

GAIDAR INSTITUTE FOR ECONOMIC POLICY

**RUSSIAN ECONOMY IN 2016
TRENDS AND OUTLOOKS
(ISSUE 38)**

**Gaidar Institute Publishers
Moscow / 2017**

UDC 338.1(470+571)"2016"

BBC 65.9(2Poc)

R95

Russian Economy in 2016. Trends and Outlooks. (Issue 38) / [V. Mau at al; ed. S. Sinelnikov-Murylev (editor-in-chief), A. Radygin]; Moscow: Gaidar Institute Publishers 2017. – 480 pp. – ISBN 978-5-93255-502-6

The review provides a detailed analysis of main trends in Russian economy in 2016. The paper contains 6 big sections that highlight single aspects of Russia's economic development: the socio-political context; the monetary and budget spheres; financial markets; the real sector; social sphere; institutional challenges. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts.

UDC 338.1(470+571)"2016"

BBC 65.9(2Poc)

ISBN 978-5-93255-502-6

□ Gaidar Institute, 2017

Financial markets and financial institutions in Russia in 2016

3.1. The stock market recovery¹

In 2016, Russia's stock market, in terms of its rates of return, set a world record among all the other stock markets. Over that year, the RTS Index gained 52.3%, and the MICEX Index – 26.8% (*Fig. 1*). The faster growth rate of the RTS Index, which reflects the price of shares in US dollar terms, can be explained by the ruble's strengthening in 2016. The other forces behind the growth of the Russian stock indexes were the rising oil prices, the inflow of non-residents' money in response to the strengthening ruble and the stably high key interest rate, and investor expectations of recovery economic growth.

The Russian share market has once again proved that it belongs to the category of highly volatile markets which, depending on a particular year, can either offer best rates of return or top the list of outsiders. Thus, in 2016, in the group of countries under consideration, the worst result of -14.7% per annum was demonstrated by the Zhenjiang stock exchange index (China), which over the previous year had soared by 63.2%, becoming an absolute leader in terms of rate of return among all the other stock markets.

In 2016, the share market continued its recovery after the slump in 2008. In this sense, the most remarkable development of that year was the climb of the MICEX Index to its pre-crisis record high of May 2008 (*Table 1*). In 1997–1998, after its plunge by 73.0%, it had taken the MICEX Index only 8 months to recover its former quotes, while the recovery period after its 2008 plunge by 68.2% had lasted 92 months, or 11.5 times longer, which had to do with the slower recovery rates of oil prices and the smaller scale of the ruble's depreciation. The recovery of the RTS Index (which reflects the forex equivalent of investment in Russian stocks) to its pre-crisis peak is delayed, though. After its plunge in 1997–1998 by 91.3% it had recovered its pre-crisis quote within 58 months. As of February 2017, after the RTS Index fell by 78.2% in 2008, its current value had stayed below 50% of its pre-crisis for 97 straight months. Most probably, for the RTS Index to recover to its historic high, it would not suffice only for oil prices to grow in the world markets – this purely situational factor would need to be backed by structural changes across the Russian economy and an inflow of long-term investment resources into the stock market.

¹ Author of chapters 3.1–3.7: A. Abramov – RANEPA.

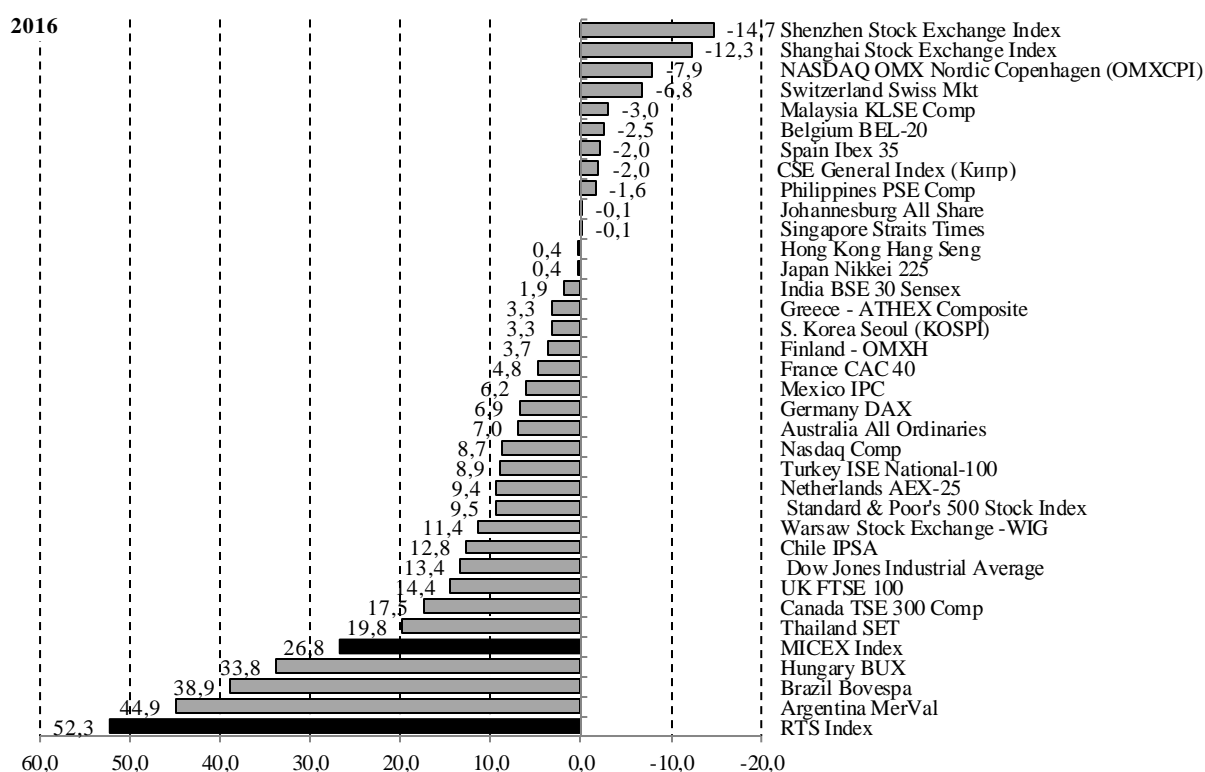


Fig. 1. The rates of return of the major stock indices on the world's biggest exchanges in 2016, % per annum

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

Table 1

The financial crises of 1997–1998 and 2008–2009 in Russia and the subsequent market recoveries (as of 7 March 2017)

	1997–1998 crisis	2008–2009 crisis
1. Decline from peak		
1.1. Depth, %		
RTS Index	-91.3	-78.2
MICEX Index	-73.0	-68.2
1.2. Length, months		
RTS Index	14	8
MICEX Index	13	6
2. Recovery, months		
RTS Index	58	97
MICEX Index	8	92*

* In July 2016, the index fully recovered to its pre-crisis peak value.

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

Fig. 2 and 3 demonstrate how the factor of the ruble's depreciation was influencing the behavior of Russian stock indexes after the last two financial crises. The prompt recovery, after 1998, of the ruble-denominated MICEX index occurred largely due to the 5-fold depreciation of the ruble (Fig. 2). The RTS Index recouped all its losses in 5 years only thanks to the recovering prices of oil (Fig. 4) and several years of sustainable economic growth. 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 access to

cheap foreign loans granted to Russian issuers of securities coupled with the soaring oil prices in the mid-2000s ensured that the Russian share and corporate bond market began to grow at a rapid pace.

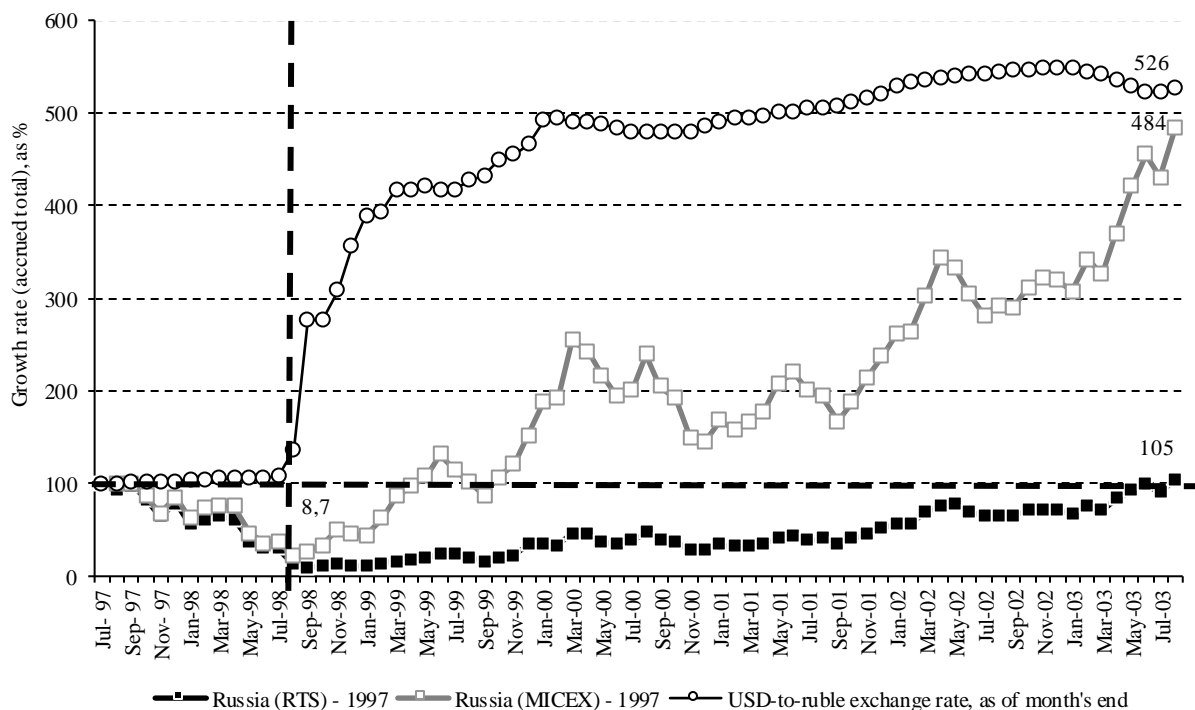


Fig. 2. The movement of the USD-to-ruble exchange rate, the RTS Index, and the MICEX Index in 1997–2003 (July 1997 = 100%)

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

After the 2008 crisis, even for the ruble-denominated MICEX Index, it took more than 7.5 years to regain its pre-crisis quotes (Fig. 3). The ruble's depreciation, which favored the recovery process, occurred over a longer period than in the aftermath of the breathtaking events of 1998, and was less dramatic. Over the period from May 2008 through February 2017, the ruble plunged 2.4 times. As for the RTS Index, which is denominated in foreign currencies, by now – 8 years after its downfall – it has regained only 44.7% of its pre-crisis level. Following the movement trajectory of the price of Brent after the 2008 crisis (Fig. 4), the slowly recovering RTS Index moved along a W-shaped curve, which was more typical of medium-length world crises. The prospects of further recovery of the RTS Index are still uncertain. Following the logic of the stock market's recovery after the 1998 crisis, this may happen only after oil prices fully recover to their pre-crisis level and then continue to grow (an unlikely development over the next few years),¹ and besides, the Russian economy must demonstrate sustainable growth for several years in a row, which is likewise doubtful.

¹ In the next few years, prices of oil are going to stay at a moderate level, thus demonstrating a 'New Oil Reality', as Rector of the RANEPА Vladimir Mau put it (Mau, V. *To remember the 1980s*. *Vedomosti*, February 16, 2016).

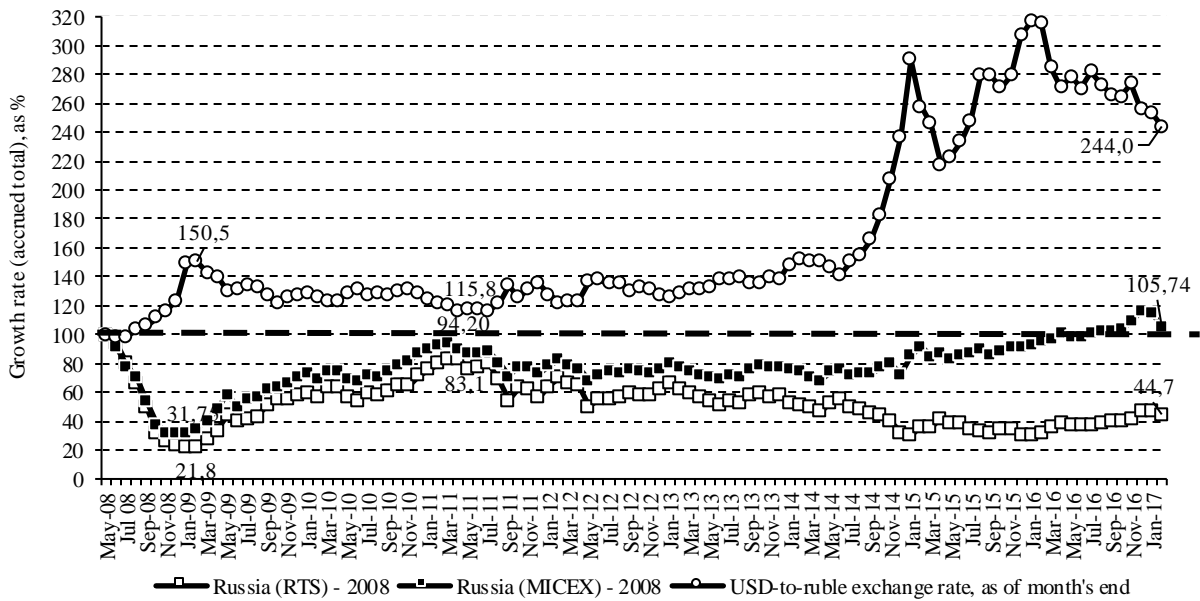


Fig. 3. The movement of the USD-to-ruble exchange rate, the RTS Index, and the MICEX Index from May 2008 through February 2017 (May 2008 = 100%)

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

So far, as of March 2017, over the 102-month period (or 8.5 years) since its peak of \$133.90 per barrel in July 2008, to this day Brent prices have climbed to only 40.7% of that level (Fig. 4). This means that the current slump in the economy at large and the financial market in particular is not so much cyclical as structural in its nature. From this it follows that any further recovery of the RTS Index can be possible only alongside successful structural reforms in the Russian economy.

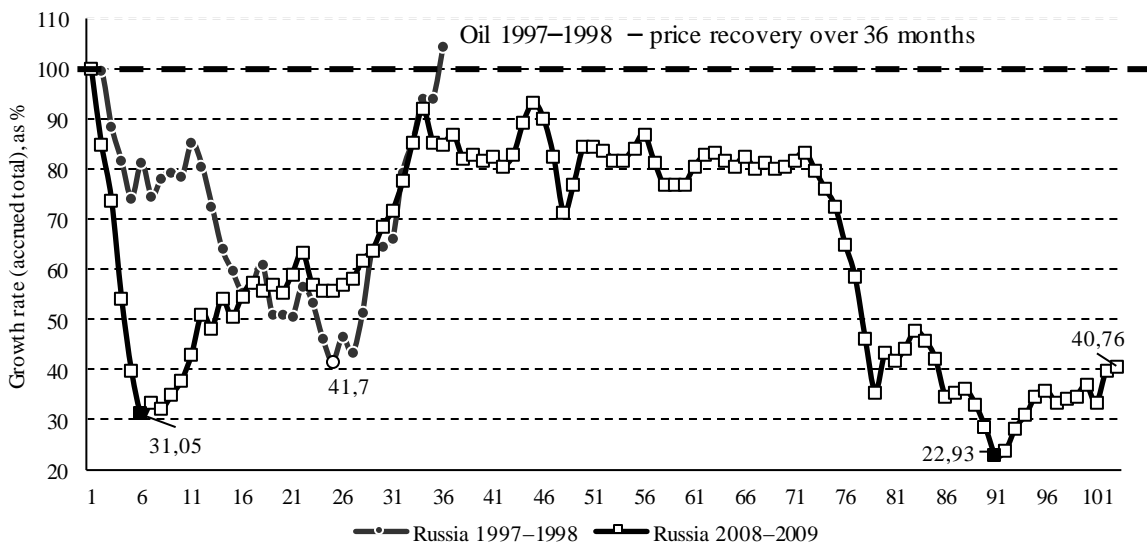


Fig. 4. The growth rate of price of Brent crude during the financial crises in Russia (peak price =100%), as of February 2017

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 and Brazil – in 1997), which lasted for 5–6 years, the current downturn of the RTS Index, followed by its slow 105-month long (8.7-years) recovery, has already become a record (*Fig. 5*). This crisis, which is being experienced by Russia alongside some other developing countries, has evolved into a medium-length one.

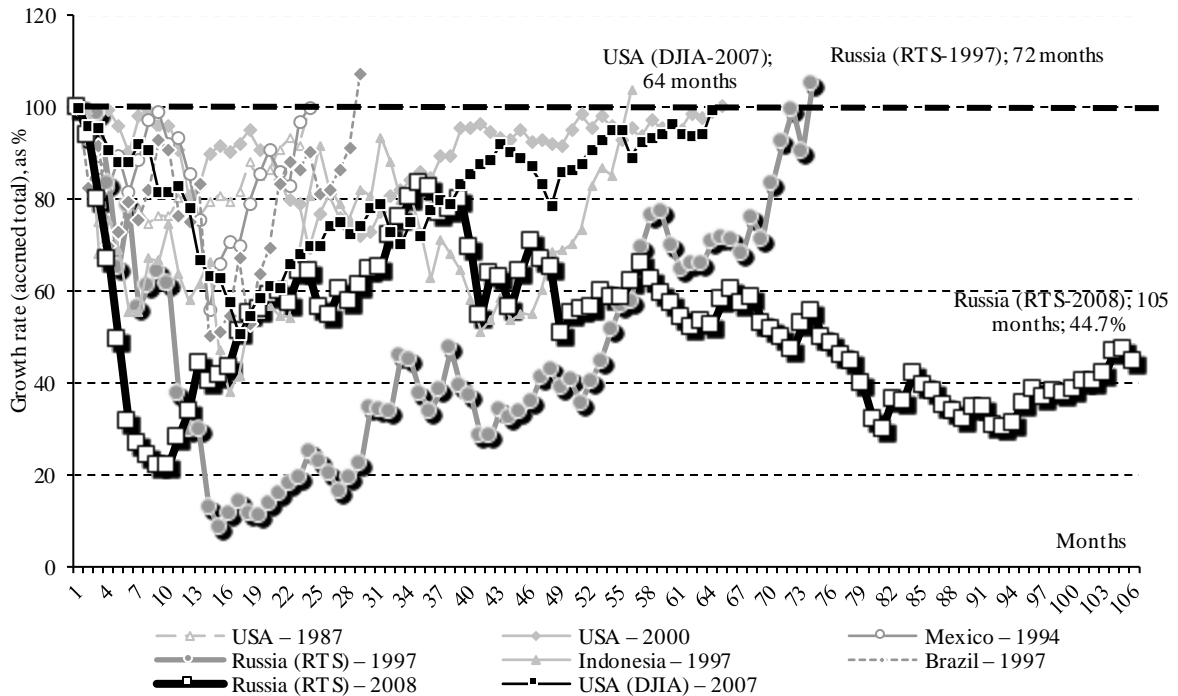


Fig. 5. The depth and length of short-term financial crises around the world, as of February 2017 (peak = 100%)

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

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. 6*). Those crises lasted for 183 and 177 months respectively; however, both stock indexes are now above their pre-crisis highs. As shown in *Fig. 6*, the current trajectory of the RTS Index, which after 105 months has reached the point of 44.7% of its pre-crisis record high of 2008, 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 February 2017 had been unable to recover its initial quote for 326 straight months (or slightly more than 27 years), amounting to only 49.1% of its average-monthly record high of 1989.

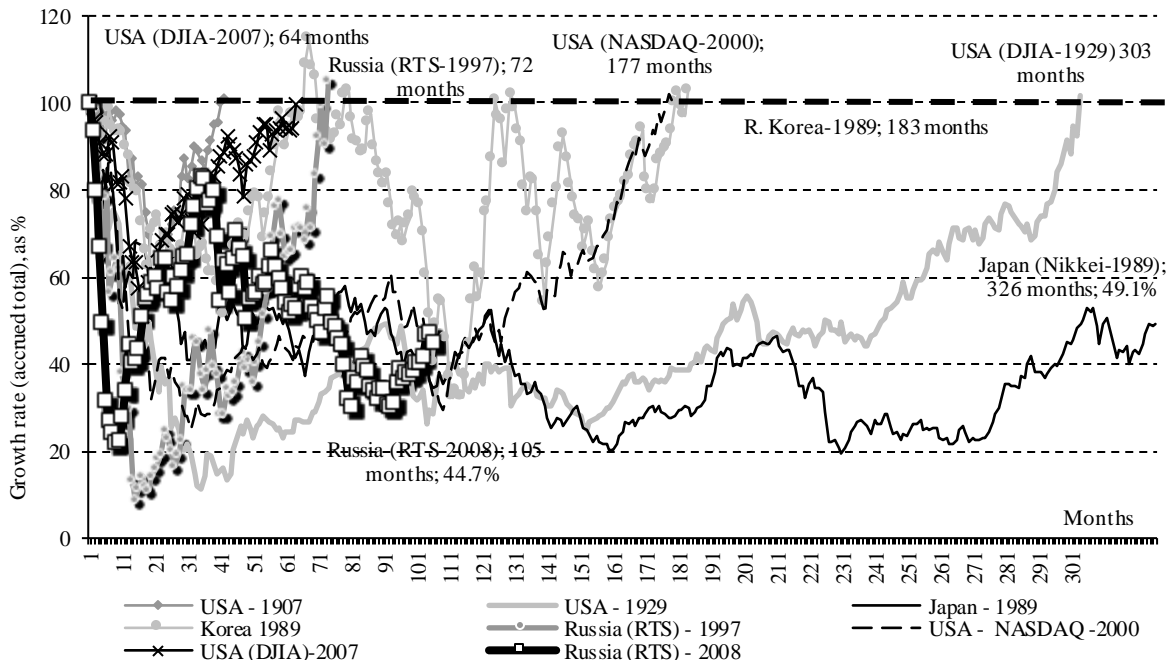


Fig. 6. The depth and length of long-term financial crises around the world, as of February 2017 (peak = 100%)

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

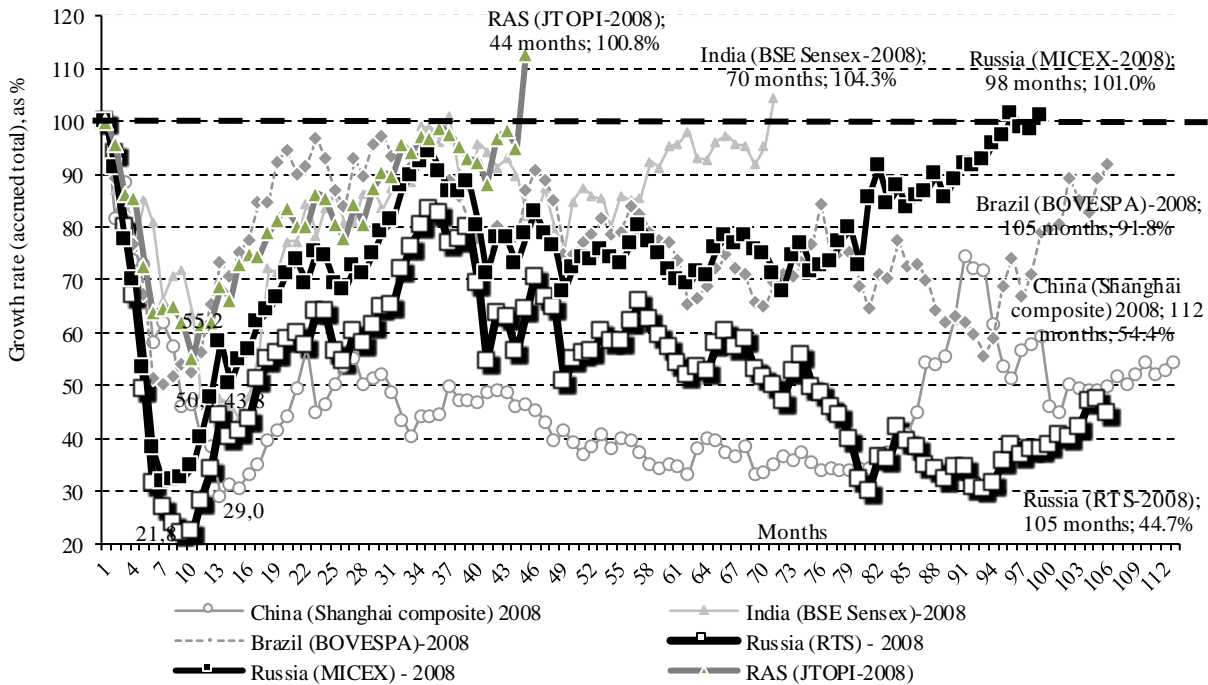


Fig. 7. The depth and length of the current financial crises in the BRICS countries, as of February 2017 (peak = 100%)

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

Slow stock market recovery has been an issue not only for Russia, but also for two other members of the BRICS, namely China and Brazil (Fig. 7). As of February 2017, the Brazilian stock index Bovespa had climbed, over the previous 105 months since May 2008, to 91.8% of its pre-crisis peak quote, which means that it is near the point of its full recovery, which will probably take place in 2017; the Shanghai Composite Stock Exchange Index (China), on the contrary, over the previous 112 months, had gained only 54.4%. The pace of recovery of Russia's RTS Index is close to that of Bovespa, but it differs from the latter (which had almost recovered) in that it had regained only 44.7% of its pre-crisis high. Among all the BRICS members, the most rapid post-crisis stock market recovery has been demonstrated by n shares в India and the RAS. The indexes of the Johannesburg Stock Exchange (JTOPI) and the Indian Stock Market (BSE Sensex) regained their pre-crisis quotes over 44 and 70 months respectively. In 2016, the list of recovered stock indexes in the BRICS group was joined by Russia's MICEX Index.

