private entities	90.0	36.0	41.0	20.6	23.2	10.6	3.4	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\* Troika Dialog CJSC purchased by Sberbank of Russia.

*Source:* own calculations based on data released by public information sources. The stakes held by the Bank of Russia, Sberbank of Russia and Vnesheconombank (VEB) were calculated on the basis of the Moscow Exchange's reports for several years; the stakes held by the State and non-residents over the period 2013–2017 are calculated on the bases of data released by Bloomberg; the stakes held by RTS OJSC participants are estimated based on the reports released by the RTS.

One of the advantages of the Moscow Exchange over its rivals in the global market is the diversity of its market segments. However, this business model gives rise to some additional risks that have to do with the lower incentives to develop the less marginal segments of the exchange's activity. At present, this has become manifest in the lower significance of the equity market in the total volume of trading on the exchange. The high risks and low returns on investment in securities placed by Russian issuer, increased volatility of fore rates and financial assets, the persistently high refinancing rates in the banking system, the pension savings freeze and inadequacy of the other domestic saving sources have all translated into certain *привели к* shifts in the market structure of the Moscow Exchange. Over the course of seven years, the relative share of capital market in the total trading volume tumbled from 13.2 percent in 2010 to 4.0 percent in 2017 (*Table 11*).

The relative share taken up by the money and forex market (MFX), on the contrary, increased from 72.0 percent in 2010 to 86.5 percent in 2017. More particularly, over the period under consideration, the relative share of the fore market increased from 38.1 percent to 39.2 percent, and that of the money market – from 33.9 percent to 47.3 percent. Growth in the forex segment was boosted by the ruble's instability and the access to the forex market on the Moscow Exchange granted to the private clients of brokers and banks. The money segment was expanding in response to money overhang in banks and the accelerated growth of repos with the central counterparty.

Over the period from January 2010 through February 2018, the relative share of transactions with derivatives in the total trading volume dropped from 14.8 to 9.5 percent. This movement pattern occurred due to the stabilization of the ruble's exchange rate and the inflation index, and rising return rates on the domestic market for shares, which reduced the need to use hedging



tools for market participants. The raised tariffs on the futures market and the switchover to commission charged as a percentage of transaction value resulted in a lower trading activity of speculative investors. Meanwhile, the efforts to create on the exchange a liquid market for interest-rate derivatives have remained unsuccessful.

Table 11

**The market structure on the Moscow Exchange, percent**

	2010	2011	2012	2013	2014	2015	2016	2017	Jan-Feb 2018
<b>Stock market</b>	<b>13.2</b>	<b>10.3</b>	<b>6.5</b>	<b>5.2</b>	<b>3.6</b>	<b>3.0</b>	<b>2.8</b>	<b>4.0</b>	<b>5.4</b>
including:									
Shares, Russian depository receipts (RDR), investment fund units	8.0	6.6	3.1	1.9	1.8	1.4	1.1	1.0	1.3
Bonds	5.2	3.7	3.4	3.3	1.9	1.6	1.7	3.0	4.1
Secondary turnover	3.4	2.9	2.8	2.7	1.5	1.2	1.1	1.2	1.6
New offering	1.8	0.8	0.6	0.6	0.3	0.4	0.6	1.7	2.5
<b>Money and forex market</b>	<b>72.0</b>	<b>70.6</b>	<b>80.0</b>	<b>84.3</b>	<b>85.6</b>	<b>83.3</b>	<b>83.6</b>	<b>86.5</b>	<b>84.0</b>
including:									
Money market	33.9	41.3	48.3	50.7	45.7	38.0	44.8	47.3	41.5
Repo transactions	31.5	38.3	45.8	47.9	42.0	33.2	40.4	43.1	33.5
Lending market	2.4	3.1	2.5	2.8	3.7	4.8	4.4	4.2	8.0
Forex market	38.1	29.3	31.6	33.7	39.9	45.4	38.8	39.2	42.5
Spot trades	18.0	15.8	16.6	12.4	13.6	15.1	12.6	8.8	9.5
Swap trades	20.1	13.4	15.0	21.3	26.3	30.3	26.2	30.3	33.0
<b>Futures market</b>	<b>14.8</b>	<b>19.1</b>	<b>13.5</b>	<b>10.5</b>	<b>10.7</b>	<b>13.7</b>	<b>13.6</b>	<b>9.5</b>	<b>10.5</b>
<b>Derivatives</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0003</b>	<b>0.0002</b>	<b>0.0006</b>	<b>0.002</b>	<b>0.012</b>	<b>0.053</b>
<b>Commodity market</b>	<b>0.001</b>	<b>0.003</b>	<b>0.006</b>	<b>0.005</b>	<b>0.003</b>	<b>0.02</b>	<b>0.02</b>	<b>0.01</b>	<b>0.01</b>
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

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

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). In accordance with Order of the FFMS of No 12-2761/PZ-I dated November 6, 2012, this status was granted to the non-bank credit institution National Settlement Depository (Close-end Joint Stock Company, NSD CJSC). In 2017, the NSD's equity, in compliance with Basel III standards, amounted to RUB 8.9 billion vs. RUB 11.3 billion in 2015, thus having declined by 21.2 percent. The value of securities kept by the NSD rose from RUB 31 trillion in 2015 to RUB 39 trillion in 2017, or by 25.8 percent.

