

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

Authors:

- Section 1* – V. Mau;
Section 2.1 – A. Bozhechkova, A. Knobel, P. Trunin,
A. Kiyutsevskaya;
Section 2.2.1 – S. Belev, A. Mamedov, E. Fomina, S. Shatalova;
Section 2.2.2 – A. Mamedov, T. Tischenko, E. Fomina,
A. Khuzina;
Section 2.2.3 – I. Arlashkin, N. Barbashova, A. Mamedov;
Section 2.2.4 – N. Avksentiev, E. Grishina;
Section 3.1–3.7 – A. Abramov;
Section 3.8 – A. Shadrin;
Section 3.9 – M. Khromov;
Section 4.1 – O. Izryadnova;
Section 4.2 – S. Drobyshevsky, M. Kazakova;
Section 4.3 – S. Tsukhlo;
Section 4.4 – O. Izryadnova;
Section 4.5 – Yu. Bobylev;
Section 4.6 – V. Uzun, N. Shagaida;
Section 4.7 – N. Volovik;
Section 4.8 – M. Baeva, A. Knobel;
Section 5.1–5.4 – E. Avraamova, A. Burdyak, E. Grishina,
D. Loginov, V. Lyashok, T. Maleva,
N. Mkrtchyan, A. Poliakova, Yu. Florinskaya;
Section 5.5 – T. Klyachko, G. Tokareva;
Section 5.6.1, 5.6.2 – G. Zadonsky;
Section 5.6.3–5.6.7 – G. Malginov, G. Sternik, S. Sternik;
Section 6.1 – G. Malginov, A. Radygin;
Section 6.2 – E. Apevalova, N. Polezhaeva, A. Radygin;
Section 6.3 – N. Polezhaeva;
Section 6.4 – N. Zudin, M. Kuzyk, Yu. Simachev;
Section 6.5 – I. Dezhina;
Section 6.6 – A. Kireeva;
Section 6.7 – K. Kazenin;
Section 6.8.1, 6.8.2 – V. Zatsepin, V. Tsymbal;
Section 6.8.3 – V. Zatsepin

Table of contents

Section 1. The lessons of stabilization and prospects of growth: Russia's economic policy in 2016	9
1.1. Discussing the prospects for economic growth.....	9
1.2. Economic crisis and adaptation to the new reality: 2015 and 2016 outcomes.....	16
Section 2. Monetary and fiscal policy	27
2.1. Monetary policy	27
2.1.1. Key monetary policy decisions.....	27
2.1.2. Money market.....	29
2.1.3. Inflation processes	36
2.1.4. Balance of payments and exchange rate.....	39
2.2. Fiscal policy	45
2.2.1. Assessment of budgets of the budgetary system of the Russian Federation	45
2.2.2. The characteristic features of the federal budget.....	53
2.2.3. Intergovernmental fiscal relations and sub-national finance	62
2.2.4. Description of main off-budget funds	71
Section 3. Financial markets and financial institutions	77
3.1. The stock market recovery	77
3.2. The share market.....	83
3.3. The bond market	99
3.3.1. The market for non-government bonds	99
3.3.2. The market for government bonds.....	107
3.4. Derivatives market	113
3.5. Financial intermediaries and MOEX infrastructure.....	115
3.6. Investors in the domestic stock market	119
3.7. Russian financial market risks	126
3.8. Municipal and sub-federal debt market	130
3.8.1. Market development dynamics.....	130
3.8.2. Debt structure	134
3.8.3. Domestic bond issues	134
3.9. Russia's banking sector.....	139
3.9.1. Banking sector's main trends	139
3.9.2. Banks and corporate sector.....	142
3.9.3. Banks and households	145
Section 4. The real sector of the economy	151
4.1. The macrostructure of production.....	151
4.1.1. The behavior of the Russian economy in 2016: internal and external demand.....	151
4.1.2. The expenditure components of GDP in 2012–2016: consumer and investment demand	156
4.1.3. Changes in the GDP structure by income source	160
4.1.4. The movement pattern and structure of production, by type of economic activity	163
4.2. Decomposition of Russia's GDP growth rates in 2016–2019	165
4.3. Russian industrial enterprises in 2016 (on business surveys' findings).....	171
4.3.1. 2016: is industry still in crisis?.....	171

4.3.2. Dynamics of main indexes of Russian industry for 2016	175
4.4. Fixed investment	182
4.4.1. Investment resources and financial environment	182
4.4.2. Tangible assets of the construction/investment complex	185
4.4.3. Fixed investment financing by source and by type of ownership	187
4.4.4. Fixed investment dynamics	189
4.5. Oil and gas sector	192
4.5.1. Dynamics of global crude oil and gas prices	192
4.5.2. Dynamics and structure of production in oil and gas sector	193
4.5.3. Dynamics and structure of oil and gas export	196
4.5.4. Domestic price dynamics on energy products	197
4.5.5. Prospects for Russian oil and gas sector	201
4.6. Growth factors in the agriculture of Russia	202
4.6.1. Agricultural production dynamics	202
4.6.2. The main growth factors of agriculture in 2016	205
4.6.3. The population's access to food	211
4.7. Foreign trade	216
4.7.1. World trade outlook	216
4.7.2. Terms of Russia's foreign trade, market conditions for major products of Russian export and import	218
4.7.3. Main indexes of Russian foreign trade	221
4.7.4. Regional pattern of Russia's foreign trade	226
4.7.5. Regulation of Russia's foreign trade	228
4.8. Russia's application of WTO dispute settlement mechanisms	232
4.8.1. Updates on the situation in 2016 regarding WTO trade disputes to which Russia is acting as complainant	233
4.8.2. Updates on the situation in 2016 regarding WTO trade disputes to which Russia is acting as respondent	234
4.8.3. Updates on the situation in 2016 regarding WTO trade disputes to which Russia appears as third participant	236
Section 5. Social sphere	249
5.1. Household sector: income, consumer and labor markets	249
5.1.1. Household income and poverty level of the population	249
5.1.2. Retail trade turnover and dynamics of consumer prices	253
5.2. Labor market dynamics	256
5.3. Social sentiment	259
5.3.1. Vision of the scale of the crisis by the population	259
5.3.2. Socio-economic implications of the crisis	261
5.3.3. Adaptive behavior of the population	262
5.4. Migration	264
5.4.1. Long-term migration	264
5.4.2. Temporary migration	266
5.5. Education system	268
5.5.1. Reforming general education: teachers' salaries and professional growth	269
5.5.2. Vocational education	275
5.6. Housing market and housing construction sector	280
5.6.1. Mortgage lending	280
5.6.2. Mortgages on plots of land	285
5.6.3. Dynamics of prices on residential real estate	286
5.6.4. Housing market of the capital region: main factors which determined price dynamics and activity on the market	290

5.6.5. Construction, commissioning and supply of new housing	295
5.6.6. Institutional novations for real estate market	297
5.6.7. The forecast of development of the Moscow residential property market till 2020	303
Section 6. Institutional Changes	309
6.1. The public sector and privatization policy	309
6.1.1. The scope of public property ownership	309
6.1.2. Privatization policy.....	316
6.1.3. The presence of the State in the economy and the issues of management of economic subjects operating in the public sector	333
6.1.4. The budgetary effect of government property policy	339
6.2. Corporate control market: stages, specific features, regulation	348
6.2.1. Russia's market for mergers and acquisitions: stages of evolution.....	348
6.2.2. Dynamics of market for mergers and acquisitions: Russia's reverse trend to that of the rest of the world	351
6.2.3. Corporate conflicts: corporate raiding (asset grabbing) evolution in 2008–2016	359
6.2.4. Corporate legislation as applicable to mergers and acquisitions (2010–2016): civil legislation reforms	366
6.2.5. Antimonopoly M&A regulation practice in 2010–2016: legislative relaxation and government's heavier involvement in the economy.....	376
6.3. Financial market regulation 2013–2016: new subjects and new requirements.....	380
6.4. Science-industry cooperation in Russia: current status, problems, effects of government support	393
6.4.1. The scale of interaction between Russian business companies, scientific research organizations and higher educational establishments in the innovation sphere.....	394
6.4.2. The productivity of interaction of Russian industrial enterprises with scientific research organizations and higher educational establishments in the innovation sphere.....	397
6.4.3. Problems and obstacles to the development of science-industry cooperation in Russia	403
6.4.4. Government promotion of science-industry cooperation and its results	408
6.4.5. The reasons for the low level of interaction between the science sector and businesses: some conclusions and generalizations	415
6.5. The situation in the sphere of science and innovation	423
6.5.1. New strategic documents.....	424
6.5.2. The scale and forms of budget funding allocated to research and development.....	426
6.5.3. Transformations in the former academic sector	428
6.5.4. Science at higher educational establishments.....	433
6.5.5. The problems with the performance assessment in the field of scientific research.....	437
6.5.6. Emigration of scientists and the plans for returning expat scientists to Russia.....	439
6.5.7. The changing innovation landscape	440
6.6. The new system of formation of the public contract in 2016: the main risks and prospects of development	449
6.6.1. Baseline and departmental lists of public jobs and services.....	450
6.6.2. Formation of the public contract	451

6.6.3. Implementation of the standardized financing principles	453
6.7. The North Caucasus: the main trends of 2016	456
6.7.1. Major investment projects in 2016	457
6.7.2. Federal elections in the republics of the North Caucasus: ‘political Islam’ and the increasing role of businesses based in other regions	459
6.7.3. Terrorist activities	462
6.8. Defense economy and military reform in Russia	463
6.8.1. Military recruitment and social policy	463
6.8.2. Military-technical policy.....	466
6.8.3. Military and financial policy.....	468

Section 1. The lessons of stabilization and prospects of growth: Russia's economic policy in 2016¹

The world is searching for a new socioeconomic development paradigm, which is sometimes referred to as the “new reality.” Judging by the previous structural crises (in the 1930s and 1970s), this search takes about a decade characterized by volatile economic trends, political crises, and social instability. Past experience should by no means be applied bluntly to the future, and the actual duration of the “turbulent decade” can only be determined by future economic historians. However, it is now evident that the key issue on the political and intellectual agenda is a new economic growth model, its potential rates and sources.

1.1. Discussing the prospects for economic growth

The prospects of economic growth present the biggest challenge, which will define the development of other vital structural processes during the 21st century, in other words, the trend towards globalization (or de-globalization), the new industrialization (structural modernization), and the development of human capital.

We have seen economic growth rates decelerating since the beginning of the global crisis, i.e. roughly since 2008. Whereas this trend seemed to be temporary at first, and was expected to pass in the foreseeable future, it became clear after almost ten years that the situation is far more complicated. Economists talk about an approaching long secular stagnation; politicians have started to adapt to the new reality, resulting in a sharp and explosive rise in populist sentiment. In fact, these were the two main aspects of 2016: *low (and decelerating) economic growth rates and rising political populism*. Clearly, they are related: economic hardships always encourage politicians to adopt populist slogans – if not populist actions.

The ongoing economic deceleration had multiple causes. Economists are already focused on analyzing them. Modern growth is certain to be one of the highlights of future discussions on economics, political science, and political economy.

One of the reasons behind this decelerating global development is the lower growth rate in China and India, which they are – quite naturally – experiencing as they achieve economic maturity and near a more stable condition as developed countries. The deceleration could have been counterbalanced by emerging new opportunities for an accelerated technology transfer to other countries and regions of the world (for example, to Africa), but this is more of a political and institutional matter than an economic one so far.

¹ Author of chapter: V. Mau – RANEPA. The author thanks S. Drobyshevsky, G. Idrisov, and M. Khromov for their assistance in writing this article.

The deceleration may be partly attributable to cyclical factors, for instance, the low investment activity reflected in the excess of savings over investment that is characteristic of most developed countries. This is seemingly associated with a high level of uncertainty, which is natural during technology upgrades and anticipated structural reforms.¹

However, the problem of economic growth does not come down to decelerating global trends or to the specifics of the modern business cycle. In the traditional economic development model involving recessions and recoveries, the main question following a crisis is concerned with the actual level at which the recession will stop and economic growth will begin. The events after 2008 clearly demonstrated: a downturn may be followed by stagnation or low growth rates, i.e. recovery is not automatic. This calls for changing the substance of anti-crisis policies, which can no longer be limited to fighting recession, but should propose measures for ensuring acceptable growth rates (or accelerating potential growth). This is the greatest challenge of the current global crisis and the essence of what has come to be called the “new economic reality” lately.

Lengthy stagnation in a developed country is not a brand new problem. It has been happening in Japan for a quarter of a century. It has been demonstrated that a developed economy may stagnate over a long period while maintaining a high level of well-being and avoiding grave social problems. This phenomenon seemed to be specific just to Japan. However, it is now evident that we are facing a new phenomenon which calls for research and an adequate policy. The European Union has been in a similar situation for about five years. The risk of long-term stagnation also faces modern Russia, for which “reaching the bottom” (which was discussed vigorously in 2015 and 2016) does not mean returning to sustainable growth. This may be regarded as an intellectual challenge of sorts, similar to the Keynesian revolution. At the time of Keynes, however, certain automatic anti-crisis regulators had to be activated (to mitigate the consequences of the crises); now, a dedicated policy needs to be developed to ensure growth.

Several *cyclical, technological, political, and statistical* hypotheses have emerged in an attempt to explain this phenomenon. In fact, there are four possible explanations of the growth situation. Despite all their differences, they are not absolute alternatives, and the actual situation is the result of a certain combination of them.

Cyclical factors. This view attributes deceleration to insufficient aggregate demand, which is reflected in a negative gap between investments and savings. The historically insufficient demand will hold back growth in GDP and productivity and even near-zero interest rates will not stimulate economic growth.² Inequality seems to be a contributing factor to the problem, as the majority of the population are not experiencing income growth and the excessive concentration of income in the hands of a minority is causing an increase in savings.

¹ Robert Shiller, Nobel Prize winner in economic science (2013), attributes the deceleration to a “loss of economic confidence” (expected business activity by companies, and income and employment by households) and “economic policy uncertainty” (regulations, taxes, etc.). (Shiller Robert J. *The Global Economy Hesitation Blues*. Project Syndicate. July 21, 2016).

² Summers L. Reflections on the ‘New Secular Stagnation Hypothesis’ // Teulings C., Baldwin R. (eds.). *Secular Stagnation: Facts, Causes and Cures*. A VoxEU.org eBook. London: CEPR Press: 2014; “The global glut of savings against the backdrop of low inflation leads to low aggregate demand in high-income regions. This syndrome is consistent with zero or negative interest rates in Europe and Japan.” Nordhaus William D. *Why Growth Will Fall* // *The New York Review of Books*. August 18, 2016.

Technological features. The other approach attributes the deceleration to limited supply, first of all the supply of innovation.¹ This means the potential deceleration of technical progress, a lesser impact on productivity by technical innovation, especially compared with the technical revolution at the turn of the 20th century. In fact, this approach points to the exhaustion of modern economic growth as we have known it since the mid-18th century, which is becoming one of the key mysteries for economic science (and especially economic history).

However, certain advocates of attributing the deceleration to technological factors are holding onto an optimistic interpretation of the problem: technological deceleration is a temporary phenomenon, as there are lags between the introduction of advanced technology and the spread of its effects to other industries and, accordingly, to the growth in GDP and productivity.² This point of view relies on recent economic experience. For example, in 1987, R. Solow noticed that the “computer era is visible everywhere except for productivity statistics.”³ About 15 years later, the effect was reflected in statistics and required no separate proof. However, prior to that, business models had to be seriously transformed beyond the comprehensive implementation of computer technology in industrial processes.⁴ Thus, we can presume that over time, the effect of innovations will be reflected in economic growth statistics, especially as brand new models of governance and business forms are emerging.⁵

Political factors. The third alternative explanation for the deceleration is related to specific features of political processes and their influence on the economy. It has to do with the actual priority of short-term political goals over long-term structural objectives. To prevent grave social and political implications from the crisis (and taking into account the experience of the Great Depression of the 1930s), the governments of developed countries have taken unprecedented steps to rescue existing companies and banks, thereby destroying the opportunity for Schumpeter’s “creative destruction.” (The Japanese government acted in a similar manner during the 1990s, causing the problem of zombie banks and companies). A soft monetary policy (extremely low or negative interest rates) does not so much stimulate economic activity as it alleviates the debt burden on the state and corporations by improving the position of debtors relative to the prejudice of creditor interests.^{6,7} In that way, this policy prevents a potential wave of bankruptcies.

¹ Cowen, Tyler. *The Great Stagnation: How America Ate All the Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better.* New York: Dutton, 2011; Gordon Robert J. *The Rise and Fall of American Growth. The US Standard of Living Since the Civil War.* Princeton, N.J.: Princeton University Press, 2016.

² Mokyr, Joel. *Secular Stagnation? Not in Your Life*, in Coen Teulings and Richard Baldwin (eds.), *Secular Stagnation: Facts, Causes, and Cures.* A VoxEU.org eBook. London: CEPR Press: 2014.

³ Solow Robert. *We’d Better Watch Out* // *New York Times Book Review.* July 12, 1987.

⁴ Brynjolfsson E. and Hitt L.M. *Beyond Computation: Information Technology, Organizational Transformation and Business Performance* // *Journal of Economic Perspectives.* Vol. 14. No 4, 2000, pp. 23–48.

⁵ Zia Qureshi called the advocates of these approaches to estimating the impact of innovations on growth “techno-pessimists” and “techno-optimists”: “In the dispute between the ‘pessimists’ and ‘optimists’ about the future of productivity, the important thing is not about who is right, but how we should respond to future challenges identified by the ‘pessimists’ to leverage the opportunities foreseen by the ‘optimists.’ The future can be optimistic if the realization of technological opportunities is supported by a corresponding policy and institutional changes,” (Qureshi Zia. *The Productivity Outlook: Pessimists versus Optimists.* Washington D.C. Brookings Institution, 2016).

⁶ Wolf Martin. *Negative rates are not the fault of central banks.* // *The Financial Times.* April 12, 2016.

⁷ According to Carmen Reinhart, this policy actually means taxing creditors: “As in the past, during and after financial crises and wars, central banks are more and more inclined towards a form of ‘taxation’ which helps eliminate the enormous government and private debt burden and alleviates the debt servicing burden... Currently, this means maintaining negative real interest rates, which are the equivalent of a non-transparent tax on bond

In a more severe interpretation, central banks have taken on similar functions as those performed by Soviet-type central planning agencies which were tasked with preventing crises and bankruptcies. The steps they took “arrested falling asset prices, thereby saving enormous fortunes. However, this also prevented a great number of young businessmen and investors from taking risks on new ventures.”¹ All this is hindering recovery from the crisis for years, if not for decades. Without creative destruction – and all the related political and social problems – we cannot escape the stagnation trap.

In fact, political interests are beginning to dominate economic interests in this situation, i.e. ensuring current political and social stability and securing the results of the next elections has become more important than improving efficiency and productivity. An emphasis on narrowly interpreted political goals and group interests slows down institutional and structural modernization and, consequently, decelerates growth. The desire to prevent a surge of unemployment, which is understandable from a political perspective, may cause losses in efficiency and competitiveness. All this is synonymous with the domination of short-term over long-term interests, which has been typical of many developed and developing countries in recent decades.² Moreover, more often than not, policies leading to rapid positive shifts in economic trends turn out to be inefficient and even harmful in the medium term.

The aforementioned means that monetary policy measures can stop the crisis and prevent it from rampaging, but cannot lead to sustainable growth on their own. Sustainable growth is known to require structural and institutional reforms, especially when the technological framework of the national economy is undergoing a qualitative upgrade.

Aspects of statistical measurements. Discussions on economic growth particularly focus on the issue of adequately assessing it. A number of researchers point out that GDP statistics understate the actual level of production and well-being. The GDP indicator was invented during the 1930s and 1940s, and was later called “one of the greatest inventions of the 20th century,”³ However, the fundamental technology shifts in recent years and the emergence of new governance models reflecting this new technological reality are creating a completely new situation in the economy which eludes traditional statistics for the most part. The measurement of real GDP, which should cover all goods and services produced (sold), do not take into account a significant portion of the value (of the product, not necessarily tangible) which has been produced, but cannot be measured using existing methods. The key here is the penetration of information and communication technology (ICT) into all areas of social life, transforming the very concept of well-being and, accordingly, the ability to measure it. Radical improvement

holders and, in a broader sense, on all who save.” Reinhart Carmen. What’s New About Today’s Low Interest Rates? Project Syndicate. July 28. <https://www.project-syndicate.org/commentary/explaining-persistent-low-interest-rates-by-carmen-reinhart-2016-07>.

¹ Sinn Hans-Werner. Secular Stagnation or Self-Inflicted Malaise? Project Syndicate. September 27, 2016.

² Examples of the dominance of short-term over long-term interests can be found in the practices of many developed and developing countries. They include the USSR between 1986 and 1990, where the government preferred to accelerate growth, causing a decade-long recession. They include China in recent years, where growth rates are maintained by injecting budget funds into the economy. In our opinion, the dominance of short-term business interests (current capitalization) over long-term ones (increasing productivity) is one of the main causes of the current global crisis. Mau V. A. *Crises and lessons. Russian economy in a turbulent epoch*. Moscow: Gaidar Institute Publishers, 2016, p. 174.

³ BEA. GDP: One of the great innovations of the 20th century. Survey of Current Business, Bureau of Economic Analysis. 2000, January, pp. 6–9; Masood E. The great invention. The story of GDP and the making and unmaking of the modern World. New York: Pegasus Books, 2016.

in business and staff efficiency satisfies needs and ensures improved well-being by utilizing far lower amounts of labor and material resources.

This can be illustrated by a number of examples. First, there is an unprecedented increase in the number of free goods and services associated with information technology, let alone the rapid cheapening (at rates surpassing inflation rates) of new products entering the market. They include the obvious benefits gained from social networks for the economy and consumers. People spend a lot of time communicating with IT systems, and this contributes to improving their well-being (including business development). However, this is only reflected in the growth statistics, at best, as advertising income. Second, some advanced technologies (for example, 3D printing) can make products substantially cheaper. Third, new products (goods) are emerging, combining various functions at a much lower price than several devices performing the same functions (the iPhone being the most evident example). Fourth, a number of goods and services have been converted into digital form, for instance, e-books which, being several times cheaper, actually provide the same service as traditional books. Fifth, brand-new, IT-based business models are emerging, as embodied (and exemplified) by Uber.¹ Uber is reducing the demand for cars, while considerably increasing their utilization as compared to taxi services, let alone personal cars, subsequently reducing demand for the production of related goods and services. Thus, while improving well-being (and increasing consumption), all of the above technological, industrial, and management innovations may result in the traditional GDP indicators declining.

The discussion of the problems of economic trends is far from over. These themes will remain at the forefront of economic discourse and political struggle for the foreseeable future, attracting both theorists of political science and practitioners of economic policy.

The practical recommendations during the past year clearly tended towards revising the correlations between monetary and fiscal stimulation. In 2016, the thesis about the need to scale back monetary stimulus while enhancing fiscal stimulation gained increasing popularity.² This conclusion has several reasons:

- first, though the policy of extremely low or negative interest rates put obstacles in the way of the crisis, it was unable to ensure the recovery of normal growth;
- second, an understanding has spread that resuming growth does not require macroeconomic manipulation, but rather structural reforms which first of all require dedicated fiscal policy measures;
- third, the debt burden on government budgets has reduced slightly, while a number of developed countries gained more opportunities to borrow financial resources for large-scale projects, thereby using public demand to support growth in both the private and public sectors;
- fourth, the new U.S. administration clearly established a priority on fiscal stimulation, which can be seen as an attempt to repeat the success of R. Reagan, who combined it with the rigorous monetary policy of Paul Volcker.

Raising the FRS interest rates in December 2016 was mostly a step towards fiscal stimulation. The next step should be made by the new administration under Donald Trump.

¹ The Economist. Uber: From zero to seventy (billion) *The Economist*. 2016, September 3.

² Of course, not everyone supports the idea of shifting the focus towards fiscal policy. Many economists strongly argued against reducing monetary stimulation, especially in the Eurozone. M. Wolf recommended an active combination of different growth sources, without countermanding monetary stimulation with fiscal measures: “The best policy would be a combination of measures aimed at enhancing potential growth and maintaining aggregate demand. This calls for structural reforms and aggressive monetary and fiscal expansion. In this respect, the U.S. pursued a more balanced policy than the Eurozone countries”. (Wolf Martin. Negative rates are not the fault of central banks. // *The Financial Times*. 2016, April 12).

In 2016, economists were almost unanimous in formulating the structural priorities for developed countries. First of all, they include the development of infrastructure (especially in the U.S.) and the education system (especially in Europe). Other priorities are said to include the development of green energy, healthcare, and everything related to human capital in a broad sense. High-priority structural measures include reducing taxes (fiscal measures) and deregulation.¹

At the same time, the priorities of structural and institutional reforms differ significantly between countries, especially in a comparison between the developed and leading developing countries. While the majority of the former are focusing on developing human capital, including easier access to the labor market for large social groups, China plans to create physical infrastructure to boost both domestic demand (taking into account the enormous domestic market) and technological exports to developing countries. It is solving these kinds of problems that is the focus of China's policy to build a Silk Road, presumably aimed at developing markets for Chinese products. This is the most important difference in structural priorities between developed countries on the one hand, and China on the other.

China currently (and in the near future) acts primarily as the producer of goods, actually becoming the "world's factory" during the 21st century. Conversely, developed countries, even with the latest re-industrialization trend, produce and consume mostly high-tech ideas and related services, and the quality of human capital is critical for retaining leadership in the production and utilization of high technology.

This means stimulating demand, i.e. a partial return to the Keynesian model, which requires a serious revision subject to 21st-century realities. With respect to most developed countries, no definite conclusion can be drawn at the moment in favor of either a 'demand economy' or a 'supply economy.' Demand factors should be adequate for technology-driven supply, which in turn should be maintained by adequate institutional measures (including deregulation or tax reduction). Only this kind of balance between demand-side interests and those on the supply side will help overcome the deepening polarization between the beneficiaries of globalization and its victims (however conventional these terms may be).²

In terms of global processes, much will depend on whether the leading countries (U.S., China, Germany, UK, Japan, EU) manage to coordinate their economic policies, primarily taking into consideration their specific structural reforms. The inability to ensure such coordination will lead to increased protectionism and populism, and, accordingly, to an overall

¹ "Trump made infrastructural investments, the tax reform, and deregulation the central components of the strategy to accelerate real and potential economic growth rates in the U.S.... As a result, markets are confident that the U.S. will gradually overcome the protracted period of excessive dependence on non-traditional monetary policy, which is to be replaced with structural reforms to stimulate the economy and a milder fiscal policy. This approach is similar in many respects to what Ronald Reagan did... Germany, China, and Japan have strong reasons to agree with this approach: they are not currently seeing sufficient results from the monetary expansion policy; the risks of collateral damage and unforeseen consequences are only growing; structural reforms to encourage economic growth are late,"— wrote M. El-Erian (El-Erian Mohamed. The International Barriers to Trump's Economic Plan. Project Syndicate. <https://www.project-syndicate.org/commentary/international-cooperation-for-trumps-economic-plan-by-mohamed-a-el-erian-2016-12/russian>).