3.2. The share market

In academic studies it has been noted, rather frequently, that cross-listing of shares issued by companies operating on developing stock markets, when these shares are simultaneously listed on a national exchange and one of the global stock exchanges, produces a positive effect on the quality of corporate governance and performance of their issuers.¹ However, after the 2008 crisis, contrary to this assumption, the world market has been more likely to display an opposite trend, when shares issued in the developing countries, rather than being increasingly cross-listed, are delisted from the world's biggest trading floors in favor of national exchanges. This process has had to do, in part, with the dynamic growth of the domestic investment potential of major developing countries². Moreover, many developing countries, with varying degrees of success, have chosen to set up their own international financial centers, thus intending to compete for the cross-listing of financial instruments issued by foreign countries.

So far, Russia has not succeeded in implementing its strategy of creating an international financial center based in Moscow and St. Petersburg, which is graphically illustrated by the *Global Financial Centres Index* (GFCI), first published by the Z/Yen Group Limited. As aptly noted by Yu. A. Danilov, Moscow and St. Petersburg have been ranked at the bottom of GFCI throughout the entire period of its existence.³ However, 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.

¹ For example, Boubakri, Narjess and El Ghoul, Sadok and Wang, He and Guedhami, Omrane and Kwok, Chuck C.Y., 2016. Cross-Listing and Corporate Social Responsibility. *Journal of Corporate Finance*, Vol. 41, pp. 123–138

² In March 2017, PIK Group announced its intention to delist its depository receipts from the London Exchange in order to consolidate the trading of its shares on the Moscow Exchange (Ivanova, A. PIK returns home. *Vedomosti*, March 14, 2017). Some other companies had also delisted their shares from the London Exchange in favor of listing them on the Moscow Exchange: URALKALI – in late 2015; IG Seismic Services and *Polyus Gold International* - in 2016. One of the motives behind their decisions was that the listing in Russia is a mandatory requirement for their inclusion in MSCI, which is a decisive factor determining the demand for their shares by major foreign investors.

³ Danilov, Yu. A. The efficiency of Russia's financial market: its performance of its socioeconomic functions and global competitive capacity. Moscow: Delo Publishing House, RANEPА, 2017, p.65.

As can be seen from *Fig. 8*, over several recent years the Moscow Exchange has managed to retain its role of a major organizer of trade in equity financial instruments (shares and depository receipts) of Russian issuers. 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% in 2012 to 47.8% in 2016. Over the same period, the relative share of the main rival of Russia's exchanges – the London Exchange – on the contrary, shrank from 48.8% to 43.7%, and that of the other foreign exchanges – from 10.0% to 8.5%.

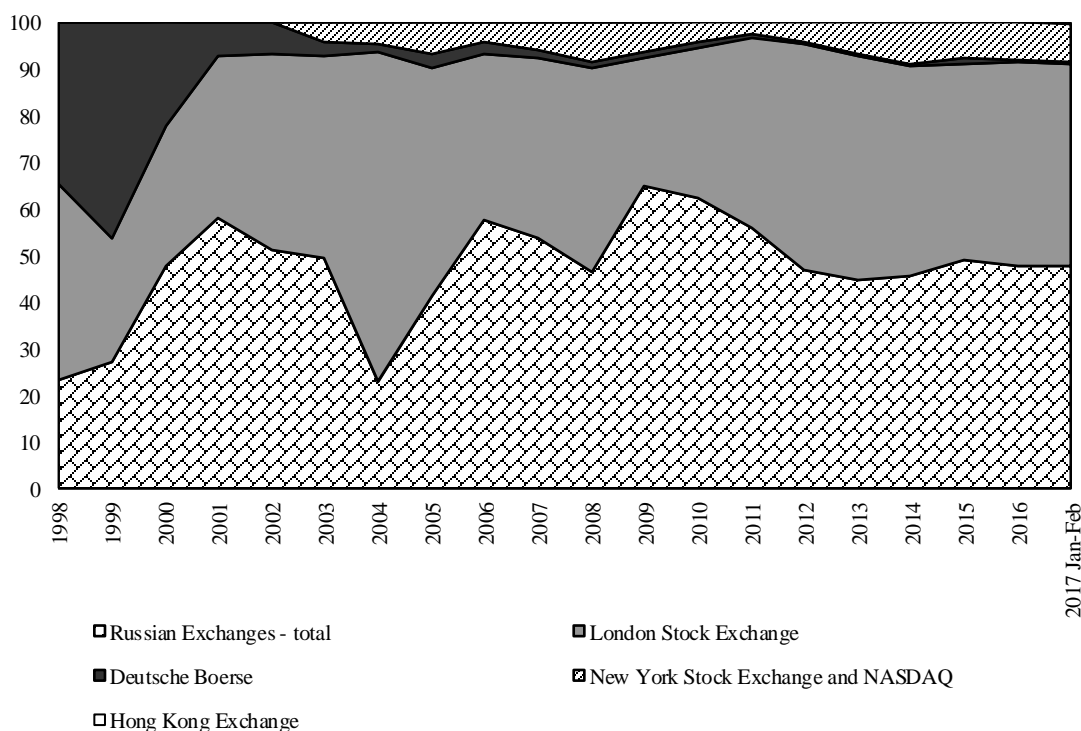


Fig. 8. The volume of trade in equity financial instruments issued by Russian JSCs over the period from 1998 through February 2017,¹ as %

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. 9*, the aggregate volume of market transactions in these equity securities on all exchanges shrank from \$ 1.1 trillion in 2011 to \$ 0.3 trillion in 2016, including from \$ 0.6 trillion to \$ 0.2 trillion on the Russian exchanges.

¹ Out of all trading modes on the Moscow Exchange, our calculations here include only data on the volume of market (auction) transactions.

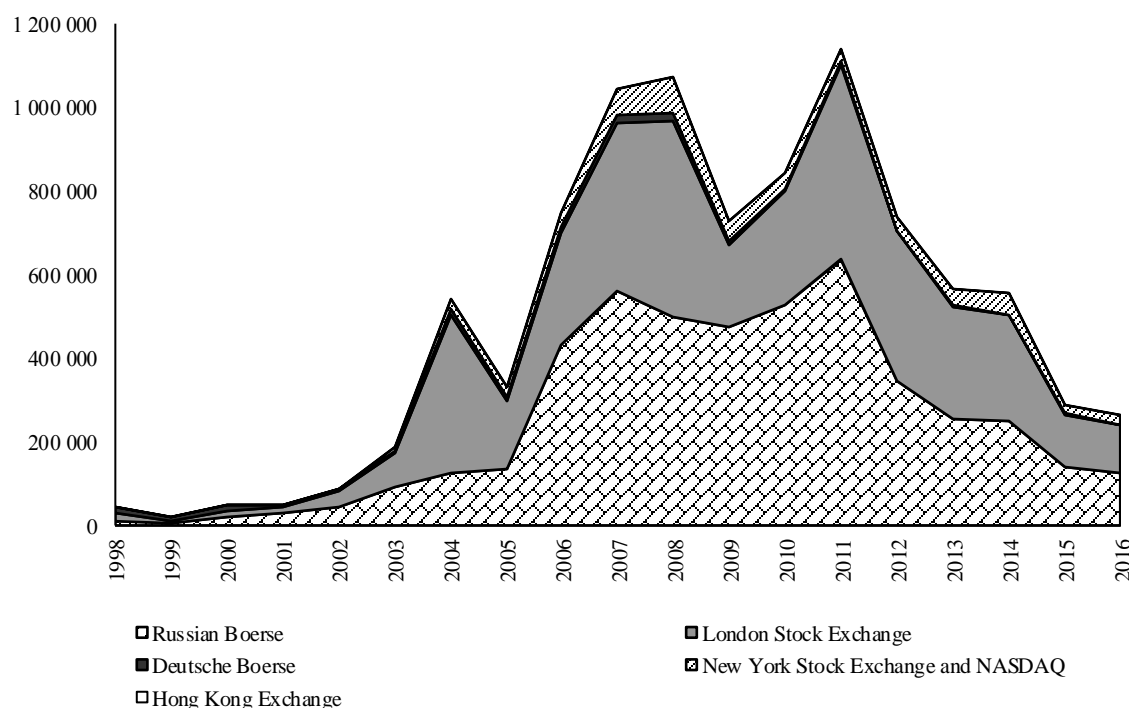


Fig. 9. The volume of trade in equity financial instruments issued by Russian JSCs on various stock exchanges over the period from 1998 through February 2017, m USD¹

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

As shown in *Fig. 10* and *Table 2*, in 2016, the value volume of market transactions in shares in many biggest international exchanges declined. Thus, for example, the value of market transactions shrank on Deutsche Boerse by 16.0%; on Euronext by 14.9%; on the London Stock Exchange by 13.8%; on SIX Swiss Exchange by 13.0%; on NASDAQ (USA) by 11.5%; on BATS Global Markets (USA) by 11.0%; on NASDAQ Nordic Exchanges by 5.9%; on the Singapore Exchange by 3.2%; on the NYSE by 0.9%; and that for Canada's TMX Group – by 0.7%. The deepest plunge occurred on the Kazakhstan Stock Exchange, the Shanghai Stock Exchange, and the Shenzhen Stock Exchange, whose volumes of trading in shares in 2016 lost 80.5%, 64.9%, and 40.8% respectively. It was these three exchanges that over the previous year had displayed the fastest growth rates in the volume of their market transactions in shares.

In 2016, the Moscow Exchange also reduced its volume of transactions in shares. The plunge of that index amounted to 8.6%, which roughly corresponds to the average value for this group of exchanges.

The phenomenon of abrupt declines in exchange share market liquidity lacks any universally recognized explanation. Among the circumstances often referred to as the root causes of such declines are excessive toughening of regulation with regard to biggest market makers², growth

¹ Out of all trading modes on the Moscow Exchange, our calculations here include only data on the volume of market (auction) transactions.

² This point of view was expressed, for example, by the managers of the largest US exchange-traded funds (ETFs) in an interview to *Barron's*. *Goodman B. The Future of ETFs* *Barron's* gathered the ETF industry's leaders to discuss what will drive growth, some needed changes, and how you should invest. *Barron's*, March 11, 2017. For

of mistrust towards exchange markets due to a negative impact of high-frequency trading (HFT), strengthening of segmentation of share markets in developed countries due to accelerated growth of alternative stock exchange systems¹, etc.

However, apparently one can find other deeper explanations of the aforesaid trends displayed by share market liquidity. In many of their aspects they are associated with the visible decline in the propensity to take risks on the part of both big investors (investment banks, pension funds and mutual funds) and the issuers of securities themselves, which has occurred due to the emergence of new regulatory norms and the soft monetary policies of central banks. The ongoing sharp reduction in the turnover rate of securities held in the portfolios of US mutual funds² and the reorientation of investors' money flows from actively managed equity funds to index funds³ indicate that traditional investment strategies, such as stock-picking, market timing, and sectoral investment have stopped being more profitable than passively managed portfolios. That situation could not but reduce the volumes of shares traded on exchanges. The aforesaid processes inevitably lead to such grave consequences as concentration of the bulk of money liquidity in the most capitalized companies represented in the indices, and the weakening ability of the stock market to efficiently redistribute financial resources from less effective companies to more effective ones.

The liquidity estimates describing the trade in shares on the world's biggest stock exchanges over a longer period are shown in *Table 2*. In that group, only two Chinese exchanges, in spite of a sharp plunge of their trading volumes in 2016, managed to significantly exceed their 2007 trading volume indices (3.1 times). The behavior of liquidity indices on the stock exchange display an interesting pattern: after the 2008 crisis, they were rapidly recovering until 2011, and then in 2012 the upward trend gave way to decline, which continued until 2016. This movement pattern was probably caused by the liquidity crisis that exacerbated in 2012 due to problems in the eurozone, the capital shortage experienced by Europe's biggest banks, the end of the second round of quantitative easing in the USA and 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.⁴

the effects produced by post-crisis regulation on the propensity of market participants to take risks and on the liquidity of various financial tools, see, for example, PricewaterhouseCoopers. Global financial markets liquidity study. August 2015.

¹ Lewes, M. *Flash Boys: A Wall Street Revolt* / Michael Lewis; Translated from the English. Moscow: Albina Publishers, 2015, p. 51.

² According to Investment Company Institute (ICI), in 2015, the asset-weighted annual turnover rate experienced by equity fund investors was 44%, well below the average of the period 1980-2015 which had amounted to 60%². (Investment Company Fact Book, 2016. ICI, 56th Edition, p.37).

³ For example, according to Morningstar, investors pulled \$ 230.5 out of actively managed US equity funds in 2015, and \$ 340.1bn in 2016. At the same time, net inflows into passively managed US equity funds amounted to \$ 418.5bn and \$ 504.8bn in 2015 and 2016 respectively (Morningstar DirectSM Asset Flows Commentary: United States. Morningstar Manager Research, 11 January 2017).

⁴ For more details, see, e.g., IMF Financial Stability Reports released in October 2012 and October 2015.

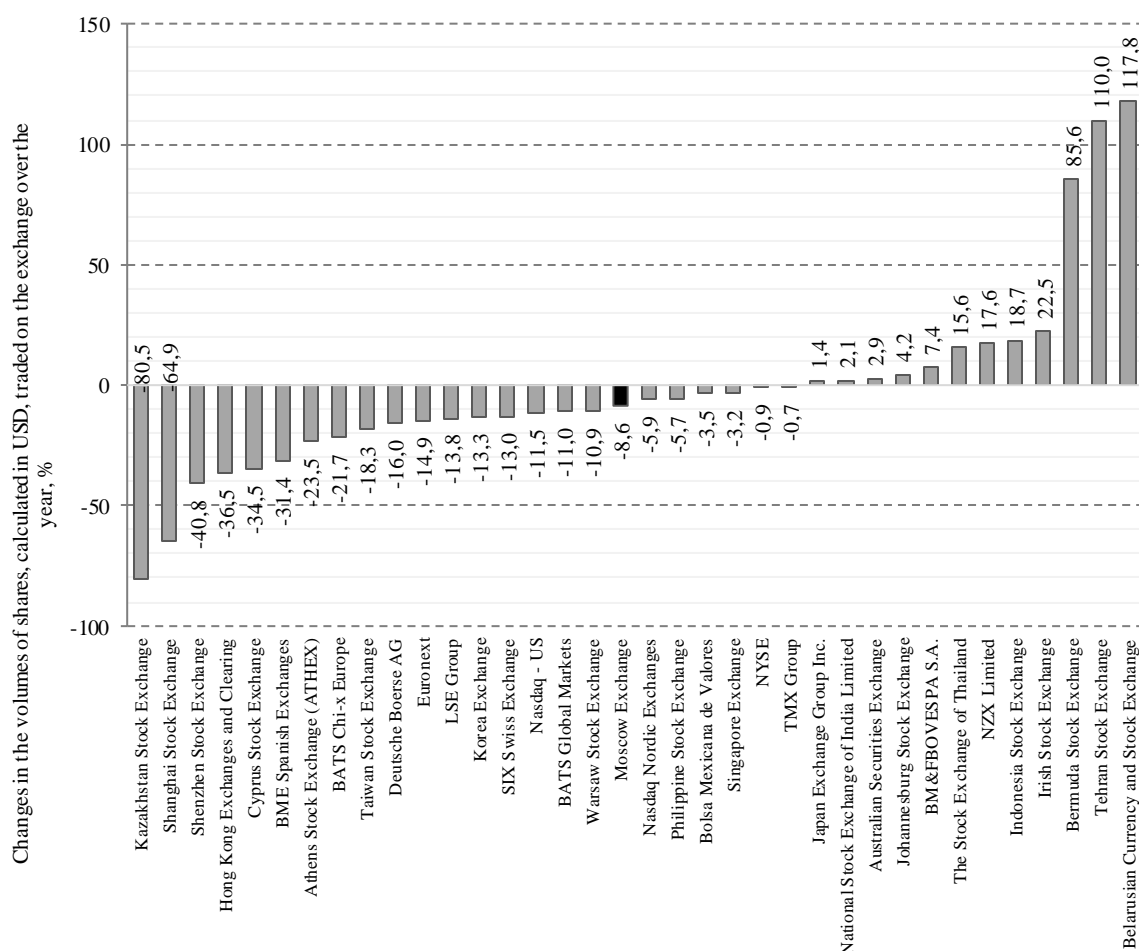


Fig. 10. Changes in the volumes of shares traded on exchanges, calculated in US dollars, in 2016, as %

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

The volume of transactions in shares roughly followed the downward trend displayed by the volume of transactions in shares on the Moscow Exchange over the period 2007 to 2016 roughly followed the patterns typical of the other world exchanges. After its crisis-triggered downfall in 2008–2009, this index recovered to 95.2% of its pre-crisis level in 2011; however, over the period 2012–2016 it plunged to a record low relative to all the other exchanges in that group – 23.6% of its 2007 level. 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). In face of shortage of long money in Russia's domestic market for shares, its participants switched over to other mechanisms based on borrowed resources, which triggered an accelerated growth of the segment of equity repo transactions on the Moscow Exchange. As a result, the aggregate volume of its equity and money market segments shrank to a much less degree than its auction segment, amounting in 2016 to 82.8% of its 2007 index.

Table 2

**The movement of the value volume of market transactions in shares
on major stock exchanges in 2007–2016 (2007 = 100%)¹**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
USA (NYSE and NASDAQ)	100	120.1	72.6	71.0	71.7	54.2	54.3	65.5	69.9	66.2
China (two exchanges)	100	63.0	128.9	132.8	106.9	81.8	124.9	198.0	674.2	314.4
Japan (Tokyo Stock Exchange and Osaka Exchange)	100	87.3	61.2	63.2	66.3	57.5	103.9	86.8	88.3	89.6
UK	100	89.0	62.9	63.5	65.7	50.8	51.7	64.1	60.2	52.9
Euronext	100	84.7	42.7	44.5	47.1	34.8	36.7	43.1	45.8	39.0
Germany	100	95.5	45.1	48.4	52.3	37.9	39.7	43.7	46.3	38.9
Hong Kong	100	77.3	70.1	74.1	71.5	54.7	65.5	75.3	105.2	66.8
Canada	100	105.3	75.5	83.0	93.5	82.3	83.2	85.4	71.9	71.3
Australia	100	77.5	57.9	77.1	86.8	67.9	63.9	58.6	58.0	59.7
Russia (MICEX – market transactions)	100	89.0	77.3	75.5	95.2	55.8	44.0	46.0	25.8	23.6
Russia (MICEX – all trade modes)*	100	116.5	74.7	92.4	142.5	127.5	123.6	119.2	69.7	82.8
NASDAQ OMX Nordic Exchange	100	84.5	48.8	52.6	58.0	41.1	43.8	50.6	52.9	49.8
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

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

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

In 2016, the Moscow Exchange, by its number of listed companies, ranked only 39th among the 81 exchanges included in the World Federation of Exchanges' reports. *Fig. 11* shows the movement of the number of companies listed by the MICEX and the Moscow Exchange (its legal successor) over the period 2006–2016. After the merger, in 2011, of Russia's two largest exchanges (MICEX and RTS), the number of listed companies hit its record high of 293 in 2012, and then in 2013–2016 it began to steadily decline. In 2016, this index amounted to only 245, or 83.6% of its 2012 level. The main reason for the shrinking number of listed companies 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 existence of an untapped potential for listing more new companies on exchanges is confirmed by the fact that in 2016, out of approximately 1,140 joint-stock companies with nominal holder accounts opened with the National Settlement Depository (NSD),² the shares in only 246 of them are currently listed on the Moscow Exchange, or only of 21.6% of the total number of the NSD's clients.

In 2015–2016, the Moscow Exchange failed to reverse the downward trends in the number of listed national issuers of shares. This trend could not be reversed even after the enactment, from September 1, 2014, of the amendments to the RF Civil Code and the alterations to Federal Law of February 26, 1995 'On joint-stock companies,' which was augmented by the new Article 7.1,³ 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

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

² Own calculations based on the NSD's publicly available database.

³ In accordance with Federal Law of June 29, 2015, No 210-FZ.

single state register, a company must sign a contract with an organizer of trade concerning its shares being listed on the exchange.