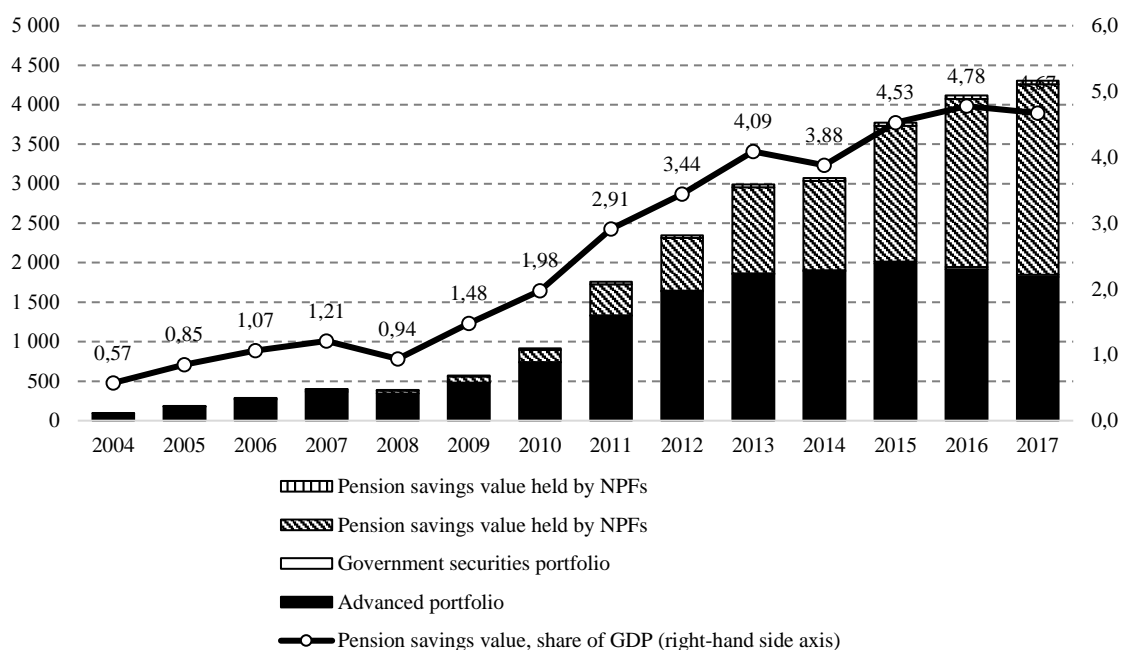
Another entity affiliated to the Moscow Exchange is the National Clearing Centre (NCC). From November 2011, the NCC had been functioning as a clearing organization in the stock market, and from December 2012 – also in the derivatives market. In October 2013, the Bank of Russia recognized the National Clearing Centre CJSC to be the only qualified central counterparty (Central Counterparty National Clearing Centre, or CCP NCC). The strategic objective of the CCP NCC is to provide members of various financial market segments with integrated clearing services, implying the use of unified collateral and the management of single positions (limits) across all the markets of the Moscow Exchange Group. The CCP NCC's equity, in compliance with Basel III standards, was reduced from RUB 54.3 billion in 2015 to RUB 45.9 billion in 2016, or by 15.5 percent.



### 3.7. Investors in the domestic stock market

One of the main obstacles to smooth development of Russia’s domestic stock market has been the relatively low development level of institutional investors (pension and investment funds, insurance organizations).

In Q3 2017, the total volume of pension savings held by non-governmental (private) pension funds (NPF) amounted to RUB 2.4 trillion; the amount of pension savings held in the accounts of the RF Pension Fund and managed by government and private asset managers rose to RUB 1.9 trillion (*Fig. 45*). Considering the effects of the pension savings freeze and the recovery growth of GDP, the size of pension savings as a share of GDP declined for the first time in many years – from 4.8 percent in 2016 to 4.7 percent in 2017.



**Note.** For 2017, the value of pension savings and pension reserves held by the NPFs reflects the index for the year’s first 9 months.

*Fig. 45.* The structure of pension savings in 2004–2017, billions of rubles

*Source:* own calculations based on data released by Rosstat, the Bank of Russia, and the RF Pension Fund.

As shown in *Table 12*, over the decade that has elapsed since 2007, pension savings have become an important financing source for corporate and regional bonds. Their relative share in the structure of sources of financing for corporate bonds increased from 0.8 percent in 2007 to 11.4 percent in 2016. The corresponding index for the regional bond market leaped from 2.0 percent to 10.1 percent respectively. By their relative share in the sources of financing for non-government bonds, the pension savings held by NPFs have already achieved the average level typical of the OECD member states. As for their involvement in money market instruments, government securities and shares issued by Russian companies, the corresponding index is still below 1.0 percent.

*Table 12*

#### The relative shares of pension savings invested by NPF in different financial asset classes in Russia, 2007–2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Monies and deposits with banks	0.01	0.14	0.54	0.71	1.67	4.25	5.27	4.24	3.94	2.74
Corporate bonds	0.82	0.92	1.12	2.56	5.11	5.43	7.66	6.72	10.12	11.42
Federal bonds	0.16	0.08	0.14	0.11	0.54	0.46	1.07	0.49	1.56	2.49
Regional bonds	2.03	1.62	2.24	3.07	5.61	10.67	12.60	12.07	12.63	10.11
Shares	0.02	0.04	0.03	0.04	0.12	0.12	0.21	0.39	0.94	0.87

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

From mid-2015, sustainable growth has been demonstrated by another form of collective investment – open-ended unit investment funds (UIF), as can be seen in Fig. 36<sup>1</sup>. The total net value of assets held by open-ended UIFs increased from RUB 110.2 billion in 2015 to RUB 216.9 billion in 2017, or nearly twofold. The total net value of assets held by interval UIFs over the same period dwindled from RUB 23.1 billion to RUB 6.2 billion, or by 73.2 percent (Fig. 46).