² "Macroeconomic governance should ensure consistency between growing demand and the potential supply created by new technology and globalization. This is a fundamental Keynesian concept which was temporarily discarded during the blossoming of monetarism in the early 1980s, began to be successfully applied in the 1990s (at least in the U.S. and UK), but was forgotten again due to the panic caused by the increasing budget deficits following the 2009 crisis," Kaletsky A. The Crisis of Market Fundamentalism. Project Syndicate. December 23. <https://www.project-syndicate.org/commentary/populist-revolt-crisis-of-capitalism-by-anatole-kaletsky-2016-12>

deceleration and the simultaneous intensification of uneven development between certain countries.

*The aforementioned points directly at a second characteristic of the past year and, seemingly, the foreseeable future, i.e. populism.*¹ This term is usually understood as political activity whose slogans are popular in the general public but, as a rule, have no real (material or economic) grounds for practical implementation.² The real goals of populist politicians (primarily the struggle for power) are disguised as socially attractive ideas.

Populism is directly associated with the aforementioned conflict between short-term and long-term economic objectives. At best, populist measures yield the promised positive shifts for a short period of time, causing a loss of long-term stability with a dear price to be paid for its recovery. In the political domain, populism often leads to the destruction of democratic institutions: populists can retain power on the wave of short-term achievements, but afterwards, if the situation worsens, they abandon democratic procedures (directly or through manipulation) while promising prosperity after defeating internal and external enemies.

Populism became widely common during the 20th century, and became either a source of degradation for many countries (Argentina) or a roadblock along the path of economic progress (a number of Latin American countries).³ Two varieties of populism clearly emerged at that time: political and economic (fiscal). The former could exist without the latter, but the latter was always associated with the former. Political populism is a tool in the struggle for power, but its economic implications are ambiguous. A party rising on a wave of populist slogans and retaining power can pursue any economic policy, whether populist or responsible. In some cases throughout the 20th century, political populism was accompanied by economic populism, i.e. irresponsible fiscal and monetary policies, property manipulations, etc. This led to economic crises which took a long time to overcome. Most populist regimes in Latin America combined economic and political populism, from Juan Peron during the mid-20th century to Hugo Chavez and Nicolas Maduro in Venezuela during the early 21st century.⁴ At the same time, there have been cases where politicians rose to power backed by populist slogans and reputation but managed to pursue a responsible and well-balanced economic course (e.g., Lula da Silva in Brazil). We are now talking mostly about political populism, associated with attempts to abandon what, until recently, belonged in the domain of “political correctness” or “rules of the game” accepted in the modern world (globalization, political equality, etc.). The influence of populist politicians is growing in Europe and America, and in a number of developing countries.

¹ In this article, we will use the following political definition of populism: “That which certain scientists call a charismatic way of communication between voters and politicians, and democratic discourse based on the concept of popular will and the struggle of the ‘population’ against the ‘elite’.” Hawkins Kirk. *Populism in Venezuela: the Rise of Chavismo* // *Third World Quarterly*, 24, 2003 pp. 1137–1160.

² Acemoglu D., Egorov G., Sonin K. A political theory of populism. *Quarterly Journal of Economics*, Vol. 128, No. 2, 2013, pp. 771–805.

³ Mudde C., Kaltwasser C. R. (2011). *Voices of the Peoples: Populism in Europe and Latin America compared*. Kellogg Institute Working Paper. 2011, No. 378.

⁴ A classic analysis of 20th century economic populism is contained in a book edited by R. Dornbusch and S. Edwards, *The Macroeconomics of Populism in Latin America*. In the book, it is defined as an “approach to the economy which focuses on growth and the distribution of income while neglecting inflation risks, budget deficits, external limitations, and the response of economic agents to aggressive non-market policies. Dornbusch R., Edwards S. (eds). (1991). *The Macroeconomics of Populism in Latin America*. Chicago and London: The University of Chicago Press. 1991, p. 9, as well as in: Sachs Jeffrey D. *Social conflict and populist policies in Latin America*, Working paper, no 2897, March. Cambridge, MA: NBER, 1989.

The outcomes of 2016, point towards two specific features in the development of modern populism. First, both rightist and leftist populism is clearly rising. At the same time, the former is mostly peculiar to developed countries in Europe and America, while the latter can be seen in poorer countries (including European countries such as Italy and Spain). However, the positions of rightist and leftist populism may coincide in some provisions of the economic program (particularly with regards to globalization).¹ Second, macroeconomic (fiscal) populism remains quite a rare phenomenon, restricted mostly to the situation in Venezuela. This is important for evaluating the prospects of macroeconomic stability in the world's leading countries.

A populist reaction in the form of anti-globalism may manifest itself in various countries in the near future. Anti-globalism has become an altogether indispensable component of modern populism. In particular, the rise of the U.S. dollar, which looks logical in 2017, may lead to toughening protectionist measures in the U.S., with retaliatory measures in certain countries. Various sanction regimes are also a form of populist response to political and, to a greater extent, economic problems. The list of examples goes on.

The rise of populism seems to be based primarily on economic factors. Decelerating growth and protracted recessions are able to evoke a populist response to the problems. (Though this is not a strict rule, as confirmed by the 25-year stagnation in Japan). Sustainable growth is a natural though insufficient condition for overcoming populism. However, populism thrives under the favorable conditions of no clear present growth prospects. There are also social policy measures which may mitigate the risks of realizing populist slogans: they primarily include assistance for those who incur losses as a result of economic progress in adapting to new conditions, particularly by supporting education and other social spheres, which may be more important than directly handing out money.

In this political dynamic, a new political polarization is more and more clearly taking shape, replacing the confrontation of rightist and leftist forces (in other words, followers of free market or socialism, liberalism or statism). Currently, it is far more important to note the confrontation between populism on the one hand, and traditional models of modernization on the other. Both rightist and leftist forces with a "traditional focus" may concentrate on both sides. It seems unclear how stable or durable this new configuration is, or whether it is of a temporary nature, due to the specific circumstances of the current global crisis.

1.2. Economic crisis and adaptation to the new reality: 2015 and 2016 outcomes

Since 2008, Russia and other developed and leading developing countries have been living through a structural crisis, which is gradually shaping a new economic, political, and social reality. Although not without a number of common characteristics, Russia has a number of unique economic and political circumstances that call for a substantially different socioeconomic policy from other countries.

¹ The results of the referendum in the UK and the U.S. election in 2016 are of interest in terms of the correlation between rightist and leftist populism in developed countries. Bernie Sanders, a leftist critic of the establishment, lost the Democratic Party primaries to Hillary Clinton, who represents the traditional elites. However, the presidential election was won by Donald Trump, who actively utilized rightist populist slogans and had much in common with Bernie Sanders in his anti-globalist agenda. See: Di Tella Rafael, Rotemberg Julio J. Populism and the Return of the 'Paranoid Style': Some Evidence and a Simple Model of Demand for Incompetence as Insurance against Elite Betrayal. Working paper 17-056. Cambridge, Mass.: Harvard Business School, 2016. p. 10. Similarly, in the UK, rightist populism is associated with leaving the EU and confidently dominates the leftist populism of the current Labour Party leadership, Jeremy Corbyn.

From an institutional point of view, the structural crisis in Russia was associated with two sets of circumstances: on one hand, considering the global problems, the need to shape a new economic growth model in lieu of the one formed after the crisis in the 1970s, and, on the other hand, given the specific institutional problems in Russia, where the recovery process had completed by the end of the 2000s: the economy reached the level where it was at the time of the transformational recession between the 1980s and the 1990s. This exhausted the opportunities of the extensive growth model based on utilizing idle production capacity and labor resources and incomes rising faster than growth in GDP and productivity. This was reflected in lower structural growth rates (*Fig. 1*).¹ In other words, the transition to the new growth model was dictated not only by the current situation, but also by Russia's specific institutional dynamics.

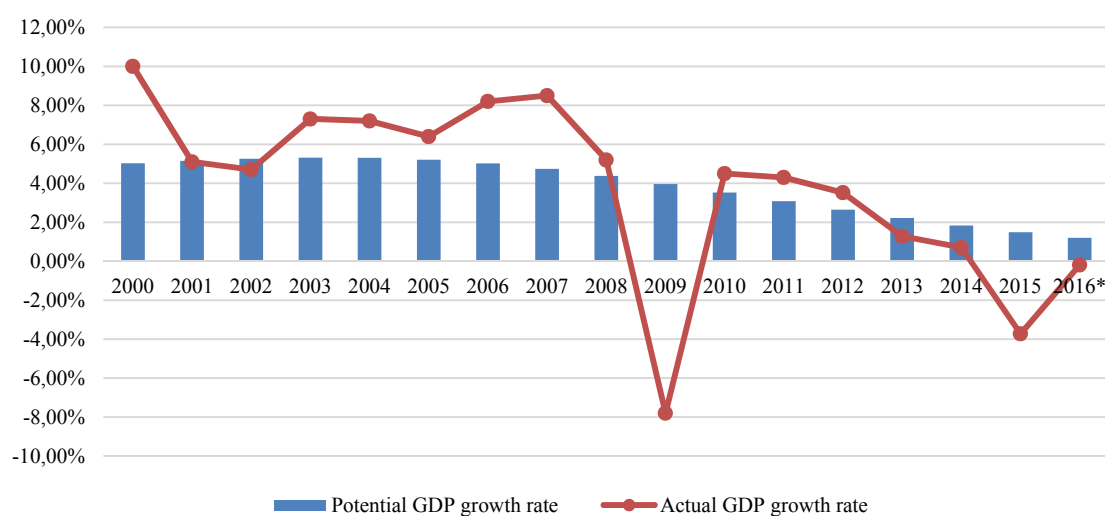


Fig. 1. Actual and potential GDP growth rates in Russia, %

Sources: Rosstat; baseline scenario for the Ministry of Economic Development forecast as of May 6, 2016.

From a macroeconomic point of view, Russia has faced a problem with stagflation rather than deflation, in other words, it should achieve growth recovery by suppressing inflation, rather than by stimulating it. Accordingly, monetary and fiscal stimulation methods play a substantially limited role, notwithstanding the low national debt and significant accumulated reserves.

The phenomenon of combined crises (structural, financial, external shocks) also played a role. These crises required various, often differently directed anti-crisis measures, both stimulating (under structural crisis conditions) and consolidating (under external shocks). This initially made the anti-crisis policy very complicated and not always externally consistent, and thereby susceptible to criticism.

From a political perspective, since 2014, Russia has been in confrontation with a number of leading countries and, in addition to searching for a new economic model (and a “new normality”), is working actively towards political re-positioning on the global stage. The

¹ Sinelnikov-Murylev S., Drobyshevsky S., Kazakova M. Decomposition of Russian GDP growth rates in 1999–2014. *Ekonomicheskaya Politika*, 2014, No. 5, pp. 7–37; Drobyshevsky S., Kazakova M. Decomposition of GDP growth rates in 2016–2019. *Ekonomicheskoe Razvitie Rossii*, 2016, No. 6, pp. 3–7.

financial and technological sanctions act as an additional factor in the structural crisis. Falling prices for core Russian export products have formed a completely new environment for solving urgent economic problems, requiring stringent measures aimed at adapting the country to the new reality. By the beginning of 2017, the economic recession had effectively stopped, while material production sectors (industry and agriculture) and wholesale trade started positive trends back in 2016. This completed the anti-crisis policy period and the objective to ensure economic growth was brought to the fore.

The anti-crisis policies of 2015 and 2016 deserve a separate analysis. Its measures and results are shaping the foundation for the country’s further development, a new economic growth model. The lessons from this recent period are useful in terms of the opportunity to use the accumulated experience in the future, since periodic crises are a natural element of a market economy.

From the start, the government’s anti-crisis policy fell under severe criticism from almost every possible direction. It was criticized for a rigid monetary policy aimed at decisively suppressing inflation, for insufficiently utilizing the U.S. and EU experience with their powerful monetary and fiscal stimulation measures, and for the lack of measures to support various industries or their inefficiency. This was augmented by criticism against the monetary authorities for maintaining high interest rates, insufficient business loans, and tough measures to purge the banking system. All these criticisms were justified to a certain extent, as there can be no popular economic policy under economic crisis conditions (besides, it is not always consistent).

However, one cannot ignore at least two important positive features of the 2014–2016 anti-crisis policy. First, the government and the Bank of Russia managed to avoid populist measures and standard macroeconomic and institutional mistakes usually made by authorities under severe economic and political conditions, although nudged by many influential political and economic players. Populist measures, while ensuring the short-term mitigation of the situation, lead to large long-term losses. At the same time, it is the conflict between short-term results (in the form of economic growth) and medium-term goals (improved efficiency) that has posed the greatest danger for Russia’s policy. The fetish for short-term growth rates could have led to populist measures with grave socioeconomic consequences in the not-too-distant future.¹

Second, it should be admitted that the actual situation has turned out to be considerably better over the past two years than was expected in late 2014. Moreover, despite the longer recession, it was better than in 2008 and 2009 in terms of most economic indicators, though the political and foreign economic environment was far more adverse (*Table 1*).

Table 1

Main economic indicators for the Russian Federation, 2007–2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	2	3	4	5	6	7	8	9	10	11
Macroeconomic indicators (growth in physical volume as a % of the previous year)										
GDP	8.5	5.2	-7.8	4.5	4.3	3.5	1.3	0.7	-2.8	-0.2
Industry	6.8	0.6	-10.7	7.3	5.0	3.4	0.4	1.7	-0.8	1.3
Agriculture	3.3	10.8	1.4	-11.3	23.0	-4.8	5.8	3.5	2.6	4.8

¹ During the “acceleration” policy of 1986-1989, increased growth rates were achieved through macroeconomic destabilization (sharp growth in the national debt and budget deficit), resulting in a decade-long stagnation, followed by another decade to return the economy to the pre-crisis level. See more: Mau V.A. Waiting for a new model of growth: Russia’s social and economic development in 2013. *Voprosy Ekonomiki*, 2014, No. 2, pp. 22–24.

Cont'd

1	2	3	4	5	6	7	8	9	10	11
Construction	18.2	12.8	-13.2	5.0	5.1	2.5	0.1	-2.3	-4.8	-4.3
Wholesale trade	9.5	5.4	2.0	3.0	4.4	3.6	0.7	-3.6	-10.0	1.3
Retail trade	16.1	13.7	-5.1	6.5	7.1	6.3	3.9	2.7	-10.0	-5.2
Retail consumption by household	14.3	10.6	-5.1	5.5	6.8	7.4	4.4	2.0	-9.8	-5.0
Business fixed investments	23.8	9.5	-13.5	6.3	10.8	6.8	0.8	-1.5	-10.1	-0.9
Share of wages in GDP (methodology change in 2011.)	46.7	47.4	52.6	49.6	43.9	44.2	46.7	47.2	45.0	46.6
Share of profit and mixed income in GDP (methodology change in 2011), %	34.1	32.6	30.8	32.6	41.5	41.1	39.1	38.9	43.9	42.7
Public finance and international reserves										
Surplus («+»)/deficit («-») of the consolidated budget, % of GDP*	6.0	4.9	-6.3	-3.4	1.4	0.4	-1.2	-1.1	-3.4	-3.7
Surplus («+»)/deficit («-») of the federal budget, % of GDP*	5.4	4.1	-6.0	-3.9	0.8	-0.1	-0.5	-0.4	-2.4	-3.4
Non-oil and gas deficit of the federal budget, % of GDP*	-3.3	-6.5	-13.7	-12.2	-9.3	-10.5	-10.4	-10.1	-9.4	-9.1
Russian domestic national, (at year end, RUB billion)	1248.8	1499.8	2094.7	2940.4	4190.6	4977.9	5722.2	7241.2	7307.6	8003.0
Foreign national debt (USD billion)	44.9	40.6	37.6	40.0	35.8	50.8	55.8	54.4	50.0	51.2
Consolidated national debt, % of GDP*	-	6.5	8.3	9.0	9.0	9.7	10.6	13.0	13.2	12.9
Reserve Fund (2007 – Stabilization Fund), at year end, USD billion	156.81	137.09	60.52	25.44	25.21	62.08	87.38	87.91	49.95	16.03
National Welfare Fund at year end, USD billion		87.97	91.56	88.44	86.79	88.59	88.63	78.00	71.72	71.87
International reserves at the Bank of Russia, year end, USD billion.	478.8	427.1	439.0	479.4	498.6	537.6	509.6	385.5	368.4	377.7
Prices and interest rates										
Consumer price index, December over December	11.9	13.3	8.8	8.8	6.1	6.6	6.5	11.4	12.9	5.4
Producer Price Index, December over December	25.1	-7.0	13.9	16.7	12.0	5.1	3.7	5.9	10.7	7.4
Bank of Russia discount rate (before 2013 – the minimum rate on repurchase transactions for 1 day), annual average, % p.a.	6.0	6.9	8.3	5.3	5.3	5.3	5.5	7.9	12.6	10.6
Average interest rate on RUB loans to businesses, annual average (% p.a.)	10.0	12.2	15.3	10.8	8.5	9.1	9.5	11.1	15.7	12.6
Average interest rate on individual deposits (except for demand deposits, % p.a.)	7.2	7.6	10.4	6.8	5.4	6.5	6.5	6.7	9.7	7.3
Labor market										
Overall unemployment rate (ILO methodology), annual average, %	6.0	6.2	8.3	7.3	6.5	5.5	5.5	5.2	5.6	5.5
Average wages (RUB thousand/month)	13.6	17.3	18.6	21.0	23.4	26.6	29.8	32.5	34.0	36.7
Wages in real terms, in % to previous year	17.2	11.5	-3.5	5.2	2.8	8.4	4.8	1.2	-9.0	0.6
Real disposable household income, % to previous year	12.1	2.4	3.0	5.9	0.5	4.6	4.0	-0.7	-3.2	-5.9
Population with cash income below the subsistence level, millions.	18.8	19	18.4	17.7	17.9	15.4	15.5	16.1	19.5	20.3 ¹⁾
Banking system										
Number of active lending institutions at year end	1136	1108	1058	1012	978	956	923	834	733	623
Number of banking licenses withdrawn during the year	49	33	43	27	18	22	32	86	93	97
Assets, %	46.1	32.7	3.7	14.8	21.4	20.4	14.2	18.6	-1.5	2.1
Debt owed by domestic corporations (excluding banks) under bank loans, %	52.4	28.6	0.0	9.6	22.8	15.5	11.6	12.7	5.0	-0.1
Debt owed by domestic individuals under bank loans, %	58.3	31.2	-11.7	14.4	35.5	39.1	27.7	11.6	-7.3	0.7
Share of past due loans to domestic corporations, excluding banks, %	0.9	2.2	6.0	5.5	4.8	4.6	4.1	4.1	6.0	6.1

RUSSIAN ECONOMY IN 2016

trends and outlooks

Cont'd

1	2	3	4	5	6	7	8	9	10	11
Share of past due loans to individuals, %	3.1	3.6	6.9	7.1	5.3	4.1	4.5	6.0	8.4	8.3
Profit, RUB billion	508	409	205	573	848	1012	994	589	192	930

*Indexes in share of GDP are incomparable in 2007–2010 and 2011–2016 due to change by Rosstat of GDP methodology calculation since 2011

1) January-September 2016

Sources: Rosstat; Ministry of Finance; Bank of Russia

Below is a list of certain vital components and outcomes from the anti-crisis policies of 2015–2016, which, in our opinion, are laying the foundation for future (post-crisis) economic growth.

The country managed to retain macroeconomic stability, which is manifested primarily in the budget deficit, national debt, and in the persistently decreasing inflation. In 2016, the government returned to three-year budgeting. Despite the symbolic nature of this step, it appears to be important for securing confidence in the economic policy. Equally important in this respect is the consistent implementation of the course towards reducing inflation to 4% by the end of 2017. In the budget adopted, an attempt was made to loosen the traditional tie between its income basis and changes in oil prices. The government recognized the futility of this connection and budgeted for a flat oil price at USD 40 per barrel. This measure effectively introduced a new budget rule based on invariable expenses relative to oil price fluctuations.

Holding back expenses helps control the federal budget deficit and the extended government budget deficit, despite the substantial drop in income (even in nominal terms). The federal budget deficit was 2.4% of the GDP in 2015, and 3.4% at the end of 2016, compared with around 6% in 2009 or 3.4%, 3.7%, and 6.3% of the extended government budget, respectively). As for the ratio of the deficit to total federal budget expenses, almost 24% of expenses was covered through deficit financing sources in 2009, compared with 12.6% and 18.0% in 2015 and 2016, respectively. At the same time, the increase in the total federal budget deficit in 2015 and 2016 coincided with a decreasing oil and gas deficit (from 9.4% to 9.1% of the GDP). Thus, *the government succeeded in controlling the deficit for both the federal budget and the overall budget system.*

Russia remains a country with an exceptionally low national debt at 12.9% of GDP, and primarily in the national currency, 9.3%. The regional budget situation is more complicated: over the past few years, it remained very tense, because under crisis conditions, regional entities were required to perform their social obligations. Although the debt held against regional budgets is low (2.7% of the GDP), the risk of an acute crisis remained quite real over the past few years. In 2016, the situation improved slightly, at least in three respects. First, a significant portion of commercial debt was restructured into budget debt, on more favorable terms for the regions. Second, almost all of the regional debt is now denominated in the national currency. Third, the debt owed by the regions began to decrease, though insignificantly, by 0.05% of GDP¹ in 2016. The dependency of the government budget on the oil and gas sector is decreasing. The share of oil and gas revenues out of total federal budget revenues is gradually decreasing, from 51% in 2014, and 43% in 2015, to 36% in 2016. Undoubtedly, this was conditioned not so much by the diversification of the Russian economy's structure as by the falling global oil prices, which were not fully compensated for by the fall of the ruble against

¹ In nominal terms, debt non the less increased a bit – by 1.5% or by RUB 35bn.

the dollar. As a result, the share of oil and gas revenues is falling against a backdrop declining total federal budget revenues, even in nominal terms.

The Bank of Russia's transition to an inflation targeting policy and a floating foreign exchange rate was especially criticized by many politicians, business people, and experts. At the same time, these hard decisions made in the autumn of 2014, had significant consequences for macroeconomic stability. By the end of 2016, inflation reached 5.4%, which is unprecedented for modern Russia. The government succeeded in retaining and even increasing international reserves: USD 377.7 billion (+2.5%) as of January 1, 2017.

In the recent years, capital flight decreased substantially from USD 152.1 billion in 2014, to USD 57.5 billion in 2015, and then to USD 15.4 billion in 2016 (estimate by RF Central Bank). The outflow of private capital in 2015 and 2016, was to a greater extent related to the repayment of foreign debt by banks and corporation, i.e. it cannot be characterized as "capital flight" to other jurisdictions. Accordingly, the country's total foreign debt was reduced. In 2015 and 2016, the foreign debt for state corporations decreased. For example, in 2015, the government's foreign debt according to the extended definition¹ decreased by 12.1% to USD 268.1 billion, while the foreign debt of government authorities decreased by 26.6% to USD 30.6 billion. The latter fact, however, is not a definitely positive phenomenon in terms of growth financing, as it resulted from financial sanctions.

Naturally, after the acute crisis and devaluation in 2014, the current account condition improved and its stability increased: the current account remained positive, while the outflow of capital stabilized quickly under a floating foreign exchange rate.²

Shaping the institutional framework for future economic growth, the Bank of Russia pursued consistent and stringent measures *to revitalize the banking* sector and to remove lending institutions from the market that did not meet the regulator's supervisory requirements. 97 banking licenses were revoked in 2016, which is slightly more than in the previous years (93 licenses were revoked in 2015, and 86 in 2014). Lending institutions whose licenses were revoked in 2016 held RUB 1.2 trillion in total assets, or 1.4% of the total assets of the banking sector at the beginning of 2016 (RUB 1.1 trillion, or 1.4% in 2015, and RUB 0.4 trillion, or 0.8% in 2014, respectively).

This led to positive shifts in the banks' operations. Following a sharp reduction in profits in 2015, when the banking sector earned RUB 200 billion, profits began to recover: the banking sector earned RUB 930 billion in profits in 2016, in other words nearly as much as in 2013. However, the return on equity (13%) in annual terms in 2016, was significantly lower than in 2013 (17%).

Deposits by companies and households are boosting the stability of the banking system and simultaneously laying the foundation for resuming economic growth.

Bank deposits grew in 2015. This is an important indicator, as the main source of investments for companies are their own resources. However, this trend changed in 2016, due to an increase in the exchange rate of the ruble against foreign currencies and a reduction in interest rates on

¹ The foreign debt of the public sector according to the extended definition covers the foreign debt owed by administrative government agencies, the central bank, banks, and non-banking corporations in which administrative government agencies and the central bank own directly or indirectly 50% or more of the capital, or control them in another way.

² The mechanism for adapting the Russian economy to the decreasing real exchange rate of the ruble was reviewed in: Drobyshevsky S., Polbin A. On the role of floating ruble in stabilizing business activity under foreign trade shocks. *Problemy Teorii i Praktiki Upravleniya*, 2016, No. 6, pp. 66–71.

deposits. In 2016, the total term deposits held by companies in the banking system decreased by RUB 1.5 trillion, to RUB 12.1 trillion as of January 1, 2017. These funds remain significant despite the reduction from a 35-day cycle as of January 1, 2016, to a 30-day cycle as of January 1, 2017 (prior to 2014, the amount of term deposits did not exceed a 20-day cycle).

Similarly, in 2015 and 2016, a certain amount of growth was observed, followed by *stabilization in the savings held by households with banks*. The deposit growth rate was between 11% and 12% in 2016. Ruble deposits rose by 14% over 12 months, reaching 18.4 trillion (as of January 1, 2017), while foreign exchange deposits barely changed: USD 94.0 billion at the beginning of the year and USD 94.8 billion as of January 1, 2017 (a 0.8% increase). The proportion of deposits held in foreign currencies decreased from 29.8% as of January 1, to 23.8% as of January 1, 2017. The floating foreign exchange rate apparently served as the means by which no mass transfer of ruble deposits into foreign exchange occurred for the first time in the contemporary Russian history.