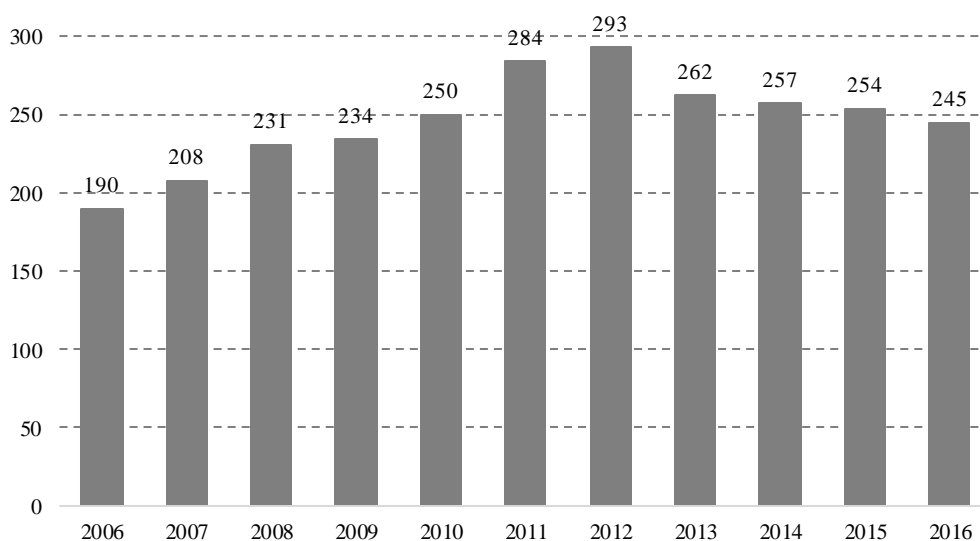


Fig. 11. The number of companies listed on the Moscow Exchange in 2006–2016¹

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 2009–2016 released by the World Federation of Exchanges.

According to the information released by the Moscow Exchange, the year 2016 saw the launch of IPO-SPO by seven companies, which attracted investor money to the total value of RUB 137.4bn (or \$2.1bn). This is approximately 1.5 times more than the yield of 2015, when shares to the total value of RUB 93.3bn (or \$1.5bn) were placed.

In late 2016, the Moscow Exchange completed its listing reform, which had been started in 2014. The reform envisaged that, in order to be admitted to a given level list, the issuers of shares must qualify of the basis of their free-float index, the compliance of their reports with the IFRS, the number of independent members on their boards of directors, and the existence of their own internal audit, remuneration, and human resources committees. Upon the completion of assessments in the course of the reform, in early 2017, 21 issuers were downgraded to a lower level, and PJSC ROSSETI was moved to Level 1.

The merger of the RTS and MICEX in late 2011 resulted in the consolidation, on a single exchange, of several markets that used to separately handle different transactions in shares: spot trades; the market for equity derivatives and issues of shares; and the money market in the form of equity repo transactions (*Fig. 12* and *Table 3*). This opened up opportunities for an accelerated growth of the futures market segment (FORTS) due to the inflow of new liquidity from the other financial market infrastructure segments and the broadening range of its participants. As a result, the futures market's share in the total volume of equity financial market transactions increased from 46.7% in 2010 to 64.2% in 2015. In 2016 and in January-February 2017, the futures segment's relative share was no longer on the rise, which can largely be

¹ Data for the period 2006-2011 are taken from MICEX's reports; data for 2012–2016 – from the Moscow Exchange's reports.

explained by the high rates of return on the spot market for securities observed in 2016. The money market for securities (repo transactions) likewise began to display an accelerated growth rate due to the increased opportunities for brokers and their clients to borrow money against the collateral of shares,¹ as well as the acceptance of shares by the Bank of Russia as collateral on the repo market in the post-crisis period. The relative share of repo transactions increased from 26.7% in 2010 to 29.4% in 2015, and then further jumped to 38.0% as of the end of the second month of 2017.

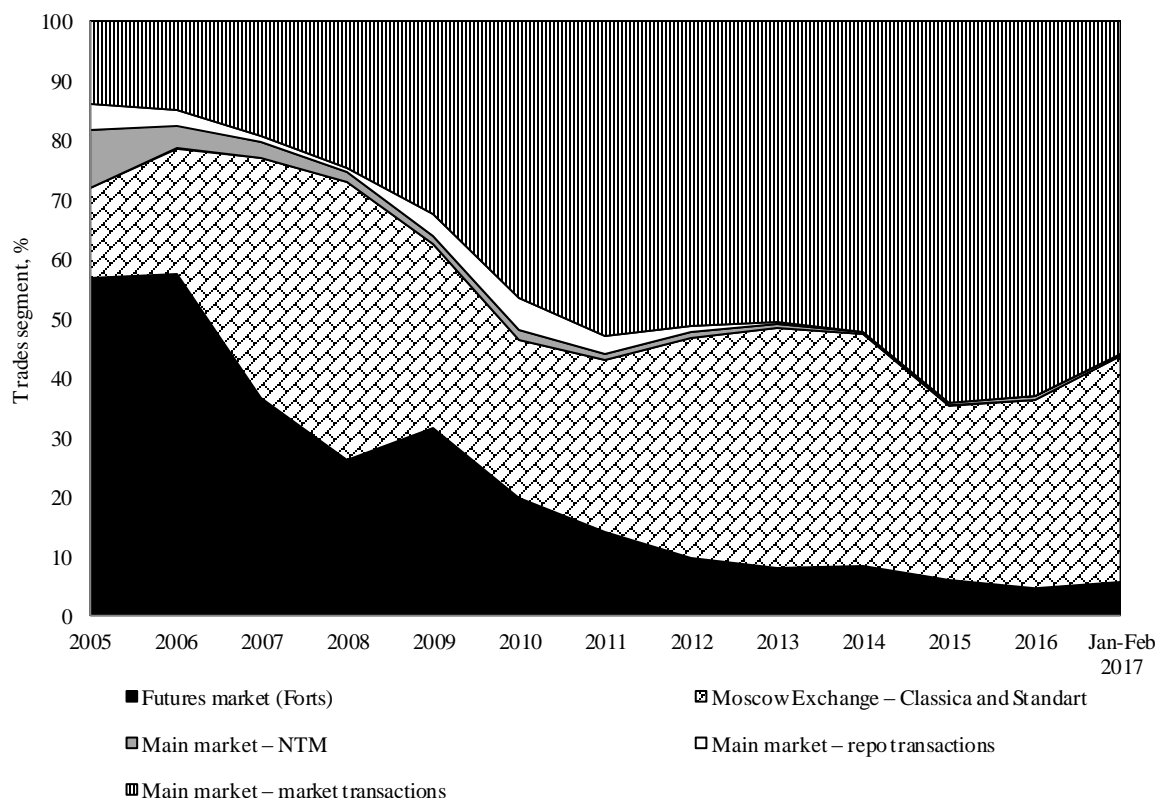


Fig. 12. The structure of markets for shares and derivatives on the Moscow Exchange from January 2005 through February 2017

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

Fig. 13 and 14 show the structure of the market for shares 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% in 2005 to 86.6% in January-February 2017 (Fig. 13).

¹ Repo is used as a money-making instrument in the market for shares, whereby a broker or a broker's client can borrow money, offering their shares as collateral. The capital thus raised is used for short-term marginal lending to brokers' clients or other brokers.

Table 3

**The structure of financial markets for shares on the Moscow Exchange
from January 2005 through February 2017**

	2005	2010	2015	2016	Jan-Feb 2017
Market transactions (auction market)	56.7	19.8	6.0	4.6	5.6
Repo transactions	15.1	26.7	29.4	31.8	38.0
NTM	9.8	1.5	0.4	0.4	0.3
Moscow Exchange – Classica ¹ and Standart	4.4	5.4	0.0		
Futures market (formerly Forts)	13.9	46.7	64.2	63.2	56.1
Total	100.0	100.0	100.0	100.0	100.0

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

At the same time, the equity market trading volume in the anonymous auction segment declines both in absolute and relative terms. Its relative share in the total volume of exchange transactions shrvelled from 69.5% in 2005 to 12.8% in January-February 2017 (*Fig. 13*). In absolute terms, the volume of equity market transactions shrank from \$ 15.1 trillion in 2011 to \$ 8.4 trillion in 2016, or by 44.3% (*Fig. 14*). This fact is especially alarming, because it is this trading mode that is responsible for market-based pricing of Russian shares.

By means of repo transactions, the market for shares boosts the short-term demand for shares that relies on borrowed funds, which can be satisfied through repo deals with shares traded at non-market prices. By doing this, brokers and their clients can derive an additional income in the form of net interest on their loans. After the 2008 crisis, when several big players on the exchange market failed to fulfill their obligations under equity repo agreements, the bulk of settlements in this market segment began to be handled by a central counterparty (the clearing center), which has helped, by now, to minimize the lending risks for this type of repo transactions.

Nevertheless, 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 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. The public has no access to information concerning the asset coverage ratios² of brokers' or their clients', nor concerning the scope of the use of financial levers (borrowed funds) 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.

As the segment of market transactions in shares becomes narrower, so dwindle the possibilities for fair pricing of shares placed by Russian issuers, and the transaction prices applied in the repo segment become distorted. Through repos, many inexperienced investors get involved in equity transaction without proper understanding of the associated risks. Besides, excessive promotion of speculative transactions can distract private investors from following their longer term investment strategies.

From a strategic point of view, an overdeveloped money market imposes constraints on the ability of an exchange to function as a center for capital redistribution in favor of more efficient

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

² 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 value of their securities.

issuers of securities and promotion of growth of new companies. The money market is more inclined to help the existing companies retain their position and to preserve the existing structure of the economy, because its resources are represented in the main by the instruments placed by issuers of securities with highest capitalization indices.

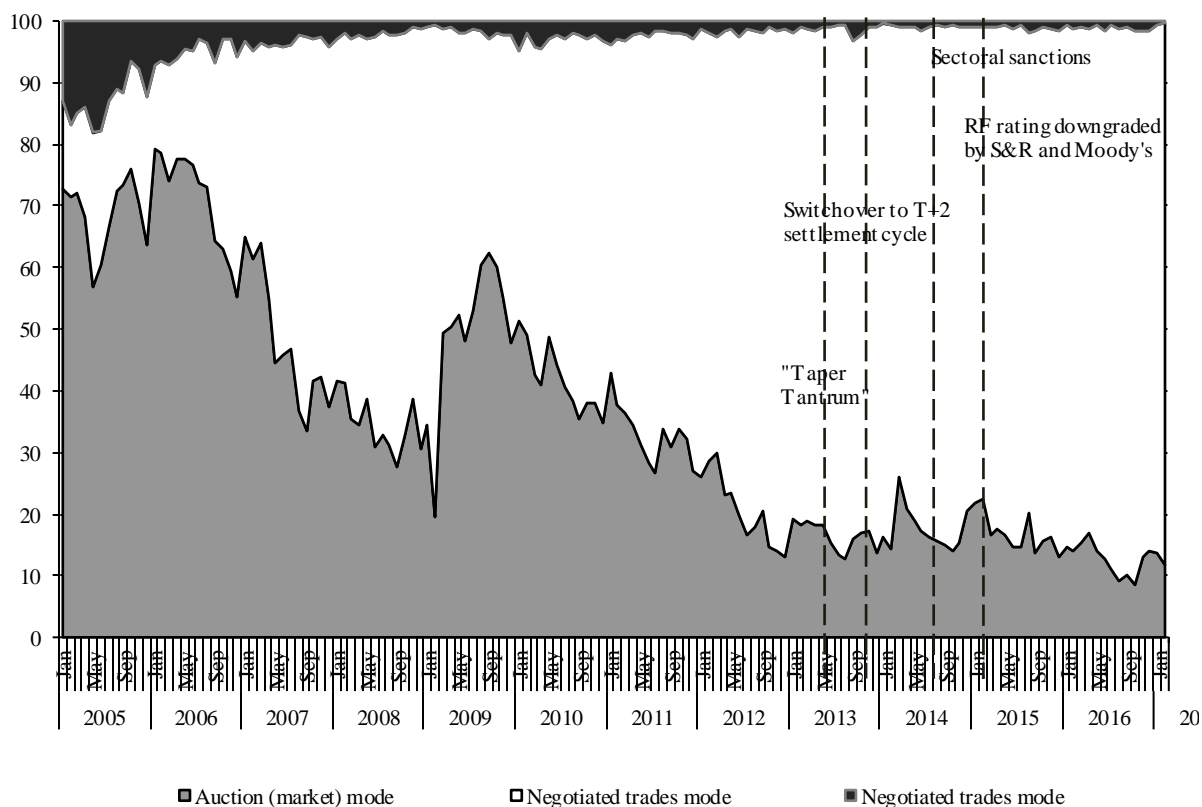


Fig. 13. The structure of trades in shares on the Moscow Exchange's Main Market from January 2005 through February 2017, %

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

When the existing data on stock exchange liquidity, and first of all the data on the volume of equity market transactions, are set against the pattern of important events capable of influencing the behavior of domestic and foreign investors (Fig. 13 and 14), it becomes obvious that, as a rule, none of these events could translate in any significant changes in the activity of the participants in bidding.¹ Thus, for example, the completion of the MICEX Equity & Bond Market's switchover to a T+2 settlements cycle in September 2013 has so far failed to produce any notable effects in the form of an inflow of new money from foreign or domestic investors into the stock market. 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 S&P and Moody's in January-February 2015 below the investment grade.

¹ Among these factors, the term Taper Tantrum usually refers to the events of May 2013 when global investors, on hearing that the US Federal Reserve was planning to raise its key rate, began to flee from the developing financial markets.

To a certain extent, these developments have confirmed the hypothesis, put forth by the Bank of Russia in 2016, 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.¹

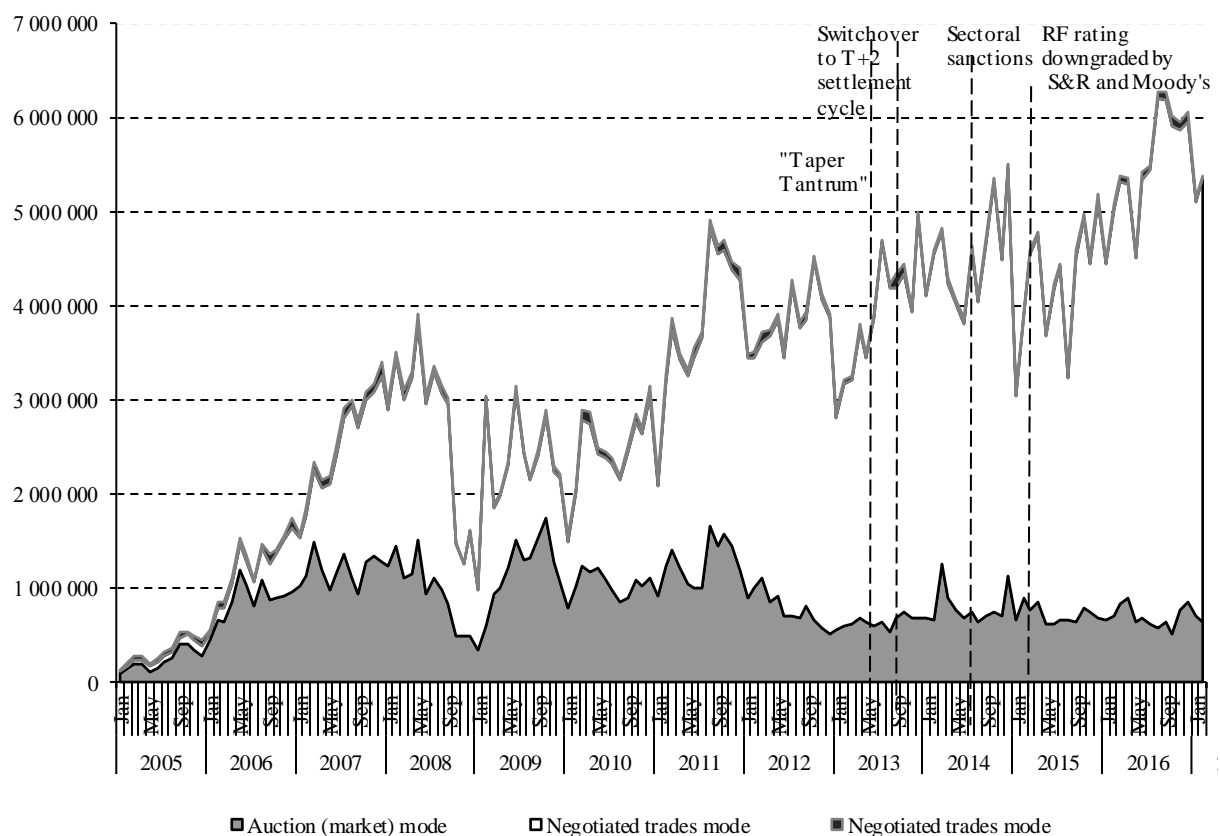


Fig. 14. The volume of trades in shares on the Moscow Exchange's Main Market from January 2005 through February 2017, RUB m

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

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

Fig. 15 and Table 4 demonstrate the structure of transactions in shares completed by private brokers and state-controlled companies (SCC).² The operations of *Otkritie Holding JSC* are entered as a separate row (the state stake in its charter capital, held indirectly through VTB, amounts to only about 10%, but for a number of private reasons, the company is frequently assigned some important special tasks by the government (for example, to act as an underwriter

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

² 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 affiliations, VTB-24, Gazprombank, Russian Agricultural Bank, Sviaz-Bank, KIT Finans, VEB.

of *Rosneft's* big issues of exchange-traded bonds in 2015 and 2016, to buy out large bundles of government eurobonds in 2015, and to participate in the Bank of Russia's major refinancing of large transactions denominated in rubles and foreign exchange).

As seen from *Fig. 15*, the bulk of trades in shares on the Moscow Exchange is carried on, as before, by Russian private financial companies; the role of broker companies affiliated to big foreign banks (GIB-subs)¹ is relatively modest. The relative share of private broker companies in trading on the exchange was 62.2% in February 2017 vs. 86.2% in 2005. Meanwhile, the share of affiliations of foreign banks in February 2017 was only 6.6%. The paradoxical feature of the process of commercialization of Russian stock exchanges and their merger into a single public company is that those Russian private broker-dealers who handle more than half of all transactions in shares on the Moscow Exchange are not represented in any form in the structure of its joint-stock capital.²

The relative share of state-controlled companies in the total volume of transactions in shares on the exchange increased from 9.9% in 2005 to 21.6% in February 2017. However, as shown in *Fig. 15*, the strongest upswing in SCCs' trading in shares on the exchange occurred during the most difficult phase in the Russian market's history (late 2008 and H1 2009), when special centralized loans were issued through *Vnesheconombank* (VEB) for the support of the domestic stock market. Another surge of SCCs' activity on the organized equity market was observed 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 SCCs 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.

In 2016, the Bank of Russia concluded no equities repo transactions on the exchange, while the relative share of SCCs in trading on the exchange amounted to 20.2%, which is below its 2010 level, and so is indicative of a certain degree of stabilization in the financial market. This had largely to do with the altered refinancing model applied in the banking system, when repo deals between the Bank of Russia and predominantly big state-owned banks were replaced by more highly diversified repo transactions effectuated through the central counterparty, where liquidity is supplied to the market by big banks with their substantial residuals of freely available monies placed by major budget funding recipients.

The significantly increased relative share of *Otkritie Holding* JSC in trades in shares is noteworthy, that financial holding company having become the biggest player in this market segment. Its relative share actually soared from 3.8% in 2005 to 16.2% in February 2017. It may be assumed that such progress has been achieved by this financial holding company not only due to its aggressive strategy of taking over other banking structures, but also through its active participation in various projects aimed at refinancing the banking system from centralized financial sources.

¹ 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.

² The equity structure of the Moscow Exchange is addressed in Section 3.5.

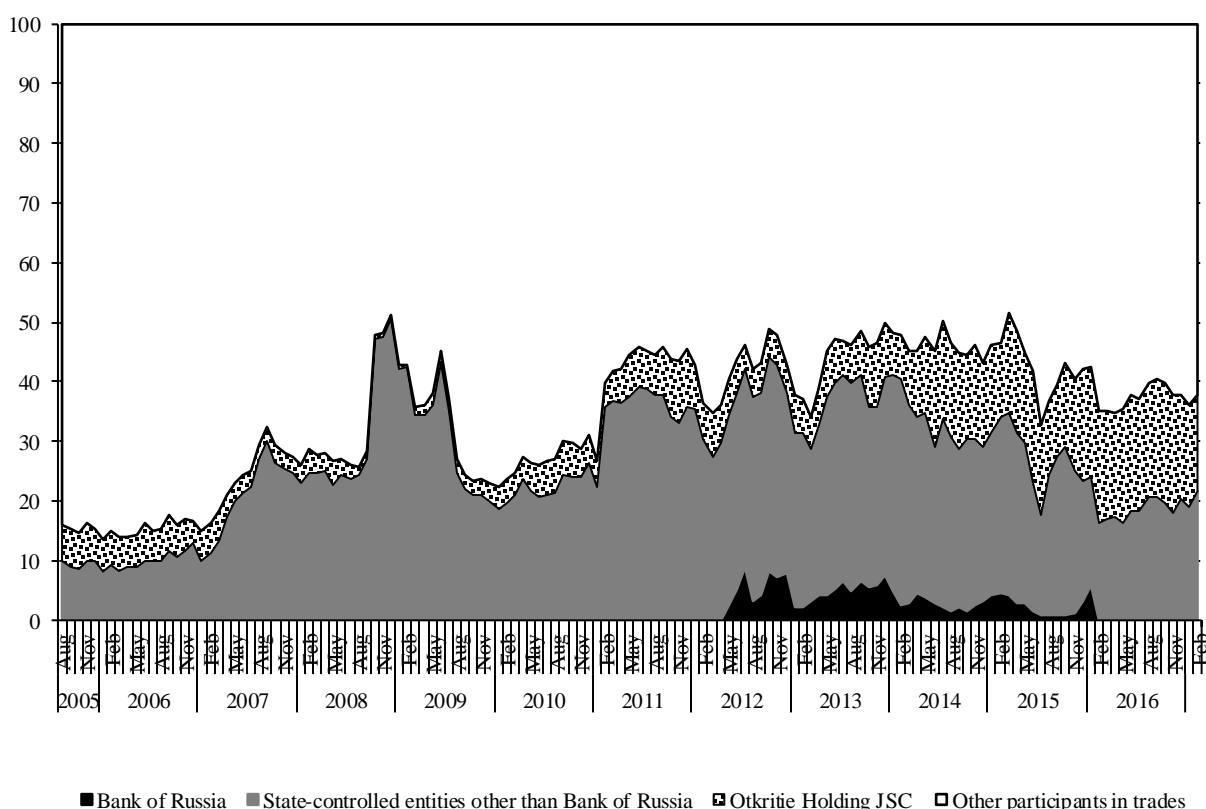


Fig. 15. The relative shares of private broker companies and SCCs in equity trades on the Moscow Exchange over the period from August 2005 through February 2017, %

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

Table 4

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

	2005	2010	2011	2012	2013	2014	2015	2016	Feb 2017
Bank of Russia		0.0	0.0	7.9	7.5	3.2	3.3	0.0	0.0
SCCs	9.9	26.4	35.8	30.3	33.5	25.8	20.2	20.2	21.6
<i>Otkritie Holding JSC</i>	3.8	9.1	9.6	4.7	8.9	14.2	18.7	17.5	16.2
Other participants	86.3	64.5	54.6	57.1	50.2	56.7	57.8	62.3	62.2
Of these:									
GIB-subs*				7.3	8.9	4.8	5.7	6.3	6.6

* 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.