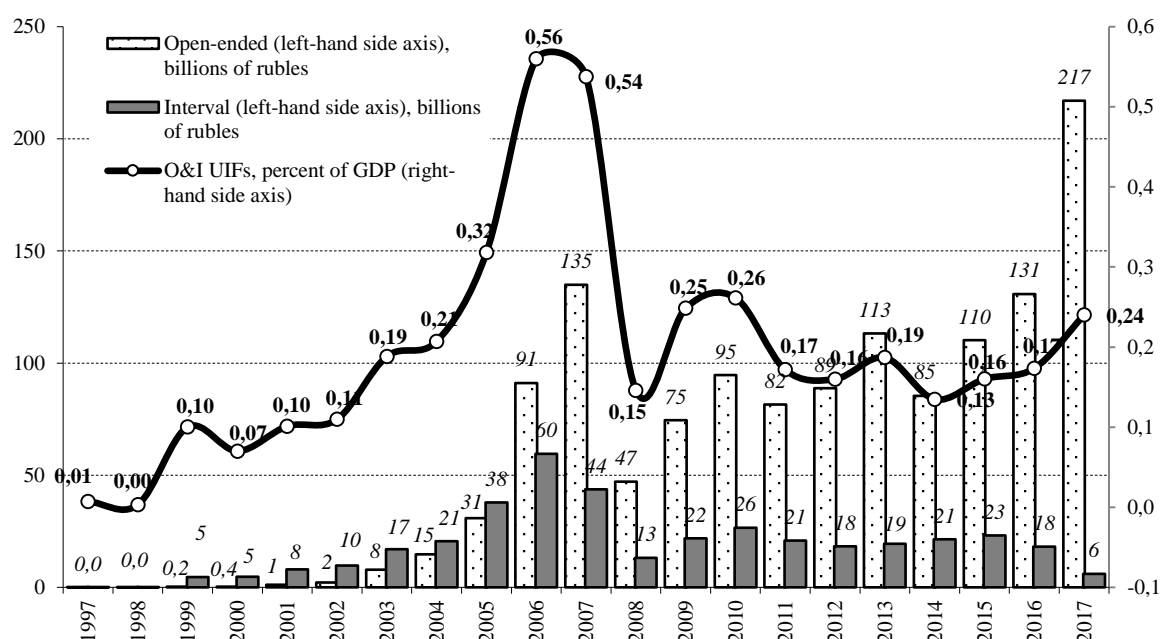


Fig. 46. The size of open-ended and interval unit investment funds, in relative and absolute terms

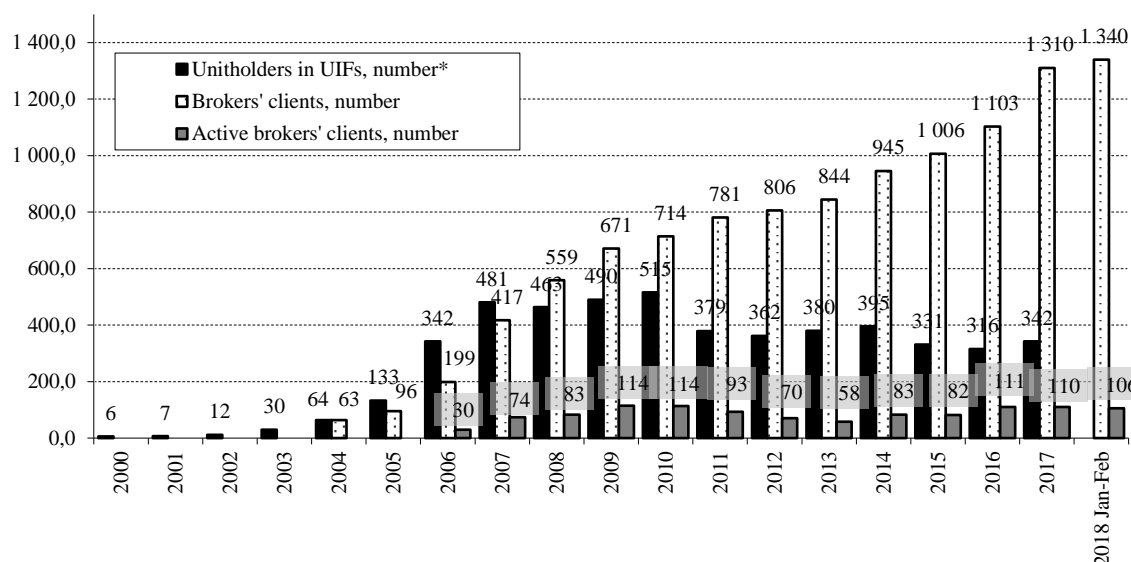
Source: own calculations based on data released by Rosstat, the National League of Management Companies (MLMC), and the Bank of Russia.

However, it is still too early to talk of a revival of collective investment activities in Russia. The obstacles to growth in this market segment are the underdeveloped infrastructure, outdated selling and marketing practices, legislative constraints on investing pension savings in UIFs, and low levels of public confidence and financial literacy. So far, this country lacks an efficient system through which the units of open-ended and interval UIFs could be properly marketed and sold.

Fig. 47 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. Over the period

<sup>1</sup> For more details on this subject, see Abramov A., Radygin A., Chernova M. Russian institutional investors and privatization policy. Russian Economic Developments, No 12, 2016.

from December 2016 through February 2018, the total number of accounts opened for retail clients of brokers on the Moscow Exchange increased from 1.10 million to 1.34 million, or by 21.5 percent. Over the same period, the number of active accounts opened or the clients of brokers operating in the exchange market declined from 111,000 to 106,000, or by 4.5 percent. According to estimated released by RAEX, the number of market retail investors in UIFs declined from 316,000 in 2016 to 342,000 in 2017, or by 8.2 percent.



\* No data are available for February 2018.

Fig. 47. The number of retail clients of trust managers and brokers

Source: own calculations based on data released by the Moscow Exchange, the MLMC, and RAEX.

The year 2017 saw a notable revival in the brokerage services market for private clients. The four biggest stock brokerage companies – BCS, Finam, Sberbank of Russia, and VTB – have been intensely competing for leadership in servicing private clients (Fig. 48). Thanks to its skillful cooperation with Tinkoff Bank in attracting new clients, BCS, after having ranked only fourth in the brokerage services market, managed to get ahead of all its rivals, including some big state bank. The total number of its clients soared from 181,700 in December 2016 to 282,100 in February 2018, or by 55.2 percent. This case is interesting, in that it demonstrated the existing huge growth potential of non-bank financial companies, even in conditions of slow stock market growth and the heavy administrative burden imposed by the regulator.

In 2014–2017, 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, 2013, 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, exemptions from PIT are also established for the contributions made by individuals to their so-called individual investment accounts (IIA).<sup>1</sup>

<sup>1</sup> 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). Because they are used for short-term saving, IIAs have more in common with ISAs than with IRAs.