Mortgage loans. Following the mortgage boom in 2013 and 2014, when the housing loan debt grew by 31-32% annually, and the annual disbursement of new loans reached RUB 1.82 trillion, the amount of mortgage disbursements dropped sharply in 2015 (RUB 1.17 trillion), but demand for mortgage rose by roughly 27% in 2016 to RUB 1.5 trillion. As a result, the total housing loan debt held by individuals reached RUB 4.5 trillion in 2016. Past due debt under those loans remains insignificant at 1.7% of the total debt. At the same time, the NPL share is 1.2% on ruble housing loans and over 30% on foreign currency loans, but the share of total housing loans held in foreign currencies does not exceed 2% of the total housing loans.

Retail loans. The total debt under retail loans stopped decreasing at the end of 2016. The annual increase as of the end of 2016 became positive (+0.7%), whereas the debt decreased by 7.3% in 2015. The increase in housing loan debt means a corresponding reduction in consumer loan debt. The proportion of past due debt reached its peak level in August 2016 (9.0% of all loans and 13.5% of consumer loans), after which it began to slowly decline (to 8.6% and 13.2%, respectively).

The accumulated debt owed by Russian households is insignificant compared with developed market economies, slightly more than RUB 11 trillion (13% of GDP). However, taking into account the higher interest rates (the average annual cost of a performing bank loan was 16.4% in 2016) and short maturities (according to the repayment schedule, the average term on retail loans is 44 months; the actual term taking into account early repayments is 18 months), the servicing of bank loans in Russia accounted for 10% of disposable household income in 2016, as opposed to the U.S., where retail loan debt is up to 78% of the GDP. In other words, the debt service burden for the average Russian is the same as that for the average American, while the relative amount of debt in Russia is six times lower. It should be noted that over the past two years, the debt burden relative to income decreased: it peaked around 12% of disposable income in 2014 (*Fig. 2*).

Employment. An important factor in ensuring social and political stability was the low level of unemployment, which, during the past two years, was 5%-6% of the working-age population. On the one hand, the working-age population continued to decline due to the retirement of people from quite a sizable generation. On the other hand, the specific aspects of the Russian labor market contributed to the trend: the reduction in economic activity (crisis) was accompanied not by decreased employment, but by a reduction in working hours and payments. Both factors are interrelated because the demographic situation is forcing employers to maintain official employment and not rely on the open labor market (see: *Table 1*).

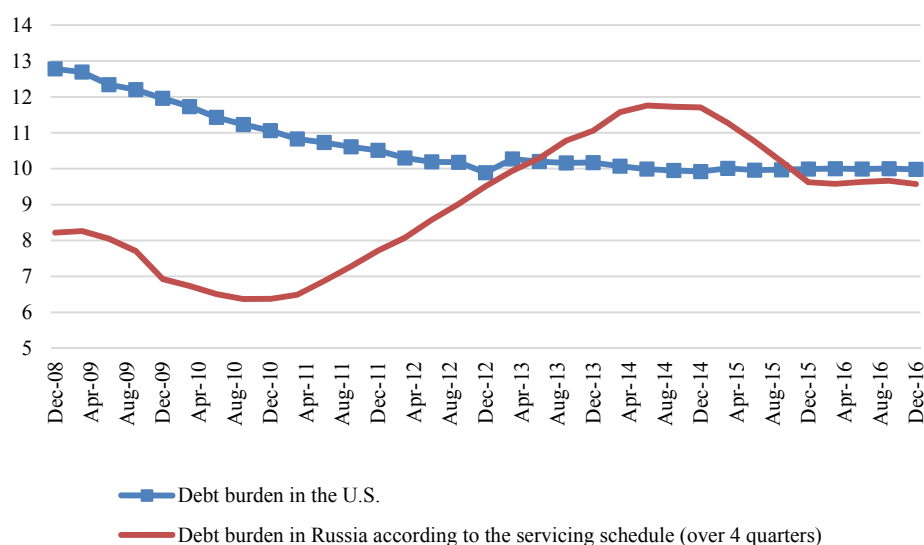


Fig. 2. Debt burden as a percent of disposable household income in Russia and the US, %

Sources: Bank of Russia, Federal State Statistics Service; Federal Reserve; Gaidar Institute estimates.

Diversification of Russian exports. In 2015 and 2016, there were controversial and simultaneously important shifts in the trends for Russian exports. The general trend is for declining exports at times when their structure is being diversified. This reduction is understandable given the decelerating global economy and growing geopolitical tension, resulting in declining demand for products and, respectively, declining prices. This also explains the diversification of exports, as the prices for fuel and energy products and metals fell significantly further than other product categories. As a result, beginning from 2014, the proportion of exports from fuel and energy products has decreased continuously (from 72% in 2014 to below 60% in 2016), while the share of other product categories has increased (agriculture, chemicals, light industry, textiles, machinery and equipment). The reduction in the total value of exports in non-energy industries progressed at lower rates, while in some industries growth was observed compared to the same period of the previous year from January through September 2016 (see *Tables 1* and *2*). The volume of agricultural exports caught up with armament exports and even exceeded them. This resulted in the diversification of Russian exports. The export diversification coefficient doubled from 2014 to 2016 (*Fig. 3*).¹

The export situation reflects a problem typical for modern crises, i.e. an inconsistency between short-term and long-term economic growth objectives. The reduction in exports is undoubtedly an unpleasant phenomenon, which negatively affects current growth and budget opportunities. However, the diversification of exports is laying the foundation for stable economic trends and a stable budget system in the medium term. Of course, provided that the government and businesses can take advantage of the evolving circumstances and ensure the

¹ Calculation by G. Idrisov (RANEP). The degree of Russian export diversification was calculated based on the diversification index used by the World Bank (the Herfindahl-Hirschman index) (see: http://wits.worldbank.org/wits/wits/help/Content/Utilities/e1_trade_indicators.htm).

increasing competitiveness of non-commodity industries, without relying exclusively on the advantages of a low foreign exchange rate.¹

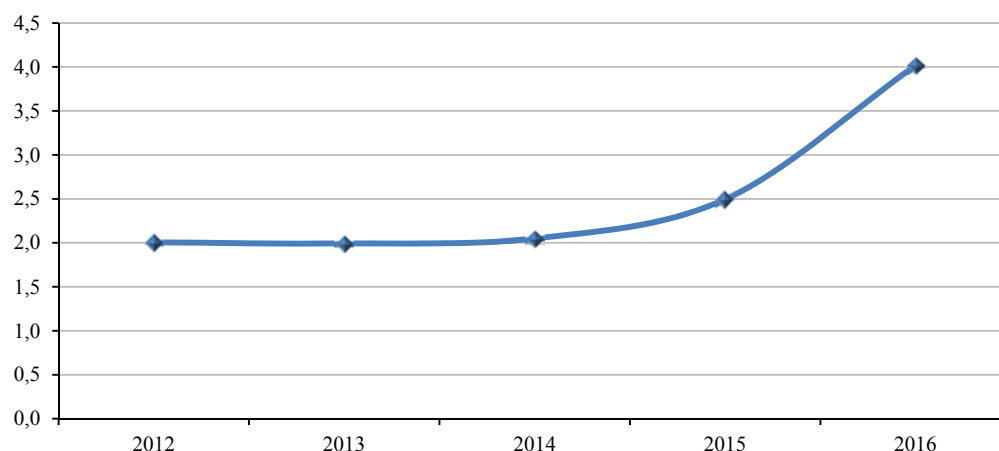


Fig. 3. Russian export diversification coefficient

Source: calculations based on data released by FTS.

Table 2

Changes in the breakdown of export and import products in Russia from 2014 through 2016 (% of total)

EAEU TN VED (Commodity Classification for Foreign Economic Activity) code	Product category	Export			Import		
		2014	2015	2016	2014	2015	2016
	Total:	100.0	100.0	100.0	100.0	100.0	100.0
01-24	Food products and agricultural raw materials (except for textiles)	3.8	4.7	6.0	13.9	14.5	13.7
25-27	Mineral products	70.5	63.8	59.2	2.5	2.7	1.8
27	Fuel and mineral products	69.5	62.9	58.1	1.4	1.6	0.8
28-40	Chemical industry products, rubber	5.9	7.4	7.3	16.2	18.6	18.5
41-43	Raw hides, furs, and derivative products	0.1	0.1	0.1	0.4	0.5	0.4
44-49	Wood and paper products	2.3	2.9	3.4	2.1	2.0	1.9
50-67	Textiles, textile products and footwear	0.2	0.2	0.3	5.7	5.9	6.0
71	Precious stones, precious metals, and derivative products	2.4	2.3	3.1	0.4	0.3	0.2
72-83	Metals and derivative products	8.2	9.6	10.2	6.7	6.4	6.2
84-90	Machinery, equipment, and vehicles	5.3	7.4	8.5	47.6	44.8	47.4
68-70, 91-97	Other products	1.4	1.6	1.9	4.4	4.2	3.9

Sources: Russian FTS; calculations by the Russian Academy for Foreign Trade.

* * *

The recession finally ended in Russia around the start of 2017. The initial adaptation of the domestic economy to the new economic and political reality occurred, which will seemingly be of a long-term nature. However, the end of the recession does not equate to the end of the global crisis or the resolution of structural problems in the Russian economy. All of the main negative factors affecting the socioeconomic dynamics remain. The period of the turbulent world

¹ See: Kadochnikov P., Knobel A., Sinelnikov-Murylev S. (2016). Openness of the Russian economy as a source of economic growth. *Voprosy Ekonomiki*, No. 12, pp. 26–42.

economy continues, and it will pose new and challenging objectives for the governments of leading countries, including Russia. Moreover, they are more complex than those which had to be solved during the previous stage of anti-crisis policy and adaptation.

At the same time, the complexity of the objectives does not mean that their solution has to necessarily be more socially painful. Rather, it is the intellectual complexity of developing measures to ensure sustainable economic growth in the medium and long term, as well as the political complexity of consolidating forces (interest groups) for implementing this program.

In a concentrated form, the economic and political objective for the coming period was formulated by President Putin at the end of 2016, in his message to the Federal Assembly: ensure the development of the Russian economy at a rate that exceeds the world average. This is quite a precise definition which allows a departure from indication towards the absolute desirable growth rates: since the Russian economy is deeply integrated into the world economy, its rate of growth cannot be independent from global growth. At the same time, Russia's current level of socioeconomic development allows for focus on this rate for the foreseeable future. The task of developing this type of program was commissioned in December for the Russian government and, primarily, for the Ministry of Economic Development. The outline of this program is well known.¹ However, it needs to be completed with a system of specific measures that go far beyond the economic domain. It is commonly understood today, that achieving Russia's strategic development objectives is only possible if the economy, governmental administration, social policy, and law enforcement activity are comprehensively modernized.

The government determined priority projects around which it began to build a policy to stimulate growth. They include healthcare, education, mortgage and rental housing, international cooperation and exports, labor productivity, small businesses and support for entrepreneurial initiatives, reforming control and supervision activity, free and high-quality roads, single-industry towns, and the environment. To implement them, a special Presidential Council on Strategic Development and Priority Projects was established. If detailed further, these sections should become the industry-specific and institutional basis for the economic growth strategy. However, in developing measures in each of these domains, it is important to overcome the traditional approaches from the pre-crisis period and look at them from the vantage point of the new reality which recently took shape.

Another specific feature of the past year was the work on the long-term socioeconomic development program (strategy) begun by several groups of economists. Respective tasks were assigned to the Presidential Council for Strategic Development and Priority Projects, the Center for Strategic Development, headed by Deputy Chairman of the Russian Presidential Economic Council Alexei Kudrin, and to a group of businessmen and economists headed by Business Ombudsman Boris Titov, united under the aegis of the Stolypin Club. They all must present their proposals in 2017, which, among other things, will become a component of the upcoming presidential campaign. These programs can be benchmarked against each other. We are expecting a difficult period, which will require flexibility from the authorities, and consistency in their course. Flexibility will be needed to meet new challenges, while consistency will be needed to solve the fundamental (if not secular) tasks of comprehensively (not only economic) modernizing Russia.

¹ Measures of structural modernization have been discussed in detail in the economic literature, including by the author of this article. (see, for example, *Strategy–2020: A new growth model – new social policy*. In 2 volumes / Mau V.A., Kuzminov Ya.I. (eds). Moscow, Delo Publishers, 2013; Mau V. *Anti-crisis measures or structural reforms: Russia's economic policy in 2015*. *Voprosy Ekonomiki*, 2016, No. 2, pp. 29–32.

Section 2. Monetary and fiscal policy

2.1. Monetary policy¹

2.1.1. Key monetary policy decisions

In 2016, the Bank of Russia implemented a conservative monetary policy aimed at mitigating inflation. Commercial banks decreased their demand for central bank refinancing as the Reserve Fund was spent, in which case the central bank had to employ a set of instruments to prevent an increase in the money supply. It happened twice over the course of the year – on June 14 and September 19 – that Russia’s central bank cut 0.5 percentage points off the key rate, to 10% p.a. With a declining inflation rate and inflation expectations available during the year, a rather moderate decline in the key rate suggested growth of the real interest rate in the money market. Maintaining a positive real rate in the money market helps prevent prices from hiking upwards as the savings appeal strengthened, although there is risk of economic slowdown. There is another thing to be considered: interest rates in real terms were low in the Russian Federation all the way till 2016, including that Russia had lower rates than other developing countries (see Fig. 1–2).

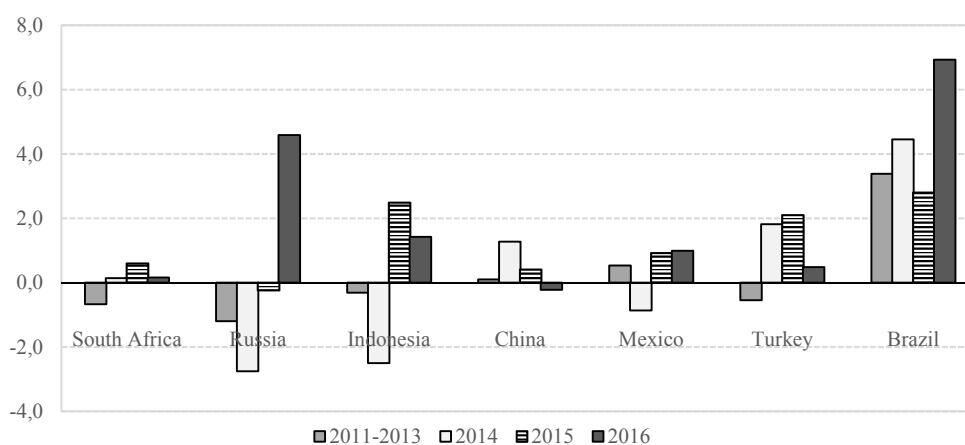


Fig. 1. Real money market rates in countries of emerging markets, G20 member states (% p.a.)

¹ Authors of chapter: A. Bozhechkova – RANEPA, Gaidar Institute; A. Knobel – RANEPA, VAVT under Ministry of Economy; A. Kiyutsevskaya – RANEPA, Gaidar Institute; P. Trunin – Gaidar Institute.

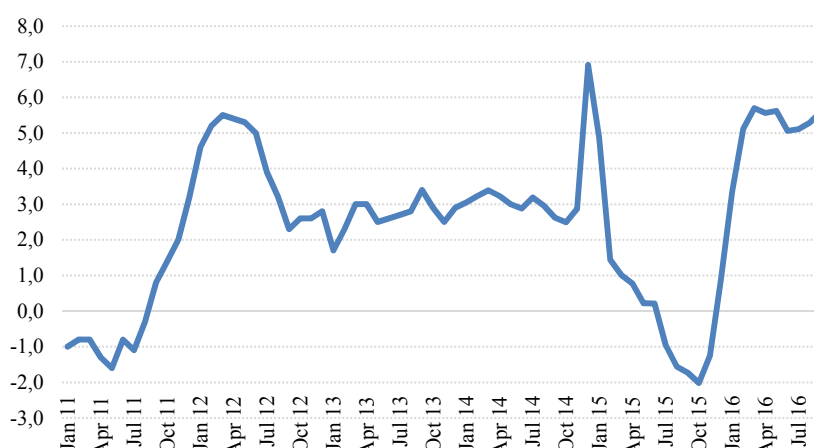


Fig. 2. Real interest rate on legal entity loans with maturities less than 1 year in the Russian Federation, 2011–2016 (% p.a.)

Given still high expectations for inflation, it is not until Q1–Q2 2017 that the Bank of Russia is expected to consider cutting the key rate any further. In 2017, in our view, the central bank will have to figure out how to establish and maintain an uneasy equilibrium between achieving the inflation target and avoiding the adverse effect of the monetary policy on economic activity in the country.

Since January 1, 2016, the refinancing rate has been adjusted for the key rate, thereby making the monetary policy more transparent for domestic and foreign economic agents, raising investors' confidence in Bank of Russia's signals. As a reminder, with an inflation targeting regime in place, the interest rate is the key instrument of monetary policy that influences crediting in volume terms, the monetary base or other macroeconomic indicators. Any change to the key interest rate constitutes a signal to economic agents about relaxing or tightening the monetary policy, which has immediate impact on their expectations. In this context, setting the refinancing rate – that has a more administrative function – equal to the monetary policy rate makes central bank's signals more clear.

As noted above, with a substantial budget deficit and budget financing by spending the Reserve Fund, commercial banks decreased their demand for both ruble and foreign currency refinancing. The Bank of Russia has since April 1, 2016 suspended 12-month foreign currency repo auctions because of lower demand for these instruments and higher demand for 28-day foreign currency repos. As a reminder, the regulator also suspended 365-day foreign currency repos in May 2015 amid a stable situation in the FX market, and it was not until December 2015 that 365-day foreign currency repos were conducted again due to the need for refinancing commercial banks' debt on previous 1-year foreign currency repo auctions, and because Russian companies made scheduled repayments on their external loans, as well as due to an increasing demand for foreign currency in response to a Fed's rate hike in December 2015. With a relatively stable FX market and low demand for refinancing 1-year foreign currency repo auctions, such operations are not expected in the offing. In our view, the regulator in general shouldn't resort to this instrument unless financial stability is exposed to risks, and the ruble exchange rate should stay free floating so that the economy is able to promptly adapt to new terms of trade.

Central bank's decision to sell some of the federal bonds (OFZs) of its own portfolio was responsible for preventing growth in the monetary base. Furthermore, the OFZs sales may facilitate liquidity and depth of the secondary market of federal securities.

In 2016, in an effort to discourage growth of foreign currency denominated liabilities in banks and to promote financial stability, the regulator added 1 percentage point to the required reserves ratio for bank foreign-currency denominated liabilities on April 1 and July 1, and also added 0.75 percentage points on August 1. Furthermore, on August 1, 2016 the Bank of Russia added 0.75 percentage points to the reserve requirements for all types of ruble denominated liabilities of credit institutions. At the same time, note that the increase of the required reserves ratio is a headwind to banking business profits by increasing bank funding through deposit acquisition, which encouraged lower deposit rates that were already on the slide because of liquidity surplus. For instance, the rate on retail ruble denominated deposits with maturities of 1 year or less dropped from 8.53% p.a. in January, to 6.22% p.a. in October 2016 while rates on foreign currency denominated deposits were down from 0.99% p.a. in January, to 0.56% p.a. in October 2016. However, the contraction of deposit rates in real terms was tempered to a certain degree as inflation and inflation expectations subdued. In general, in our view, the hike of the required reserves ratio was quite an efficient measure of constraining growth of the monetary base.

The regulator has since December 23, 2016 raised interest rates on foreign currency swaps that purchase US dollars and Euros for rubles from 0% to a relevant overnight LIBOR rate, and on foreign currency swaps that sell US dollars for rubles from 1.5% to a LIBOR rate plus 1.5 percentage points. The decision was made in response to higher interest rates in external markets due to a tougher Fed's monetary policy. For instance, a U.S. Federal Reserve meeting of December 13–14 decided to add 0.25 percentage points to its federal funds rate target, to 0.5–0.75% p.a.

Finally, one important aspect needs to be emphasized here. The Bank of Russia made its monetary policy more transparent through regular publications of analytical reviews and statistics, including information on inflation expectations, external debt repayment schedule, etc., as well as a series of reports on economic research of pressing issues. In our view, the provision of information concerning objectives and outputs of monetary policy measures, the discussion of the nature of inflation processes are consistent with the information policy practice of central banks in developed economies and contribute to a more efficient monetary policy as a whole. However, note that one of the key issues that narrow considerably the effectiveness of central bank communications is economic agents' insufficient confidence in Bank of Russia's statements. As an illustration, economic agents' projection for inflation rate in 2017 is much higher than 4%. In this context, should the inflation target in 2017 have been achieved, this would significantly raise economic agents' confidence in central bank's commitments, as well as the reputation of the central bank would be improved, and a lower inflation rate would be expected.

2.1.2. Money market

The broad monetary base gained 7.6% in 2016, to Rb 11.9 trillion as of January 1, 2017. Note that in 2015 the monetary base contracted by 2.5%, to Rb 11.0 trillion. In 2016, the monetary base increased basically in response to a shrunken balance on the general government accounts with Russia's central bank as the Reserve Fund was spent. Additionally, the monetary

base increase via this channel was not fully offset by a decline in volumes of Bank of Russia’s operations providing liquidity to commercial banks (see *Fig. 3*).

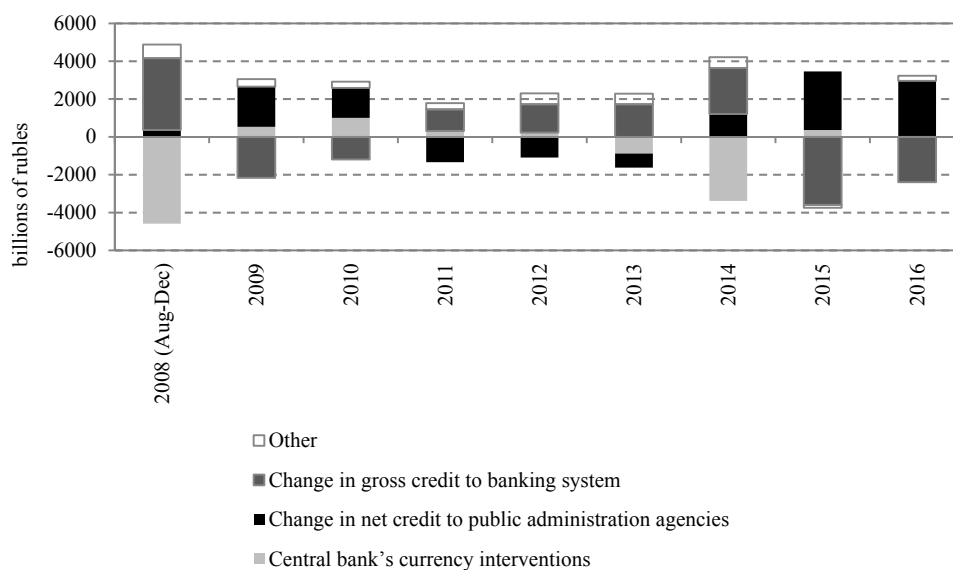


Fig. 3. Key factors that influenced changes to broad monetary base in 2008–2016

Sources: Bank of Russia, Gaidar Institute’s own calculations.

All the components of the broad monetary base increased at the 2016 year end. In particular, deposits of credit institutions with the Bank of Russia were up 40.8%, to Rb 785.5bn, bank required reserves rose 31.1%, to Rb 484.7bn, correspondent accounts of credit institutions saw a positive growth of 14.3% (to Rb 1822.7bn), and cash in circulation increased 3.1%, to Rb 8789.8bn. Overall, surplus reserves¹ in M12 2016 contracted in terms of volume by 6.2%, to Rb 2608bn (see *Table 1*).

Table 1

Dynamics of broad monetary base in 2016 (bln Rb)

	01.01.2016	01.04.2016	01.07.2016	01.10.2016	01.01.2017
Monetary base (broad definition)	11,043,8	10,974,5	10,785,6	11,541,2	11,882,7
- cash in circulation, including cash in vaults of credit institutions	8,522,2	7,998,3	8,241,9	8,277,8	8,789,8
- correspondent accounts of credit institutions with the Bank of Russia	1,594,0	2,177,4	1,712,4	2,224,8	1,822,7
- required reserves	369,8	398	394,3	483,9	484,7
- deposits of credit institutions with the Bank of Russia	557,8	400,9	436,9	554,8	785,5
- Bank of Russia’s bonds held by credit institutions	0	0	0	0	0
For reference: surplus reserves	2152	2,578	2,149	2,780	2,608

Source: Bank of Russia.

In 2016 the Bank of Russia did not carried out currency interventions under a free-floating exchange rate regime (see *Fig. 4*). Note that with an inflation targeting regime in place, a market-driven exchange rate makes the economy more adaptive to external environment and resilient to adverse shocks.

¹ Surplus reserves in the banking system comprise deposits of credit institutions with the Bank of Russia and correspondent accounts of credit institutions with the Bank of Russia.

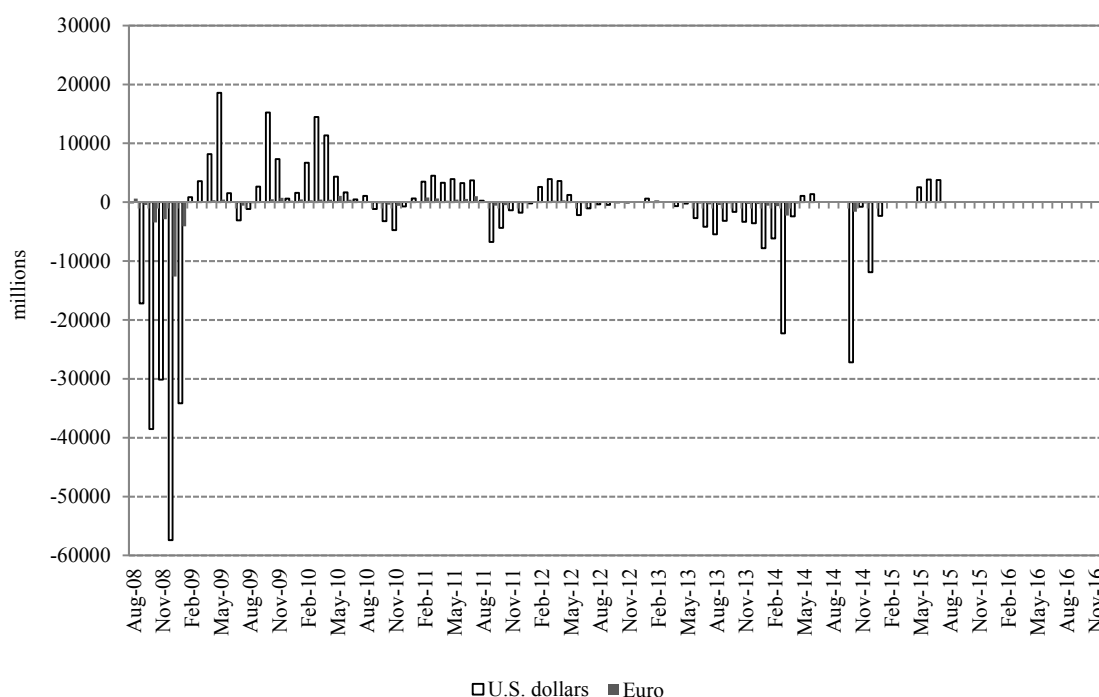


Fig. 4. Bank of Russia's currency interventions (net foreign currency purchases) in 2008–2016

Source: Bank of Russia.