Thus, it can be concluded that, in spite of the shrinkage of liquidity, the sectoral sanctions and other problems, the exchange market for equities could boast of a rather broad range of participants in trades. The bulk of trades in shares were executed by Russian private financial institutions and state-controlled companies. Certain shifts that took place in 2016 in the structure of transactions in favor of private dealers are indicative, most likely, of the success

achieved by the exchange in building a more diversified mechanism of banking system refinancing, and of the market itself becoming more sustainable. An analysis of the structure of investors on the exchange reveals an upward trend in the activity of non-residents, which could not be suppressed even by the introduction of sectoral sanctions.

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. 16 demonstrates the movement of the Herfindahl–Hirschman Index, or HHI,¹ on the *Moscow Exchange's Equity & Bond Market* from January 2005 through February 2017. As estimated by the Federal Antimonopoly Service of the Russian Federation, the market has a low concentration if HHI is below 800; moderate concentration if $800 < \text{HHI} < 1,800$; and high concentration if HHI is above 1,800.²

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. 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.

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. 17*). 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 2016, the HHI in the segment of services for corporate bonds amounted to 1197. From 2011, the market of services for issues of regional bonds has been balancing between moderately and highly concentrated zones. In 2016, when the HHI rose to 2,463, it shifted into the category of markets with a high concentration rate.

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

² See section 2.6.4 of the Methodological recommendations for the procedure of analysis and evaluation of the competitive environment on the financial services market, approved by Order of the RF Ministry for Antimonopoly Policy as of March 31, 2003, No 86.

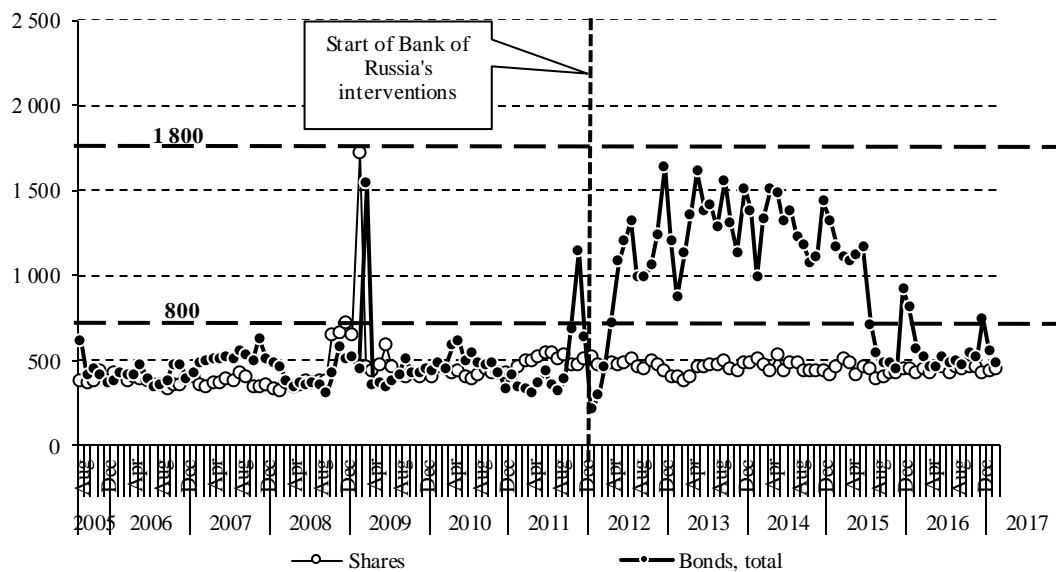


Fig. 16. The Herfindahl–Hirschman index, based on secondary trades volume on the Moscow Exchange (all trade modes)¹

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

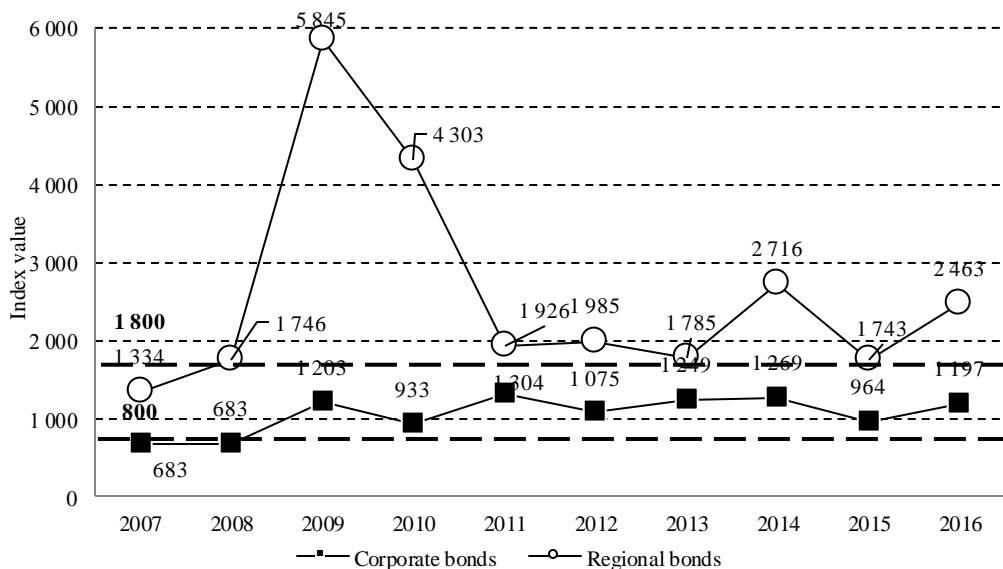


Fig. 17. The Herfindahl–Hirschman index, based on data on trade organization services for ruble-denominated corporate and regional bonds in 2007–2016

Source: rankings by organizers of trade in bonds, data for the period 2007 to 2016 released at cBonds.ru.

¹ 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 5*, in 2014–2016 the market for IPO-SPOs was demonstrating a decline in companies' activity, which can be explained not only by the effects of sectoral sanctions, but by the even stronger effects of recession in the Russian economy. In 2014, 2015 and 2016, the total volume of transactions amounted to \$1.7bn, \$0.6bn and \$2.1bn respectively, which is much less than the corresponding indices for the three previous years, when the total annual value of public equity offering had never plunged below \$ 9.0bn.

A similar decline was observed in the segment of merger and takeover deals, although the available estimated differ depending on their source (Merger.ru; KPMG; AK&M; Thomson Reuters). According to Merger.ru, the volume of mergers and takeovers with the participation of Russian companies in 2014, 2015, 2016 amounted to \$58.7bn, \$59.9bn and \$41.7bn respectively, which, similarly to public equity offering, is below the corresponding indices for the three previous years. At the same time, as demonstrated by the cited values, the Russian merger and takeover market is by one order of magnitude bigger than that for IPO-SPOs, which is indicative of the weakness of the domestic market for public offerings as a mechanism for redistributing investment flows across the Russian economy.

Table 5

The parameters of market for shares in Russian companies, USD bn

	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 % of capitalization	as % 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	1,379	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	1134	2.1	0.7	0.1	32.0**	41.7

* 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 *Otkritie Holding JSC* 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% 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.

Thus, the exchange market for equities has so far contributed relatively little to real asset accumulation by companies and to economic growth. In other words, 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 bond market

3.3.1. The market for non-government bonds

In 2016, the value of bond loans in Russia continued to be on the rise, amounting to RUB 16.2 trillion, which is 13.8% above the corresponding index for 2015 (*Fig. 18*). Over that year, the value of corporate bonds, including non-marketable bond issues, increased from RUB 8.1 trillion to RUB 9.4 trillion, or by 17.0%; that of regional bonds – from RUB 0.58 trillion to RUB 0.63 trillion, or by 10.1%; and that of federal bonds (OFZ, government saving bonds (GSO), etc.) – from RUB 5.6 trillion to RUB 6.1 trillion, or by 9.5%. In spite of the high demand for money resources necessary for covering budget expenditure, the RF Ministry of Finance in 2016 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, which remained cut off from world debt markets.

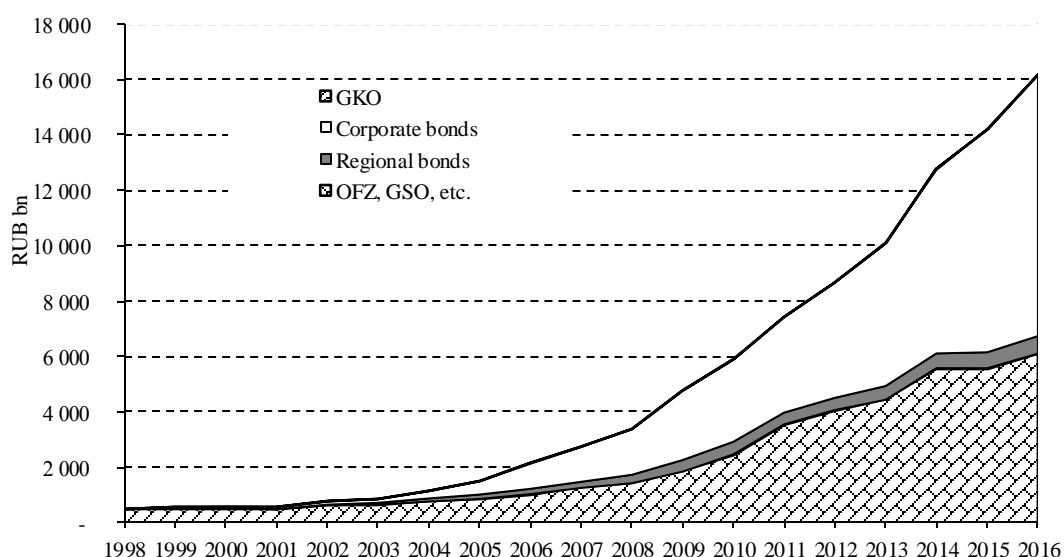


Fig. 18. The volume of ruble-denominated bonds in circulation, RUB bn

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

In contrast to the situation in 2015, the year 2016 saw a notable growth in the value volume of all categories of debt instruments placed on the Moscow Exchange (*Fig. 19*). The highest growth was displayed by corporate bonds, their offer increasing from RUB 1.8 trillion in 2015 to RUB 3.7 trillion in 2016, or 2.1 times. The main factor behind that growth was the placement of a non-marketable bond issue by *Rosneft* in late 2016.

The value volume of federal bond issues increased from RUB 0.84 trillion in 2015 to RUB 1.05 trillion in 2016, or by 26.2%. Over the same period, the value volume of regional bond issues soared from RUB 100.0bn to RUB 159.0bn, or by 59.0%. 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 supply side – growth of excess liquidity in the banking sector and the demand for ruble-denominated assets displayed by some categories of foreign portfolio investors.

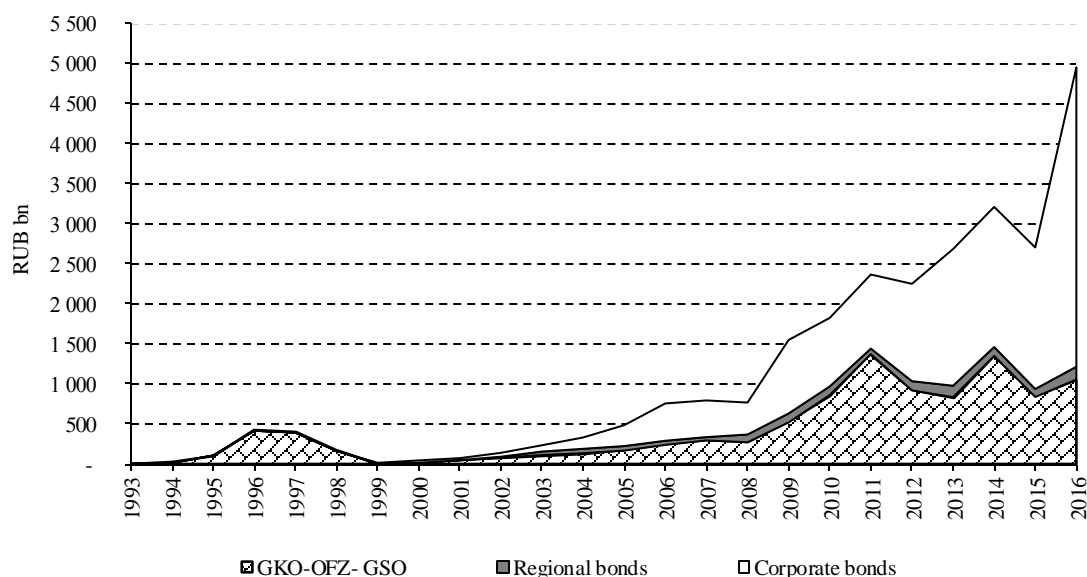


Fig. 19. The value volume of ruble-denominated bond issues¹ placed in 1993–2016

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 not a highly concentrated one, being dominated by bond issues placed by state-controlled companies. As follows from data presented in Table 6, over the period 2010–2016, 24 biggest issuers accounted for 60–70% of the total value volume of corporate bond offers; in 2016, this index amounted to 67.8% vs. 61.5% in 2015. Among big bond issuers, state-controlled companies (SCC) prevailed; the top-24 alone in 2016 accounted for 48.2% of the total value volume of corporate bond issues circulating on the market. In 2015, this index was 46.4%. 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 SCCs.

In 2016, Russian companies began to return into the eurobond market. Four companies – Alfa-Bank, Polyus Gold International, UC Rusal and Severstal - were successful in their bond placement. According to data released by Cbonds, in 2016 Russian corporate bond issuers raised a total of \$12.3bn on the external market vs. \$4bn in 2015.

In 2016, the value volume of ruble-denominated corporate bonds was estimated to be \$141bn, that of eurobonds – \$136bn; a year earlier, these two indices amounted to \$133bn and \$139bn respectively (Fig. 20). 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

¹ In this case, the value volume of regional and corporate bond issues was estimated on the basis of data on the value volume of bond offers, released by the Moscow Exchange in its monthly reports. These data may differ from the data on the value of the same offers of securities released by Cbonds.ru, because the latter include data on closed bond offers.

from \$182bn in 2013 to \$136bn in 2016, or by 25.3%. Over the same period, the value volume of domestic corporate bonds in US dollar terms plunged from \$165bn to \$141bn, or by 14.6%.

Table 6

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 state-controlled ones	Total	including state-controlled ones	Total	including state-controlled ones	
2009							
RUB bn	440	390	610	441	803	513	917
Market share, %	48.0	42.5	66.5	48.1	87.6	55.9	100.0
2010							
RUB bn	177	147	304	200	513	317	855
Market share, %	20.7	17.2	35.6	23.4	60.0	37.1	100.0
2011							
RUB bn	241	191	389	309	642	405	1,089
Market share, %	22.1	17.5	35.7	28.4	59.0	37.2	100.0
2012							
RUB bn	265	265	429	334	690	443	1,199
Market share, %	22.1	22.1	35.8	27.9	57.5	36.9	100.0
2013							
RUB bn	550	550	705	640	1,035	830	1,741
Market share, %	31.6	31.6	40.5	36.8	59.4	47.7	100.0
2014							
RUB bn	875	827	1,051	934	1,334	1,038	1,739
Market share, %	50.3	47.6	60.4	53.7	76.7	59.7	100.0
2015							
RUB bn	683	683	861	788	1,180	891	1,919
Market share, %	35.6	35.6	44.9	41.1	61.5	46.4	100.0
2016							
RUB bn	972	882	1,228	1,038	1,653	1,176	2,439
Market share, %	39.9	36.2	50.3	42.6	67.8	48.2	100.0

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

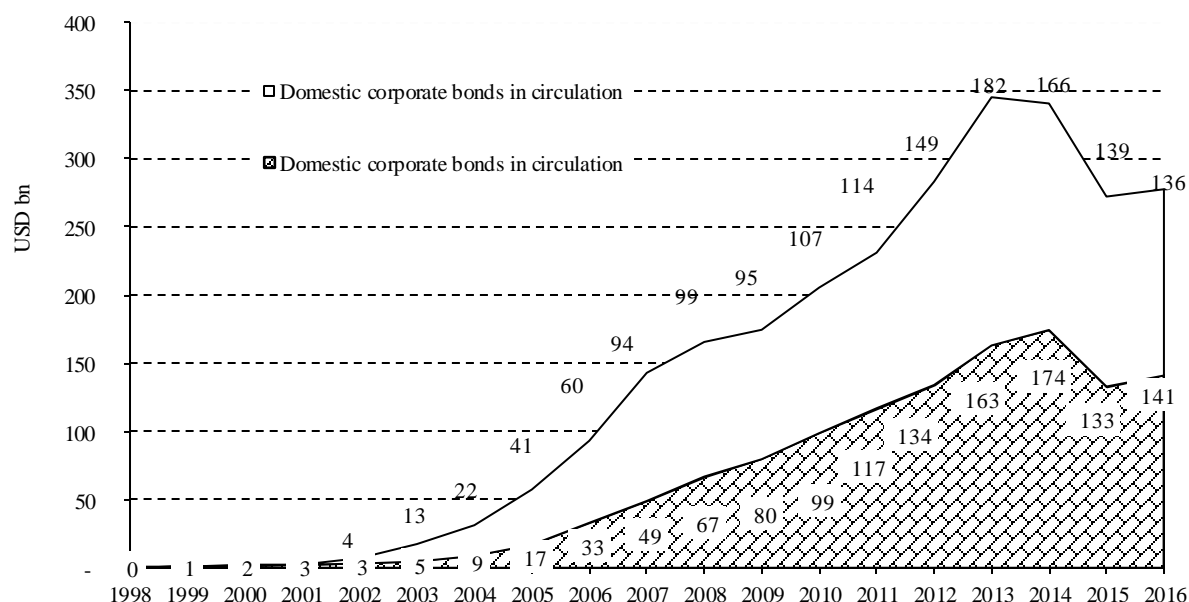


Fig. 20. The volume of Russian corporate bonds in circulation

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

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. 21*). 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 backdrop of the ruble's stabilization, carry trading strategies were employed,¹ 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 credits 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 onwards, 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, in 2016, the excess liquidity phenomenon in the banking system, when ruble-denominated bonds and the Bank of Russia's deposit auctions became the main liquidity absorption mechanisms.

As is evident from *Fig. 22*, over the period from July 2003 through March 2017, the domestic corporate bond market experienced two shocks: in February 2009, when the yield index of IFX-Cbonds portfolio rose to 24.8% 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% 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 plunge of oil prices from September 2014. However, from H2 2015 onwards, thanks to the efforts of Russia's monetary authorities, the situation in the domestic debt market became more stable. By late March 2017, the yield index of IFX-Cbonds portfolio had dropped to 9.68% per annum, and its duration index increased to 1.42 years. In terms of its yield to maturity index, the corporate bond market has yet to climb only 1–1.5 pp to its pre-crisis level of 2013, while its duration index has already

¹ 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).

fully recovered. However, in contrast to the market for OFZ, where non-residents are more prominent, the market for corporate bonds is experiencing much more serious liquidity issues.

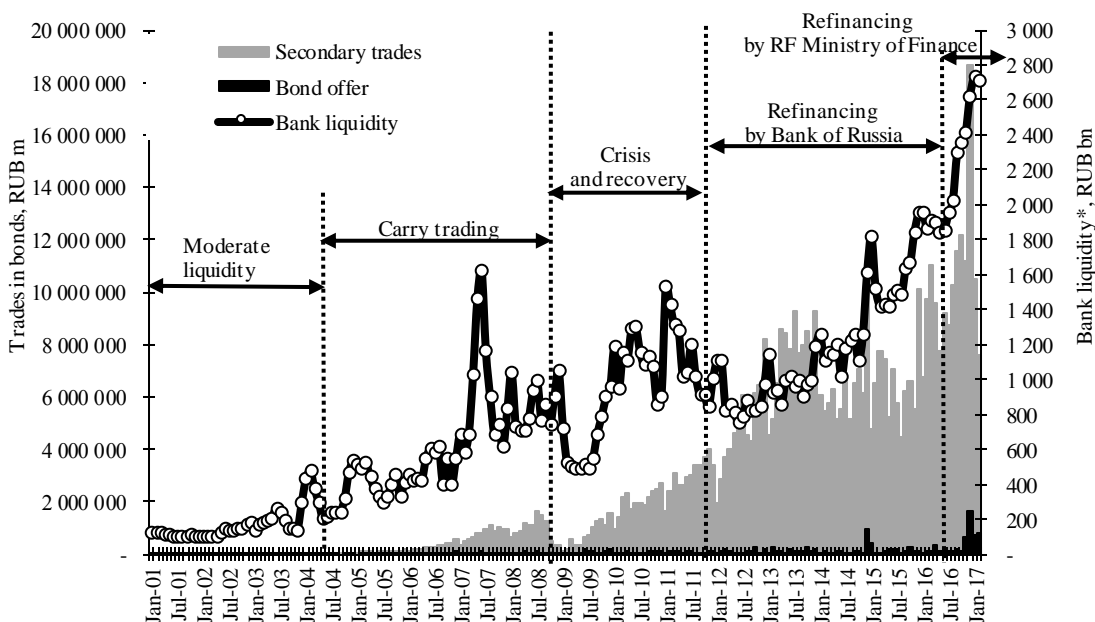


Fig. 21. Operations with corporate bonds and bank liquidity over the period from January 2001 through February 2017

* bank liquidity is understood as banks' residuals on correspondent accounts and deposits with the Bank of Russia. Source: own calculations based on data released by the Bank of Russia and the Moscow Exchange.