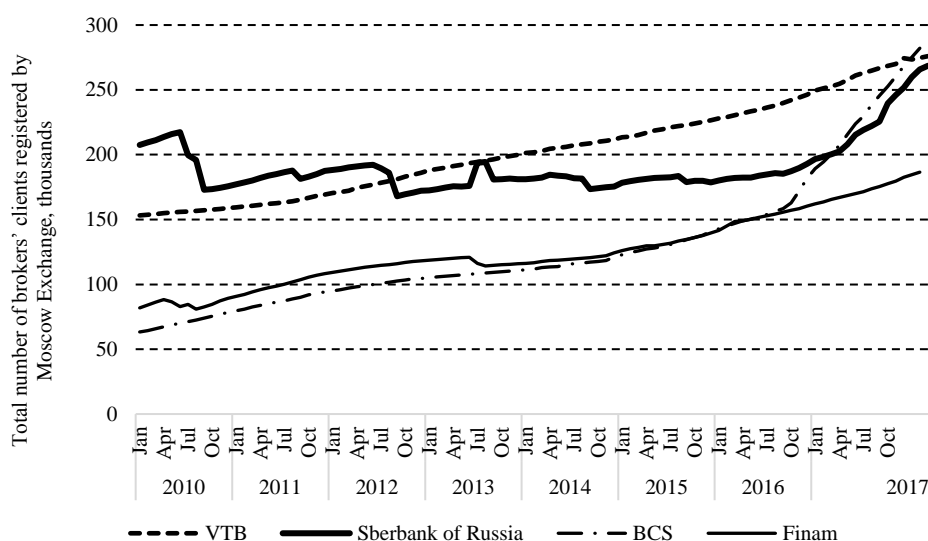


Fig. 48. The number of registered retail clients of the four biggest broker companies

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

In accordance with Federal Law No 420-FZ, dated December 28, 2013, ‘On the introduction of 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. The cap on deduction from the tax base is set at RUB 3 million 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 bonds, except in cases when individuals hold securities indirectly through open-ended unit investment funds. For this reason, the exemption will be most beneficial for long-term unitholders of open-ended funds.

Besides, from January 1, 2015, in accordance with the Federal Law 'On the securities market' and the RF Tax Code, Russian citizens are entitled to deductions from PIT when they open an individual investment account with a broker or trust manager. The cap on the amount of money to be placed on such an account is RUB 400,000 per annum.<sup>1</sup>

According to data released by the Moscow Exchange as of the end of February 2018, the number of IIAs was 317,300 compared to 25,900 as of the end of May 2015 (Fig. 49). Thus, in less than three years, the number of IIAs jumped 12.2 times.

<sup>1</sup> It is intended to amend existing legislation, so that the cap can be increased to RUB 1 million.

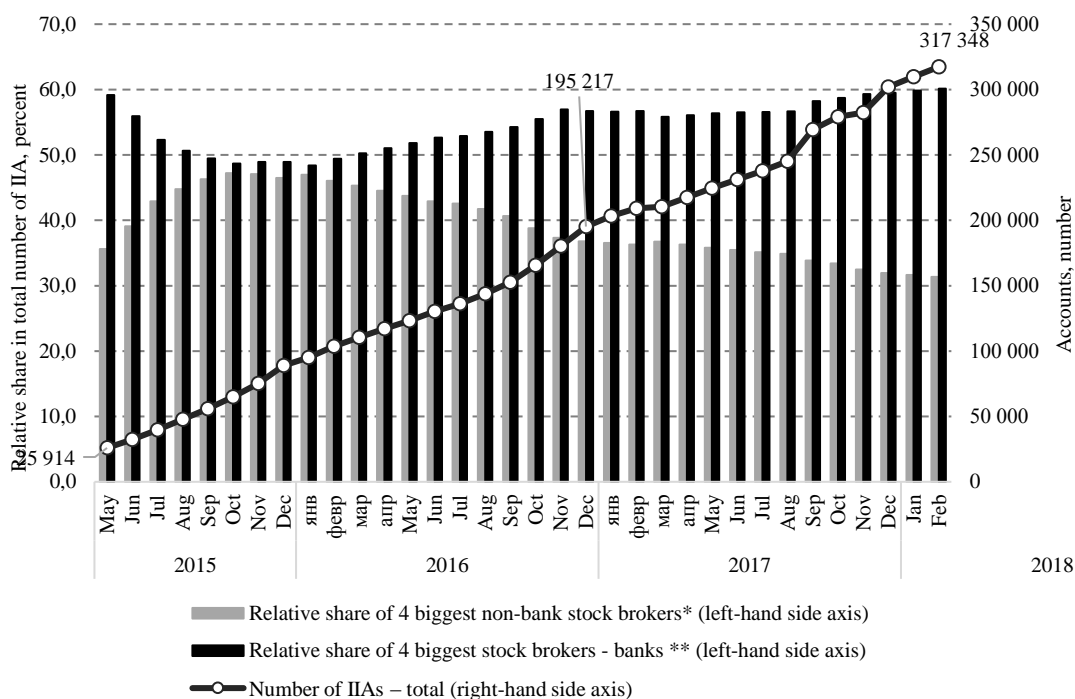


Fig. 49. The number of individual investment accounts (IIA) on the market over the period from May 2015 through February 2018

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

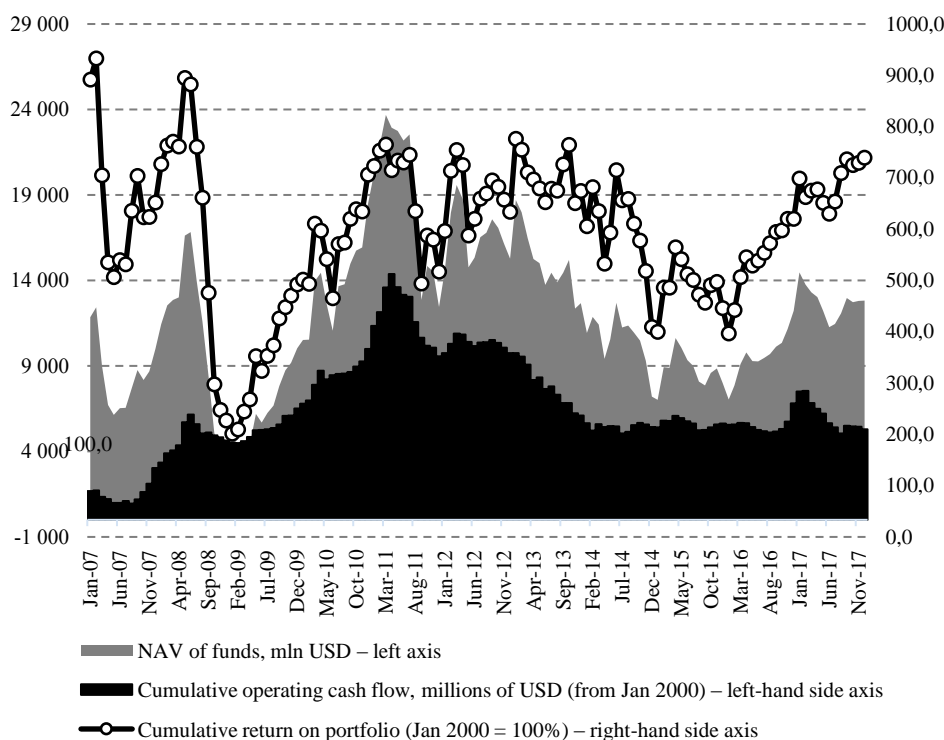
Thus, the statistics of retail investor participation in trading on the exchange and the movement of IIAs demonstrate that individuals are actually prepared to get more actively involved in the stock market. However, the insufficiently developed collective investment methods and the pension savings freeze have made it impossible to fully unravel the potential role of available domestic savings. As a result, the activity of individuals in the domestic stock market is focused mainly on short-term and speculative deals, which are fraught with significant risks for this investor category. In order to reorient private investors to more long-term investment strategies, it will be necessary to reform the business model followed by financial intermediaries, introduce new standards of their activity, and to boost competition in the financial services market.