Overall, the Bank of Russia has cut considerably its intervention in the FX market after the global financial crisis, which makes the monetary base dynamics less reliant upon currency interventions.

Russia's international reserve assets increased USD 9.3bn (2.5%) at the 2016 year end, to USD 377.7bn as at early January 2017 (see Fig. 5). The FX reserves shrank in terms of volume by USD 2.3bn (0.7%). The monetary gold reserves swelled by USD 11.6bn (24.0%) during the same period compared to the value seen earlier in the year, which was due to a positive revaluation of this asset in H1 2016, totaling USD 15.1bn, and due to a partially offset effect of declining gold prices in global market in some months of H2 2016. As a result, as of January 1, 2017 the foreign currency reserves accounted for 84.1% of the total reserves (86.8% in 2015), and gold made up 15.9% (13.2% in 2015). Russia now holds sufficient reserves to ensure sustainability of its balance of payments, because they cover both 17 months of imports of goods and services in Russia (16 months in 2015) and external debt payments that fall due in 2017. Note that the adequacy of international reserves that have recently seen no change in terms of volume enhances as imports of goods and services contract and the external debt becomes smaller. This allows Russia to ensure its macroeconomic and financial sustainability amid economic problems arising from worsening terms of trade and from Western sanctions freezing Russian economic agents out of global capital markets.

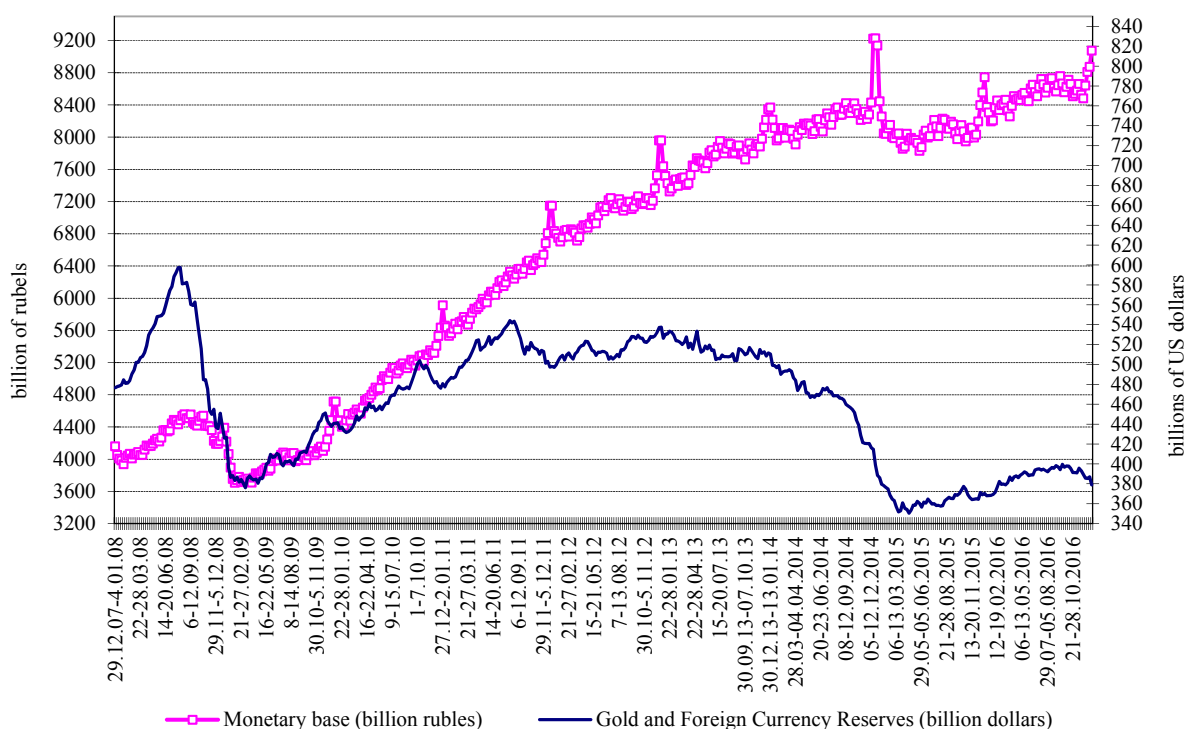


Fig. 5. Dynamics of monetary base (narrow definition) and holdings of foreign currency and gold (international reserves) in 2008–2016

Source: Bank of Russia.

As noted above, the monetary base dynamics in 2016 was largely determined by the debt owed by credit institutions to the Bank of Russia (see Fig. 6). As a reminder, the trend of strong growth of the Bank of Russia’s operations to provide loans to credit institutions has been afoot since 2011. In 2014, amid a restricted access for Russian banks to the international capital market, banks’ debt to the regulator nearly topped peak values seen during the global financial crisis (second half of 2008 – 2009), showing a 2.1-fold increase in 12 months, to Rb 9.3 trillion as of January 1, 2015. In 2015, the trend reversed subsequent to a liquidity inflow to the banking sector via the budget channel: credits, deposits and other funds raised by credit institutions amounted to Rb 5.4 trillion as of January 1, 2016, a 42% decline from 2014. In 2016, banks’ ruble denominated debt to the central bank was halved again, to Rb 2.7 trillion, as spending of the Reserve Fund continued. In this context, the percentage share of credits and deposits of Bank of Russia’s assets dropped 6.9 percentage points, to 11.4% as of early September 2016, whereas it was 30.3% earlier in 2015 (see Table 2).

The decline in Bank of Russia’s lending to commercial banks is fully offset by massive spending of the Reserve Fund due to financing of the federal budget deficit. In particular, capital inflows to the banking sector in response to a shrunken balance on the general government accounts with the Bank of Russia amounted to Rb 3.0 trillion in 2016 (Rb 3.1 trillion in 2015).

In the period between August and December 2016, the Bank of Russia conducted intensively 1–6-day deposit operations aimed at collecting the money received by the banking sector via the budget channel. Rb 280.3bn were lent on average at such auctions, and the average weighted rate stood at 9.98% p.a. Additionally, base the Bank of Russia decided in September 2016 to issue 3-month-coupon bonds with maturities of 3, 6 and 12 months as a supplementary measure

of tempering growth of the monetary base. The regulator intends to make decisions on certain bond issuances as may be required from time to time, with due regard to transiting to a liquidity structural surplus¹ in the banking sector. According to the data as at early January 2017, no bonds were issued by the Bank of Russia.

Table 2

Bank of Russia Balance Sheet in 2015–2016

	January 1, 2015		January 1, 2016		September 9, 2016	
	billions of rubles	% of assets/liabilities	billions of rubles	% of assets/liabilities	billions of rubles	% of assets/liabilities
Funds placed with nonresidents and securities issued by nonresidents	18.378.6	55.9	21.995.2	62.9	20.278.5	61.0
Credits and deposits	9.950.2	30.3	6.400.3	18.3	3.776.1	11.4
Precious metals	2.726.3	8.3	3.647.3	10.4	4.314.7	13.0
Securities	622.5	1.9	719.9	2.1	518.6	1/6
Other assets	186.6	0.6	920.4	2.6	2.682.6	8.1
Total assets	32.897.6	100	34.947.2	100	33.248.6	100
Cash in circulation	8.840.9	26.9	8.522.5	24.4	8.283.5	24.9
Funds in accounts with the Bank of Russia	13.876.0	42.2	12.573.3	36.0	10.311.4	31.0
<i>of which:</i>						
<i>Russian government funds</i>	9.144.3	27.8	8.130.7	23.3	6.529.5	19.6
<i>funds of resident credit institutions</i>	2.869.7	8.7	2.528.3	7.2	2.657.0	8.0
Float	1.9	0.01	0.4	0.0	4.4	0.0
Outstanding bonds	-	-	-	-	-	-
Liabilities to the IMF	840.8	2.6	1.074.2	3.1	1.553.7	4.7
Other liabilities	100.4	0.3	160.4	0.5	583.6	1.8
Capital	9.054.1	27.5	12.503.7	35.8	12.512.0	37.6
Total liabilities	32.897.6	100	34.947.2	100	33.248.6	100

Source: Bank of Russia.

With a strengthening ruble, banks decreased their demand for central bank FX refinancing over the course of the year. While in 2015 banks owed USD 26.2bn, on average, to the central bank on foreign currency repos, in 2016 their debt decreased considerably, to USD 13.4bn on average. In December 2016, banks' debt averaged USD 7.6bn, including USD 7.2bn (USD 2.6bn on average in December 2015) on 28-day repos and USD 0.1bn (USD 17.1bn on average in December 2015) on 1-year repos (see Fig. 7). In 2016, the average weighted rate on 1-year repo auctions stood at 4.2% p.a. (1.7% p.a. in 2015), while the average weighted rate on 28-day repo auctions in 2016 was 2.5% p.a., an increase of 0.9 percentage points from 2015.

As regard to foreign currency swaps, a foreign currency swap to provide foreign currency liquidity to the banking system averaged USD 515.1m in 2016. Note that the rate on the ruble-denominated leg of a swap stood at 9–10.5% and on the foreign currency denominated leg at 22 – 1.5% until December. The former was subsequently raised to equal a LIBOR rate. Despite the fact that banks use foreign currency swaps out of today/out of tomorrow on particular days, the key instrument of FX refinancing is foreign currency repos, which can be explained by comfortable terms of foreign currency denominated credits for the longer term.

¹ As defined by the Bank of Russia, the structural deficit/surplus of liquidity occurs when the banking sector is facing a situation where credit institutions are starving for liquidity through operations with the Bank of Russia. The reverse case – credit institutions have a strong need to deposit money in the Bank of Russia – is the structural surplus of liquidity. The estimated structural deficit/surplus of liquidity is the difference between the debt owed on Bank of Russia's refinancing operations and absorption operations.

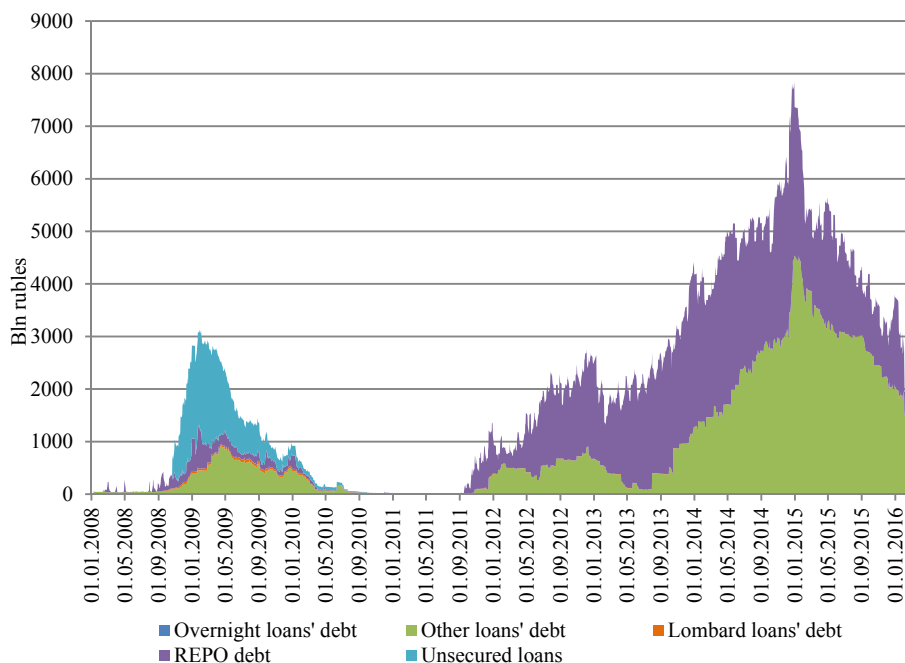


Fig. 6. Commercial banks' ruble-denominated debt (under key instruments) to the Bank of Russia in 2008–2016

Source: Bank of Russia.

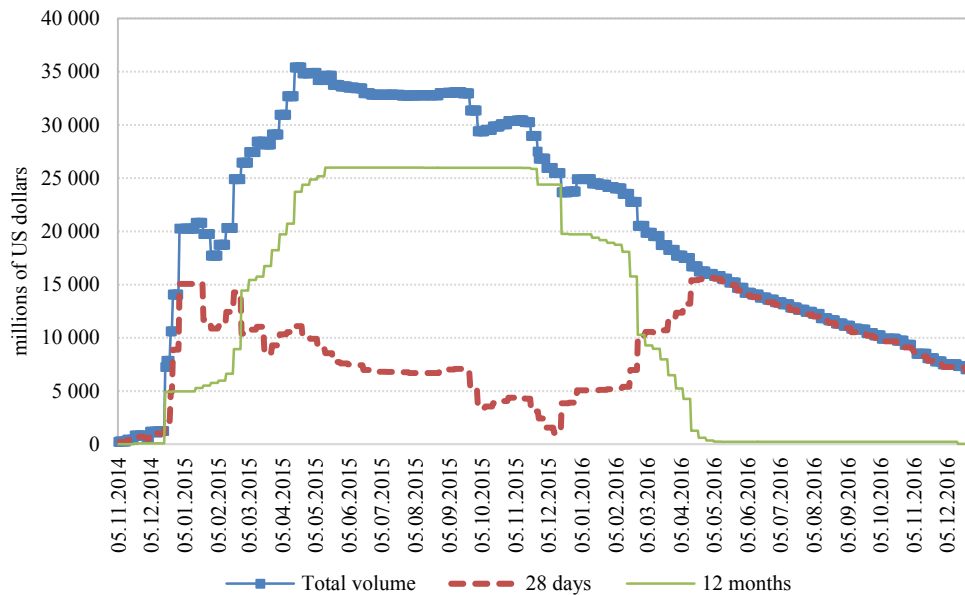


Fig. 7. Amounts to be repaid by credit institutions in 2nd leg of foreign currency repos in 2014–2016

Source: Bank of Russia.

In 2016, as noted above, the banking sector decreased its demand for ruble and foreign currency refinancing from the central bank. The massive capital inflows to the banking sector due to the spending of the Reserve Fund facilitated a surplus in the money market that was facing a liquidity deficit subsequent to the global financial crisis. The interbank interest rate¹ lost 0.9 percentage points in 2016 (from 11.0% p.a. on average in January 2016, to 10.1% p.a. on average in December 2016). Overall, over the course of 2016 the interbank interest rate was staying within the boundaries of the band set by the central bank, hitting its lower boundary from time to time, which was also because the banking sector shifted to a liquidity surplus and due to subdued demand for the central bank liquidity provision. The average MIACR on ruble denominated interbank overnight loans loosened from 12.7% in 2015, to 10.5% p.a. in 2016 (see Fig. 8). Overall, the Bank of Russia 2015–2016 interest rate policy proved efficient in terms of achieving the operational goal of narrowing the gap between interbank interest rates and the key rate. This is related to a money market stabilization, a more predictable Bank of Russia’s interest rate policy that allows economic agents to revise their expectations beforehand.

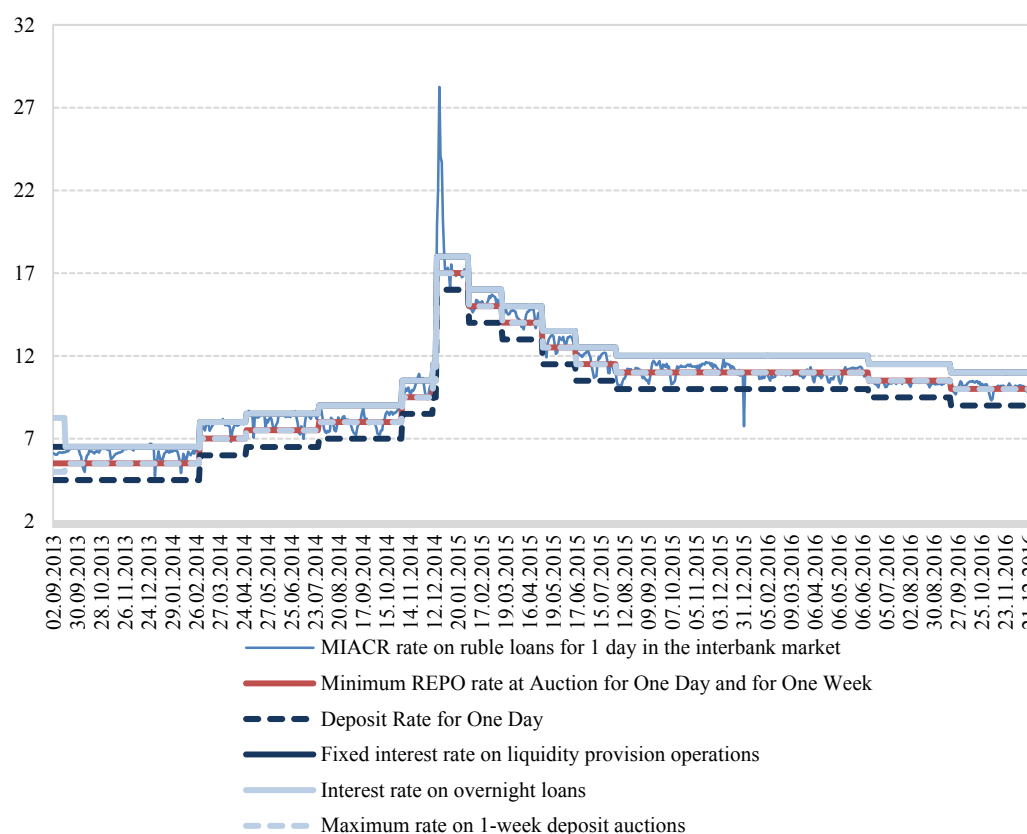


Fig. 8. Bank of Russia’s interest rate band, and dynamics of interbank lending market in 2013–2016

Sources: Bank of Russia, Gaidar Institute’s own calculations.

¹ Interbank interest rate (Moscow InterBank Actual Credit Rate) is monthly average MIACR on overnight interbank ruble-denominated loans.

In 2016, the annualized M2 was growing by an average of 11.3% (7.4% in 2014, 6.5% in 2015). In the period between January and December 2016, the monetary base saw an average increase of 11.4% year-over-year, while the money multiplier underwent no change. The money multiplier (the M2 to Monetary Base ratio) averaged 3.3 in the period between January and December 2016, (3.2 in 2014, 3.3 in 2015). The money multiplier value was equal to the average for developing economies (Ukraine, Belarus, Kazakhstan), whereas it tends to vary within a range of 5–8 in developed countries. Note that the money multiplier rose in Eastern Europe countries over the past two decades as their banking system advanced further. For example, the Poland’s money multiplier increased from 3.1 to 6.8 in the period between 1993 and 2016.

In the period between 1999 and 2015, the level of monetization of the Russian economy (the M2 to GDP ratio) tripled, to 63.8% in 2015, reaching for the first time the degree seen in Central and Eastern Europe countries that are traditionally characterized by a higher degree of monetization. For example, the ratio of M2 to GDP in Poland stood at 64.6% in 2015 (40.6% in 1999). For comparison, the ratio of M2 to GDP during the same period increased by 2.2 times, to 37.6%, by 3.1 times, to 42.1%, in Kazakhstan in 2014, by 3.0 times, to 50.2%, in Ukraine. Developed countries have even higher GDP monetization owing to a more advanced financial system: e.g., Germany reached 166% in 2015.

2.1.3. Inflation processes

In December 2016, the inflation rate stood at 5.4% over December 2015, which was much higher than the 2015 level 2015 (12.9%). In 2016, after reaching peak levels in January (+10.0%), the M12 inflation subsequently fell over the course of the year (see *Fig. 9*). As a result, the inflation rate hit a new all-time low at the year end, the previous all-time low was 6.1% (2011).

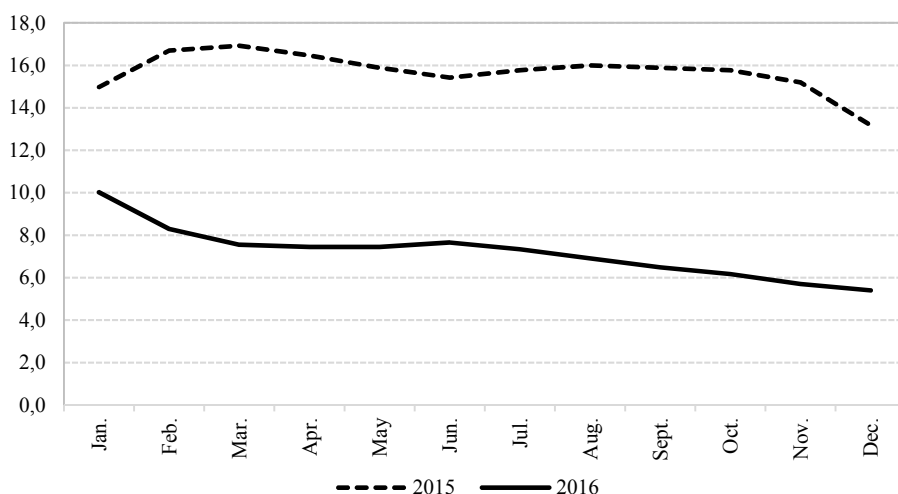


Fig. 9. CPI growth rates in 2014–2016 (12-month % change)

Sources: Rosstat, Gaidar Institute’s own calculations.

The inflation rate slowed down in 2016 subsequent to the inflation upsurge of 2015 in response to a double depreciation of the Russian ruble, which, amid a stable ruble exchange rate, was driven by a stagnation in economy and a moderately tough monetary policy of

Russia's central bank. In M12 2016, for instance, the key rate was up as little as 1 percentage points, while the inflation rate (% change, month over month) was down by 7.5 percentage points. In this context, despite the high inertia of inflation expectations (12.4% in December 2016) as well as low degree of economic agents' confidence in the inflation targets, it is very likely Russia's central bank will achieve its medium-term inflation target by 2017.

As shown in *Table 3*, in period between January and December 2016, consumer goods prices saw a slower growth rate over 2015 (4.6% in December 2016 over December 2015 vs. 14.0% in December 2015 over December 2014) (see *Fig. 10*). The growth in prices of butter (+20.5%), milk and dairy products (+9.5%), fish and seafood (+8.6%), grains and legumes (+6.4%), alcoholic beverages (+6.4%) contributed most to the growth in food prices as a whole. A stronger ruble and the bumper crop of 2016 slowed down the growth in food prices.

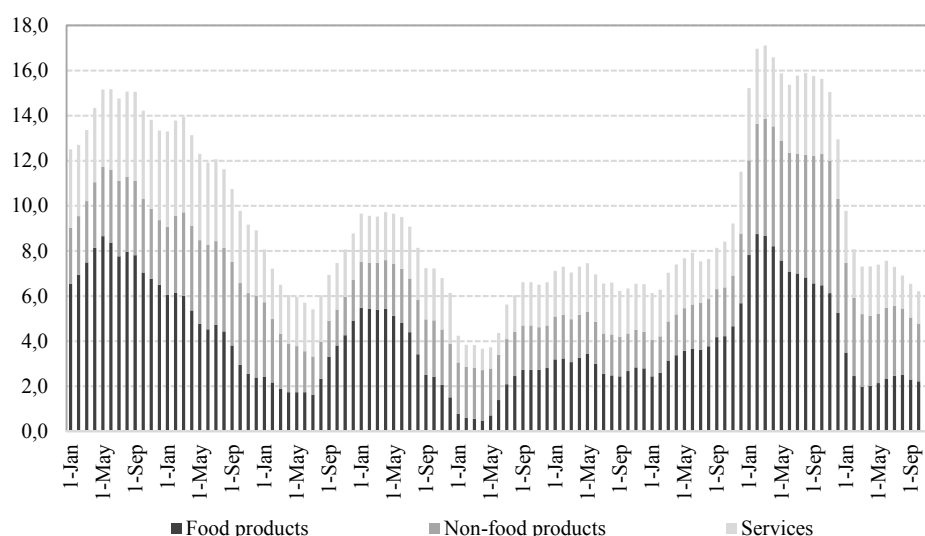


Fig. 10. Structure of inflation in 2008–2016
(% change vs. same month previous year)

Sources: Rosstat, Gaidar Institute's own calculations.

Table 3

**Annual growth rate of prices of certain consumer goods and services
in 2012–2016 (% change, December over December)**

	2014	2015	2016	2014–2016 ¹
1	2	3	4	5
CPI	11.4	12.9	5.4	32.6
Food products	15.4	14.0	4.6	37.6
Grains and legumes	34.6	15.5	6.4	65.4
Butter	14.5	10.6	20.5	52.6
Sunflower oil	5.0	37.2	3.4	49.0
Pasta-based food products	8.4	19.5	4.5	35.4
Milk and dairy products	14.4	11.5	9.5	39.7
Eggs	4.6	9.8	-0.7	14.0
Bread and bakery products	7.5	13.2	5.9	28.9
Meat and poultry	20.1	4.3	1.6	27.3
Fish, other seafood and products thereof	19.1	20.9	8.6	56.4

¹ Inflation rate in 2013–2016.

RUSSIAN ECONOMY IN 2016

trends and outlooks

Cont'd

1	2	3	4	5
Fruits and vegetables	22.0	17.4	-6.8	33.5
Alcoholic beverages	13.7	10.7	6.4	33.9
Non-food products	8.1	13.7	6.5	30.9
Textiles	7.4	19.7	7.6	38.3
Clothing and underwear	6.2	12.8	7.3	28.5
Textile goods	6.2	13.0	7.5	29.0
Footwear	5.7	15.1	9.2	32.9
Washing and cleaning agents	9.2	22.4	6.3	42.1
Medicaments	13.1	19.6	4.9	41.9
Motor gasoline	8.6	4.8	3.8	18.1
Tobacco products	27.1	26.6	17.8	89.6
Services	10.5	10.2	4.9	27.7
Utility services	9.4	10.1	5.4	27.0
Medical services	9.2	11.1	7.8	30.8
Early childhood education services	15.6	16.8	9.3	47.6
Health and leisure services	7.6	14.4	7.3	32.1
Passenger transport services	7.3	10.7	6.6	26.6
Cultural organizations services	9.9	7.2	5.8	24.6

Source: Rosstat.