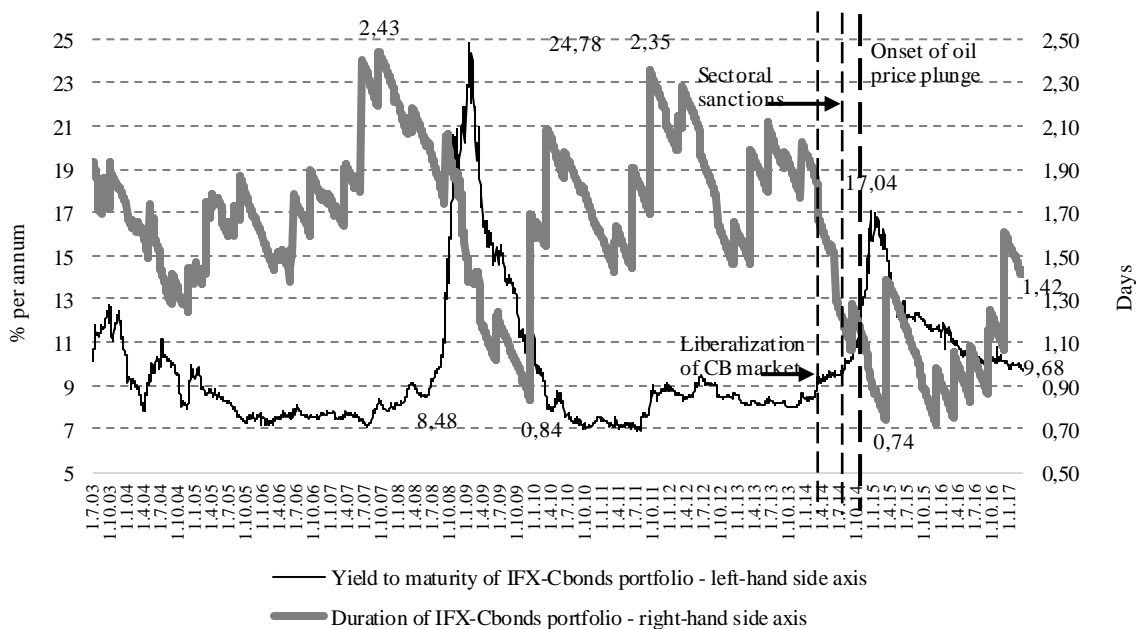


Fig. 22. The yield to maturity and duration indices of IFX-Cbonds portfolio over the period from July 1, 2003 to March 23, 2017

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

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. 23*. In January-February 2017, the relative share of repos in the total value volume of trades in corporate bonds hit its record high of 97.2%. At the same time, only 0.9% of these were market transactions, i.e., corporate bonds were traded in an anonymous auction market. For reference: in 2005, the relative share of repos was 28.0%, and that of market transactions – 11.5%; the other 60.6% were negotiated trades.

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. In 2016, the services offered by the pricing centers (set up at financial centers on the initiative of the Bank of Russia and self-regulatory organizations) remained unpopular.

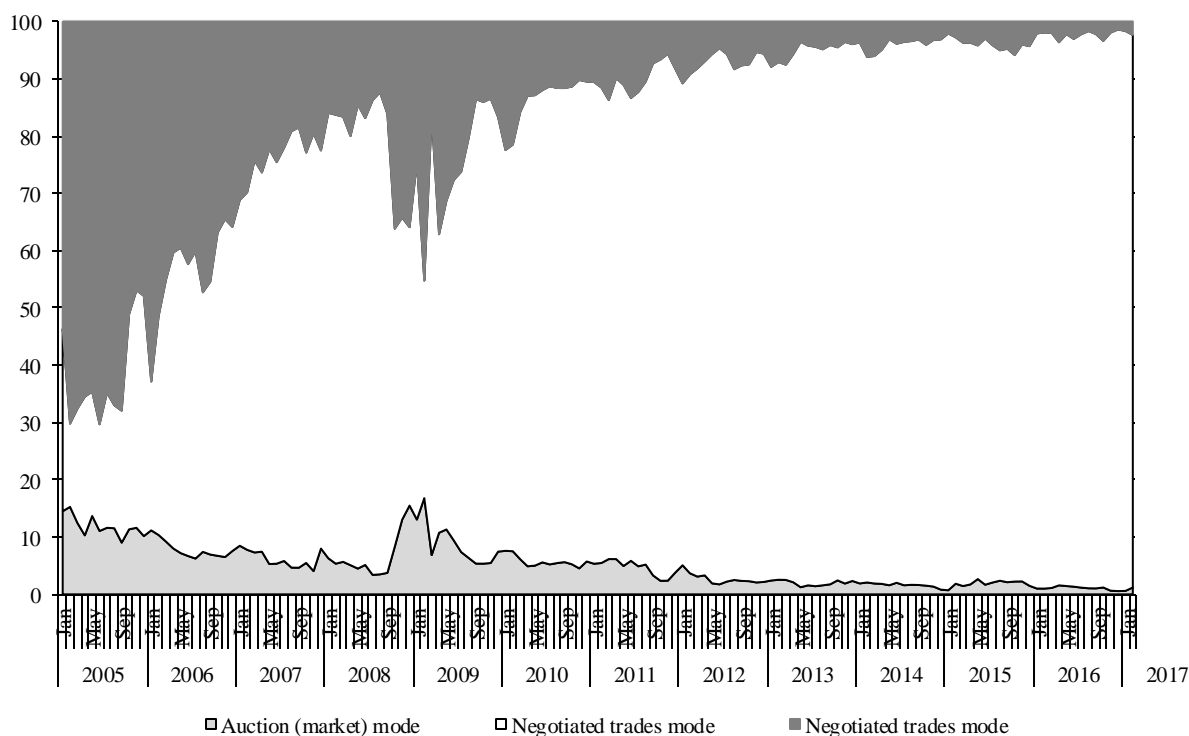


Fig. 23. The structure of trades in corporate bonds on the Moscow Exchange, %

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

The total value volume of trades in corporate bonds on the Moscow Exchange increased from RUB 77.5 trillion in 2015 to RUB 126.8 trillion in 2016, or by 2.0%. This happened in the main due to the surge in the volume of repo transactions in late 2016 associated with the need to refinance the bonds issued by Rosneft. The volume of negotiated trades in corporate bonds in 2016 shrank to RUB 2.9 trillion from RUB 3.1 trillion in 2015, or by 6.9%. Over the

same period, the value volume of market transactions rose to RUB 1.3 trillion compared to RUB 1.4 trillion in previous year, or by 7.2%.

Particularly impressive is the growth rate of the money market for corporate bonds relative to 2010, when the mechanism of refinancing banks through repo transactions with the participation of the Bank of Russia was yet to go into full swing. Over that period, the value volume of market transactions in corporate bonds declined from RUB 1.34 trillion to RUB 1.33 trillion, or by 0.9%; that of transactions in the NTM segment declined from RUB 3.12 trillion to RUB 2.87 trillion, or by 8.2%; however, that of repos increased from RUB 19.69 trillion to RUB 122.57 trillion, or 6.2 times.

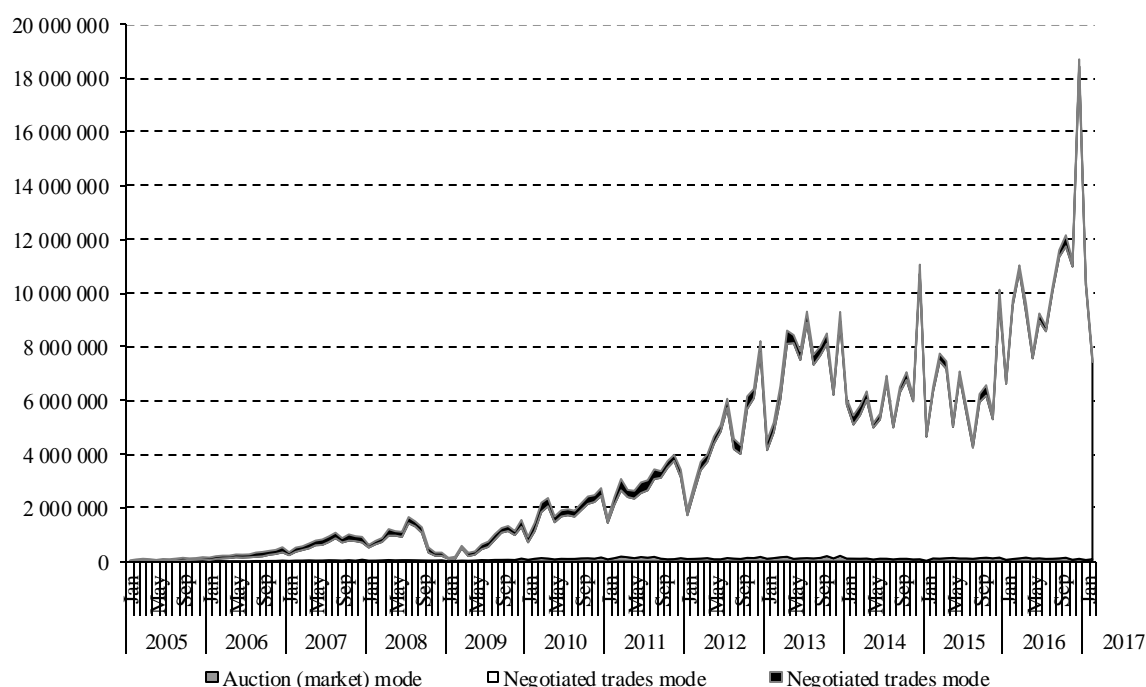


Fig. 24. The value volume of trades in corporate bonds on the Moscow Exchange, in millions of rubles

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

Thus, the market for non-government bonds continued to be dominated by its money-market segment. In 2016, the volume of market transactions in corporate and regional bonds continued its decline. However, while the corporate bond market displayed an accelerated growth of repo transactions in response to the excess liquidity in the banking system, the regional bond market was characterized by a significant shrinkage of its repo segment relative to its 2010 level.

Fig. 25 analyses the relative shares of different groups of financial organizations (private and public companies¹, the Bank of Russia) in the aggregate volume of trades in bonds on the Moscow Exchange, including market transactions, negotiated trades and repos.² 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.

¹ See the list of state-controlled entities in footnote 22.

² 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.

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

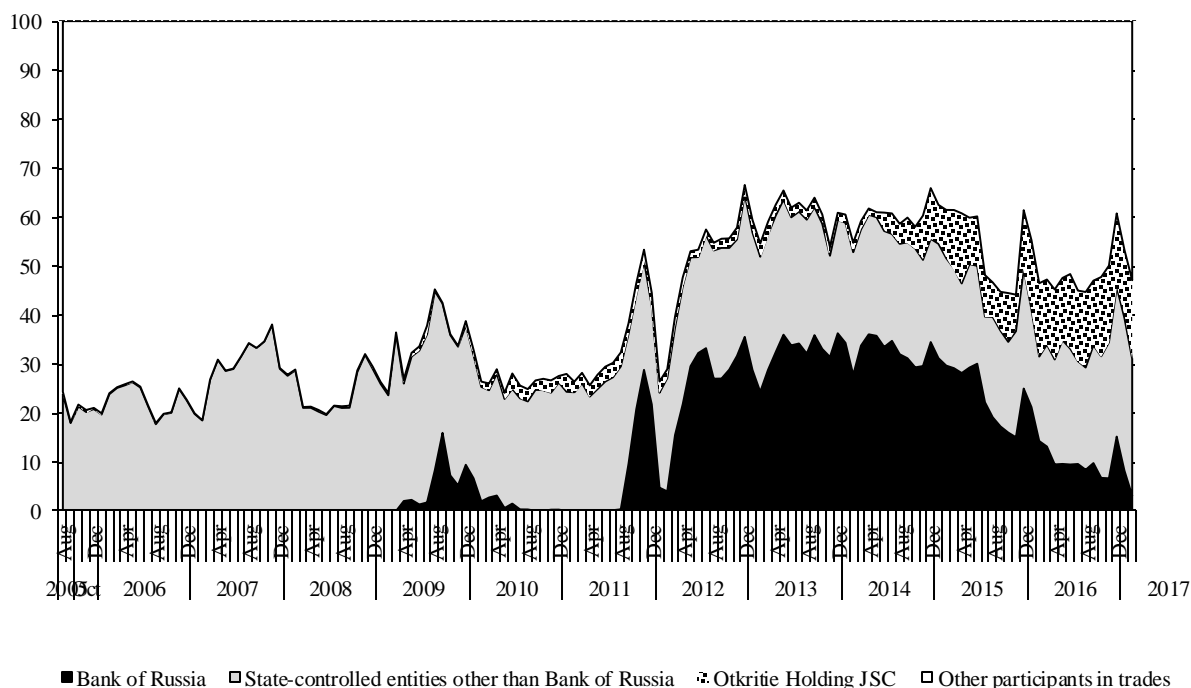


Fig. 25. The relative shares of private brokers and SCCs companies in trades in bonds on the Moscow Exchange, %

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

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 SCCs increased, reflecting their increasing importance as liquidity sources in the banking system. In February 2017, the Bank of Russia's relative share shrank to 3.1% vs. 24.4% in December 2015, while that of SCCs over the same period increased from 25.0% to 27.9%.

In the total volume of trades in bonds on the Moscow Exchange, the share taken up by *Otkritie Holding JSC* soared from 1.5% in 2013 to 16.0% in February 2017. This company has become the biggest player on the exchange market for bonds.

The relative share of other private financial intermediaries in the bond market increased from 38.6% in 2015 to 52.9% in February 2017. As the same time, the share of companies affiliated to big foreign banks, while having increased, remained relatively low, amounting to 8.5% in February 2017.

Thus, from the point of view of its structure of intermediaries and investors, the bond market in general and the market for non-government bonds in particular, are still being dominated by banks interested in attracting resources on the money market, with their debt obligations serving

as collateral. The relative share of non-residents in the corporate bond market remains moderate, amounting on the average to 15%. The participation of individuals in trades in bonds does not exceed 0.5% of their value volume. It could be said that some additional measures are urgently needed in order to encourage the population to get more actively involved in the domestic market for debt-based financial instruments.

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 \$ 29bn, only \$ 2.6bn, or 6.6%, was invested in fixed assets (*Table 7*). 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. Corporate bonds issues, which are funded by the money market, are *de-facto* the sources of short-term finance, and so companies prefer to use the income generated by bond placement for replenishing their current assets and refinancing their old debt.

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.

Table 7

The parameters of domestic market for ruble-denominated corporate bonds, USD bn

	Bonds in circulation	Secondary market, including repo	Bond offer	Investment in fixed assets generated by bond offer		
				USD bn	the same, as % of capitalization	the same, as % of placement volume
2000	2	0.2	1.1			
2001	3	1	0.8			
2002	3	2	2	0.1	3.0	6.7
2003	5	8	3	0.1	2.1	3.8
2004	9	15	5	0.1	1.1	2.0
2005	17	44	9	0.3	1.8	3.3
2006	33	135	17	0.1	0.3	0.6
2007	49	371	18	0.2	0.4	1.1
2008	67	457	16	0.2	0.3	1.2
2009	80	293	29	0.1	0.1	0.3
2010	99	757	28	0.03	0.03	0.1
2011	117	1,237	31	0.014	0.01	0.05
2012	134	1,866	39	0.14	0.1	0.4
2013	163	2,839	54	0.05	0.03	0.1
2014	174	2,032	46	0.2	0.1	0.4
2015	133	1,277	29	2.6	1.9	6.6
2016	141	1,895	56	no data	no data	no data

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

3.3.2. The market for government bonds

In contrast to the situation in 2014–2015, in 2016 the volume of borrowings attracted by the RF Ministry of Finance through 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 the RF Ministry of Finance's estimates, in the amount of RUB 0.5 trillion. As stated in the *Guidelines for the public debt management policy in the Russian Federation for 2017–2019*, towards the end of the planning period government borrowing may become the principal source for covering budget deficit instead of the Reserve Fund and the National Welfare Fund.

The evolution of the OFZ structure (Fig. 26) 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,¹ three phases in the OFZ market's development are indentified: prior to the 2008 crisis; from mid-2009 through mid-2011; from mid-2011 onwards.²

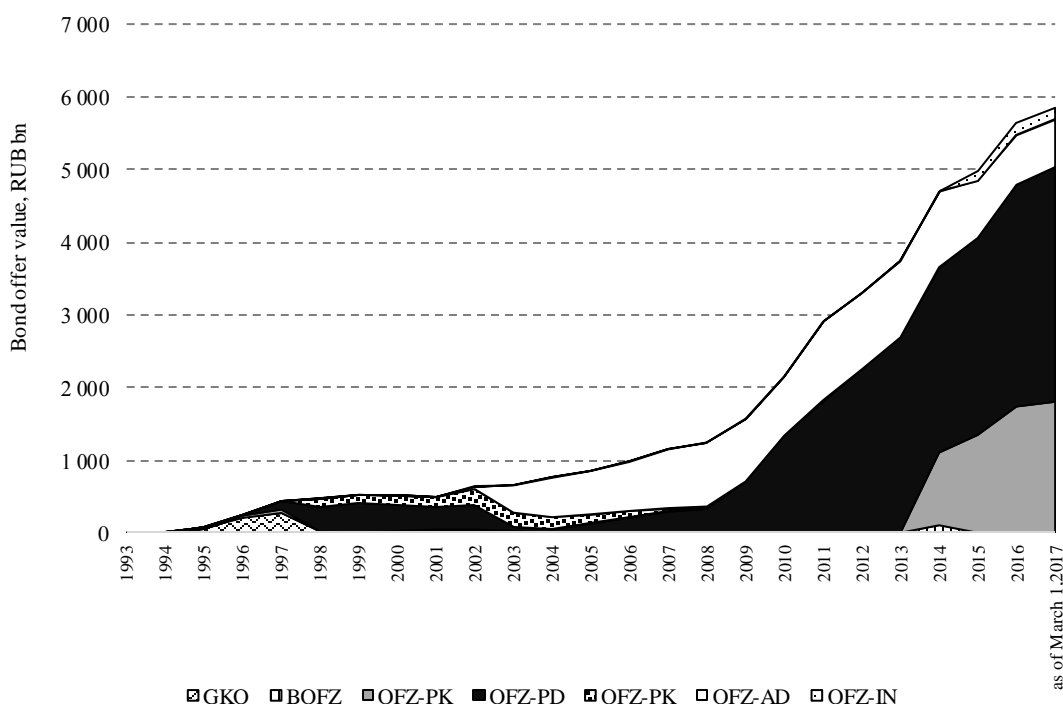


Fig. 26. The value volume of GKO-OFZ offering over the period from 1993 through February 2017, RUB bn

Note. Hereinafter, the following abbreviations are used:

BOFZ – zero-coupon federal loan bonds;

GKO – short-term 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.

Source: own calculations based on data released by the RF Ministry of Financea Russian.

¹ 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.

² 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. 21.

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

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.¹ Non-residents' demand for OFZ was low due to the uncertainty concerning the interest rate. Meanwhile, by 2011 the relative share of OFZ-AD declined to 62.8%, and that of OFZ-PD increased to 62.8%.

Since mid-2011, 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.² Their high demand for OFZ-PD, and from 2015 also for OFZ-AD, 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 2014–2016, 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 63.7bn by OFZ-PD with a face value of RUB 56.4bn raised a significant amount of cash for the budget. At the same time, from 2015, federal loan bonds with a face value tied to the inflation rate (OFZ-IN) were launched onto the market and became very popular with domestic institutional investors. As a result, the topmost positions in the structure of OFZ issues as of March 1, 2017 were occupied by constant coupon income federal loan bonds (OFZ-PD) and bonds with a floating coupon (OFZ-PK), their relative shares amounting to 55.2% and 30.8% respectively. The relative shares of debt amortization federal loan bonds (OFZ-AD) and bonds with a face value tied to the inflation rate (OFZ-IN) mounted to 11.1% и 2.8% respectively.

In March 2017, the RF Ministry of Finance announced its specific plans for the issuance of federal loan bonds (OFZ) for individuals, which would be oriented to retail investors.

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. 27*). The positive phenomena observed in 2016, including the notable decline in the rate of inflation the stabilization of the ruble's exchange rate against foreign currencies, made it

¹ 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.

² *Ibid.*, p.14.

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 February 2017 demonstrated that, while inflation in per annum terms amounted to 3.8%, 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 23, 2017), the average yield of 8.4% per annum was still notably below the inflation rate, whose average index was 11.0%.

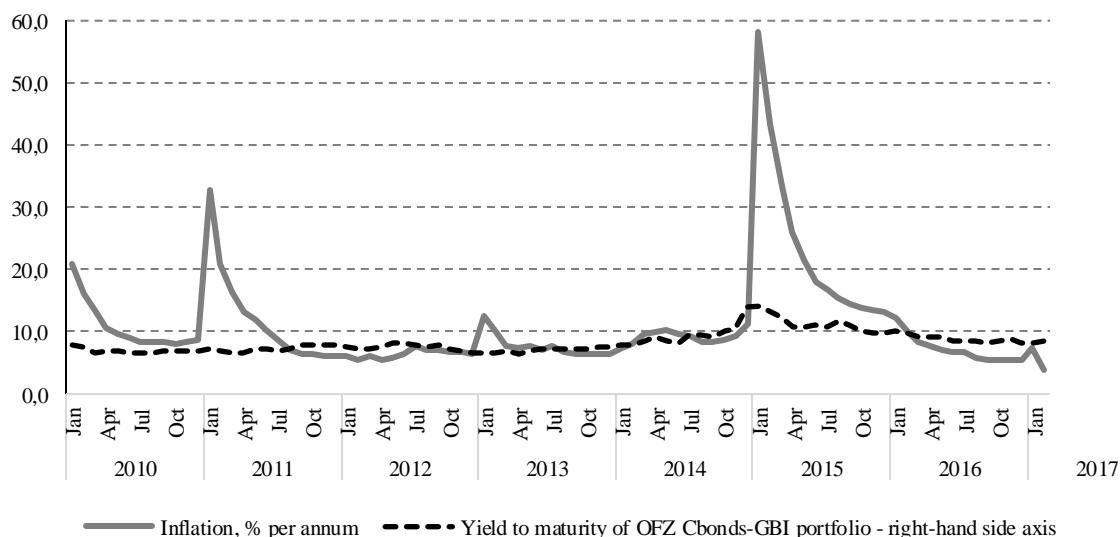


Fig. 27. The movement of inflation and yield to maturity of OFZ Cbonds-GBI portfolio over the period from January 11, 2010 to March 23, 2017

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

So, although the geopolitical and macroeconomic situation remained fluid and complicated, the government securities market continued to develop smoothly and began to play an increasingly important role in budget deficit financing. Over the last three years, the government and the Bank of Russia managed to stabilize the situation in the forex and financial markets. In terms of its yield indices in early 2017, the RF market for OFZ and eurobonds recovered to its 2013 level, which was a time of relative geopolitical stability.

The OFZ market resembles the market for corporate bonds in that it has 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. 28*). In January-February 2017, the share of repo transactions in the total value volume of trades in government bonds rose to its record high of 96.4%. Only about 1.3% of all trades in government bonds were market transactions.

In 2016, the volume of repo transactions in government bonds increased to RUB 113.6 trillion from RUB 60.1 trillion in 2015, or by 88.9% (*Fig. 29*). A similar growth rate was observed in the market transactions segment, where the volume of trades in government bonds increased from RUB 0.9 trillion in 2015 to RUB 1.71 trillion in 2016, or by 90.2%. The trading volume also increased in the negotiated trades sector – from RUB 2.73 trillion to RUB 3.33 trillion respectively, or by 22.3%. The surge in the repo volume occurred due to a considerable rise in primary offers coupled with the widespread occurrence of surplus liquidity in the banking system.