In many developing markets, foreign portfolio investors frequently act in accordance with similar scenarios. Their decisions concerning investing in or withdrawing their investment from a given assets are made depending on the general cyclical trends and the weight of a given country in the global stock indexes, and not on the individual features of its national economy or the specificities of securities issuers based in different countries.<sup>1</sup>

Judging from analytical data on global investment flows released by EPFR, the year 2017 was not remarkably successful from the point of view of attracting foreign investment funds to the Russian stock market. While in 2016 the net inflow of investment funds specializing on Russian stocks amounted to USD 1.18 billion, the year-end result of 2017 demonstrated an outflow of this investor category from Russia to the value of USD 2.20 billion.

<sup>1</sup> For more details concerning the investment strategies followed by these funds in Russia, see Abramov A. Differences in the behavior of domestic and foreign private investors on the Russian stock market. Russian Economic Developments, No 11, 2014.

In 2017, the value of assets held by foreign investment funds specializing on Russia amounted to USD 12.8 billion (*Fig. 50*). The size of funds investing in Russia (Russia-EMEA-Equity) was notably smaller than that of funds investing in China, India, Brazil, and South Korea. Over the 1-year period from 2000 through 2017, the mean return on investment in Russian for foreign investment funds amounted to 12.5 percent per annum in terms of US dollars, while the geometric mean of return for the RTS Index over the same period was 13.1 percent per annum.



*Fig. 50.* Total size, cash flow and cumulative return of funds specializing on investment in Russia from January 2007 through December 2017

*Source:* own calculations based on data released by EPFR.

The attractiveness of Russia’s financial market for foreign investors in many ways depends on the domestic investment climate. In accordance with the goals set by Executive Order of the President No 596 dated May 7, 2012 ‘On long-term government economic policy’, Russia has managed to achieve remarkable progress in her ranking based on the World Economic Forum’s Global Competitiveness Index, where she moved from 67<sup>th</sup> place in 2013 to 38<sup>th</sup> in 2017 (*Fig. 51*). Among the BRICS members, Russia came ahead of Brazil, the Republic of South Africa and India, and was second only to China.

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.<sup>1</sup> By way of example, we cited the data released by CalPERS (California Public Employees’ Retirement System), a big US public pension fund, which until

<sup>1</sup> Russian Economy in 2008. Trends and Outlooks. (Issue 30). Moscow, IET, 2009, pp. 513–516.

2006 had published the list of criteria and indicators applied as a basis for its decision-making concerning investing in one or other developing market. The investment climate estimates are as follows: independence of the judicial system; compliance with international audit and reporting standards; the level of protection of minority investor rights; the domestic stock market as a financing source for the national economy; banks' reliability; the proficiency of the regulation of exchanges.

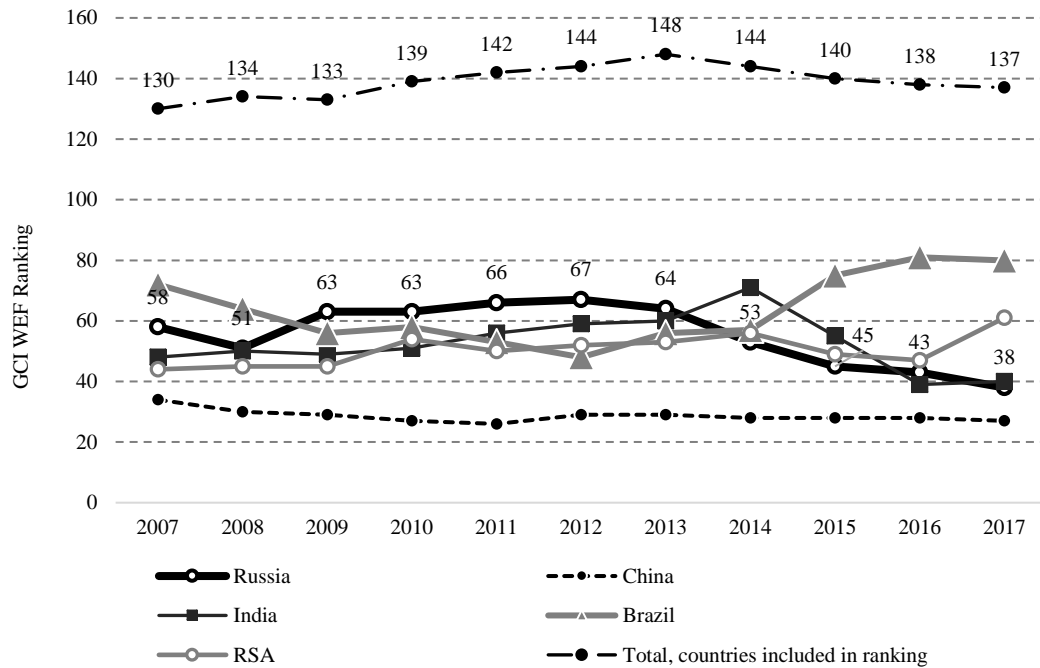


Fig. 51. BRICS members' rankings in the World Economic Forum's Global Competitiveness Index in 2007–2017

Source: own calculations based on data released by The Global Competitiveness Report, released by the World Economic Forum (WEF).