The continuing ban on food imports from EU countries, Norway, the U.S.A., Canada and Australia that the Russian government introduced in late June 2015 had no stronger effect on the dynamics of prices of the sanctioned goods, because manufacturers and retailers almost adapted to the ban, as was evident from slowing growth of prices of the relevant types of products.

Prices of nonfood products were growing at a slower pace, from 13.7% in 2015 to 6.5% in 2016. Prices of tobacco products rose faster (+17.8%) than of other products in the same group due to an excise tax lift and depreciation of the ruble. A point of note is growth in prices of footwear (+9.2%), textiles (+7.6%), textile goods (+7.5%), clothing and underwear (+7.3%), washing and cleaning agents (+6.3%). Overall, nonfood prices saw a considerably slower growth rate in response to a stable FX market and a slightly stronger ruble amid heavy reliance of the Russian nonfood market on foreign supplies.

In December 2016, the price of paid services to individuals increased 4.9% over December 2015. The growth in prices of early childhood education services (+9.3%), medical services (+7.8%), health and leisure services (+7.3%), passenger transport services (+6.6%) was highly responsible for the growth in prices of paid services as a whole.

According to OOO INFOM's public opinion polls that are published monthly by the Bank of Russia, the median one-year ahead expected inflation rate in 2016 was much higher than the actual inflation rate over the prior 12 months (by 5.7–7.4 percentage points), nearing short of just 1.6 percentage points of the actual inflation rate of 2015. This result proves the inertia nature of inflation expectations. Note that both high inflation expectations and the inertia nature thereof are headwinds to a softer monetary policy by slowing the inflation downward pace.

Finally, we will compare consumer price growth rates in Russia with other countries (see *Table 4*).

In 2016, Russia was ranked 3rd among CIS countries for consumer price growth rate, after Azerbaijan, Ukraine, Belarus, Kazakhstan and Tajikistan. The inflation rate in Russia in 2016 was, on average, 16 times the inflation rate in developed countries. Overall, the Russian Federation continued facing a high inflation rate compared with both developed countries and emerging market economies.

The aggregate demand recovery is one of the sources of risks of inflation in 2017 that, all else being equal, may lead to an uptrend for consumer goods prices. In particular, nominal wages were up 7.7% in Q1 and Q2 2016, and 8.1% in Q3 compared to the same periods of 2015. In the period between September and December 2015, nominal wages increased by an average of just 3.4% year-over-year. In 2017, pensions were indexed to the actual inflation rate of 2016 (5.4%), as well as financing of the expenses required to attain target wages in certain industries, as set forth by the Presidential Executive Orders issued in May 2012, continued.

Table 4

**Consumer prices dynamics in various countries
in 2013–2016, % a year**

	2014	2015	2016	2014–2016
Azerbaijan	-0.1	7.6	15.7	24.4
Armenia	4.6	-0.1	-1.1	3.3
Belarus	16.2	12.0	10.6	43.9
Kazakhstan	7.4	13.6	8.5	32.4
Kyrgyzstan	10.5	3.4	-0.5	13.7
Moldova	4.7	13.6	2.4	21.8
Russia	11.4	12.9	5.4	32.6
Tajikistan	7.4	5.0	6.1	19.6
Ukraine	24.9	43.3	12.4	101.2
Germany	0.9	0.2	0.5	1.6
France	0.5	0.0	0.2	0.7
United States	1.6	0.1	1.3	3.0
The Netherlands	1.0	0.6	0.3	1.9

Sources: Interstate Statistical Committee of the Commonwealth of Independent States (CIS STAT) (<http://www.cisstat.com/>), OECD database (<http://stats.oecd.org/>).

An extra source of the higher inflation risk in 2017 is accelerated growth rates of the M2 by increasing the monetary base as the Reserve Fund is spent to cover a budget deficit. The increase in the monetary base by spending the Reserve Fund is higher than its decline driven by thinning banks' debt to the central bank, as well as by Bank of Russia's deposit auctions. In this context, interest rates were on the slide in Q1-Q2 2016, despite that the key rate was constant until mid-June. In particular, rates on retail ruble denominated deposits with maturities of 1 year or less dropped from 8.53% p.a. in January, to 7.0% p.a. in November 2016 (in September 2016, the rate fell to 6.18% p.a., the lowest in 2016).

Furthermore, one should avoid neglecting exchange rate risks that may arise in response to a possible worsening of terms of trade. The ruble may depreciate due to uncertainty about the dynamics of crude oil prices (including the issues facing China's economy), as well as a tougher Fed's monetary policy.

The foregoing (the inertia nature of inflation expectations, budget deficit, consumer demand recovery) pose risks of the central bank failing to achieve the target inflation rate at the 2017 year end. At the same time, the inflation rate is still slowing in favor of reaching the target rate. Therefore, in our view, the central bank will continue a policy of slowly declining key rate until the bank officials are sure that the target inflation rate will be reached.

2.1.4. Balance of payments and exchange rate

Through much of 2016, the ruble's nominal exchange rate strengthened against both the US dollar and the euro. Having reached peak values of 83.59 and 91.18 rubles on the January 22nd, the exchange rate of the US dollar and the euro against the Russian ruble dropped to lows of respectively 62.05 and 67.50 rubles by the October 26th (see *Fig. 11*) after Fed's officials

deferred a federal funds rate raise, as well as the economic downturn slowed down in Russia. The ruble depreciated in early 2016 in response to a Fed’s federal funds rate hike, as well as in August in response to a higher volatility of global crude oil prices and the shrunken trade balance of Russia, to USD 4.9bn, lowest since April 2009. The strengthening of the ruble exchange rate against the US dollar since mid-November 2016 was driven a series of factors, including the results of the US presidential elections, as well as an OPEC meeting on the November 25th and 30rd, when country-members reached an agreement to cut crude oil production by 1.2 million b/d, to 32,5 million b/d. The year-end ruble’s nominal exchange rate strengthened against the US dollar and the Euro by respectively 12% and 15.6% over December 2015.

Through much of 2016, the Russian ruble strengthened against the national currency of other trade partners. Having touched the lowest since June 2003 in February 2016, the ruble real effective exchange rate saw a strong strengthening. With the dynamics of consumer prices slowing at a steady pace, the upward trend was driven first of all by a stronger ruble’s nominal exchange rate. As a result, the ruble real effective exchange rate rose by the end of the year, gaining more than 31.1% over February 2016 and 20.8% over December 2015. Although the devaluation effect of 2014 is not over yet after two years, a strengthening ruble nominal exchange rate tempers a positive effect of a softer inflationary pressure.

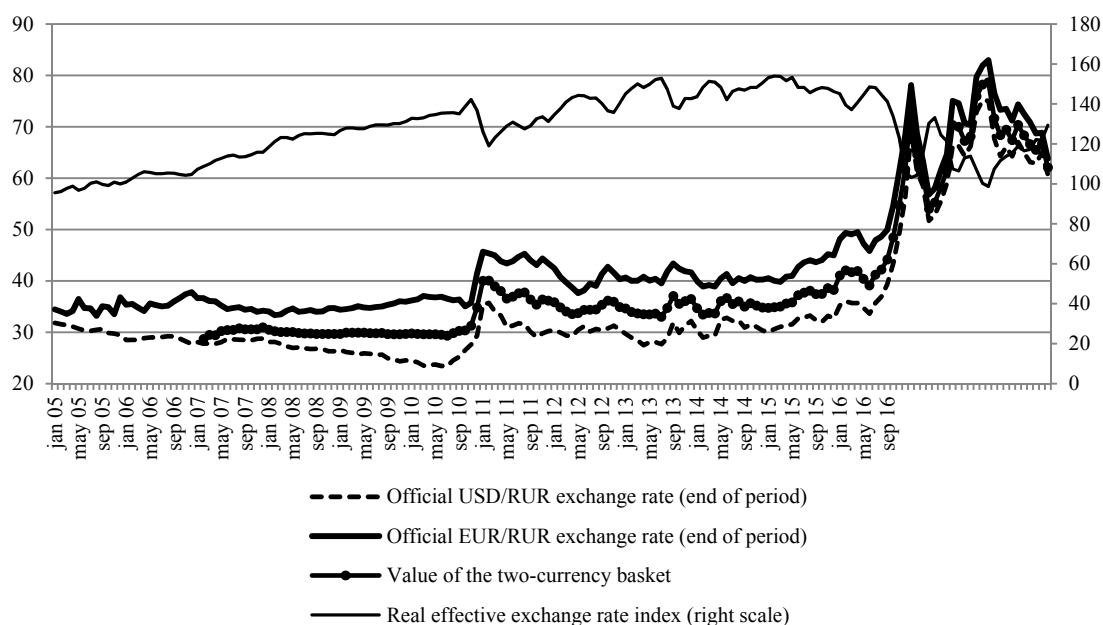


Fig. 11. Dynamics of Russian ruble exchange rate in 2003–2016

Sources: Bank of Russia, own calculations

It is critical – in terms of both the Bank of Russia exchange rate policy and the regulator’s medium-term plans – that the volatility of the ruble exchange rate against both the US dollar and the Euro continued declining in 2016. For instance, the average intramonth volatility of the

US dollar and Euro exchange rate against the Russian ruble¹ dropped in 2016 to 1.6% compared to 2.7% in 2015 and to 1.8% compared to 2.7%, respectively. Note that all the developing countries saw exchange rate volatility decrease steadily as economic agents adapted to a new exchange rate mechanism subsequent to an upsurge by shifting to a free floating exchange rate.

The overall situation in the Russian FX market in 2016 shows, first, that Russian economic agents have adapted to a new environment created after the regulator introduced a free floating exchange rate, and, second, the ruble exchange rate has become less reliant on market trends of global crude oil prices.

The BoP data for 2016 show a substantial decline in current account surplus compared with 2015. At the same time there was massive slowdown of net private capital outflows due to slower rates of repayment of loans, thus facilitating a stronger ruble at the 2016 year end.

According to the Bank of Russia’s preliminary assessment of the balance of payments (BoP) for 2016, the current account balance stood positive at USD 22.2bn, a decline of USD 46.8bn (-68%) over 2015. The decline of USD 58.1bn (from USD 148.5bn in 2015 to USD 90.4bn in 2016) in a positive balance of trade was highly responsible for that.

Exports of goods dropped in terms of value basically in response to a decline in the average annual price of crude oil (in 2016, average export prices of supplies to foreign countries were USD 289.2 per ton (compared to USD 365 per ton in 2015) and the resulting decline of average annual prices of petroleum products (in 2016, average export prices of supplies to foreign countries were USD 294.5 per ton (compared to USD 393 per ton in 2015) and natural gas (in 2016, average export prices of supplies to foreign countries were USD 157.4 per thousand cubic meters (compared to USD 226 per thousand cubic meters in 2015) (see Fig. 12). As a result, exports of crude oil, petroleum products and natural gas accounted for 54% of total exports, down 4.3 percentage points compared with 2015 (see Fig. 13).

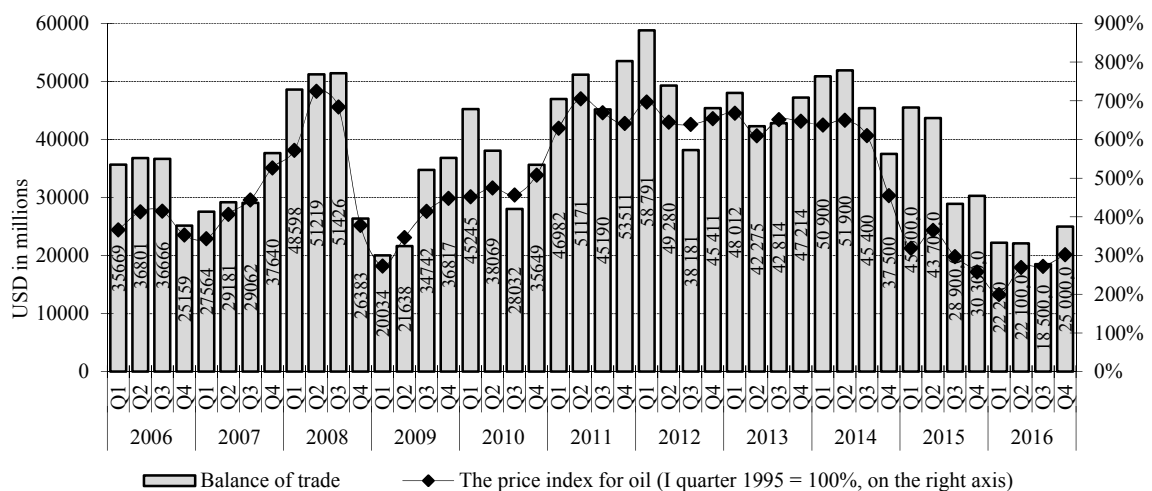


Fig. 12. Russia balance of trade and global oil price index (Q1 1995 = 100%) in 2006–2016

Sources: Bank of Russia; EIA; Gaidar Institute’s own calculations.

¹ Intramonth volatility of the ruble exchange rate against foreign currencies is calculated using daily official exchange rates and is expressed as a percentage ratio of exchange rate standard divergence to its average monthly value.

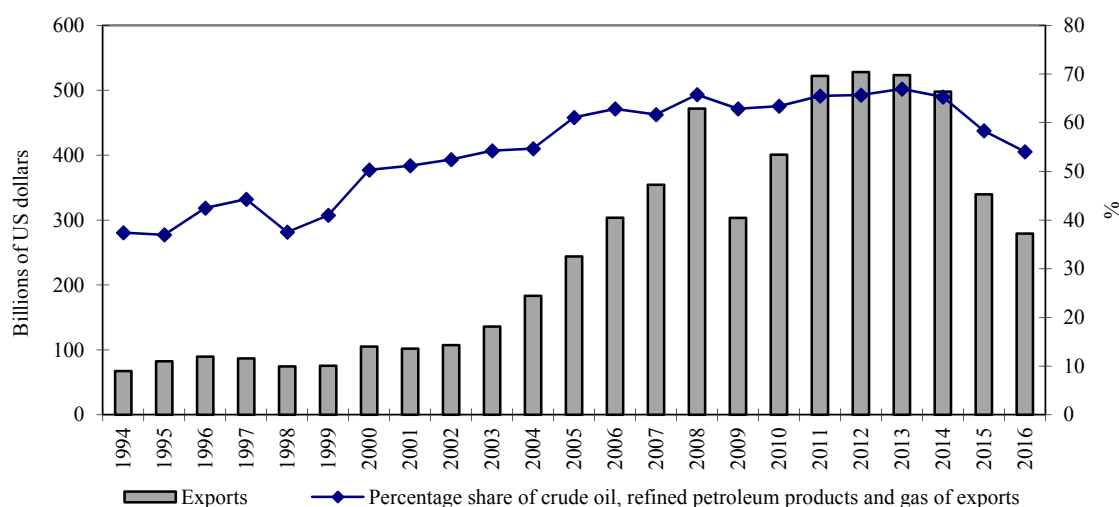


Fig. 13. Dynamics of exports of goods and of percentage share of fuel and energy sector products in 1994–2016

Source: Bank of Russia.

Russia’s fuel and energy exports in terms of value dropped USD 50.1bn (-23.2% compared with 2015) while the rest of exports fell USD 7.8bn (-6.1% compared with 2015). Non-energy exports contracted due to falling prices of wheat, metals, fertilizers, as well as because the Russian manufacturing industry failed to increase supplies in terms of physical volume.¹

Stabilization of the ruble's real exchange rate was a reason that caused stagnation of non-resource exports: according to the Bank of Russia, the index of ruble’s real effective exchange rate against foreign currencies stood at -0.4% in January-December 2016 compared to the same period of 2015. The ruble’s real exchange rate saw minor changes on average in 2016 compared to the rate reported in 2015, which kept imports almost at the same level in value terms. Imports declined by USD 1.6bn (-0.8%), although they started to recover gradually: while Q1 2016 imports (in value terms) accounted for 85% of the level recorded in Q1 2015, they were up to 108% in Q4 2016.

At the same time, imports of services saw a decline of USD 14.3bn (from USD 88.6bn in 2015 to USD 74.3bn in 2016), which was in part due to contraction of imports of transport services, but it was mostly because individuals cut back on their international travel (- USD 11.2bn).

The same level (about USD 50bn) of exports of services and the decline in imports of services together were responsible for the reduction of a negative balance of trade in services, from -USD 36.9bn in 2015 to -USD 24.3bn in 2016. The compensation of employees balance underwent minor changes (-USD 2.5bn in 2016 compared with -USD 5.1bn in 2015). The balance of compensation of employees saw minor changes (-USD 2.5bn in 2016 compared to -USD 5.1bn in 2015). The rest of the current account components remained almost unchanged: the investment income balance was at about -USD 32bn, the balance of secondary income at about -USD 32bn, and the balance of rent at about 0.

¹ For details see A. Knobel, A. Firanchuk. Specifics of Russia’s exports and imports in January-August 2016 //Economic Development of Russia. 2016. Vol. 23. No. 11. PP. 15–21.

Therefore, the balance of trade in services and the balance of trade, whose balance depends largely on the dynamics of hydrocarbons prices, are the key factors that determine a current account balance.

The current account surplus declined along with a comparable contraction of the financial account deficit, which ran at USD 12.3bn in 2016 (compared to USD 70.9bn in 2015) (see *Table 5*). Russian economic agents' liabilities to foreign economic agents shrank by USD 3.4bn at M12 (-USD 72.2bn as at 2015 year-end). Residents' foreign asset holdings (foreign economic agents' liabilities to Russian peers) increased USD 8.9bn in 2016 (2015 saw a USD 1.4bn decline in this indicator).

Table 5

**Balance of payments' principal accounts, and dynamics of external debt
in 2013–2016 (bn USD)***

Indicator	2014					2015					2016				
	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4*	Year
Balance of current accounts and of capital accounts	25.5	11.8	-3.9	-17.8	15.5	30.0	16.3	7.8	14.5	68.7	12.3	0.4	0.5	7.6	20.8
Financial account (excluding reserve assets)**	22.5	16.9	0.1	-15.9	23.5	37.5	19.4	2.6	11.3	70.9	7.0	-2.2	-0.3	7.8	12.3
Change in foreign exchange reserves ('+' denotes an increase, '-' denotes a decrease in reserves)	-27.4	-10.3	-5.7	-64.2	-107.5	-10.1	-2.2	9.7	4.3	1.7	2.6	4.4	3.1	-1.8	8.2
Net errors and omissions	-3.0	5.1	4.0	1.9	8.0	-2.6	0.9	4.5	1.1	3.9	-2.7	1.8	2.4	-1.6	-0.1
Change in Russia's external debt ('+' denotes an increase, '-' denotes a decrease of debt)	-13.0	16.9	-51.9	-81.0	-129.0	-43.7	-0.6	-19.1	-18.1	-81.5	2.2	3.3	-4.5	-0.8	0.2
Change in Russia's sovereign external debt	-8.1	3.5	-7.7	-7.8	-20.1	-8.1	2.9	-4.1	-1.8	-11.1	1.5	3.9	4.4	-2.9	6.9
Change in Russian private sector's external debt	-4.4	12.6	-43.8	-68.0	-103.5	-36.0	-2.3	-15.0	-17.5	-70.9	1.6	-0.4	-9.0	1.2	-6.5

* – preliminary estimate; ** – excluding foreign currency reserves.

Source: Bank of Russia.

Federal government agencies' external liabilities increased USD 3.2bn in 2016 as foreign asset holdings dropped USD 0.6bn. In 2016, the growth in monetary regulators' commitments, USD 0.1bn, was offset by an equal decline in foreign asset holdings.

Net capital outflows in the non-public sector amounted to USD 15.4bn in 2016, which is 3.7 times less than the amount recorded in 2015 (see *Fig. 14*). Much of the capital outflow dynamics was owed to operations in the banking sector. In particular, the amount of net capital outflows fell by 6.5 times, from USD 34.2bn to USD 5.3bn. A slowdown in the repayment of bank external debts and liabilities had the strongest effect on the dynamics of the balance of banks' operations with the rest of the world. In 2016, banks' liabilities to non-residents dropped by USD 27.4bn, while they were down USD 60.0bn in the previous year.

Banking sector’s external debts and liabilities were partially repaid through selling foreign assets. For instance, banks’ foreign asset holdings declined by USD 22.1bn in 2016 (-USD 25.8bn in 2015). Additionally, banks’ repayment of foreign currency loans on repos with the Bank of Russia (USD 9.8bn as at 2016 year-end) was responsible for the shrinkage of foreign asset holdings in the banking sector.

Net capital outflows from other sectors were 2.3 times less than in 2015, to reach USD 10.1bn in 2016. The non-bank sector saw its external liabilities increase USD 21.0bn, whereas they dropped by USD 5.8bn in 2015. At the same time, the inflow pattern of non-bank sector’s foreign debts and liabilities underwent some changes: direct investment inflows were USD 25.8bn (USD 5.9bn in 2015), portfolio investment inflows amounted to USD 0.7bn (-USD 4.7bn in 2015), loans and credits dropped by USD 7.5bn (-USD 4.8bn in 2015) while other liabilities increased USD 4.3bn (outflow of USD 2.2bn in 2015 was followed by inflow of USD 2.1bn in 2016). Such a great increase in direct investment inflows most likely stemmed from a deal on selling a 19.5% stake in Rosneft worth EUR 10.5bn. Overall, a positive increase in foreign liabilities is indicative of the fact that in 2016 the non-bank sector managed to raise much more funds than was needed to repay its external debts. This was also facilitated by the non-bank sector successfully refinancing its external debts despite limited access to the global capital market due to the continuing sanctions against Russia.

Russia’s foreign debt remained nearly unchanged in 2016, running at USD 518.7bn as of January 1, 2017. Note that in 2016 Russian private sector’s foreign debt shrank by USD 6.5bn (-USD 70.9bn in 2015) (see *Table 5*). Russia’s foreign debt increased USD 6.9bn in 2016, whereas it was down USD 11.1bn in 2015.

According to the data on January-September 2016, banks’ assets swelled USD 6.2bn through cash foreign currency transactions with nonresidents (a decline of USD 7.8bn in the same period of 2015). Banks’ foreign currency asset holdings dropped USD 8.1bn (a USD 0.6bn decline in Q1–Q3 2015) in response to cash foreign currency buy/sell transactions with individuals at money exchanges, as well as due to closing/opening of foreign currency deposits at bank foreign exchange offices. As a result, according to Bank of Russia’s estimates, foreign currency cash in hand increased USD 3.2bn, to USD 43.6bn, in the period between January and September 2016. According to the Russian BoP data, the nonfinancial sector transferred USD 5.1bn (compared to USD 11.3bn in January-September 2015) to foreign contracting parties in Q1–Q3 2016.

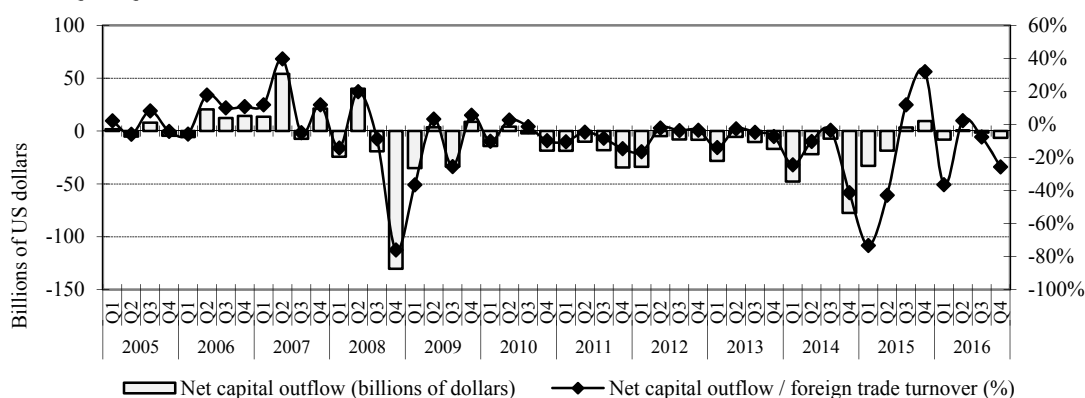


Fig. 14. Dynamics of net capital outflows in 2005–2016

Sources: Bank of Russia; Gaidar Institute’s own calculations.

At the 2016 year end, the 2015 capital flight (see Fig. 15) worth, according to our estimates, USD 3bn gave way to an inflow of USD 2.3bn¹.

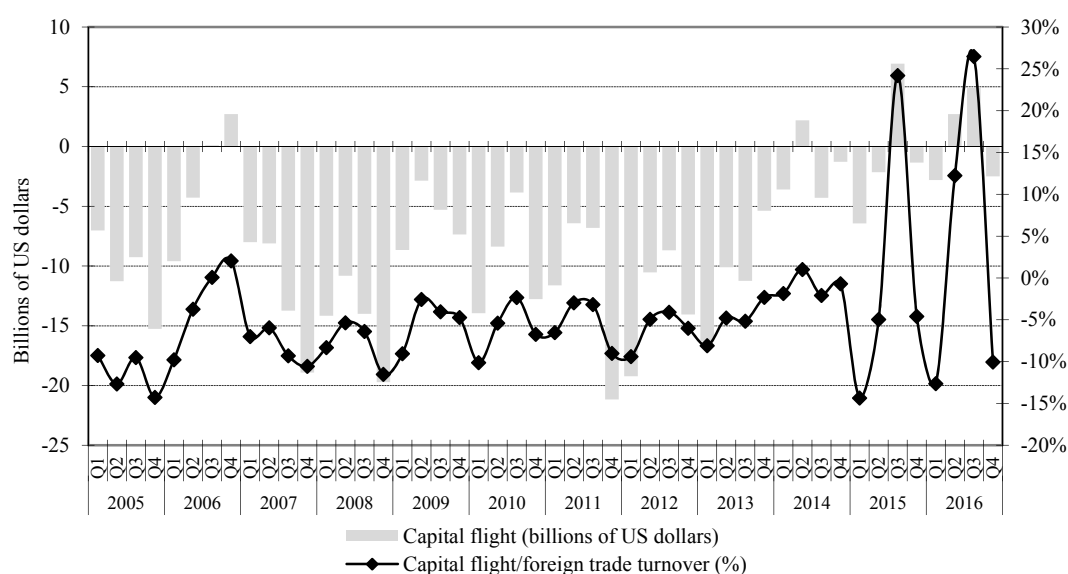


Fig. 15. Dynamics of capital flight in 2005–2016

Sources: Bank of Russia; Gaidar Institute’s own calculations.