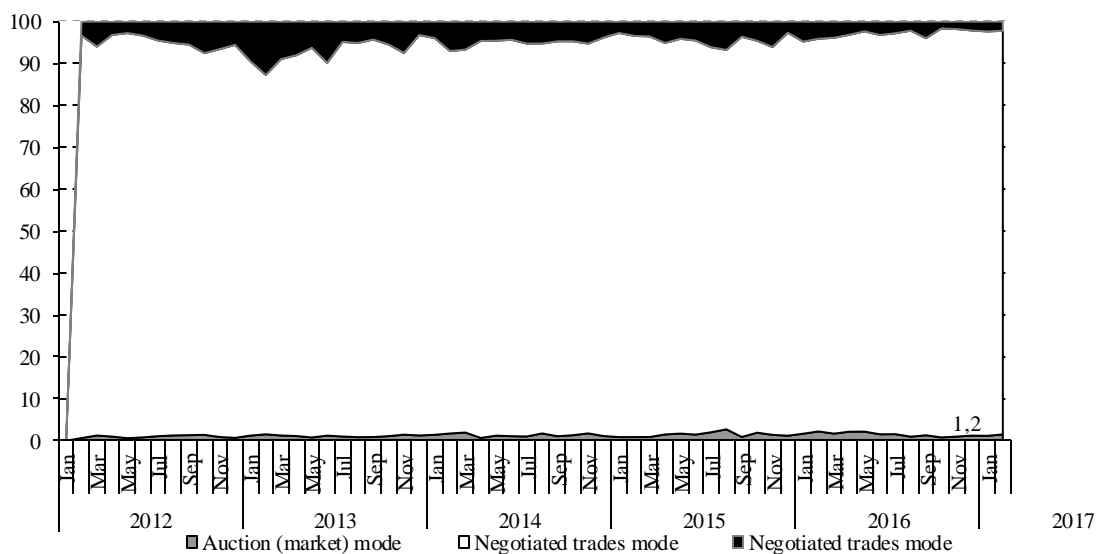


Fig. 28. The structure of transactions in federal bonds on the Moscow Exchange from February 2012 through February 2017, %

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

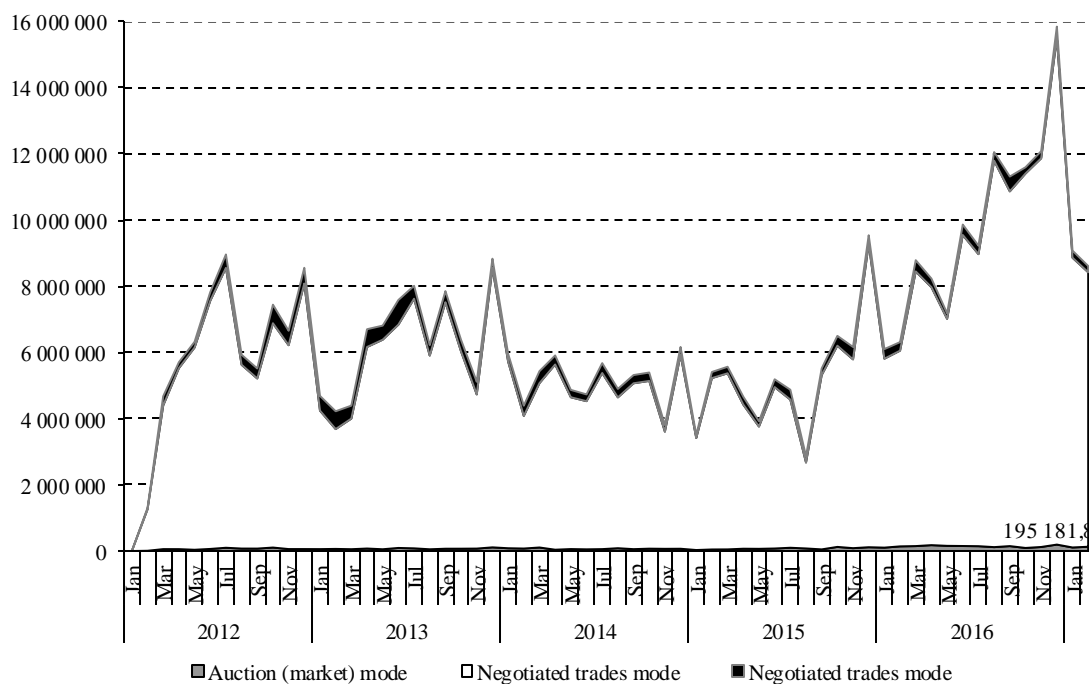


Fig. 29. The value volume of trades in federal bonds on the Moscow Exchange from February 2012 through February 2017, RUB m

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% in July 2012 to 28.1% in May 2013 (Fig. 30). After May 2013, it somewhat declined to 24.9% 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%. The measures introduced by 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 2017 their relative share amounted to 26.9%.

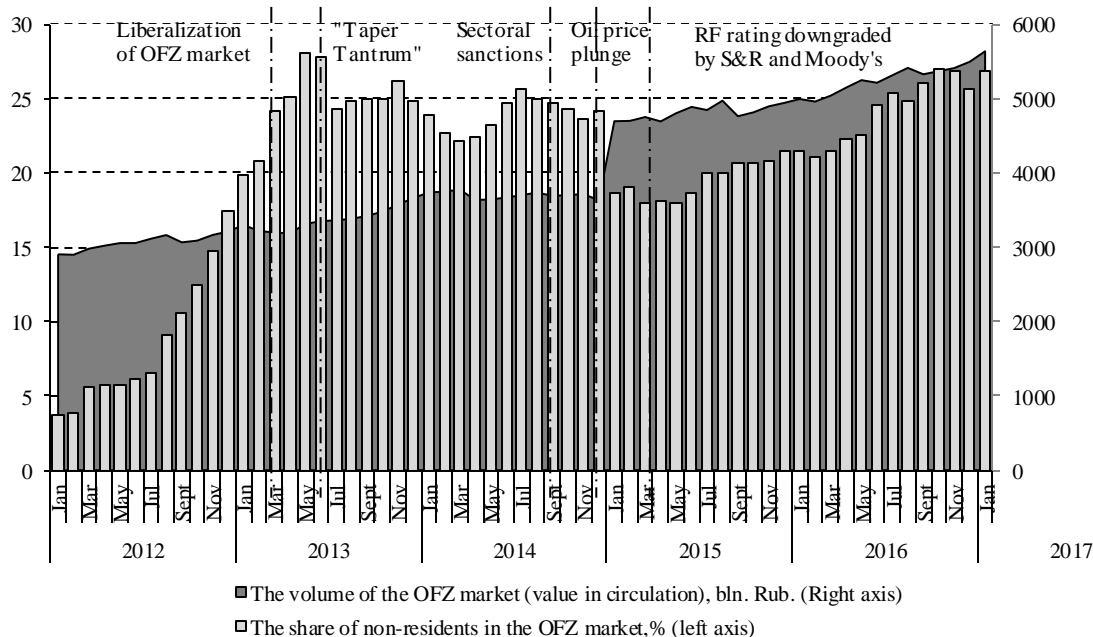


Fig. 30. The participation of non-residents in the OFZ market¹ from February 2012 through January 2017

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). It can be said with confidence that growth prospects of Russia's OFZ market will depend on whether or not it will

¹ 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.

manage to attract domestic institutional investors and to involve a sufficient number of retail investors.

3.4. Derivatives market

The year of 2016 saw the fastest decline on record in contracts with underlying securities in the domestic derivatives market despite growing MICEX and RTS stock indices (*Fig. 31*).

The market turnover figures for securities futures contracts were on the rise in general during the year. The volume of futures contracts was up from Rb 100.4 trillion in 2015 to Rb 109.5 trillion in 2016, or by 9.1%; the number of contracts increased from 1.77 to 1.89 billion, or by 6.7%; the number of transactions fell from 348.4 to 341.2 million, or by 2.1%. However, the quantitative growth in trading volumes during the year was generally driven up by nothing else than a higher than normal trading activity early in 2016. However, after having reached a peak in February 2016, the figures for futures market turnover began nosediving. Futures monthly trading volumes dropped from Rb 12.9 trillion in February 2016 to Rb 5.9 trillion in February 2017, or by 54.3%, as the monthly number of contracts decreased by 47.0% and 54.5% respectively.

In 2016, the downturn in underlying securities trading in the futures market was mainly due to a stabilized ruble exchange rate and the growth in Russian stock indices which lowered the need for hedging market players' stock positions through trading in the derivatives market. The decline in trading in the derivatives market spurred a spike in stock exchange tariffs in the given market segment and a shift from a flat fee per transaction to a commission (in effect since October 2016) based on a percentage of the transaction value, rendering derivatives market operations less appealing to high frequency traders.¹

The securities options market managed to avoid a decline in trading in 2016. The value of options contracts increased from Rb 3.9 trillion in 2015 to Rb 5.8 trillion in 2016, or by 47.9%; the number of contracts increased from 53.7 to 72,5 million, or by 35.0%; the number of transactions was up from 4.9 to 6.1 million, or by 22.9%. Neither did the market see any downturn in trading from February 2016 to February 2017.

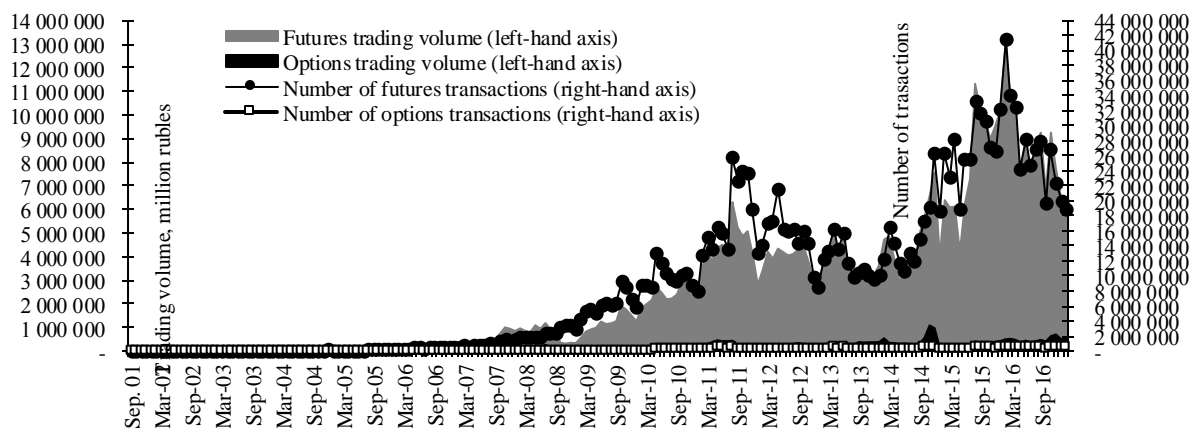


Fig. 31. Trading volumes and number of transactions in MOEX derivatives market in the period between September 9, 2001 and February 28, 2017

Source: own calculations based on Moscow Exchange's data.

¹ M. Mesropyan. A lucrative October. *Vedomosti*, November 6, 2016

With a stabilized ruble’s exchange rate, growth in the yield of MOEX (Moscow Exchange) indices and volatile commodity prices, the structure of the MOEX futures market in 2016 shifted towards commodity and MOEX indices transactions as the foreign currency transactions’ share shrank (*Fig. 32*). The commodity transactions’ share saw most of the increase, driven by the growth in demand for commodity futures for Brent crude oil, copper, sugar and precious metals.

As to the structure of transactions in the futures market, the share of MOEX indices transactions increased from 19.3% in 2015 to 25.8% in February 2017, of securities futures transactions was up from 3.0% to 3.9%, of commodity futures transactions rose from 5.8% to 16.8%, respectively. Accordingly, the share of foreign currency futures of the trading volume contracted from 71.9% in 2015 to 53.4% in February 2017. Interest futures contracts continued to be in demand in 2016.

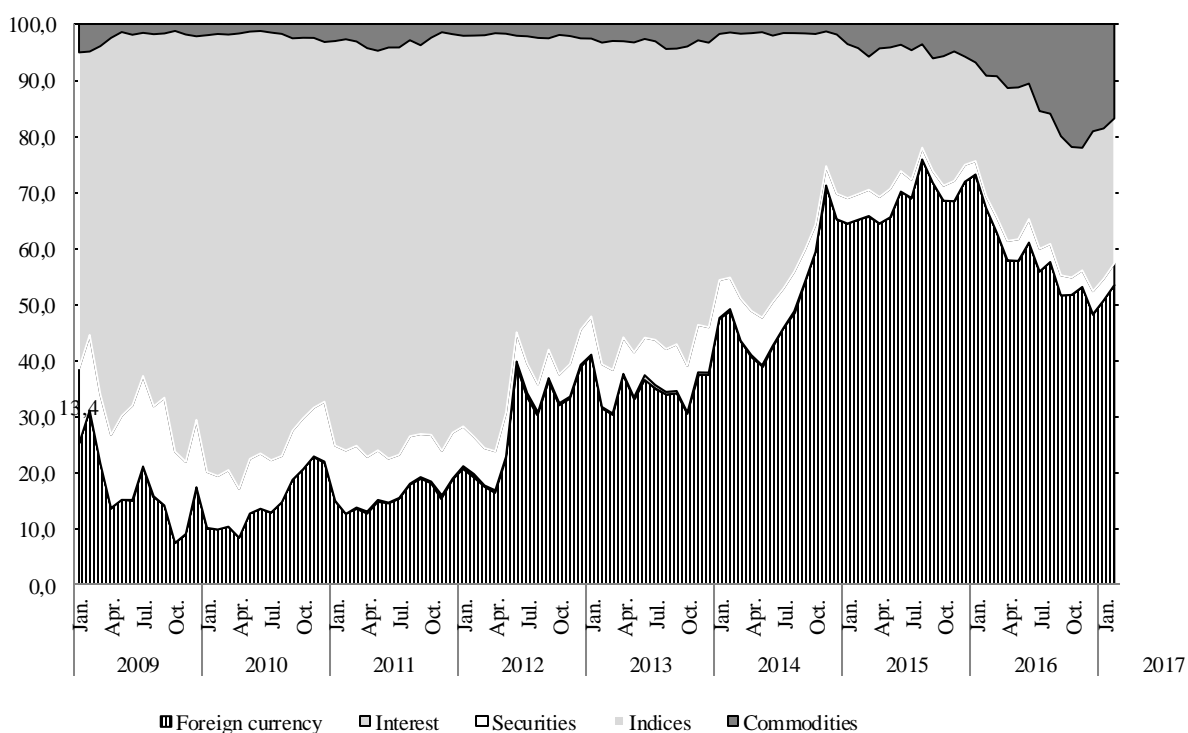


Fig. 32. MOEX futures market structure in the period between 2009 and February 2017, as % of transaction value

Source: own calculations based on Moscow Exchange’s data.

In 2016, the above mentioned factors influenced the structure of MOEX options transactions as well (*Fig. 33*). The structure of options transactions saw an increase in the share of index options from 50.7% in 2015 to 57.2% in February 2017 and that of commodity options from 0.6% in 2015 to 2.3% in February 2017. Conversely, the share of trading volume of foreign currency options contracted from 46.0% in 2015 to 39.7% in February 2017 as the share of securities options dropped from 2.7% to 0.7%, respectively.

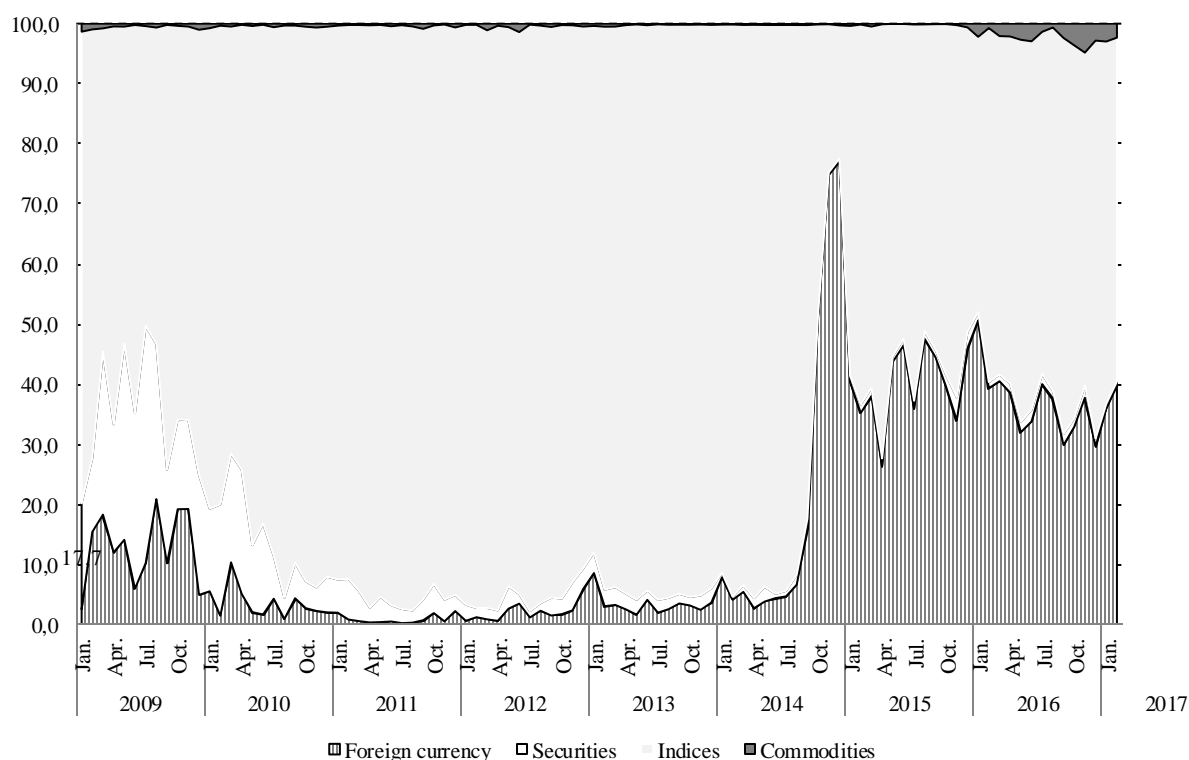


Fig. 33. MOEX options market structure in the period between 2009 and February 2017, as % of transaction value

Source: own calculations based on Moscow Exchange’s data.

3.5. Financial intermediaries and MOEX infrastructure

In 2014/2016, the Bank of Russia developed a new model designed to regulate professional players in the securities market, which is described in Bank of Russia’s Ordinance of July 21, 2014 No. 3329-U “On Requirements to the Equity of Professional Participants in the Securities Market and of Management Companies of Investment Funds, Unit Investment Funds and Non-government Investment Funds”. According to the document, the Bank of Russia plans to complete in 2017–2018 the transition of the regulation of nonbanking financial institutions to capital adequacy standards for brokers, dealers, trust managers and forex dealers by adjusting the capital adequacy requirement to the volume of credit and market risks accepted by the organizations in question. This system will resemble in many ways the principles of the banking regulatory system. However, it still remains to be seen how rigid the requirements will be for all companies, whether they will consider the difference between risks accepted by large and by small brokers, as well as what effects these measures will produce in terms of the brokerage business’ marginal nature.

The effects of the current approach to the regulation of the financial market and its participants are evident through the reduction in the number of securities market professional participants (*Fig. 34*), as well as through a faster than normal development of brokers as subsidiaries to various banking groups.

The number of brokers holding the brokerage license contracted from 633 in 2015 to 449 in 2016, or by 29.1%. Over the decade since 2007, the number of brokerage licenses in 2016 accounted for only 31.1% of that recorded in the pre-crisis year of 2007.

The number of market participants holding the securities trust management license dropped from 541 in 2015 to 348 in 2016, or by 35.7%. In 2016, the number of valid securities trust management license accounted for only 29.8% of that recorded in 2007.

In 2016, the number of securities market professional participants fell to 681 compared with 875 in 2015, or by 22.2%. In 2016, the number of securities market professional participants accounted for only 38.1% of the that recorded in 2007.

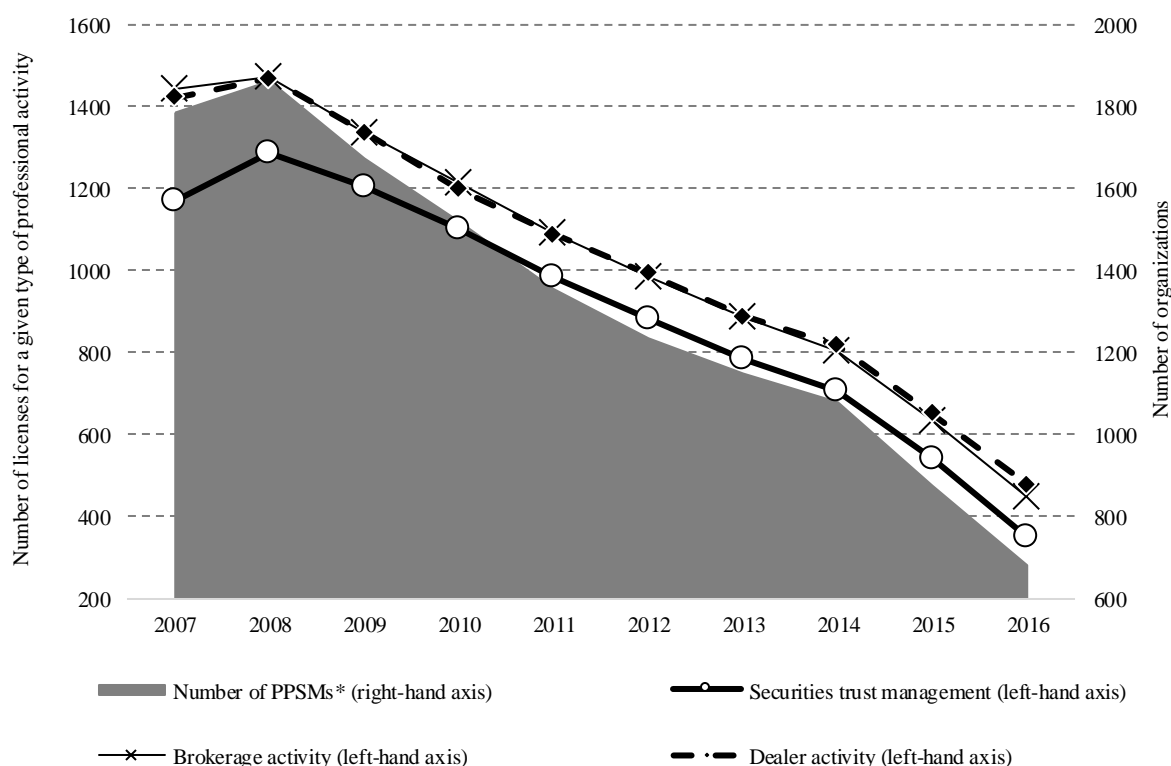


Fig. 34. Number of brokerage, dealer, securities trust management licenses and of securities market professional participants

* securities market professional participants.

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

The MICEX and RTS exchanges were consolidated in 2011, thus having a positive impact on the Russian stock market development. The consolidation simplified trading in the stock and derivatives markets. Furthermore, this helped concentrate all the liquidity held on trading participants' accounts for trading in the national corporate securities market, as well as in the derivatives and forex markets, within unified settlement and trading systems. The diversification of the unified exchange in servicing transactions involving various money and investment assets enhanced its financial sustainability amid globally declining exchange trading and investors exiting risk assets.