Table 13 analyzes the movement of these six investment climate estimates with regard to each member of the BRICS group over the 11-year period from 2007 through 2017 on the basis of data derived from the WEF annual Global Competitiveness Reports. Traditionally, Russia's economy was ranked by the criteria of her investment climate and availability of financial resources in the domestic market, and so we specifically focused on these factors.

If we take the year 2012 as baseline, it will become obvious that by all the six estimates, Russia managed to improve her investment climate quality and accessibility of financial resources (Table 13 and Fig. 52). Thus, for example, in terms of judicial system independence, Russia moved from 122<sup>nd</sup> place in 2012 to 90<sup>th</sup> place in 2017; by the use of international reporting and audit standards – from 123<sup>rd</sup> to 100<sup>th</sup>; protection of minority investor rights – from 140<sup>th</sup> to 111<sup>th</sup>; by the potential for raising financial resources in the domestic market – from 10<sup>th</sup> to 90<sup>th</sup>; and by reliability of banks - from 132<sup>nd</sup> to 121<sup>st</sup>. The least progress was achieved with regard to regulation of exchanges – since 2012, Russia moved only from 114<sup>th</sup> place to 112<sup>nd</sup>. At the same time, in spite of the significant improvement in these rankings, it can be assumed that over the past 5 years, no fundamental changes were noted in the domestic investment climate and availability of financial resources.



Table 13

**The most problematic aspects of Russia's investment climate,  
according to the World Economic Forum's Global Competitiveness  
Index ranking**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Independence of judicial system</b>											
Russia	106	109	116	115	123	122	119	109	108	95	90
China	82	69	62	62	63	66	57	60	67	56	46
India	26	43	37	41	51	45	40	50	64	54	53
Brazil	89	68	78	76	71	71	65	76	92	79	59
RSA	23	30	38	44	35	27	22	24	24	16	36
<b>Audit and reporting standards</b>											
Russia	95	108	119	116	120	123	107	106	102	103	100
China	102	86	72	61	61	72	80	82	80	68	71
India	27	30	27	45	51	44	52	102	95	64	69
Brazil	63	60	70	64	49	42	31	41	70	72	58
RSA	6	4	2	1	1	1	1	1	1	1	30
<b>Protection of minority investor rights</b>											
Russia	125	128	127	132	135	140	132	118	116	116	111
China	114	94	71	66	60	68	75	67	71	48	38
India	27	33	36	55	62	52	52	76	69	37	42
Brazil	46	42	59	64	49	37	26	35	78	94	62
RSA	13	13	9	6	3	2	1	2	3	1	30
<b>Access to financing in local stock market</b>											
Russia	81	87	96	107	98	100	90	86	88	95	90
China	82	80	66	52	46	46	38	34	44	40	31
India	13	8	3	10	15	19	18	39	45	31	39
Brazil	61	56	44	45	33	40	48	55	75	83	72
RSA	4	4	4	7	4	3	2	3	1	1	25
<b>Banks' reliability</b>											
Russia	108	107	123	129	129	132	124	118	115	121	121
China	128	108	66	60	64	71	72	63	78	79	82
India	46	51	25	25	32	38	49	101	100	75	78
Brazil	36	24	10	14	16	14	12	13	27	38	26
RSA	16	15	6	6	2	2	3	6	8	2	37
<b>Regulation of exchanges</b>											
Russia	103	110	113	118	116	114	102	91	97	113	112
China	111	109	91	61	53	58	63	58	52	57	60
India	30	25	11	15	26	28	27	62	69	58	64
Brazil	41	28	10	5	9	8	7	17	36	54	44
RSA	5	5	2	1	1	1	1	1	2	3	46

Source: own calculations based on data for a number of years released in The World Economic Forum's Global Competitiveness Report.

Besides, as shown in Fig. 52, in 2007–2017 Russia ranked far below Brazil, India, China and the RSA by all the six estimates.