In 2017, with global crude prices staying at what they are now (about USD 55 per barrel) and the ruble’s nominal exchange rate at 60 rubles per US dollar, one should expect the ruble’s real exchange rate to strengthen, exports to increase in value terms by 25–40%, and imports to grow by 10–15% compared to 2016. It appears that an increase in the current account balance will be offset by the Bank of Russia purchasing foreign currency for the Ministry of Finance under a provisional budget rule within a volume of federal budget revenues generated if crude oil is traded USD 40 per barrel. Although this measure will in part alleviate the effect of oil price fluctuations on the ruble’s nominal exchange rate, it may force the ruble to weaken in the short term. Risks of ruble devaluation are above all attributed to a possible worsening of terms of trade as well as potential tightening of Fed’s monetary policy, which may spur capital outflows from emerging markets.

2.2. Fiscal policy

2.2.1. Assessment of budgets of the budgetary system of the Russian Federation²

Basic parameters of Russia’s budgetary system

In 2016, fiscal revenues of the enlarged government surpassed 2015 volumes both in absolute terms (by RUB 1,253bn) and in relative terms by 0.5 percentage point of GDP (see Table 6). Expenditures of the enlarged government went up by 0.8 percentage point of GDP

¹ We use the IMF method to measure capital flight, that is, the sum of “trade credits and advances”, “dubious operations” and “net errors and omissions.”

² Authors of chapter: S. Belev – Gaidar Institute, IAES RANEPa; A. Mamedov – Gaidar Institute, IAES RANEPa; E. Fomina – Gaidar Institute, IAES RANEPa; S. Shatalova – Gaidar Institute, IAES RANEPa.

and by RUB 1,581bn in absolute terms. The fiscal deficit of the enlarged government in 2016 was up compared to the level of the previous year (3.7% of GDP in 2016 against 3.4% of GDP in 2015). It should be noted that the fiscal deficit reported in 2015–2016 surpassed manifold its 2013–2014 volumes both in absolute and in relative terms.

Table 6

Basic parameters of the budget of the RF enlarged government in 2012–2016

	2012		2013		2014		2015		2016		Change in 2016 against 2015, percent of GDP
	RUB bn.	% GDP	RUB bn.	% GDP	RUB bn.	% GDP	RUB bn.	% GDP	RUB bn.	% GDP	
Revenues	23 089	34.5	24 082	33.9	26 371	33.3	26 494	31.8	27 747	32.3	0.5
Expenditures	22 826	34.1	24 931	35.1	27 216	34.4	29 308	35.2	30 889	36.0	0.8
Deficit (-) / Surplus (+)	263	0.4	-849	-1.2	-845	-1.1	-2814	-3.4	-3 142	-3.7	-0.3
<i>Reference: GDP, RUB bn.</i>	66 927		71 017		79 200		83 233		85 881		-

Sources: Federal Treasury, Rosstat, Gaidar Institute own calculations.

Analysis of the main parameters of the enlarged government demonstrates that in 2016 growth of state expenditure against 2015 was more moderate – with revenues growing by 0.5 percentage point of GDP, expenditures moved up by 0.8 percentage points of GDP. Meanwhile, in 2015 expansion of state spending by 0.8 percentage point of GDP occurred amid decline of revenues by 1.5 percentage point of GDP. Nevertheless, the outstripping growth of expenditures in comparison with revenues dynamics resulted in larger deficit of the budgetary system in 2016. Emerging trend urges restriction of further budget deficit growth of the enlarged government in order to avoid grave risks for budget and macroeconomic stability.

Revenues from the main taxes to the budgetary system of the Russian Federation

In 2016, the tax burden practically stabilized at the level of the previous year (*Table 7*). Meanwhile, dynamics was mixed across certain components of the tax burden. Revenues from mainly oil and gas sector (hereinafter oil and gas revenues) continued falling – the amount of customs duties and levies declined by 1.0 percentage point of GDP against the 2015 level (by 25.0% in real terms) and revenues from the Mineral Extraction Tax (MET) contracted by 0.5 percentage point of GDP (by 13.9% in real terms). Shortfall in revenues from oil and gas sector was offset by the growth of revenues from other taxes. At the same time, revenues from personal income tax, VAT and profit tax marginally – in the range of 0.1–0.2 percentage point of GDP (by 1.0–2.0%). Revenues from insurance contributions and excises demonstrated notable growth by 0.6 and 0.3 percentage point of GDP, respectively (by 7.1% and 20.4%).

A number of changes were implemented in taxation of the oil and gas sector. In 2016, export duty standard rate on crude oil was not cut to 36% and stayed at 42%. The rate's reduction to 30% is planned from 2017. In the course of implementation of the so-called tax maneuver, the MET standard rate increased from RUB 766 to 857 per ton from January 1, 2016. Simultaneously, coefficient C_{met} was raised from 530 to 559 used for calculation of the indicator, which describes specifics of oil extraction. Planned increase from 4.4 to 5.5 of correcting coefficient C_{mc} (critical micelle concentration) regarding gas condensate was also effected. Moreover, natural gas tax calculation received coefficient, which measures export profitability of a unit of reference fuel (K_{rn}) of extracted hydrocarbons. During 2016, its basic

value amounted to 0.7317 and equated to 1 for certain categories of tax payers. This decision was aimed at withholding additional profit obtained by natural gas exporters owing to positive ruble devaluation effect.

Table 7

**Revenues from the main taxes to the budget of the enlarged government
of the Russian Federation 2012–2016, % of GDP**

	2012	2013	2014	2015	2016	Change in 2016 against 2015	
						Percent of GDP	Real growth, %
Tax burden	32.1	31.6	31.1	29.0	29.1	0.1	-2.0
Profit tax	3.5	2.9	3.0	3.1	3.2	0.1	1.1
Personal income tax	3.4	3.5	3.4	3.4	3.5	0.1	2.0
Insurance contributions	5.8	6.2	6.0	6.4	7.0	0.6	7.1
VAT	5.3	5.0	5.0	5.1	5.3	0.2	2.4
Excises	1.3	1.4	1.4	1.3	1.6	0.3	20.4
MET	3.7	3.6	3.7	3.9	3.4	-0.5	-13.9
Customs duties and levies	7.4	7.0	6.9	4.0	3.0	-1.0	-25.0

Sources: Federal Treasury, Rosstat, Gaidar Institute own calculations.

Despite the fact that the tax maneuver envisaged to replace revenue shortfall due to reduction of export duty of crude oil and petroleum products with receipts from the MET increased rates on crude oil, external economic conditions resulted in a reduction of receipts on crude oil profit in share of GDP (*Table 8*).

Table 8

Volume of export duties on energy resources and MET in 2012–2016, % of GDP

	2012	2013	2014	2015	2016
MET	3.7	3.6	3.7	3.9	3.4
Export duties on energy resources	6.1	5.7	5.8	3.3	2.3
Crude oil	3.7	3.3	3.3	1.7	1.2
Petroleum products	1.7	1.7	1.9	0.9	0.5
Natural gas	0.6	0.7	0.6	0.7	0.6

Sources: Bank of Russia, Federal Treasury, Rosstat, Gaidar Institute own calculations.

The decline of oil and gas revenues was mainly determined by falling prices on Urals crude, which finally was offset neither by ruble's devaluation nor by indexation of the MET standard rate (see *Fig. 16*). In 2016, the MET rate actually averaged a bit over RUB 3,000 per ton against nearly RUB 3,500 per ton in 2015.

Value added tax on goods sold on the territory of the Russian Federation (“internal VAT”) increased slightly in 2016 as a percentage of GDP (by 0.2 percentage point). Whereas VAT on goods imported to the territory of Russia reflected the values seen in 2014 (see *Table 9*). Russia continues to have better VAT collection rate on imported goods over that on goods manufactured in Russia as well as an upward trend of the VAT effective rate, which is gradually returning to the 2012 level.

In 2016, revenues from *excises* stopped falling and even surpassed the level seen during the relatively successful 2013 as a percentage of GDP. As *Fig. 17* suggests, revenues from all main groups of excisable products increased last year. Excise duties on tobacco products increased by 0.1 percentage point of GDP and remained the main excisable group. Revenues from excise duties on petroleum products and natural gas moved up (by 0.12 percentage point of GDP). Trend on revenues from alcoholic products reversed (+0.07 percentage point of GDP in 2016).

Revenues from excise duties on sale of motor vehicles and motorcycles remained flat and continued to make up an inconsiderable share of revenues.

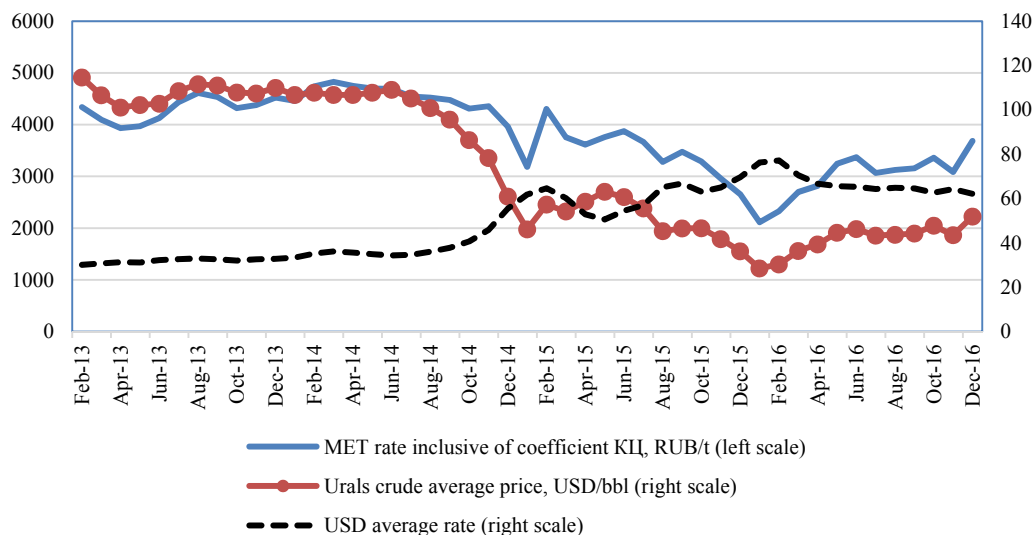


Fig. 16. Dynamics of actual MET tax rate, Urals crude price and USD rate in January 2013–2016

Sources: Consultant+, Bank of Russia, Gaidar Institute own calculations.

Table 9

Dynamics of final consumption, imports and VAT receipts to RF budgetary system in 2012–2016, % of GDP

	2012	2013	2014	2015	2016
Revenues from VAT	5.7	5.0	5.0	5.1	5.3
VAT on goods sold on the territory of the Russian Federation	3.0	2.6	2.8	2.9	3.1
VAT on goods imported to the territory of the Russian Federation	2.7	2.4	2.2	2.1	2.2
VAT effective rate*, %	8.1	6.8	7.0	7.3	7.7
VAT effective rate on goods sold on the territory of the Russian Federation**	6.0	5.0	5.4	6.0	6.3
VAT effective rate on goods imported to the territory of the Russian Federation***	13.1	11.2	10.8	10.4	10.8

* The ratio of VAT receipts to final consumption.

** The ratio of VAT receipts for goods sold on the territory of the Russian Federation to final consumption less import value.

*** The ratio of VAT receipts for goods imported to the territory of the Russian Federation to the value of imports.

Sources: Rosstat, Finance Ministry of Russia, Gaidar Institute own calculations.

Observed dynamics on excises reflects the fact that in 2016 tobacco products to a major extent were subject to indexation of rates (in particular, on cigarettes excise duty went up from RUB 960 to RUB 1,250 per 1,000 sticks and from 11% to 12% of calculated value). Regarding alcoholic products, either there was no rate growth (for strong beverages) or it was insignificant (for wines, cider, and mead came to 1 ruble per liter and for bear 2 rubles per liter). Meanwhile, contraction of sale volume of alcoholic products in physical quantity slowed down for all types.

Regarding *insurance payments* 2016 saw raised threshold requirement for contributions taxed at base rate (the rate remained flat):

- RUB 718,000 for contributions to Social Insurance Fund (against RUB 670,000 in 2015)
 - RUB 796,000 for contributions to Russia’s Pension Fund (against 711,000 in 2015).
- This increase coupled with wage bill growth (estimate according to average gross payroll) by 2.8 percentage points of GDP in 2016 resulted in insurance payments growth.

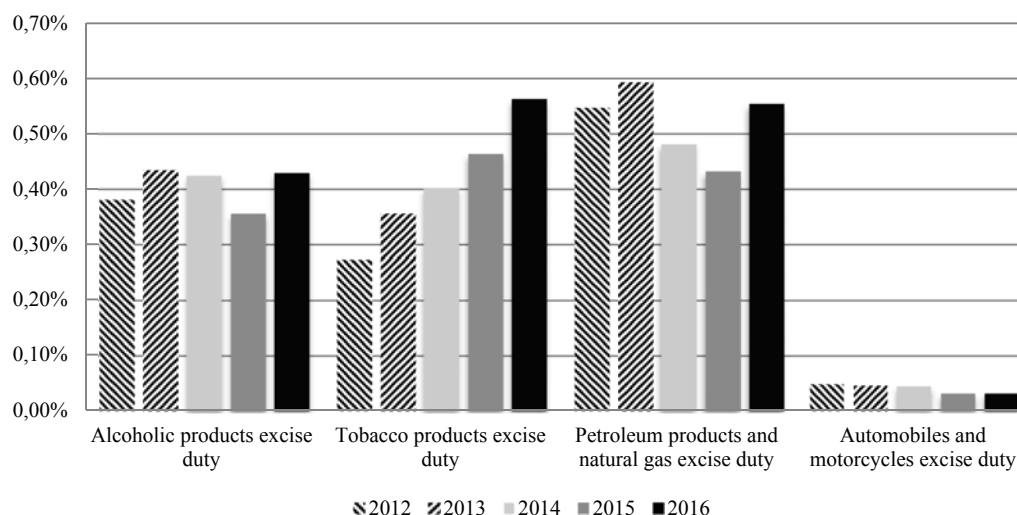


Fig. 17. 2012–2016 revenues from excise duties by group of excisable products, as % of GDP

Sources: Federal Treasury, Gaidar Institute own calculations.

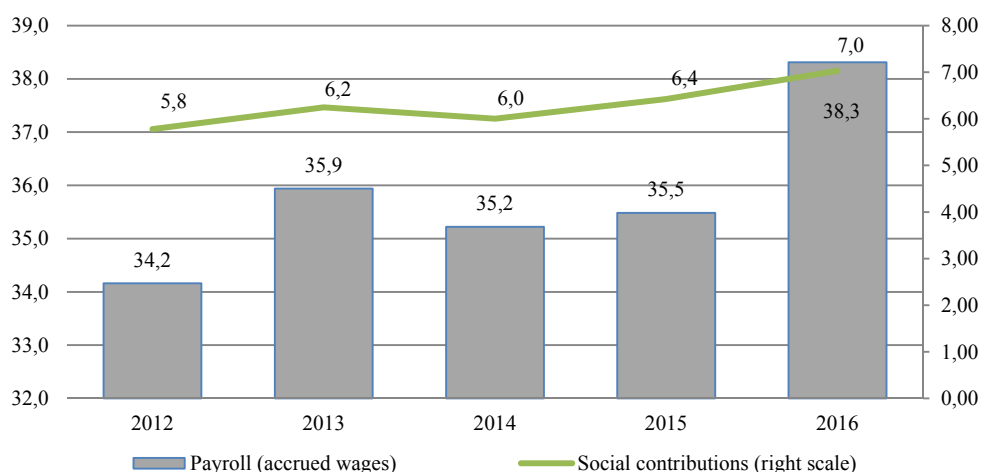


Fig. 18. 2012–2016 revenues from insurance contributions and wage bill (according to gross payroll), as % of GDP

Sources: Federal Treasury, Rosstat, Gaidar Institute own calculations.

Personal income tax. In 2016, cash income minus social contributions declined by 1.4 percentage point of GDP whereas revenues from the personal income tax all the same increased insignificantly by 0.1 percentage point. This reflected the growth of payroll fund in the economy

as a whole in percent of GDP (*Fig. 19*) and, consequently, its share in cash income went up. Increased share of officially reported salary, which led to a larger personal income tax base and affected Rosstat macro indicators to a lesser extent calculated with an account of shadow economy.

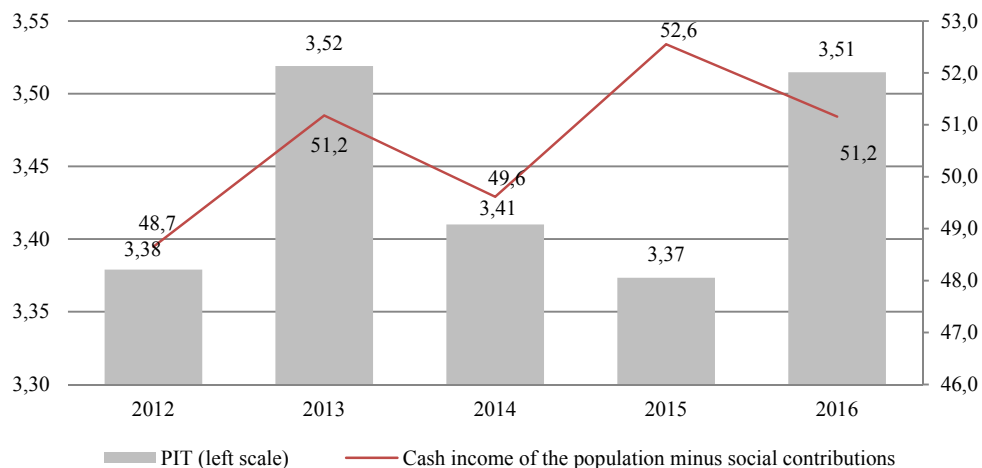


Fig. 19. Revenues from PIT and cash income less social benefits in 2012–2016, as % of GDP

Source: Federal Treasury, Rosstat, Gaidar Institute own calculations.

The profit tax. 2016 saw revenues from the profit tax grow slightly as a percentage of GDP by 0.1 percentage point) reflecting growing profit of profit-making businesses as a share of GDP from 15.2% to 17.1% (see *Fig. 20*). Partly it was due to depreciation of the ruble that helped Russian exporting enterprises to enhance competitiveness against foreign manufacturers by partially offsetting the effect of falling aggregate demand as well as to generate “extra” revenues for such enterprises. Moreover, the share of loss-making businesses continued declining (back to the 2013 level of 31%).

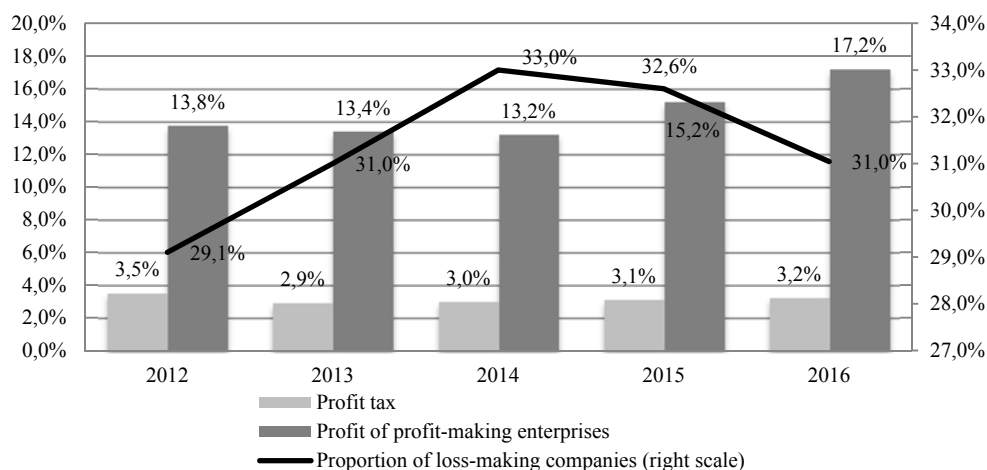


Fig. 20. Dynamics of revenues from the profit tax to Russia’s budgetary system, profit of profit-making businesses (% of GDP) and share of loss-making enterprises in 2012–2016

Sources: FTS of Russia, Rosstat, Gaidar Institute own calculations.

Russia's federal budget expenditure

As was mentioned above, the federal budget expenditure in 2016 increased by 0.8 percentage above those in 2015 (see *Table 10*). Herewith, one can note changes in spending for certain lines of budget expenses of the enlarged government in the range of -0.1 to +0.6 percentage point of GDP.

Table 10

Enlarged government expenditure in 2012–2016, as % of GDP

	2012	2013	2014	2015	2016	Change in 2016 against 2015, percentage of GDP
Expenditure, total	34.1	35.1	34.4	35.2	36.0	0.8
General public issues	2.1	2.1	2.1	2.2	2.2	-0.1
State and municipal debt service	0.6	0.6	0.7	0.8	0.9	0.1
National defense	2.7	3.0	3.1	3.8	4.4	0.6
National security and law-enforcement	2.9	3.0	2.8	2.5	2.3	-0.1
National economy	4.9	4.6	5.7	4.5	4.5	0.0
Housing and community amenities	1.6	1.5	1.3	1.2	1.2	0.0
Environmental protection	0.1	0.1	0.1	0.1	0.1	0.0
Education	3.8	4.1	3.8	3.6	3.6	0.0
Culture and mass media	0.7	0.7	0.7	0.6	0.6	0.0
Health and sports	3.7	3.6	3.5	3.7	3.9	0.2
Social policies	11.0	11.8	10.6	12.1	12.2	0.1

Sources: Federal Treasury, Rosstat, Gaidar Institute own calculations.

Commenced even in 2011, increased spending for ‘National Defense’ continued. In 2016, growth came to 0.6 percentage point of GDP and was driven by the implementation of state armaments program designed for 2011–2020 coupled with the introduction of a new system of military compensation and war pensions. Moreover, in November 2016, the Law on the Federal Budget for 2016 was amended triggering noticeable growth of spending for ‘National Defense’ (by RUB 740bn, in more detail see below). Additionally, in 2016, expenditure of the enlarged government for ‘Health and Sports’ went up by 0.2 percentage point on 2015. Increased expenditure for this budget item reflected spending growth of health care in nominal terms by 9.2% on 2015 and physical culture and sports by 2.9%. The most noticeable growth of expenditure for health care was due to provision of outpatient care, which grew by 7.4% in nominal terms against 2015. In more detail, we analyze factors affecting dynamics of expenditure for health care when we look at the budget of the mandatory medical insurance federal fund.

In 2016, spending for ‘Social Policy’ grew by 0.1 percentage point against 2015. In 2016, we can talk about the containment of social expenditure due to lump sum indexation of pensions by 4% (since April 1) meanwhile in 2015 it was done twice. This being said, the amount of other social benefits was indexed in line with the real inflation level recorded in 2015.

In 2016, expenditure for ‘Service of State and Municipal Debt’ also went up by 0.1 percentage point of GDP.

Meanwhile, regarding a number of budget items there was a small reduction of spending in shares of GDP – ‘General Public Issues’ by 0.1 percentage point of GDP and ‘National Security and Law Enforcement’ by 0.1 percentage point of GDP. Regarding other budget items, budget expenditure of the enlarged government in percent of GDP remained at the level of the previous year.

The ratio of “productive” (human capital and infrastructure) and “unproductive” outlays was in favor of unproductive expenses in 2016 in the enlarged government budget, first of all, owing to increasing spending for ‘National Defense’ as well as weak growth of spending on social policy.

Deficit of Russia’s budgetary system

At year-end 2016, the volume of deficit of the enlarged government amounted to 3.7% of GDP up 0.3 percentage points of GDP against 2015 3.4% of GDP). As was mentioned above, the deficit of the enlarged government has been growing since 2013. *Table 11* provides sources for financing the budget deficit of the enlarged government in 2012–2016.

Table 11

Sources for financing budget deficit of budgets in Russia in 2012–2016, as % of GDP

	RUB bn					% GDP				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Sources for financing deficit of budgets, total	-263	849	845	2 814	3 142	-0.4	1.2	1.1	3.4	3.7
Sources for internal financing of deficit of budgets	-281	797	992	3 110	3 127	-0.4	1.1	1.3	3.7	3.6
State securities	550	436	1 016	9	524	0.8	0.6	1.3	0.0	0.6
Loans of credit institutions	162	283	217	102	-103	0.2	0.4	0.3	0.1	-0.1
Change in budget account balances	-923	-715	-3 047	1 339	3 492	-1.4	-1.0	-3.8	1.6	4.1
Other sources	-70	793	2 805	1 660	-786	-0.1	1.1	3.5	2.0	-0.9
Sources for external financing of deficit of budgets	18	52	-147	-296	15	0.0	0.1	-0.2	-0.3	0.02
State securities	164	185	-47	-183	110	0.2	0.3	-0.1	-0.1	0.1
Loans of foreign states	-26	-22	-25	-51	-17	0.0	0.0	0.0	-0.1	0.0
Loans of credit institutions in foreign currency	0	-1	0	0	-28	0.0	0.0	0.0	0.0	0.0
Other sources	-119	-110	-74	-63	-50	-0.2	-0.2	-0.1	-0.1	-0.1

Sources: Federal Treasury, Gaidar Institute own calculations.

The most part of the deficit of the enlarged government in 2016 was financed from internal sources – around RUB 3,127bn (3.6% of GDP), and from external sources – solely RUB 15bn (0.02% of GDP). We can also stress that for the first time since 2013, there was a surplus balance as a whole both on sources of financing the deficit in foreign currency, and securities denominated in foreign currency.

A significant part of funds obtained from internal sources for financing deficit in 2016 – around RUB 3,492bn or 4.1% of GDP – came from item “Change in budget account balances”. Mainly, this item is formed from the funds of the Reserve Fund (see below).

* * *

Overall in 2016, analysis of the budget parameters of the enlarged government demonstrates that the growth of public expenditure slowed down somewhat. Nevertheless, as in 2015, it exceeded the revenue part, which triggered further increase of the budget deficit. This fact urges further reduction of the deficit in order to avoid significant risks for budget and macroeconomic sustainability. Additional issue is the fact that the deficit growth was accompanied by non-production expenses, first of all, due to build-up of spending on defense as well as somewhat growth of interest expenses and social policy spending.

2.2.2. The characteristic features of the federal budget¹

The specific features of the budgeting process at the federal level

In 2016, certain amendments were made to RF legislation, whereby the specific features of the budgeting process at the federal level were determined. In particular, the alterations introduced by Federal Law No 71-FZ dated May 30, 2016 '*On Suspending Paragraph Four of Item 2 of Article 179 of the Budget Code of the Russian Federation*' are designed to optimize the procedures for adjusting government (municipal) programs. With due regard for the complicated economic situation, the provision of the Budget Code of the Russian Federation (hereinafter to be referred to as RF BC) whereby all government (municipal) programs were to be brought in conformity with the budget law (or budget decision) by April 1, 2016 was suspended for one more year (until January 1, 2017).