Apart from positive changes, the RTS/MICEX consolidation had a mixed impact on the development of the domestic financial market. First and foremost, it eliminated the competition

between the exchanges which used to be a strong driver for the marketplace trading for the benefit of domestic investors and financial intermediaries. *Table 8* reflects fundamental changes to the shareholder's structure of the PAO Moscow Exchange. After the consolidation in 2011, the Bank of Russia and some other state-controlled entities held an interest of 59.0% in the MOEX, and Russian trading participants and other residents owned a 41.0% interest therein.

Table 8

Russian exchanges' shareholding structure before/after consolidation

	Prior to consolidation as of 2011		After consolidation as of February 1, 2012	2013	2014	2015	2016
	OA O RTS	ZAO MICEX					
Government – total	0.0	64.0	59.0	64.5	51.0	53.4	44.3
including:							
Bank of Russia	0.0	28.6	24.3	24.7	12.1	11.8	11.8
Sberbank of Russia	10*	7.5	10.4	9.8	10.0	10.0	10.0
Vnesheconombank	0.0	10.5	8.7	8.0	8.4	8.4	8.4
Nonresidents	0.0	0.0	0.0	14.9	25.9	36.0	52.3
Residents – private persons	90.0	36.0	41.0	20.6	23.2	10.6	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* ZAO IK Troika Dialog which was acquired by Sberbank of Russia.

Source: own calculations based on publicly available data. The data for an interest held by the Bank of Russia, Sberbank of Russia and Vnesheconombank are based on Moscow Exchange's reports for a few years; the data on an interest held by the government and nonresidents in 2013–2016 were released by Bloomberg; the data on an interest held by OA O RTS market participants are based on RTS's reports.

The Moscow Exchange gains advantage over global competitors by diversifying its market segments. However, with the business model of this type in place, the MOEX is exposed to more risks such as weaker market-based incentives for enhancing less marginal market segments, which is currently evident through a smaller contribution of the MOEX securities market to overall trading turnover volumes. High risks and low returns on Russian securities, a higher than normal volatility of exchange rates and financial assets, a still relatively high level of refinancing of the banking system, frozen retirement savings and the scarcity of other sources of internal savings led to changes to the Moscow Exchange's market structure. Over six years the share of capital market of the total trading volume shrank from 13.2% in 2010 to 3.6%, according to the data for January-February 2017 (*Table 9*).

Conversely, the forex/money market's (FMM) share rose from 72.0% in 2010 to 85.2% in January-February 2017. At the same time, the forex market's share increased from 38.1% to 43.9% and the money market's share was up from 33.9% to 41.3% during the period under review. The forex market segment was driven up by an unstable ruble exchange rate and by the fact that private customers of brokers and banks were granted access to the MOEX forex market. The money market segment was on the rise due to liquidity overhangs in banks and to acceleration of repos with the central counterparty.

In the period between January 2010 and February 2017, the derivatives' share of the trading volume went down from 14.8% in 2010 to 11.2% in January-February 2017 under the influence of a stabilized ruble exchange rate and inflation rate in 2016, growth in the yield in the internal stock market, thus making market participants be less interested in hedging their transactions. The increase in the tariffs applied to transactions in the derivatives market and the shift to a commission based on the transaction value restricted speculative investors' trading activity. To date, however, the MOEX has failed to create a liquid market for interest-bearing derivatives.

Table 9

Moscow Exchange's market structure, %

	2010	2011	2012	2013	2014	2015	2016	Jan./Feb. 2017
Securities market	13.2	10.3	6.5	5.3	4.1	3.2	3.0	3.6
including:								
Stocks, RDRs (Russian Depository Receipts) and units	8.0	6.6	3.1	1.9	2.0	1.5	1.2	1.2
Bonds	5.2	3.7	3.4	3.4	2.1	1.7	1.8	2.4
Secondary trading	3.4	2.9	2.8	2.8	1.7	1.3	1.2	1.0
Placement market	1.8	0.8	0.6	0.6	0.4	0.4	0.6	1.5
FMM	72.0	70.6	80.0	83.8	84.0	82.1	82.7	85.2
including:								
Money market	33.9	41.3	48.3	49.1	39.7	33.5	41.6	41.3
repos	31.5	38.3	45.8	46.2	35.6	28.3	36.9	36.9
Credit market	2.4	3.1	2.5	2.9	4.1	5.1	4.7	4.5
Forex market	38.1	29.3	31.6	34.7	44.4	48.6	41.1	43.9
Spot contracts	18.0	15.8	16.6	12.8	15.1	16.2	13.3	10.3
Swap contracts	20.1	13.4	15.0	22.0	29.3	32.5	27.7	33.6
Derivatives market	14.8	19.1	13.5	10.8	11.9	14.7	14.4	11.2
Commodity market	0.0	0.0	0.0	0.0	0.0	0.02	0.02	0.01
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: own calculations based on Moscow Exchange's data.

The creation of the unified exchange made it possible to use the MICEX Settlement Chamber as the basis for the establishment of settlement depositories, namely the National Depository Center (NDC) and the Depository Clearing Company (DCC). The same status was granted to the Closed Joint-Stock Company National Settlement Depository (NSD), a nonbanking credit institution, pursuant to Federal Financial Markets Service's (FFMS) Ordinance No. 12-2761/PZ-I dated November 6, 2012. In 2016, NSD's capital, as assessed in compliance with the *Basel III requirements*, amounted to Rb 8.8bn, a decline of 22.1% compared with Rb 11.3bn in 2015. The value of securities held in the NSD increased from Rb 31 trillion in 2015 to Rb 36 trillion in 2016, or by 16.1%.

Over the last few years the NSD has managed to implement a few major projects. The NSD was officially granted the eligible depository status pursuant to Rule No. 17f7 adopted by the US Securities and Exchange Commission to the Investment Company Act of 1940, whereby the NSD can be used for holding securities of major US institutional investors. Global settlement systems such as Euroclear Bank S.A./N.V. and Clearstream Banking S.A., as well as the central depositories of Armenia, Belarus, Kazakhstan and Ukraine, opened their accounts with the NSD. In 2015, Euroclear Bank S.A./N.V. and Clearstream Banking S.A. became NSD minority shareholders. The establishment of correspondent relationship between the two biggest international settlement systems (Euroclear Bank S.A./N.V. and Clearstream Banking S.A.) provided for a stepwise liberalization as to granting nonresidents access to the internal market for Russian securities.

The Federal Law "On Securities Market", as amended by Federal Law No. 218-FZ of July 21, 2014 "On Amendments to Certain Legal Acts of the Russian Federation", kicked off a reform of servicing corporate events through electronic workflow in the securities market. The NSD is making efforts to create a corporate information center in order to provide a more transparent information on securities and issuers. In 2016, a blockchain technology was introduced in servicing corporate events.

However, the legislators' key objective of creating a central depository has been achieved only in part. The point is that under Federal Law No. 414-FZ of December 7, 2011 "On the Central Depository", this entity has a special privilege of being entitled to open the nominal

holder account with registered securitiesholder registers. The central depository was charged with opening the nominal holder account with all open joint-stock companies, whereby companies' shares were supposed to appear gradually in the public securities market. According to our estimates, this objective has not been reached to date.

The NSD publishes no statistics on the number of joint-stock companies with which it opens the nominee holder account. It is known from the depository reports for 2013 that the depository opened nominee holder accounts with the registry of more than 1200 issuers as of December 31, 2013. According to our estimates, the number of joint-stock companies was down to 1140, or by 5.0%, as was evident by NSD's list of the securities for which the central depository opened nominee accounts as of March 26, 2017. This implies that the central depository provided services for only 4% of a total of about 27,000 open joint-stock companies, some of which managed to transform themselves into publicly traded companies (PAOs), according to SPARK Interfax's data for 2015.

The Moscow Exchange has another subsidiary, Bank "National Clearing Centre" (NCC). The NCC is acting as clearing organization in the securities market since November 2011, and in the derivatives market since December 2012. In October 2013, the Bank of Russia recognized ZAO Bank "National Clearing Center" as the single qualified central counterparty. The NCC has the strategic mission of providing various financial market segments with integrated clearing services by envisaging a common security and common positions of participants across all the MOEX markets and over-the-counter. The clearing center's capital, as assessed in compliance with the *Basel III requirements*, decreased from Rb 54.3bn in 2015 to Rb 46.2bn in 2016, or by 14.9%.

3.6. Investors in the domestic stock market

A lack of well-developed institutional investors (pension and investment funds and insurance companies) is one of the factors that constrain the development of the internal securities market.

In Q3 2015, non-government pension funds' retirement savings totaled Rb 1.7 trillion, the balance of Pension Fund of Russia accounts managed by public and private management companies reached Rb 1.9 trillion (*Fig. 35*).

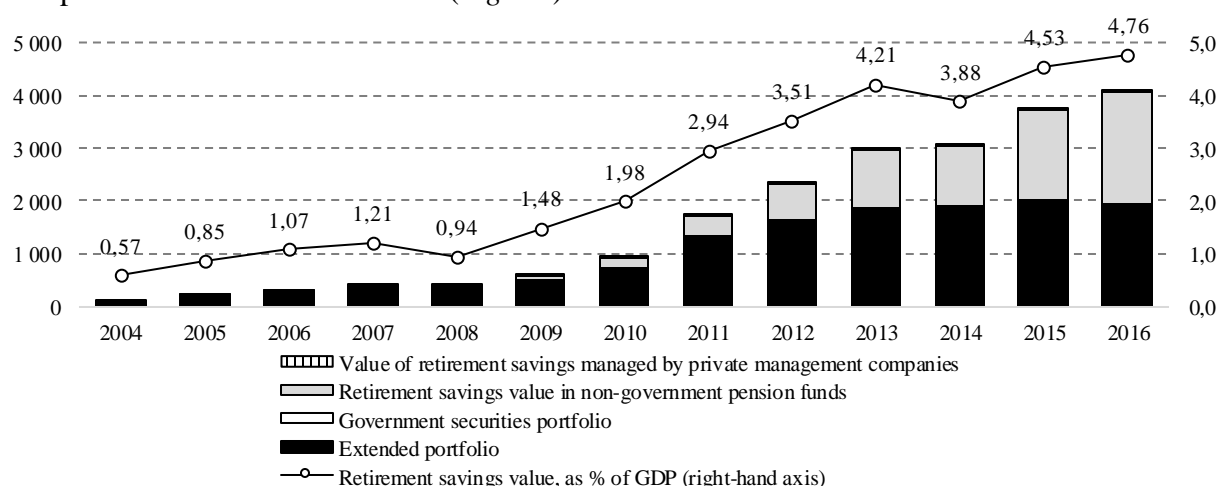


Fig. 35. Composition of retirement savings in 2004–2016, bn Rb

Note. The value of retirement savings and retirement reserves of non-government pension funds covers the first nine months of 2016.

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

As shown in *Table 10*, over about a decade beginning with 2007, retirement savings has been playing a significant part as sources of corporate and regional bond financing. The contribution of retirement savings to the structure of corporate bond financing sources increased from 0.8% in 2007 to 11.9% in the first six months of 2016. The same indicator for the regional bond market increased from 2.0 to 10.8% respectively. In terms of a share of sources of non-government bond financing, savings in non-government pension funds reached the average typical of OECD countries. However, non-government pension funds' savings portfolios still account for not more than 1.0% of the money market, the government securities market and the Russian stock market.

Table 10

Share of non-government pension funds' retirement savings of financial assets of various classes in Russia in 2007–2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	six months 2016
Bank deposits	0.01	0.04	0.2	0.2	0.5	1.2	1.4	1.0	0.9	1.0
Corporate bonds	0.8	0.9	1.1	2.5	5.1	5.5	7.6	6.7	10.0	11.9
Government securities	0.4	0.4	0.5	0.6	0.7	1.2	1.4	1.2	1.3	1.0
Regional bonds	2.0	1.7	2.2	3.0	5.6	10.7	12.5	12.0	12.5	10.8
Stocks	0.02	0.04	0.03	0.04	0.1	0.1	0.2	0.4	0.8	0.8

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

Steady growth of open-end unit investment funds (UIFs), another form of collective investment, was observed since mid-2015.¹ Open-end UIFs' net value increased from Rb 110.2bn in 2015 to Rb 135.5bn in 2016, or by 23.0%, whereas interval UIFs' net value decreased from Rb 23.1bn to Rb 5.7bn respectively, or by 75.3% (*Fig. 36*).

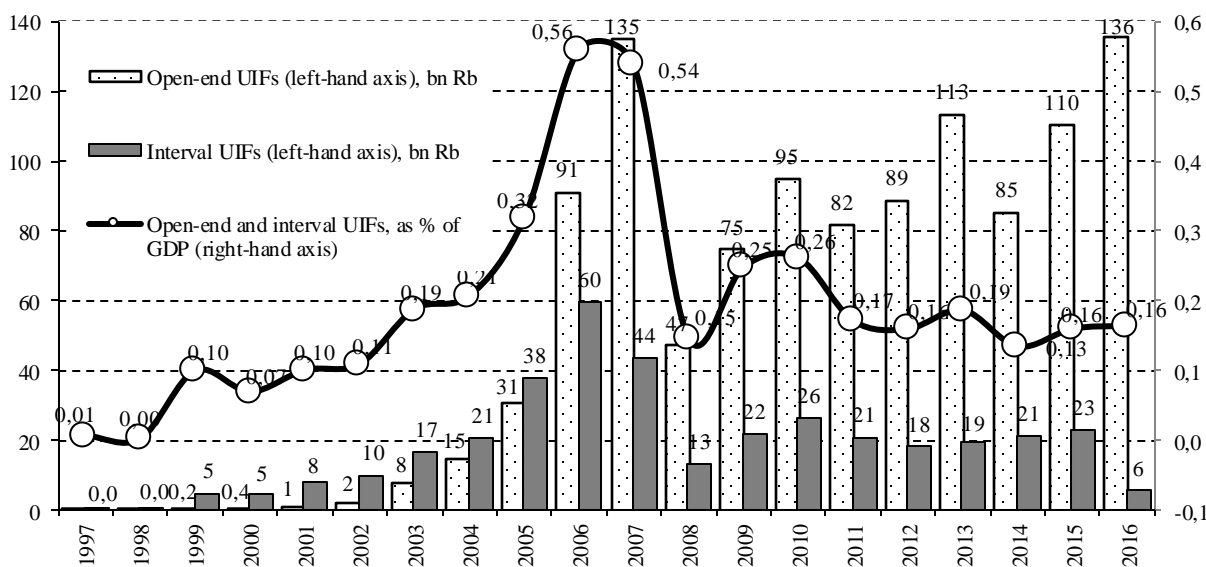


Fig. 36. Open-end/interval UIFs' relative and absolute size

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

¹ For more details, see A. Abramov, A. Radygin, M. Chernova. Russian institutional investors and privatization policy. Russian Economic Developments, No. 12, 2016

It is, however, too soon to say about a revival of collective investment vehicles in Russia. The main factors that constrain the collective investment development are lack of well-developed infrastructure, outdated sale and marketing practices, legal restrictions on retirement savings investment in UIFs, lack of public confidence and financial awareness. The collective investment development is also affected by a small number of domestic private organizations holding an interest in the Moscow Exchange (see Section 3.5 above).

Fig. 37 presents data for the number of individual investor brokerage accounts and the number of customer accounts registered with UIFs' unitholders registry. In the period between December 2015 and February 2017, the overall number of MOEX retail brokerage accounts increased from 1.01 to 1.13 million, or by 12.0%, as the number of active brokerage customer accounts rose from 81,900 to 104,100 respectively, or by 27.1%. According to RAEX agency's estimates, the number of UIF retail investors decreased from 331,100 to 315,700, or by 4.6%.

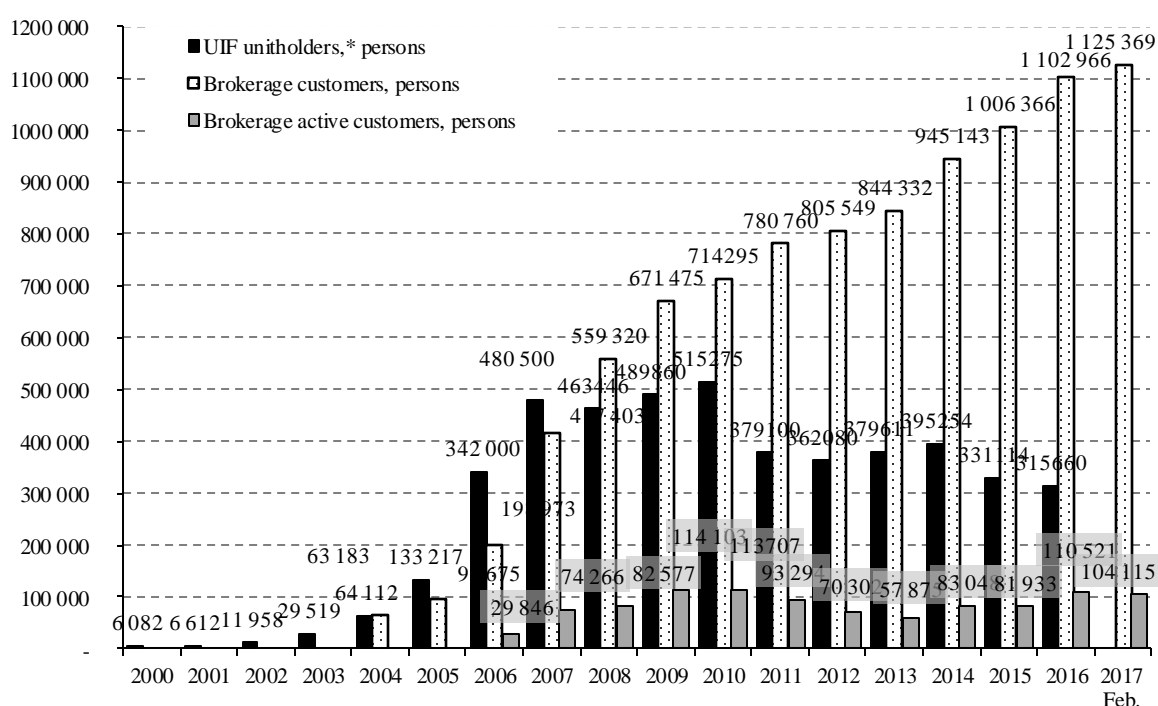


Fig. 37. Number of MOEX retail customers in management companies and brokers

* no data available for February 2017.

Source: own calculations based on Moscow Exchange's data, National League of Management Companies and RAEX agency.

The adoption of groundbreaking amendments to the legislation became the most notable private savings event in 2014–2016, providing for the introduction of substantial personal income tax allowances, in force since January 1, 2013, for the yield on securities held within at least three years, as well as allowances, in force since January 1, 2015, for individuals' contributions to so-called individual investment accounts (IIAs).¹

¹ In terms of status, these accounts are similar to the following two investment arrangements which are popular in many countries: individual retirement accounts (IRAs) in the USA, Poland, the Republic of Korea, Canada, etc.

Under Federal Law No. 420-FZ of December 28, 2013 “On Amendments to Article 27.5-3 of the Federal Law “On Securities Market” and to Parts 1 and 2 of the Tax Code of the Russian Federation”, returns on investment in newly acquired securities are exempted from taxation, provided that the individual holds them within a least three years. The upper limit for tax deduction is set Rb 3m for each year of the securities (unit) holding. The personal income tax allowance may not be applied to incomes from dividends on shares and to coupon yield payments for bonds, except in cases where the holder owns the securities not directly but rather through an open-end unit investment fund. This tax allowance is therefore most beneficial for open-end UIFs unitholders investing for a longer term. In addition, under the Federal Law “On Securities Market” and the Tax Code of Russia, individuals may open since January 1, 2015 accounts with brokers and IIAs trust managers eligible for personal income tax allowance. The account can be topped up to 400,000 rubles annually.¹

According to the Moscow Exchange’s data as of the end of February 2017, the number of IIAs was 209,300 compared with 25,900 as of the end of May 2015.

Thus, individuals’ experience in exchange trading and the IIA practice show that individuals are prepared to be actively involved in the securities market. However, a lack of well-developed collective investment vehicles prevents domestic savings from reaching the full potential. Therefore, individuals focus most on short-term and speculative transactions in the domestic securities market, and therefore investors of this category are exposed to a high level of risks. Shifting private investors toward longer-term investment strategies requires that financial intermediary business models be reformed, new regulatory standards for these models be introduced, and the role of competition in the market for financial services be enhanced.

Foreign portfolio investors tend to follow similar scenarios in many emerging markets. They make decisions on entering or exiting such funds according to common cyclical behavior and the weight of a given country in global stock indices rather than individual characteristics of economies and issuers in various countries.²

In 2016, the value of foreign funds investing in Russian stocks amounted to USD 12.2bn (*Fig. 38*). Funds investing in Russia (Russia-EMEA-Equity) oversized those investing in Brazil, Indonesia, South Africa and Mexico, but undersized funds investing in companies from China, India and the Republic of Korea. Over 17 years, between January 2000 and 2016, foreign investment funds’ returns on Russian shares stood at 11.3% p.a. in dollar terms, which is higher compared with Brazil, China, the Republic of Korea, but lower compared with Indonesia, India, South Africa and Mexico.

In this case, Russia became one of the top ranked developing countries in terms of new cash inflow (USD 1.2bn) to foreign investment funds investing in stocks.

The Russian financial market attractiveness to foreign investors depends largely on investment environment in the country. According to the objectives set forth in Presidential Executive Order No. 596 of May 7, 2012 “On Long-Term State Economic Policy”, Russia’s ranking was upgraded substantially from 67th in 2013 to 43rd in 2016 (*Fig. 39*) in the The

as well as individual savings accounts (ISAs) in Great Britain. Given the short term of savings on IISs, this product resembles mostly ISAs rather than IRAs.

¹ The upper amount is planned to be increased to Rb 1m through respective amendments to the legislation.

² For more details on funds’ investment strategies in Russia, see A. Abramov. The difference in the behavior of domestic and foreign private investors in the Russian securities market. Russian Economic Developments, No. 11, 2014.

Global Competitiveness Report published by The World Economic Forum (GCR/WEF). Among the BRICS countries, Russia ranked higher than Brazil and South Africa.