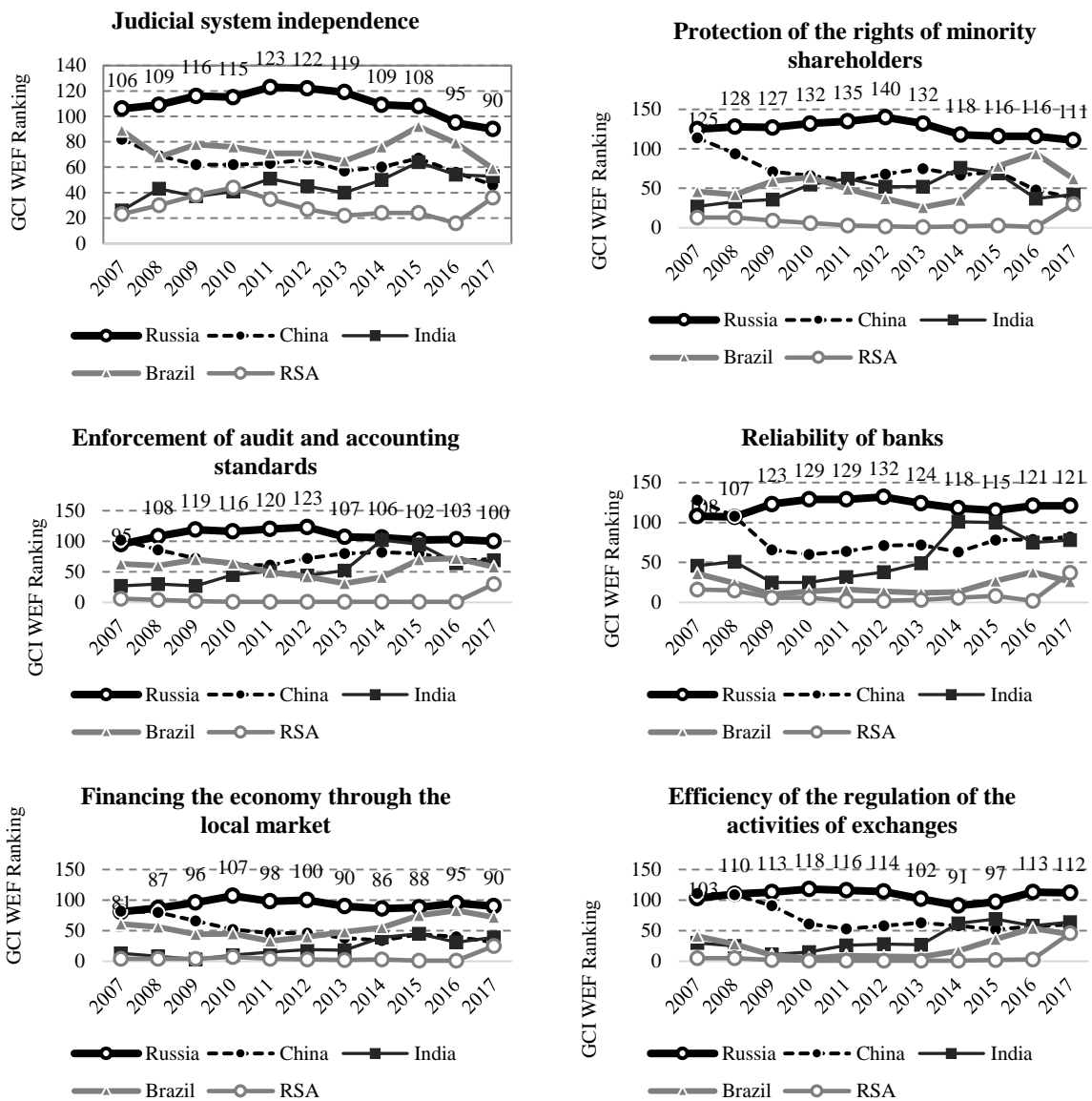


Fig. 52. BRICS members' rankings in the World Economic Forum's Global Competitiveness Index, by several criteria relevant for conservative portfolio investors' decision-making

Source: own calculations based on data for a number of years released in The World Economic Forum's Global Competitiveness Report.

### 3.8. Risk factors in the Russian financial market

By way of summing up, we are going to point out the most significant medium-term risks of the Russian stock market.

The greatest risks for domestic ruble-denominated savings have to do with the regular depreciation of the national currency. As a rule, the ruble's depreciation always follows one and the same scenario. The declining price of oil and capital outflow suddenly result in a sharp shrinkage in the value of the ruble, followed by a period, 7 or 8 years long, when the ruble level remains stable, and the national currency even strengthens a little (Fig. 53). However, the main

issue arising in this connection is that the abrupt depreciation undermined the value of ruble-denominated savings, and it never recovers its initial indices even during the periods of the ruble's stability.

The causes of depreciation are the structural disproportions inside the Russian economy; because of these disproportions, the ruble strongly depends on the situation on foreign markets and the behavior of foreign portfolio investors.

At present, the financial market is moving along an upward curve, when the ruble strengthened from RUB 83.59 per USD as of January 22, 2016, to RUB 57.11 per USD as of March 26, 2018. As the implementation structural changes in the economy even under a favorable development scenario will require a rather long period of time, the risks posed by a sudden worsening in the eternal economic situation will remain real in the medium-term perspective.

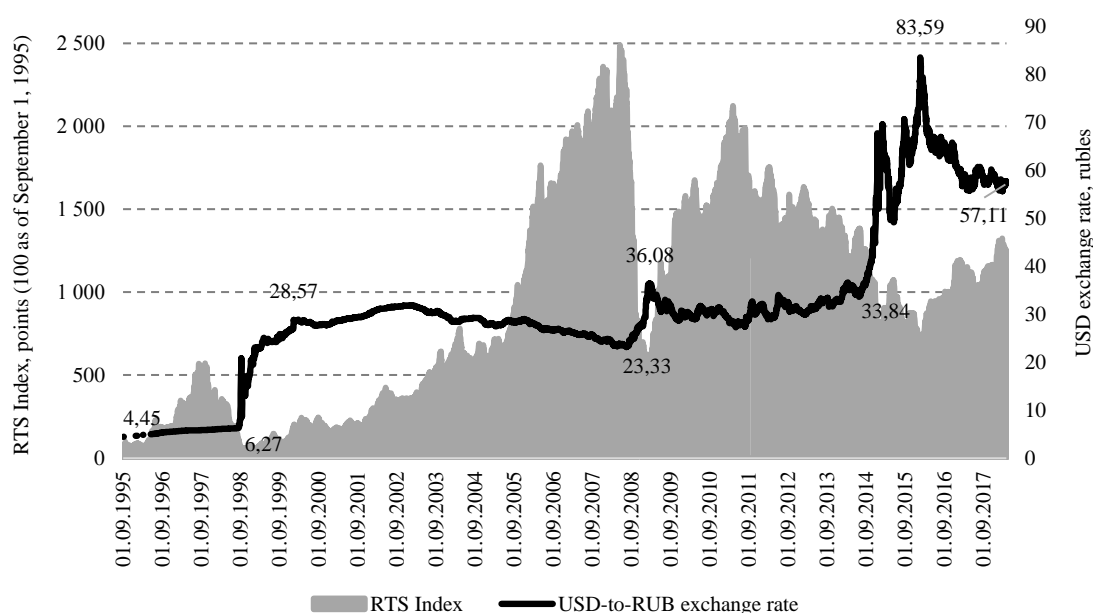
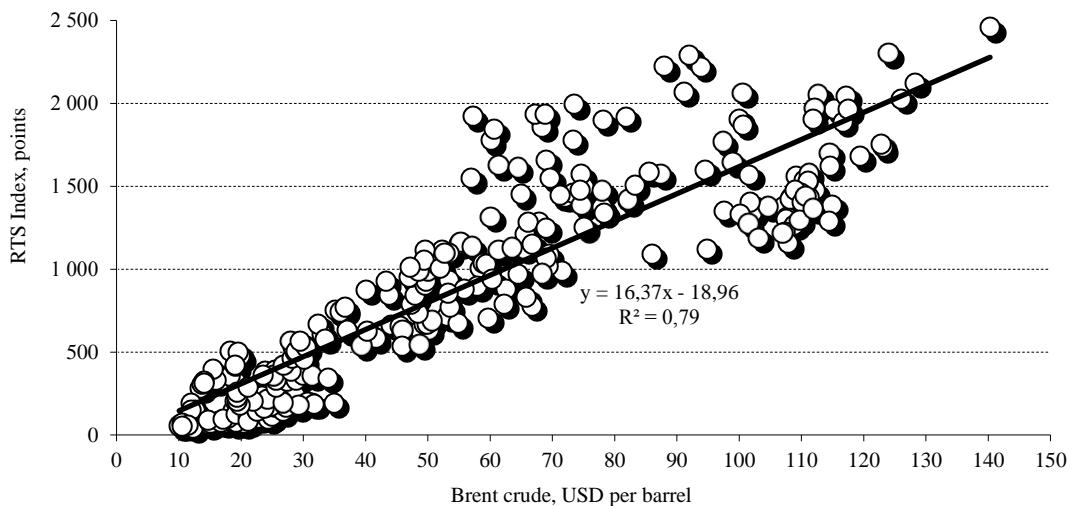


Fig. 53. The movement of the RTS Index and the USD-to-RUB exchange rate over the period from September 1, 1995 through March 26, 2018

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

The prices of shares issued by Russian companies strongly depend 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 February 2017 (Fig. 54) is equal to 0.8, which points to a very close interdependence of these two indicators. Oil prices also strongly influence the national currency's exchange rate.