In the course of the approval of the federal budget for 2017 and the planning period 2018–2019, it was decided to switch over to three-year budget planning. In this connection it is noteworthy that the decisions concerning the timelines for considering a new draft law and the amendments to the current law on the federal budget for 2016 were influenced by the State Duma election. In order to ensure the adoption of the federal budget for 2017–2019 by the newly elected State Duma, the election date was moved to September. Meanwhile, just as it had done in 2015, the Government of the Russian Federation submitted its draft law with a one-month delay (by November 1, and not by October 1). Thus, in particular, it was the specific purpose of *Federal Law No 158-FZ dated June 2, 2016 'On Suspending Some Provisions of the Budget Code of the Russian Federation and Introducing Alterations into Some Legislative Acts of the Russian Federation'* to optimally organize the budgeting process and to create adequate conditions for the State Duma of the seventh convocation to consider the draft laws on the federal budget and the budgets of government extrabudgetary funds for 2017–2019. Federal Law No 158-FZ created the legal foundation for the Government of the Russian Federation to submit these draft federal laws to the State Duma by November 1, 2016. Another important point is that Federal Law No 158-FZ envisaged the suspension, until January 1, 2017, of the provisions stipulated in Article 199 of the RF BC, whereby the budgetary rule for federal budget was established.

Federal Law No 409-FZ dated November 30, 2016 '*On the Introduction of Alterations into the Budget Code of the Russian Federation and Recognizing Some Provisions of the Legislative Acts of the Russian Federation to be Null and Void*' was adopted in order to provide proper legal conditions for preparing the draft federal law on the federal budget for 2017 and the planning period 2018–2019, and also to consolidate the possibility for prompt redistribution, whenever necessary, of budget allocations to special expenditure functions. By that Federal Law, the norms stipulated in paragraph eight of Item 3 of Article 184.1; paragraph five of Item 2 of Article 199; and the norm stipulated in Article 205 of the RF BC concerning the approval, as part of basic budget targets, of conditionally approved expenditure items, are to be suspended until January 1, 2017, in order to ensure the established ceiling for federal budget deficit in the federal budget for 2017–2019.

¹ Authors of chapter: A. Mamedov – Gaidar Institute, IAES RANEPa; T. Tischenko – Gaidar Institute; E. Fomina – Gaidar Institute, IAES RANEPa; A. Khuzina – IAES RANEPa.

It should also be noted that the *Main Directions of Budgetary Policy for 2017–2019* had been prepared by the RF Ministry of Finance very shortly before the draft law was submitted to the State Duma, which is indicative of the formal (technical) role of such documents.

We can also point out several specific features of the budgeting process that have to do with the law on the federal budget for 2016. To begin with, this is the first time since the switchover to a three-year budget at the federal level (from the period 2008–2010 onwards) that the budget was initially adopted for a period of one year only without approved planning-period targets. Secondly, the law was amended only once while the budget for 2017–2019 was being discussed and approved.

The basic parameters of the federal budget

As demonstrated by the year-end results of 2016, RF federal budget revenue amounted to 15.7% of GDP, which is 0.7 pp of GDP below the corresponding figure for 2015 (the plunge did not exceed 1.5% in nominal terms – see *Table 12*). The downward movement of aggregate federal budget revenue was caused by the radical shrinkage of its oil and gas component, which in 2016 shrank by 17.4% even in nominal terms, and by 1.4 pp as a percentage of GDP. At the same time, an even deeper plunge was avoided thanks to the noticeable growth in the amount of non-oil and gas revenues: over the year 2016, that component increased by 0.7 pp of GDP (or by 10.5% in nominal terms).

Table 12

The main parameters of the federal budget over the period 2012–2016, % of GDP

	2012	2013	2014	2015	2016			Change in 2016 relative to 2015, pp of GDP
					2016 Federal Budget Law*	2016 Federal Budget Law, as amended**	actual	
Revenue	19.2	18.3	18.6	16.4	17.5	16.1	15.7	-0.7
<i>Including:</i>								
oil and gas revenues	9.8	9.3	9.7	7.0	7.7	5.8	5.6	-1.4
non-oil and gas revenues	9.4	9.0	8.9	9.4	9.8	10.4	10.0	0.6
Expenditure	19.3	18.8	19.0	18.8	20.5	19.8	19.1	0.3
Deficit (-) / surplus (+)	-0.1	-0.5	-0.4	-2.4	-3.0	-3.7	-3.4	-1.0
non-oil and gas deficit	-9.9	-9.8	-10.1	-9.4	-10.7	-9.3	-9.1	-0.3
<i>GDP, RUB bn</i>	<i>66,927</i>	<i>71,055</i>	<i>77,893</i>	<i>83,233</i>	<i>78,673</i>	<i>82,815</i>	<i>85,881</i>	
<i>Price of Urals, USD/ barrel</i>	<i>110.6</i>	<i>108.0</i>	<i>97.6</i>	<i>51.2</i>	<i>50.0</i>	<i>41.0</i>	<i>41.9</i>	

* Federal Law No 359-FZ dated December 14, 2015 'On the Federal Budget for 2016'.

** As amended on 22 November 2016 by Federal Law No 397 FZ.

Sources: Federal Treasury; Rosstat; Gaidar Institute own calculations.

Federal budget expenditure executed over 2016 amounted to 19.1% of GDP, which is 0.3 pp of GDP above the corresponding index for 2015 (in nominal terms, it increased by 5%). This growth in expenditure was contributed to by an increase in both interest and non-interest spending: the growth of expenditures related to public debt servicing amounted to 19.8%, and that of non-interest expenditures – to 4.6%. A more detailed discussion of the movement patterns of different expenditure functions follows later in our review.

The year 2016 saw a continuation of the increase in the federal budget deficit, which climbed to 3.4% of GDP, thus overshooting its 2015 level by 1.0 pp of GDP. At the same time, the non-oil and gas deficit kept on decreasing, thus continuing the downward trend that began as far back as 2015: it amounted to 9.1% of GDP, which represented a 0.3-pp-of-GDP drop on 2015. In other words, in recent years the dependence of the federal budget on the situation in global

energy markets has been *de facto* steadily declining. Thus, the share of oil and gas revenues in total federal revenue was steadily on decline: from 51% in 2014, to 43% in 2015, to 35% in 2016. This fledging trend is strongly related to a considerable shrinkage of Russia's oil and gas revenues and, correspondingly, of their share of GDP. Thus, while GDP growth in nominal terms by the year-end of 2016 had amounted to 3.2%, production growth under the *Mineral Resources Extraction* section of the federal budget had been only 1.4%, which resulted in a shrinkage of its relative share in the structure of GDP by 0.2 pp. At the same time, gross value added in terms of physical volume under the *Mineral Resources Extraction* section of the federal budget gained 0.2% in 2016, while GDP in terms of physical volume over the same period lost 0.2%. Thus, the shrinkage of the relative share of *Mineral Resources Extraction* in GDP had been caused by the unfavorable behavior of export prices for energy carriers.

Traditionally, the planned targets in a new budget are based on the most conservative version of a macroeconomic forecast; on the one hand, this approach makes it easier to execute the budget, while on the other, it imposes certain constraints on the possibility to influence economic development through budgetary policy. However, in 2016, even the most conservative forecast proved to be too optimistic. Some of the basic macroeconomic parameters plunged below their forecasted values: the price of oil (USD 41.6 per barrel instead of USD 50 per barrel); GDP growth rate (-0.2 instead of +0.7%); and inflation (5.4 instead of 6.4%). These developments made it necessary to correspondingly adjust all basic parameters of the federal budget, which resulted in a budget deficit growth exceeding the initial estimate of 3% of GDP (*Table 12*). This suggests that macroeconomic forecasting can be partially used as a tool for forming the 'targeted' budget parameters and for adjusting the budget in the phase of its adoption (in order to ensure the observance of all norms of the RF Budget Code), while further budget adjustment may be done later, in the course of budget execution, which clearly reduces the transparency of the budgeting process as a whole.

When considering the issue of ensuring a balanced federal budget, it is important to note that the federal budget for 2016 would have been balanced if the average crude oil price had stood within the USD 107–110 per barrel range. It should be reminded that the federal budget for 2008 had been balanced at the average annual oil price of 57.5 USD per barrel. This discrepancy shows that over the period 2008-2016, Russia considerably increased her budget expenditure; and it also indicates a huge growth in budget risks associated with the high volatility and weak predictability of world prices for energy carriers.

The main revenue sources

As far as their volumes and composition are concerned, the parameters of execution of the revenue side of the federal budget for 2016 are presented in *Table 13*. In 2016, the aggregate revenue of the federal budget dropped by 0.7% relative to 2015. The dynamics of the revenue side of the federal budget continues to be determined by the size of oil and gas receipts, despite the emergence of a trend towards lessening the budget's dependence on MET and export duties on crude oil and petroleum products. Thus, in 2016, oil and gas revenues declined by 1.4 pp of GDP relative to 2015. At the same time, the non-oil and gas component of the revenue side of the federal budget increased by 0.7 pp of GDP, which made it possible for the budget to partly compensate for the decline in its oil and gas component.

On the whole, the decline in Russia's oil and gas revenues in 2016 was caused by a considerable fall in world oil prices, and it should be added that the aforesaid budget losses were partly compensated for by the ruble's weakening against the US dollar. As regards the

composition of the oil and gas revenues in the federal budget for 2016, it is obvious that the lion's share of them was generated by MET, while the share of export duties had been declining since 2015 (as a result of the implementation of the 'tax maneuver'). As indicated earlier, the volume of revenues from MET shrank by 0.5 pp of GDP relative to 2015, whereas the drop in revenues from export duties was almost twice as large – 0.9 pp of GDP). Revenues from export duties on energy carriers could have fallen even more significantly than that, if the legislative authorities had had not taken the decision that the basic rate should remain at its 2015 level. These legislative changes, which in fact violated the very logic of the 'tax maneuver', noticeably conduced to alleviating the federal budget losses caused by the drop in oil prices.

Table 13

**The main tax receipts in the federal budget over the period
2012–2016**

	% of GDP					Change in 2016 relative to 2015, pp of GDP
	2012	2013	2014	2015	2016	
Revenue, total	19.2	18.3	18.3	16.4	15.7	-0.7
Oil and gas revenues	9.6	9.2	9.4	7.0	5.6	-1.4
<i>including:</i>						
MET	3.6	3.5	3.6	3.8	3.3	-0.5
export duties	6.1	5.7	5.8	3.3	2.3	-0.9
Non-oil and gas revenues	9.6	9.1	8.9	9.4	10.0	+0.7
<i>including:</i>						
Corporate profit tax	0.6	0.5	0.5	0.6	0.6	0.0
VAT on goods sold in RF territory	2.8	2.6	2.8	2.9	3.1	+0.2
VAT on goods imported into RF territory	2.5	2.4	2.2	2.1	2.2	+0.1
Excises on goods produced in RF territory	0.5	0.6	0.7	0.6	0.7	+0.1
Excises on goods imported into RF territory	0.1	0.1	0.1	0.1	0.1	0.0
import duties	1.1	1.0	0.8	0.7	0.6	0.0
export duties	0.2	0.2	0.2	0.1	0.1	0.0

Sources: Federal Treasury; Gaidar Institute own calculations.

The growth of the non-oil and gas revenues of the federal budget was associated with a notable rise in revenues from a number of taxes as well as in non-tax revenues, resulting from the receipt of additional revenues from the partial privatization of Public Joint Stock Company *Rosneft Oil Company* (about RUB 70bn). Tax revenues from the sale of goods in the territory of the Russian Federation increased by 0.2 pp of GDP, while revenues from VAT on imports and 'domestic' excise taxes grew by 0.1 pp of GDP. In 2016, the volume of revenues from import duties, corporate income tax, excise taxes on imports, and customs duties on exports (apart from the oil and gas component) remained at its 2015 level.

The expenditure side of the federal budget

In 2016, the volume of federal budget expenditure amounted to 19.1% of GDP, which represented a rise by 0.3 pp of GDP relative to 2015 (in nominal terms, expenditure increased by 5.1% – see *Table 14*). The rise in expenditure involved both interest and non-interest expenditures. The rise in interest expenditures (+19.8%) was due to a significant increase in expenditures on external debt servicing (+28%), while the growth rate of domestic debt servicing was much smaller (+1%). One of the factors behind the increase in debt servicing was the build-up of debt in 2016: in 2015, the volume of domestic debt declined by 1.1%, while over the course of 2016 its nominal growth amounted to 4% (for more details, see below). Yet another factor was a slight increase in interest rates.

Table 14

**Federal budget expenditure over the period 2015–2016
(by-function distribution of federal budget expenditure)**

	2015	2016	Change		Budget execution, relative to approved annual budget projections, %		Deviation of implementation of annual targets in 2016 from that in 2015, %
	% of GDP	% of GDP	nominal growth rate, %	pp of GDP	2015	2016	
Expenditure total, including:	18.8	19.1	5.1	0.3	98.5	98.7	+0.2
Nationwide issues	1.3	1.3	-2.0	-0.1	98.6	97.1	-1.5
National defense	3.8	4.4	18.7	0.6	99.8	99.2	-0.6
National security and law enforcement activity	2.4	2.2	-3.4	-0.2	98.8	100.4	+1.6
National economy	2.8	2.7	-1.0	-0.1	96.5	95.9	-0.6
Housing and community amenities	0.2	0.1	-50.0	-0.1	98.0	95.5	-2.5
Environmental protection	0.1	0.1	26.9	0.0	99.4	99.6	+0.2
Education	0.7	0.7	-2.1	0.0	99.2	99.1	-0.1
Culture, cinematography	0.1	0.1	-2.9	0.0	99.8	96.3	-3.5
Healthcare	0.6	0.6	-1.9	0.0	97.8	97.6	-0.2
Social policies	5.1	5.3	7.6	0.2	99.6	99.7	+0.1
Physical culture and sports	0.1	0.1	-18.3	0.0	97.8	88.7	-9.1
Mass media	0.1	0.1	-6.7	0.0	99.9	99.9	0.0
Government debt servicing	0.6	0.7	19.8	0.1	87.5	97.1	+9.6
Inter-budgetary transfers	0.8	0.8	-1.5	0.0	99.7	99.8	+0.1

Sources: Federal Treasury; Gaidar Institute own calculations.

When analyzing the data presented above it can be seen that the growth in the total volume of federal expenditures over the course of 2016 was mainly due to a rise in the government spending under the *National Defense* section by 0.6 pp of GDP (or by 18.7% in nominal terms). In 2016, government spending under the *Social Policies* section of the federal budget increased by 0.2 pp of GDP (or by 7.6% in nominal terms) relative to 2015. The aforesaid growth in social expenditure was largely due to a significant increase in expenditures on pension provision (which grew by 11% in nominal terms).

At the same time, there was a decrease in the amount of funding designated to some expenditure lines. Government spending under the *National Economy* section of the federal budget declined by 0.1 pp of GDP (or by 1% in nominal terms), while government spending under the *National Security and Law-Enforcement Activity* section decreased by 0.2 pp of GDP (or by 3.4% in nominal terms).

When expressed in percentage points of GDP, government spending under the other major functional sections of the federal budget remained practically unchanged relative to 2015.

It should be noted that the dynamics of spending under the *National Defense*, *Social Policies*, and *National Economy* sections of the federal budget was strongly influenced by the amendments introduced to the federal law on the federal budget for 2016 in November 2016. As a result of those amendments, budget allocations were redistributed among various expenditure items of the federal budget, and the volume of expenditure was increased by RUB 304bn by comparison with the previously approved one. This growth in expenditure was associated with the rise in allocations to *National Defense* (by RUB 740bn) and *Social Policies* (by RUB 177bn). The aforesaid rise in defense spending was mainly determined by the allocation of funds to military-industrial complex enterprises for the purpose of repaying their previous bank loans with payback periods expiring in 2016–2018. The allocation of the whole payback amount in 2016 was intended to reduce the corresponding expenditure in 2017–2018. The increase in government spending under the *Social Policies* section of the federal budget

was largely determined by the rise in government spending on pension provision. At the same time, the introduced amendments resulted in a decrease in the amount of funding designated to some expenditure lines. The most significant decline in funding (by RUB 427bn) was suffered by the *National Economy* section of the federal budget.

The federal budget for 2016 comprised a number of additional norms that permitted to use the budget's undistributed reserves in the course of its execution. In particular, the budget included a budget reserve fund designed to finance the implementation of additional measures aimed at supporting individual branches of the economy (within the framework of the government's 'anti-crisis plan'), providing social support for citizens and rendering financial assistance to the Russian Federation's subjects. This budget reserve fund amounted to RUB 65bn (with the possibility of being increased by RUB 150bn at the expense of the previous federal budget's surpluses left unspent by the beginning of 2016). The budget also envisaged the possibility of using up to RUB 342.2bn upon the RF President's or the RF Government's decision (in the situations specified in the instructions of the RF President). These norms, which considerably increased the share of reserved funds, conducted to a decrease in the transparency of the federal budget, which had been already not too high as it was due to the existence of a significant proportion of 'closed' (or classified) articles of the federal budget.

Table 14 also presents data on the execution of the expenditure side of the federal budgets for 2015–2016 relative to the approved annual budget projections. As far as these data are concerned, it can be noted that in 2016, the proportion of the executed annual budget over the approved one amounted to 98.7%, which represents a 0.2 pp rise relative to 2015. The most significant growth in the aforesaid proportion was registered with regard to the following two sections of the federal budget: *Government Debt Servicing* (by 9.6 pp) and *National Security and Law Enforcement* (by 1.6 pp). However, some of the budget functions were executed in a much lesser proportion relative to their annual targets: *Physical Culture and Sports* (by 9.1 pp); *Culture and Cinematography* (by 3.5 pp); *Housing and Community Amenities* (by 2.5 pp); and *Nationwide Issues* (by 1.5 pp).

The amount of federal budget expenditure allocated to the implementation of government programs (GP) in 2016 (*Table 15*) was RUB 8,700bn or 10.1% of GDP, which was a step down by 0.2 pp of GDP relative to 2015. The share of program budgeting in the total volume of federal budget expenditure for 2016 shrank to 52.9% vs. 55.0% in 2015; meanwhile, the share of unclassified items in the total volume of expenditure allocated to the implementation of government programs in 2016 did not change relative to the previous year (89%).

Table 15

**Federal budget expenditure over the period 2015–2016
(by-function classification)**

Government program title	2015 (actual)		2016 (actual)		Change in 2016 relative to 2015	
	RUB bn	% of GDP	RUB bn	pp of GDP	in nominal terms, %	pp of GDP
1	2	3	4	5	6	7
Expenditure allocations for government programs	8,594	10.3	8,700	10.1	1.2	-0.2
- including non-classified program budgeting	7,714	9.3	7,763	9.0	0.6	-0.2
- including budgeting directions:						0.0
New quality of life block, including:	3,341	4.0	3,411	4.0	2.1	0.0
GP Development of education	447	0.5	429	0.5	-4.0	0.0
GP Development of healthcare	378	0.5	375	0.4	-0.8	0.0

Cont'd

1	2	3	4	5	6	7
GP Social support for citizens	1,147	1.4	1,208	1.4	5.3	0.0
GP Public order maintenance and crime prevention	839	1.0	841	1.0	0.2	0.0
<i>Innovative development and modernization of the economy block, including:</i>	2,161	2.6	2,150	2.5	-0.5	-0.1
GP Economic development and innovative economy	127	0.2	98	0.1	-22.8	0.0
GP Development of science and technology	150	0.2	147	0.2	-2.0	0.0
GP Development of industry and improvement of its competitive capacity	168	0.2	230	0.3	36.9	0.1
GP Development of transport system	830	1.0	825	1.0	-0.6	0.0
GP Development of agriculture and regulation of agricultural products, raw materials and foodstuffs	222	0.3	218	0.3	-1.8	0.0
GP Russia's outer space activities	170	0.2	192	0.2	12.9	0.0
<i>Balanced regional development block, including:</i>	714	0.9	854	1.0	19.6	0.0
GP Socioeconomic development of Crimean Federal Okrug	94	0.1	112	0.1	19.1	0.0
GP Development of federative relations and creation of conditions for efficient and responsible management of regional and municipal finance	659	0.8	665	0.8	0.9	0.0
<i>Efficient government block, including:</i>	1,267	1.5	1,337	1.6	5.5	0.0
GP Management of state finance and regulation of financial markets	785	0.9	878	1.0	11.8	0.1
<i>Expenditures on implementation of government programs (classified budgeting)</i>	<i>880</i>	1.1	<i>937</i>	1.1	<i>19.1</i>	0.0

Sources: Federal Treasury; Gaidar Institute own calculations.

As far as the four major expenditure lines of the government programs are concerned, their dynamics in 2016 and the main changes therein as compared to 2015 were as follows:

– government spending on the *New Quality of Life* block remained practically unchanged, at around 4.0% of GDP. When expressed as a share of GDP, the volume of budget funding for the government programs *Development of Healthcare*, *Development of Education*, *Social Support for Citizens* and *Public Order Maintenance and Crime Prevention* also remained practically without any change. When expressed in nominal terms, the amount of funding designated to this expenditure line changed only insignificantly, within the range between -4% (*GP Development of Education*) and +5.3% (*GP Social Support for Citizens*);

– government spending on the *Innovative Development and Modernization of the Economy* block declined by 0.1 pp of GDP, to 2.5% of GDP. The volume of budget funding for the government program *Development of Industry and Improvement of Its Competitive Capacity* increased by 36% in nominal terms, or by 0.1 pp of GDP. When expressed as a share of GDP, the volume of spending on the other government programs remained unchanged, while slightly decreasing in nominal terms;

– government spending on the *Balanced Regional Development* block grew by 19.6% in nominal terms, or by 0.1 pp of GDP. At the same time, the volume of budget funding for the government program designed to promote the socioeconomic development of the Crimean Federal Okrug went up in nominal terms, while spending on the government program *Development of Federative Relations and Creation of Conditions for Efficient and Responsible Management of Regional and Municipal Finance* was increased by a mere 0.9%.

– government spending on the *Efficient Government* block did not change in terms of a share of GDP, while in nominal terms it slightly increased – by 5.5%. At the same time, the volume

of funds allocated to the government program *Management of State Finance and Regulation of Financial Markets* gained 11.8% in nominal terms, or 0.1 pp of GDP.

Most of the increase in the non-classified program and non-program expenditures was associated with the growth in budget allocations to 'long-lasting' undertakings, such as the inter-budgetary transfers to the Pension Fund, the normative legal liabilities to step up payment for labor, and other social payments.

Among other things, the *Institutional Classification of Budget Expenditures* makes it possible to analyze the regularity and the degree of budget expenditure implementation with regard to individual ministries and institutions. *Table 16* shows a list of 10 chief budget funds managers (CBFMs) with the least year-end indices of expenditure implementation relative to the annual targets for 2016.

Table 16

CBFMs with the least degree of budget expenditure implementation relative to annual targets, year-end indices for 2016

No	CBFMs	CBFM code	Budget execution, %	
			2015	2016
1	Federal Space Agency	259	91.7	58.5
2	Federal Agency for Ethnic Affairs	380	95.9	67.1
3	Federal Agency for Air Transport	107	76.3	70.9
4	RF Ministry of Justice	318	91.0	86.9
5	RF Ministry of Economic Development	139	96.4	88.1
6	RF Ministry of Sport	777	97.9	88.8
7	State Duma of the Federal Assembly of the Russian Federation	330	97.0	91.9
8	Executive Office of the President of the Russian Federation	303	97.7	92.2
9	Federal Agency for Mineral Resources	49	99.0	93.1
10	Federal Water Resources Agency	52	85.9	93.5

Sources: Federal Treasury; Gaidar Institute own calculations.

Special attention should be drawn to the fact that, judging from their 2016 year-end results, six out of the ten analyzed CBFMs had budget execution rates well below 90%. It is also important to note that in 2016, nine out of the aforesaid ten institutions displayed budget execution rates much smaller than they had been in 2015. Only one out the ten CBFMs (the Federal Water Resources Agency) increased its annual budget execution rate (by 7.6 pp) as of year-end 2016. The most noticeable decline in the budget execution rate was shown by two CBFMs, the Federal Space Agency (by 33 pp) and the Federal Agency for Ethnic Affairs (by 29 pp). The remaining seven CBFMs saw their budget execution rates drop by 4–9 pp relative to 2015.

Deficit and debt at the federal level

The volume of federal budget deficit in 2016 amounted to RUB 2,956bn, or 3.4% of GDP (the corresponding indices for 2015 are RUB 1,955bn and 2.3% of GDP respectively), which is the record high of several recent years in a row. *Table 17* presents data concerning the sources of federal budget deficit financing in 2012–2016.

In 2016, most of the funds spent on financing the federal budget deficit came from domestic sources (RUB 2,914bn, or 3.4% of GDP), while external sources provided just RUB 43bn (or 3.4% of GDP) for that purpose.

Table 17

The sources of federal budget deficit financing over the period 2012-2016

	In absolute terms, RUB bn					% of GDP				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Sources of deficit financing, total	37	323	334	1,955	2,956	0.1	0.5	0.4	2.3	3.4
Deficit financing from domestic sources	19	270	480	2,251	2,914	0.0	0.4	0.6	2.7	3.4
government securities	511	358	1,025	15	492	0.8	0.5	1.3	0.0	0.6
movement of residuals	-470	-951	-3,248	954	3 506	-0.7	-1.3	-4.1	1.1	4.1
other sources	-22	863	2,703	1,282	-1,085	0.0	1.2	3.4	1.5	-1.3
Deficit financing from external sources	18	53	-147	-296	43	0.0	0.1	-0.2	-0.4	0.0
government securities	164	185	-47	-183	110	0.2	0.3	-0.1	-0.2	0.1
credits granted by foreign states	-26	-22	-25	-51	-17	0.0	0.0	0.0	-0.1	0.0
other sources	-119	-110	-74	-63	-50	-0.2	-0.2	-0.1	-0.1	-0.1

Sources: Federal Treasury; Gaidar Institute own calculations.

A considerable part of the funds from domestic sources spent on financing the federal deficit (approximately RUB 3,506bn, or 4.1% of GDP) was provided under the article *Changes in the Resulting Balances of the Budgetary Control Accounts*, which largely has to do with operations involving the use of the Reserve Fund, which accounted for covering about 70% of the deficit. As a result, over the course of 2016, the Reserve Fund dwindled by 59% (or by 73%, if exchange rate changes are taken into account).