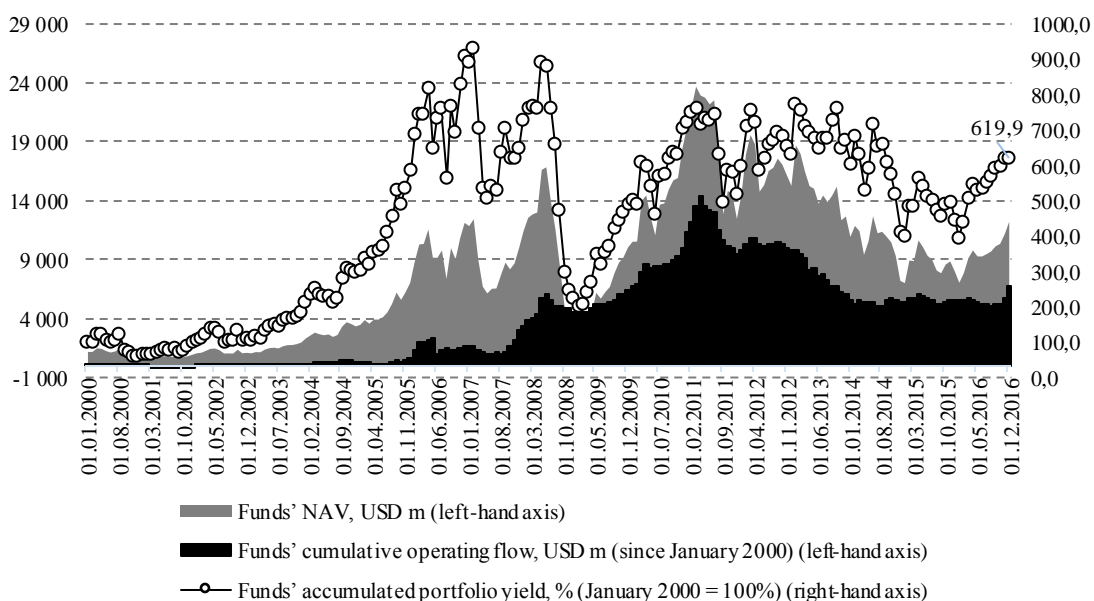


Fig. 38. Size, cash flows and accumulated yield of foreign funds investing in Russia in the period between January 2000 and December 2016

Source: own calculations based on EPFR's data

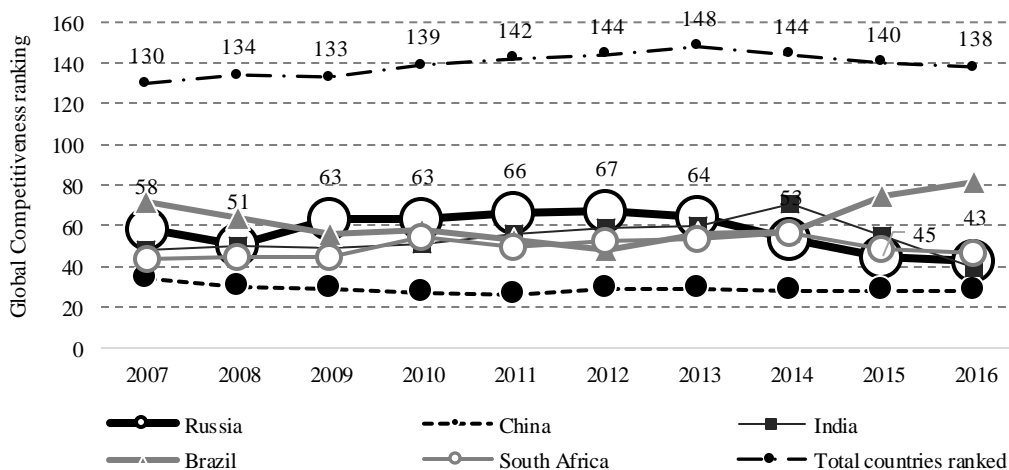


Fig. 39. BRICS countries global competitiveness index based on The Global Competitiveness Report published by The World Economic Forum in 2007–2016

Source: own calculations based on the data for certain periods from The Global Competitiveness Report published by The World Economic Forum.

However, regardless of the upgrade in the Global Competitiveness ranking, no notable improvements in investment environment as a measure of market attractiveness to investors were observed. Some of the investment environment aspects deteriorated instead of improving.

In our previous reviews of the Russian financial market we selected a few criteria for the assessment of investment environment in Russia, which prevented US conservative investors from investing in Russian stocks and bonds in the mid-2000s.¹ Calpers, one of the biggest US pension funds publishing until 2006 the list of criteria and indicators that were used for making investment decisions regarding a given emerging market, was used as an example. The list includes judicial independence, the application of international auditing and reporting standards, the degree of protection of minority shareholders' interests, financing through local equity market, soundness of banks and the effectiveness of securities exchanges regulation. *Table 11* provides analysis of the dynamics of the foregoing six investment environment characteristics of BRICS countries over the 10-year period between 2007 and 2016, based on the GCR/WEF.

Table 11

Most challenging investment environment aspects in Russia according to WEF global competitiveness ranking

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

Source: own calculations based on the data for certain periods from The Global Competitiveness Report published by The World Economic Forum.

¹ Russian Economy in 2008. Trends and Outlooks. (Issue 30) – M. IET, 2009, pp.513–516.

As shown in Fig. 40, Russia's ranking in 2007–2016 was below that of Brazil, India, China and South Africa on all the six investment environment characteristics. In 2016, Russia hit the lowest ranking (121st) in terms of soundness of banks among 138 countries, whereas it ranked the highest (95th) in terms of judicial independence and availability of domestic securities market resources to finance the economy. At the same time, Russia's ranking was upgraded only for one (judicial independence) of the six investment environment indicators in 2016, while its ranking for protection of minority shareholders' rights remained unchanged. The ranking for the rest four investment environment indicators was downgraded. The effectiveness of regulation of securities exchanges deteriorated most, sliding from 97th in 2015 to 113rd in 2016.

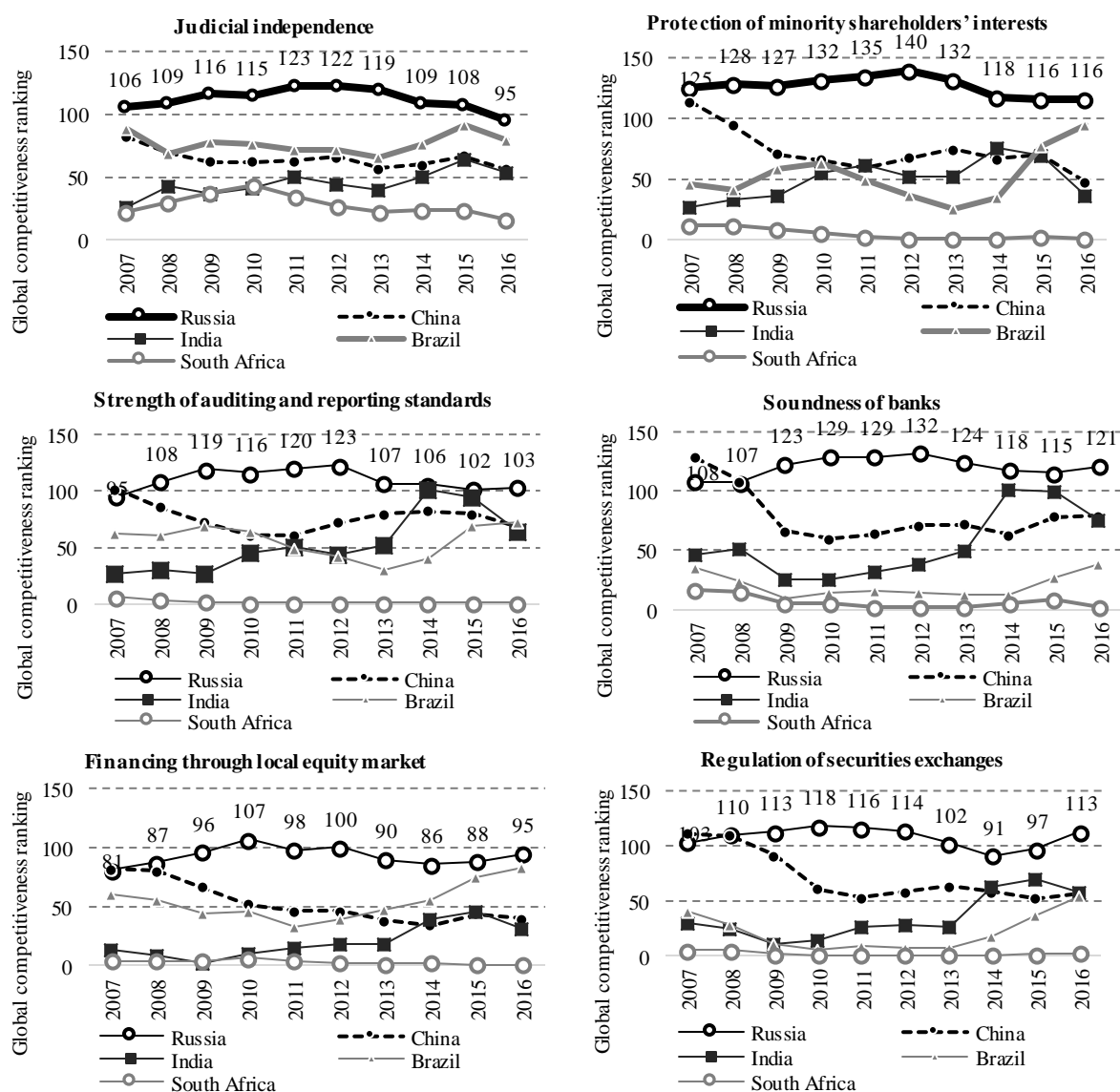


Fig. 40. WEF global competitiveness ranking of BRICS countries on certain criteria relevant for conservative portfolio investors' decisions

Source: own calculations based on the data for certain periods from The Global Competitiveness Report published by The World Economic Forum.

Thus, GCR/WEF’s comparative assessment of BRICS countries in 2007–2016 leads to a conclusion that despite some positive changes reflected in the global competitiveness ranking with regard to the most challenging areas of investment environment quality, Russia saw most of the characteristics in question rather deteriorate in 2016. In addition, although the recent ranking for Russia is higher in aggregate than that of Brazil and South Africa and very close to India, the key parameters of Russia’s investment environment are still worse compared to other BRICS countries.

3.7. Russian financial market risks

We now consider the key risks facing the Russian securities market in the medium-term perspective.

As shown in *Fig. 41*, frequent devaluation of the national currency is the highest risk threatening the safeguard of domestic ruble savings in Russia. The ruble tends to depreciate following the same scenario. A decline in oil prices coupled with capital outflows lead to an immediate ruble devaluation, followed by a period of about 7-8 years when the ruble remains stable and may even appreciate. The problem, however, is that unexpected ruble depreciations devalued ruble savings, and the ruble never recovered to the initial level even when the exchange rate was stable.

The source of devaluation comes from structural disproportions of the Russian economy, making the ruble reliant on external market trends and foreign portfolio investors’ behavior.

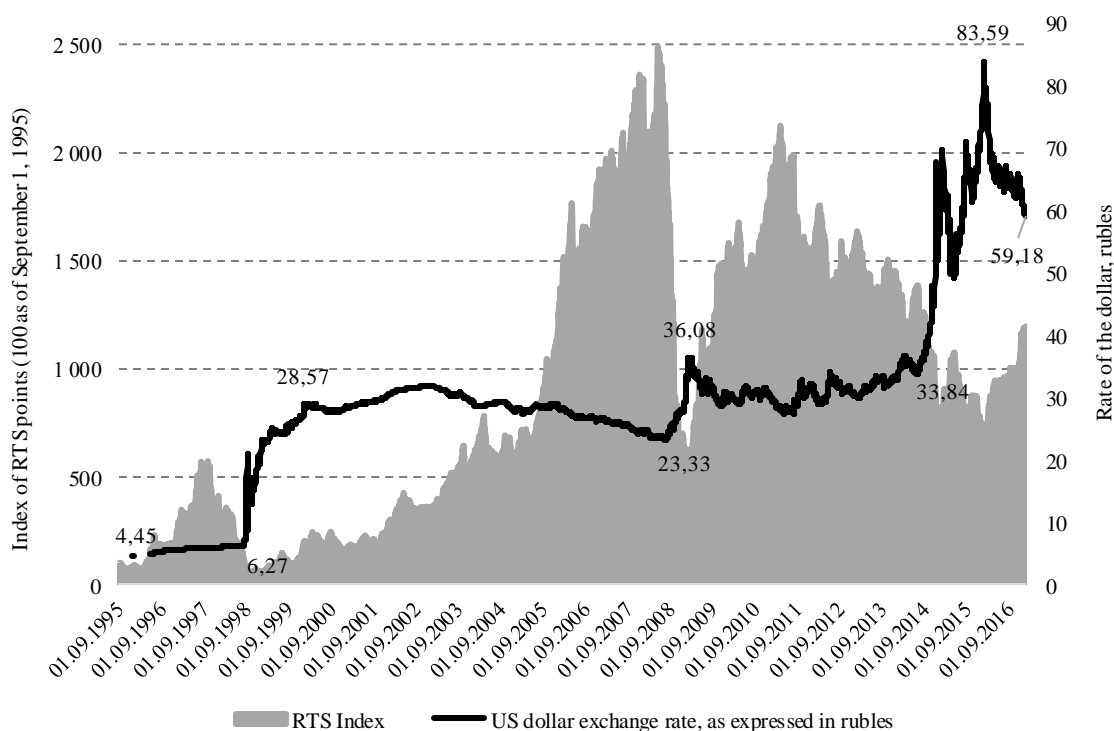


Fig. 41. RTS Index and ruble exchange rate in the period between September 1, 1995 and January 27, 2017

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

The financial market has recently been facing an appreciating ruble – from 83.59 rubles per US dollar as of January 22, 2016 to 59.18 as of January 27, 2017. It would take long, even under best-case scenario, to implement structural changes in the economy, and therefore the ruble exchange rate is exposed to risks of unfavorable external environment in the medium-term perspective.

Russian stock prices depend largely on crude oil prices. As shown in *Fig. 42*, the determination coefficient (R^2) between absolute monthly figures for the RTS Index and Brent oil prices was 0.80 in September 1995 through February 2017, thus showing a very close relationship between these indicators. Crude oil prices have a strong impact on the ruble exchange rate, too.

One cannot reasonably expect oil prices to increase in the offing, and oil market supply and demand are volatile. It is therefore very likely that the oil market will face cyclical changes in the medium-term perspective, thus being a significant source of volatility in the Russian securities market.

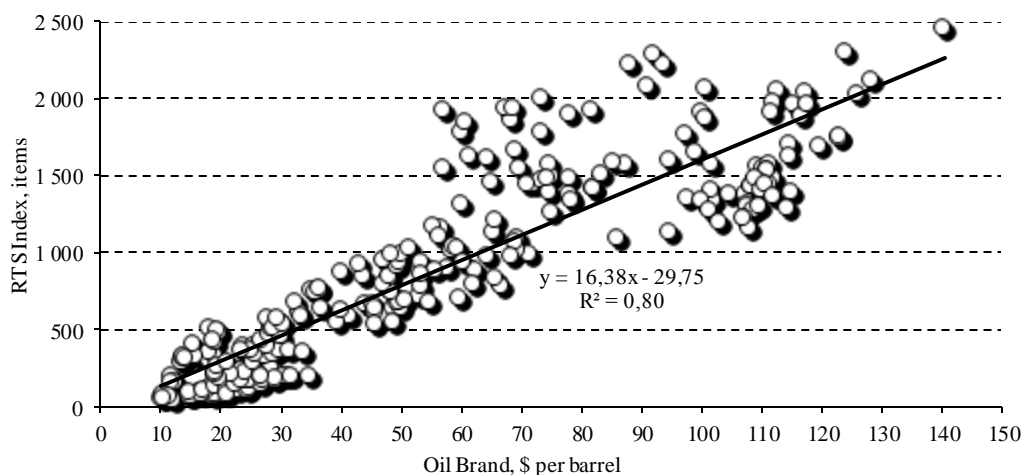


Fig. 42. RTS Index's reliance on Brent crude oil prices in the period between September 1995 and February 2017

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

Conditions that are relatively favorable for carry trade have recently developed in Russia owing to a stronger ruble exchange rate, persistently high interest rates on operations involving ruble assets, as well as a lack of strong regulatory restrictions on foreign exchange.

Carry trade strategy's adverse effects may be seen in sheer volatility of the ruble exchange rate and financial asset prices, as well as a liquidity crisis in the banking sector. The risk of banks being affected by carry trade are currently limited because the existing standards and other factors prevent Russian banks from being actively involved in carry trade. Despite a relatively large share of nonresidents of the structure of holders of shares and Russian bonds, there is little room for active carry trade strategies here due to low liquidity in the domestic securities market. As shown in Section 3.6, over 17 years (from 2000 to 2016), foreign investment funds' (Russia-EMEA-Equity) net cash inflow in Russian stocks amounted to USD 6.7bn, including USD 1.2bn in 2016.

In this context, it is the forex market and the ruble's exchange rate that may be exposed to the highest risk of being affected by carry trade. According to UBS Group AG's projection

published in the late December 2016, high domestic interest rates and growth in oil prices will make the ruble one of the best investments in terms of carry trade strategy among the EMEA countries (Europe, the Middle East and Africa) in 2017, with a potential return of 26% p.a.¹

At the same time, according to Bank of Russia's experts, risks of carry trade adverse effect on the financial market are often overestimated because high interest rates is not the only potential factor making carry trade deals attractive, and the Sharpe ratio for ruble deals is inferior, due to higher than normal ruble's volatility, to a similar indicator measuring the effectiveness of deals in the forex market of other countries.²

As was shown in our previous reviews³, the influence of foreign investment funds' investment flows that are monitored by EPFR on the dynamics of Russian stock indices is not less significant than that of crude oil prices.

Foreign investment funds investing in Russian stocks tend to adhere to the following investment strategy: they invest in Russian stocks that hit the bottom amid crisis, and then they try not to miss the right time to exit already overvalued (expensive) stocks in a bullying market. According to our research⁴, signals for exiting such funds come from Consensus Economics' considerably downgraded forecasts for growth rates in major global economies, indicating a slow demand for crude oil and a devaluation of the national currency in developing countries. Consensus Economics is very popular among institutional investors and international financial institutions.⁵

The Russian stock market's high yield amid a stronger ruble attracted more nonresidents to this market segment in H2 2016. However, this was coupled with qualitative changes in investment environment and economic policy. Crude oil prices are still unstable. In addition, US interest rates saw another hike in March 2017. All of these may prompt foreign portfolio investors to exit the Russian securities market.

In 2014, sanctions were imposed on a two-stage basis. In March 2014, the United States, the European Union and some other countries imposed sanctions against selected individuals and companies. In July 2014, sector-specific sanctions came into force, limiting access to global financial markets for biggest Russian companies (Rosneft, Transneft, Gazprom Neft, Uralvagonzavod, Oboronprom, OAK, etc.) and state-owned banks (Sberbank, VTB, Gazprombank, Russian Agricultural Bank, Vnesheconombank, Bank of Moscow). Sanctions are affecting the financial market basically through limiting Russian companies' borrowings in the form of debt finance⁶, increasing borrowing costs and foreign investment outflows from the stock market.

¹ Namatalla A., Gokoluk S. Top 2017 Emerging EMEA Pics Are All Things Russia; Avoid Turkey. December 27, 2016, Bloomberg.

² Bank of Russia. Talking Trends. Macroeconomics and Markets. The Bank of Russia Research and Forecasting Department's Bulletin. No. 2 (14), March 2017, p. 38.

³ Russian economy in 2015. Trends and Outlooks. (Issue 37) / [V. Mau et al; edited by S.G. Sinelnikov-Murylev (chief editor), A.D. Radygin]; The Gaidar Institute for Economic Policy. – M.: Gaidar Institute Press, 2016, pp. 121–123.

⁴ IMF. Financial Stability Report. September 2011, pp. 11–18. Published on www.imf.org; A. Abramov. The difference in the behavior of domestic and foreign private investors in the Russian securities market. Russian Economic Developments, No. 11, 2015, pp.47–52.

⁵ For more details on funds' investment strategies in Russia, see A. Abramov. The difference in the behavior of domestic and foreign private investors in the Russian securities market. Russian Economic Developments, No. 11, 2014.

⁶ V.A. Mau, A.V. Ulyukayev. Global crisis and challenges facing the economic policy in modern Russia. M.: Delo Publishing House, RANEPa, 2015. P. 42.

The existing assessments of the effect of sanctions on the financial market differ largely from each other, mainly in a percentage of the expected slowdown in GDP growth rates. There are few research papers analyzing the effects of sanctions on the financial market. For instance, according to the estimates of E. Gurvich and I. Prilepskiy,¹ total additional net capital outflow due to sanctions was estimated at USD 58bn in 2014 and USD 160–170bn in 2014–2017. In late 2014, Russia's Finance Minister Anton Siluanov said Russia had lost about USD 40bn a year due to sanctions.²

The adverse effect of sanctions on the financial market can be seen through the following three main channels: less fundraising in global markets, higher borrowing costs, and nonresidents exits from the domestic financial market. At the same time, while making an event-driven analysis, it is difficult to distinguish precisely between the effect of sanctions in force since July 2014 and the aftermath of the oil market collapse beginning in September 2014.

As shown in *Fig. 20*, sector-specific sanctions limit Russian companies' access to the Eurobond market, and therefore their Eurobond debts declined from USD 182bn in 2013 to USD 136bn in 2016. The presented data may suggest that external financial resources of Russian companies and banks decreased by USD 46bn due to sanctions. The monetary authorities had to replace in part the foregoing resources through short-term refinancing of the banking system. Although limited access to fundraising abroad is not widespread, it is quite painful for businesses' investment capacity, primarily because of high key interest rate in the domestic market, thus limiting Russian banks' credit activity.

Sanctions but more importantly falling oil prices and the subsequent ruble devaluation increased credit risks and borrowing costs in the domestic and external markets, reaching critical levels in December 2014/January 2015. However, as shown in *Fig. 27*, the OFZ (federal loan bond) portfolio yield (Cbonds – GBI) has to date regained the 2013 levels recorded prior to the imposition of sector-specific sanctions. A similar process took place in the corporate bond market (*Fig. 22*) where borrowing rates were still 1–1.5 percentage points higher than the pre-crisis rates. These facts give evidence that the 2014/2015 hike in borrowing costs in the financial market was mainly due to cyclical factors of global financial market trends rather than the effect of sector-specific sanctions in force.

As to nonresidents' participation in the domestic securities market, the figures in *Fig. 30* show that sector-specific sanctions had no strong effect on the OFZ market downturn.

Thus, 2016 was a relatively successful year for the Russian securities market compared with the previous period following the crisis of 2008. The Russian stock market was the worldwide leader in terms of yield. Despite sector-specific sanctions the Russian stock market saw a USD 1.2bn inflow of new foreign investment funds. There was an increase in the number of private persons involved in on-exchange trading and of brokerage accounts and IIAs they opened. A notable revival of investors' interest was observed in the domestic collective investment market.

The yield of government and corporate bonds stabilized at the 2013 level recorded prior to sanctions. This prompted accelerated growth in new issues of corporate and government bonds. The OFZ market became a notable source of budget deficit financing.

At the same time, however, there were no improvements in terms of growth in internal sources in the securities market. The money market continued dominating over the securities

¹ E. Gurevich, I. Prilepskiy. The effect of financial sanctions on Russian economy // *Voprosy Ekonomiki*. January 2016 No. 1., p. 33.

² O. Volkova. Countersanctions versus sanctions: which is worse? *PEK Daily*. March 21, 2016. P.4.

market, which means that demand for Russian securities is financed primarily through short-term sources of funding of banks and other financial intermediaries. Frozen retirement savings remained an important *growth-constraining factor* in the securities market. No major changes to investment environment occurred, and therefore major foreign portfolio investors' demand for Russian financial instruments was limited.

In this context, the development of domestic institutional investors, the creation of stable game rules for retirement savings, the enhancement of investment environment and competitive playing field in the domestic securities market could be given priority in the development of the domestic market.