Over the next few years, it is unlikely that oil prices may display growth; both demand and supply on the oil market are volatile indices. So, in the medium-term perspective we may expect, with a high degree of probability, that prices in the oil market will follow a cyclical behavior patterns, thus becoming a significant factor of volatility in the Russian stock market.



*Fig. 54.* The dependence of the RTS Index on the price of Brent crude, from September 1995 through March 2018

*Source:* calculations based on data released by Finam and the Moscow Exchange.

At present, the situation in Russia is relatively beneficial for growth in carry trades. The contributing factors are the ruble’s strengthening, the stably high interest rates on the operations with ruble-denominated assets, and absence of any serious currency regulation constraints.

The negative consequences of carry trading strategy may become visible in several areas – as a surge in volatility of the national currency’s exchange rate and prices for financial assets, or as a liquidity crisis in the banking system. The risks associated with the negative effects of carry trade on banks are currently rather low because, being restricted by the existing normative documents and some other factors, Russian banks so far have abstained from actively participating in such deals. Despite the relatively prominent position of non-residents in the structure of holders of shares and bonds placed by Russian issuers, the potential for implementing active carry trade strategies in this segment is limited due to the liquidity of the domestic stock market.

At the same time, according to the Bank of Russia’s experts, the risks of a negative effect of carry trade on the financial market are frequently overestimated, because high returns are by no means the only factor determining the potential attractiveness of such operations, while the Sharpe ratio of transactions involving ruble-denominated assets, due to the ruble’s high volatility, is lower than the corresponding ratios of the forex markets of other countries.<sup>1</sup>

The high returns on the Russian market for shares against the backdrop of a strengthening ruble attracted an additional inflow of non-residents to that market segment in H2 2016. However, these developments did not produce any qualitative changes in the investment climate or economic policies. Oil prices have remained unstable. Besides, in 2018, the upward movement of interest rates in the USA became more intense. All these factors may translate into an onset of a new steady outflow of foreign portfolio investors from the Russian stock market.

<sup>1</sup> Bank of Russia. What do the trends say. Macroeconomics and markets. Bulletin of the Research and Forecasting Department. No 2 (14), March 2017, p. 38.

Some significant risks for the financial market are also created by the economic sanctions, although their effects on the market participant behavior so far have been rather limited. The main ways in which the sanctions can influence the financial market are the restricted access to borrowing for Russian companies, rising costs of borrowed resources, and foreign investment outflow from the share market. The available estimates of the effects 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. Prilepskiy (2016), the additional cumulative net capital outflow triggered by the sanctions, was estimated to be at the level of USD 58 billion in 2014 and USD 160–170 billion in 2014–2017.<sup>1</sup> And the opinion of RF Minister of Finance Anton Siluanov, voiced in late 2014, was that Russia's loss from the sanctions was about USD 40 billion per annum.<sup>2</sup>

In the short-term perspective, the currently imposed economic sanctions, which have restricted the access to borrowing in the global markets for a number of companies, produced little effect on the domestic financial market. The interest rates on loans in the domestic market have remained at the same level as prior to the introduction of sanctions. Besides, many private companies are exempt from these sanctions, and so they can borrow in the eurobond market. The sanctions mostly affect the investment activities of companies, and their purchases of foreign equipment and technologies. Fearing the sanctions, many big companies have preferred to postpone their investments, accumulating their cash reserves in their bank accounts instead.

In this sense, the sanctions do restrain the investment activity of businesses and thus produce a negative impact on economic growth.

Nevertheless, the risks associated with the introduction of new tougher financial sanctions in response to a possible exacerbation of geopolitical situation cannot be completely ruled out. If that should be the case, sanctions may trigger financial shocks at the level of big companies, thus requiring some additional support measures for Russian businesses.

Thus, a typical feature of the year 2017 was stagnation in the movement of rates of return of shares issued by Russian companies alongside favorable conditions for investing in government and corporate bonds. The situation in the share market was negatively influenced by the outflow of foreign portfolio investors and the pension savings freeze. The growth drivers in the bond market were the low inflation rate and the interest rates on bank deposits in the presence of a significant money overhang in the economy and the emerging interest of retail investors in government and corporate bonds. The latter have at last 'got the taste' of individual accounts and certain collective investment instruments, mainly bonds and UIFs.

The yields of government and corporate bond issues stabilized at a level below that of the pre-crisis year 2013. This triggered an accelerated growth of new issues of corporate and government bonds. The OFZ market has become an important source of budget deficit financing.

At the same time, no changes for the better have occurred with regard to the domestic source of stock market growth. The money market continues to prevail over the stock market, which means that the demand for securities placed by Russian issuers is sustained in the main by short-term financing sources provided by banks and other financial intermediaries. Another strong restricting factor for stock market growth, as before, is the freeze of domestic pension savings

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<sup>1</sup> Gurvich E., Prilepskiy I. The impact of financial sanctions on the Russian economy. *Voprosy Ekonomiki* (in Russian), No 1, January 2016, p. 33.

<sup>2</sup> Volkova O. Counter-sanctions against sanctions: which of these are worse. *RBC Daily*, March 21, 2016, p. 4.

and their uncertain destiny. No notable changes have occurred with regard to the investment climate, either, and this factor also restricts the demand of major foreign portfolio investors for Russian financial instruments.

In view of all these developments, a priority direction in the domestic market progress could become support of domestic institutional investors, introduction of unchangeable ‘rules of game’ in the treatment of pension savings, and improvement of the investment climate and competitive environment in the domestic stock market.