The resulting account balance for 2016 related to the article *Other Sources* amounted to RUB 1,085bn (1.3% of GDP). The volume of deficit financing raised by issuing government securities amounted to around RUB 492bn (0.6% of GDP).

Table 18 shows the changes undergone by the composition of the government debt of the Russian Federation in 2012–2016.

Table 18

Government debt of the Russian Federation over the period 2012–2016

	RUB bn					% of GDP				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
RF domestic debt, RUB bn	4,978	5,722	7,241	7,308	8,003	7.4	8.1	9.1	8.8	9.3
<i>less government guarantees, RUB bn</i>	4,071	4,432	5,476	5,573	6,220	6.1	6.2	6.9	6.7	7.2
RF foreign debt										
RUB bn, at RF CB's exchange rate	1,542	1,822	3 057	3,644	3,106	2.3	2.6	3.9	4.4	3.6
<i>less government guarantees, RUB bn</i>	1,196	1,450	2 377	2,779	2,395	1.8	2.0	3.0	3.3	2.8
Total, RUB bn	6,520	7 544	10,298	10,954	11,110	9.7	10.6	13.0	13.2	12.9
<i>less government guarantees, RUB bn</i>	5,267	5,882	7,853	8,354	8,615	7.9	8.3	9.9	10.0	10.0

Source: RF Ministry of Finance; Gaidar Institute own calculations.

The aggregate year-end 2016 government debt of the Russian Federation amounted to 12.9% of GDP vs. 13.2% of GDP a year earlier. The change in the amount of government debt was caused by Russia's domestic debt having been increased by 0.5 pp of GDP against the background of a 0.8 percentage point drop in the amount of external debt (recalculated in rubles in accordance with the official exchange rate of the ruble set by the Central Bank). In 2016, the amount of government guarantees contained in the federal budget did not exceed 2.9% of GDP.

It can be noted that the slight shrinkage in the volume of government guarantees relative to early 2016 (3.1% of GDP) marked a halt in the continual growth trend visible since 2012 (when the volume of government guarantees had amounted to 1.9% of GDP).

It can be said with confidence that the year 2016 saw a notable change in the composition of the aggregate government debt of the Russian Federation, which shifted in favor of its domestic component: over the course of 2016, the share of domestic debt soared to 72% relative to 67% a year earlier. Such changes in debt composition are known to be conducive to budget sustainability in general, because Russia's domestic debt is denominated in the national currency, which decreases the risk of a sharp increase in debt servicing costs caused by the volatility of the ruble's exchange rate.

* * *

The role of the 2016 federal budget in the achievement of the planned socioeconomic policy goals is rather controversial. It cannot be called a development budget, because its 'productive' functions related to human capital and infrastructure were underfunded (in line with the stable trend observable over recent years). At the same time, the budget for 2016 could hardly be called a stabilization budget, either, because of the presence of a stable deficit (both total and primary deficit); to cover it, a substantial portion of the Reserve Fund was spent; the expenditures related to public debt servicing likewise notably increased. However, it should be understood that there are no simple recipes for dealing with that problem – given, moreover, the less than optimal structure of the previously assumed government spending obligations coupled with the currently unfavorable economic situation.

2.2.3. Intergovernmental fiscal relations and sub-national finance¹

Analysis of principal parameters of the consolidated budget of subjects of the Russian Federation

The revenue and expenditure structure of Russia's consolidated budget reflects main trends in the relationship between various public administration levels. *Fig. 20* presents data reflecting the percentage of tax revenues and expenditure of subjects of the Russian Federation in total tax revenues and expenditure of Russia's budget system (the consolidated budget of the Russian Federation and of public off-budget funds).

As shown in the Figure, 2016 saw a reversal trend toward centralization of revenue and expenditure at the federal level. In 2016, the percentage of sub-national budget expenditure in Russia's consolidated budget swelled to about 33.7% year over year (the data for the Republic of Crimea and the city of Sevastopol are hereinafter excluded for the purpose of comparability between time series). The percentage of regional tax revenues in the budget system revenues increased during the same period from 28.6% to 29.7%. To note, both indicators ultimately failed to reach the level of 2014 despite growth.

¹ Authors of chapter: I. Arlashkin – Gaidar Institute, IAES RANEPa; N. Barbashova – Gaidar Institute; A. Mamedov – Gaidar Institute, IAES RANEPa.

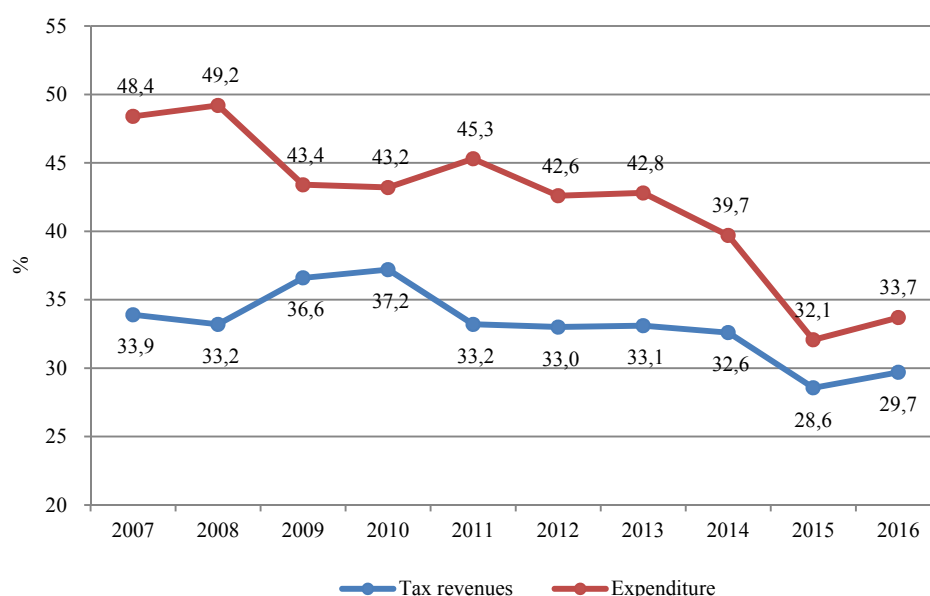


Fig. 20. Percentage of tax revenues and of sub-national budget expenditure in the Russian budget system revenue and expenditure structure in 2007/2016, %

Note. Excluding the Republic of Crimea and the city of Sevastopol.
Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

Let us now consider more carefully the revenue side of sub-national budgets. The dynamics of the principal components of consolidated budget revenues of subjects of the Russian Federation is shown in *Table 19*. The growth of revenues in real terms is shown in the right-hand column of the table.

Table 19

**Consolidated budget revenues of subjects of the Russian Federation
in 2012–2016**

	Revenues (in nominal terms), rubles in billions					Growth in real terms, %			
	2012	2013	2014	2015	2016	2013/2012	2014/2013	2015/2014	2016/2015
Revenues, total	8.064	8.165	8.743	9.191	9.785	-17.2	-3.8	-8.6	1.00
Tax and nontax revenues	6.385	6.588	7.141	7.585	8.238	-13.8	-2.7	-6.4	3.00
<i>Including tax revenues:</i>	5.800	5.967	6.461	6.890	7.493	-12.3	-2.8	-6	3.20
profit tax	1.980	1.720	1.962	2.099	2.272	-33.1	2.4	-5.2	2.70
personal income tax	2.261	2.499	2.679	2.788	2.803	-6.6	-3.7	-7.9	-4.60
taxes on aggregate income	272	293	314	346	385	19.8	-3.8	-2.7	5.60
property taxes	785	901	955	1.067	1.115	20.7	-4.8	-1.3	-0.90
excise duties	442	491	479	484	659	42.6	-12.4	-10.5	29.20
Transfers	1624	1.515	1.545	1.538	1.547	-24.1	-8.4	-18.5	-4.60
Other revenues	56	62	57	68	0	-75.1	-17.4	4.8	-100.00

Note. Excluding the Republic of Crimea and the city of Sevastopol.
Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

In 2016, consolidated budget revenues of subjects of the Russian Federation increased 1% year over year in real terms, as shown in *Table 19*. Note that both total and tax revenues were driven by positive dynamics in real terms in 2016 for the first time since 2012 (predominantly

on account of profit tax, taxes on aggregate income and excise duties), thereby indicating a somewhat upturn in the economy. Of special note, however, is the continuing trend toward declining personal income tax revenues in real terms, thereby indicating that individuals' wellbeing deteriorated in real terms even amid a slowing inflation rate. The 4.6% YoY decline in real terms in transfers from the federal budget affected predominantly the fiscal capacity of regions eligible for government grants.

Let us now consider more carefully tax and nontax revenues in terms of regions (*Table 20*).

Table 20

Russian regions classification according to change in main types of consolidated budget tax and nontax revenues of subjects of the Russian Federation in 2015 and 2016, in number.

	Main types of consolidated budget tax and nontax revenues of subjects of the Russian Federation											
	A growth of more than 25%		A growth of 10 to 25%		A growth of less than 10%		A decline of less than 10%		A decline of 10 25%		A decline of more than 25%	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
	in nominal terms											
Tax and nontax revenues, total	2	5	16	47	49	26	15	5	1	0	0	2
Profit tax	15	35	16	27	15	8	12	3	15	9	10	3
Personal income tax	0	1	4	11	56	71	23	2	0	0	0	0
	in real terms											
Tax and nontax revenues, total	2	0	0	15	9	49	48	16	24	3	0	2
Profit tax	9	29	6	23	10	11	19	8	21	8	18	6
Personal income tax	0	2	0	5	2	46	41	31	40	1	0	0

Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

A comparative analysis of the 2015–2016 dynamics of the main types of own-source revenues of regional budgets shows substantial growth in budget revenues, including figures in real terms. In real terms, tax and nontax revenues of 11 regions were driven by positive dynamics in 2015, while the number of such regions increased to 64 in 2016, that is, only 21 regions saw their revenues decline in real terms. At the same time, most of the revenues were generated from the profit tax. In real terms, profit tax revenues increased in 25 regions in 2015, with only 9 subjects of the Russian Federation experiencing a more than 25% growth, while 2016 saw profit tax revenues increase in real terms in 68 regions, with a growth rate being more than 25% in 29 subjects of the Russian Federation.

The following regions ranked at the top in terms of own-source revenue dynamics in 2016: The Republic of Crimea (29%), the city of Sevastopol (26%), the Chechen Republic (26%), Magadan Region (26%) and Ulyanovsk Region (27%). The following Russia's republics were top-ranked in terms of profit tax revenues: the Chechen Republic (173%), the Republic of Tyva (139%), the Republic of Ingushetia (100%).

Personal income tax revenues accelerated at a more moderate pace in 2016: growth rates varied within a range of 0 to 10% for the overwhelming majority of the regions (46 of 85).

There was a considerable decline in own-source consolidated budget revenues in some regions. In 2016, for instance, Sakhalin Region and Nenets Autonomous Okrug saw their annualized tax and nontax revenues decrease by 31% and 27% respectively, basically because the regional profit tax rate was cut to attract potential investors.

On the whole, it is worth noting that the situation with own-source sub-federal budget revenues in 2016 improved compared with the parameters seen in 2015. Most of the regions

exhibited growth of own-source revenues in real terms (55 regions in 2016 against 11 in 2015). At the same time, own-source revenue growth rates varied within a range of 0% to 10% in most of the subjects of the Russian Federation (49 of 85 regions). In 2015, most of the regions stood within a range of -10% to 0% (48 subjects of the Russian Federation). A slowing inflation rate was a positive factor influencing the consolidated budget figures (5.4% in 2016 against 12.9% in 2015). It must be emphasized that both regions with a well-developed economic base (Vologda Region) and subjects of the Russian Federation with a relatively low degree of revenue potential (The Republics of Crimea, of Ingushetia, of Tyva) exhibited substantial growth of tax revenues. The deepest decline in own-source revenues was recorded in regions that introduced tax allowances (Nenets Autonomous Okrug, Sakhalin Region), in which case the decline constitutes a development tool rather than the affect of the crisis. Thus the analysis of own-source revenues of the budget of subjects of the Russian Federation leads to a conclusion about an upturn in the Russian economy in 2016 compared with 2015.

We now analyze changes in the expenditure side of consolidated budget of subjects of the Russian Federation in 2016 (*Table 21*).

Table 21

**Consolidated budget expenditure of subjects of the Russian Federation
in 2015-2016**

	As % of total		As % of GDP		Growth, %	
	2015	2016	2015	2016	in nominal terms	in real terms
Nationwide issues	6.4	6.3	0.73	0.73	3.0	-2.3
National Security and Law Enforcement	1.1	1.1	0.13	0.13	8.9	3.4
National economy Including:	19.7	20.2	2.24	2.33	7.2	-5.1
Agriculture and fishery	3.3	2.8	0.38	0.32	-11.7	-16.2
Transport	4.2	4.4	0.48	0.51	9.7	4.1
public roads (road funds)	7.8	8.7	0.89	1.01	17.1	11.1
Other issues related to the national economy	2.4	4.3	0.27	0.49	86.3	76.8
Housing and communal services	9.0	9.4	1.03	1.09	9.7	4.1
Environmental protection	0.2	0.2	0.02	0.03	17.0	11.0
Education Including:	26.1	25.6	2.97	2.97	2.9	-2.3
pre-primary education	7.3	6.8	0.83	0.79	-2.4	-7.4
general education	14.6	14.7	1.66	1.70	5.6	0.1
secondary vocational education	2.0	1.9	0.23	0.22	0.9	-4.3
other issues related to education	1.3	2.2	0.15	0.26	77.9	68.8
Culture, cinematography	3.3	3.4	0.38	0.40	8.8	3.2
Healthcare	14.3	12.9	1.63	1.49	-5.5	-10.3
Social security policy	15.8	16.6	1.80	1.93	10.5	4.8
Physical culture and sports	2.0	2.1	0.23	0.25	11.7	6.0
Mass media	0.5	0.4	0.06	0.05	-8.7	-13.4
Municipal and public debt servicing	1.6	1.5	0.18	0.18	1.3	-3.9
Expenditures, total	100.0	100.0	11.39	11.57	4.8	-0.6

Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

The data presented in *Table 21* suggest that subjects of the Russian Federation exhibit a stable spending structure despite a small cut to budget financing of social industries, with healthcare and pre-primary education bearing most of the cuts, whereas there was a boost in spending on social security policy, physical culture and sports. As to the real economy, most of the cuts fell on the agricultural sector.

In the following, we consider the dynamics of key parameters of consolidated budgets of subjects of the Russian Federation, as measured as a percentage of GDP (*Table 22*).

Table 22

Dynamics of consolidated budget revenues and expenditure of subjects of the Russian Federation in 2012-2016, as % of GDP

	2012	2013	2014	2015	2016
Revenues	12.05	11.49	11.04	11.04	11.56
including:					
profit tax	2.96	2.42	2.48	2.52	2.65
personal income tax	3.38	3.52	3.38	3.35	3.51
federal budget transfers	2.15	2.13	2.17	1.85	1.90
Expenditure	12.47	12.39	12.76	11.39	11.57
Deficit (-) / Surplus (+)	-0.42	-0.9	-0.66	-0.23	-0.01
<i>For reference: GDP, rubles in billions</i>	66 927	71 055	79 200	83 233	85 881

Note. Excluding the Republic of Crimea and the city of Sevastopol.

Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

As shown in *Table 22*, regional budget revenues, including personal income tax and profit tax revenues, as well as federal budget transfers, as measured as a percentage of GDP, increased in 2016 over the level seen in 2015. Budget deficit reached a 5-year low in 2016.

Let us consider more carefully how subjects of the Russian Federation ran their consolidated budgets (with a deficit/surplus), as expressed in number of regions (*Table 23*).

Table 23

Execution (with a deficit/surplus) of consolidated budgets of subjects of the Russian Federation in the period between 2008 and 2016

Year	Number of subjects of the Russian Federation that ran a	
	budget deficit	budget surplus
2012	67	16
2013	77	6
2014	74	9
2015	75	8
2016	53	30

Note. Excluding the Republic of Crimea and the city of Sevastopol.

Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

The regional data also suggests an improvement in the equilibrium of consolidated budgets of the Russian Federation and in the regional finance as a whole.

Financial aid from the federal budget

In 2016, the total amount of federal budget intergovernmental transfers to regions contracted both in nominal terms (-2.2%) and as a percentage of GDP (-0.09 percentage points of GDP) compared with 2015 (*Table 24*). At the same time, the decline fell on intergovernmental fiscal transfers of all types, except budget capacity equalization grants and other intergovernmental fiscal transfers. However, the increase in budget capacity equalization grants (+0.02 percentage points of GDP) failed to compensate in full for fiscal equalization grant cuts (-0.04 percentage points of GDP). Subsidies bore most of the decline both in nominal terms and as a percentage of GDP. Subventions were cut insignificantly in nominal terms, while other intergovernmental fiscal transfers increased. The foregoing changes influenced the structure of federal financial aid to budgets of subjects of the Russian Federation. For instance, subsidies lost 2.9 percentage points in 2016 compared with 2015, whereas 1.3 percentage points were added to grants.

Table 24

Federal budget transfers to subjects of the Russian Federation in 2014-2016

	2014		2015		2016		YoY growth in 2016	
	rubles in billions	as % of total	rubles in billions	as % of total	rubles in billions	as % of total	nominal, %	percentage points of GDP
Transfers regions, total	1607	100	1603.6	100	1 567.8	100	-2.2	-0.09
Grants	774.7	48.2	650.9	40.6	656.2	41.9	0.8	-0.01
Including:								
budget capacity equalization grants	439.8	27.4	487.7	30.4	513.7	32.8	5.3	0.02
grants as support to budget equalization measures	334.9	20.8	163.2	10.2	131.7	8.4	-19.3	-0.04
Subsidies	409.9	25.5	400.2	25.6	356.5	22.7	-10.9	-0.06
Including:								
national economy development subsidies	241.9	15.1	258.2	16.1	231.9	14.8	-10.2	-0.04
Subventions	308.2	19.2	336.6	21	334.3	21.3	-0.7	-0.01
Other intergovernmental fiscal transfers	114.2	7.1	215.9	13.5	220.8	14.1	2.3	0.00

Sources: Federal Treasury of Russia, Rosstat, Gaidar Institute own calculations.

The change in the amount of subventions is indicative of sub-national budgets becoming more independent in exercising the delegated powers. At the same time, the number of subventions grew up to 30 (27 in 2015) in 2016, including 10 subventions to the Republic of Crimea and the city of Sevastopol, some of which duplicated subventions allocated to other subjects of the Russian Federation.

Subsidies made a substantial contribution (22.7%) to intergovernmental fiscal transfers to regions in 2016. Ninety eight types of subsidies were allocated in 2016, although the State Program of *The Development of Federal Relations and the Creation of Conditions for Efficient and Prudent Regional and Municipal Finance Management* (hereinafter – The State Program) contemplated a reduction in the number of subsidies to 86 in 2016. Thus no consolidation and optimization of the number of subsidies took place in 2016.

Although other intergovernmental fiscal transfers increased in nominal terms, they remained unchanged as a percentage of GDP, with growth (from 50 to 57) in the number of other intergovernmental fiscal transfers compared with 2015. In addition, account must be taken of a lack of transparency and formalization regarding the manner they are appropriated and allotted.

Reducing the percentage of targeted financial aid in federal transfers still remains one of the fiscal policy priorities. The percentage of grants in federal transfers to subjects of the Russian Federation increased as a whole, with the relevant State Program's indicator having been achieved. However, the indicator could not be achieved given the fact that grants as partial compensation for extra costs of increasing public employees' remuneration pertain largely to subsidies and not to grants.

It is worth noting that growth of the percentage of grants in the structure of intergovernmental fiscal transfers to regions was driven up largely by cutting targeted financial aid and by growth, albeit small, of nontargeted transfers. Growth of budget capacity equalization grants coupled with equilibrium grant cuts should be deemed to be a positive move because the latter are allotted in a much less transparent manner.

In analyzing the process whereby the federal authorities appropriate transfers to regions, it is important to consider the effect of federal aid on the differentiation of revenues of subjects of the Russian Federation by assessing the equilibrium features of the financial aid from the federal budget (Table 26).

Table 25

Percentage of grants in intergovernmental fiscal transfers

Indicator	2015	2016
Percentage of grants in intergovernmental fiscal transfers in accordance with the state program (plan), %	40.0	41.0
Percentage of grants in intergovernmental fiscal transfers (estimate), %	40.6	41.9
Percentage of grants in intergovernmental fiscal transfers, excluding grants as partial compensation for extra costs of increasing public employees' remuneration (estimate), %	36.9	39.9

Sources: Federal Treasury of Russia, the State Program of The Development of Federal Relations and the Creation of Conditions for Efficient and Prudent Regional and Municipal Finance Management, Gaidar Institute own calculations.

Table 26

Variation coefficient of regional consolidated budget revenues (per capita, having regard to budget expenditure index) in 2008–2016, %

Year	Tax revenues	Tax revenues and budget capacity equalization grants	Tax revenues, grants, subsidies
2012	66.1	57.8	51.9
2013	63.7	55.3	48.1
2014	59.0	51.2	49.9
2015	66.1	60.3	56.0
2016	55.6	42.1	37.3

Sources: Federal Treasury of Russia, Russia's Ministry of Finance, Gaidar Institute own calculations.

As shown in *Table 25*, differentiation of sub-national budget revenues decreased in 2016. The variation coefficient of tax revenues of consolidated budgets of subjects of the Russian Federation dropped from 66.1 to 55.6% mainly due to the plunge of tax revenues in Sakhalin Region in 2016. Given budget capacity equalization grants, the variation coefficient of regional budget revenues fell from 60.3 to 42.1%. Considering the result obtained after the appropriation of all grants and subsidies, the variation coefficient decreased to 37.3% (56% in 2015).

Deficit and debt at the regional level

Table 27 presents the structure of sources of financing of the consolidated budget deficit of subjects of the Russian Federation in 2011–2016.

Table 27

Sources of financing of consolidated budget deficit of subjects of the Russian Federation in 2012–2016, rubles in billions

	2012	2013	2014	2015	2016
Sources of deficit financing - total	278.5	642.0	447.8	171.6	12.6
Domestic sources of deficit financing	278.5	642.8	447.8	171.6	40.8
Government (municipal) securities	38.2	77.6	-9.2	-5.8	32.0
Credit institutions' loans	162.3	282.6	217.4	101.6	-102.6
Federal budget loans	5.0	43.0	169.3	167.4	181.6
International financial institutions' loans	0.0	2.2	-1.1	0.0	-0.6
Change in cash balances	-74.6	98.1	19.2	77.4	-32.0
Other sources	147.6	139.3	52.2	-168.9	-37.6
External sources of deficit financing	0.0	-0.8	0.0	0.0	-28.2

Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

The presented data show that, the consolidated budget of subjects of the Russian Federation faced a better situation than that seen in 2012–2015: the budgets ran a deficit of only RUB 12.6bn, which is many times less than the values recorded in previous years. The balance of commercial (bank) loans and of budget loans is to be noted in particular. The bank loan balance came to be negative and, more importantly, considerable in absolute terms (-RUB 102.6bn) for the

first time during the period under review, that is, loan repayments outstripped new lending. Conversely, the budget loan balance came to be positive and comparable in absolute terms (RUB 181.6bn) with the commercial loan balance. These figures reflect a federal policy aimed at replacing more expensive bank loans with cheaper budget loans (at an interest rate of 0.1% p.a.) within the regional debt structure. The role of securities increased somehow, with the securities balance being positive (RUB 32.0bn) as distinct from that over the past two years but much less than the budget loan balance.

Table 28

**Public and municipal debt owed by sub-national budgets
in 2011–2016, as % of GDP**

	As at 2012 year-end		As at 2013 year-end		As at 2014 year-end		As at 2015 year-end		As at 2016 year-end	
	% of GDP	growth, percentage points of GDP	% of GDP	growth, percentage points of GDP	% of GDP	growth, percentage points of GDP	% of GDP	growth, percentage points of GDP	% of GDP	growth, percentage points of GDP
Total for regional budgets	2.00	-	2.40	0.40	2.70	0.20	2.90	0.20	2.74	-0.16
Total for regional budgets (excluding Moscow and the Moscow Region)	1.60	-	2.10	0.50	2.30	0.30	2.60	0.20	2.55	-0.05
Total for municipal budgets	0.40	-	0.40	0.00	0.40	0.00	0.40	0.00	0.42	0.02

Sources: Russia's Ministry of Finance, Rosstat, Gaidar Institute own calculations.

The regional debt dynamics was generally driven by a steady upward trend in the period of 2012–2015, from 2.0% of GDP as at 2012 year-end to 2.9% of GDP as at 2015 year-end (*Table 28*). Regions had their debt reduced by 0.16 percentage points to 2.7% of GDP (however, it increased slightly RUB 35bn, or by 1.5%, in nominal terms) at 2016 year end, whereas municipalities saw their debt rise 0.02 percentage points to 0.42% of GDP. Thus a substantial debt ramp-up was halted at the regional level during the year under review. Given a small amount of accumulated liabilities, neither the regional nor the municipal debt is posing any serious macroeconomic risk for the national budget system as a whole. However, a more precise assessment of the regional debt and related budget risks requires analysis by subject of the Russian Federation (see *Table 29*).

Table 29

Public debt owed by subjects of the Russian Federation in 2012–2015

	Dynamics of public debt owed by subjects of the Russian Federation in a certain period (in nominal terms), number of subjects of the Russian Federation						
	a growth of more than 50%	a growth of 15 to 50%	a growth of less than 15%	no change	a decline of less than 15%	a decline of 15 to 50%	a decline of more than 50%
2012	18	29	14	0	8	10	1
2013	31	36	8	0	6	1	0
2014	12	44	18	0	5	1	2
2015	7	27	31	0	15	1	0
2016	1	13	33	3	25	6	1

Note. Arkhangelsk Region and Nenets Autonomous Okrug are presented as a single subject of the Russian Federation; the data exclude Crimean Federal Okrug (to ensure full compatibility in various years).

Sources: Russia's Ministry of Finance, Gaidar Institute own calculations.

The data on the debt dynamics by region also confirm an improved equilibrium of consolidated budgets of subjects of the Russian Federation in 2016. The number of regions with a debt growth of at least 15% decreased considerably, except for a single region (Tyumen Region) where the debt increased more than 50%. The number of subjects of the Russian Federation that had their debt reduced over the year doubled (from 16 to 32), with a reduction of more than 50% in the city of Moscow. Therefore, although the number of regions that had their debt increased (47) was still bigger than that of the regions having their debt reduced (32), this ratio narrowed substantially compared with that seen a year earlier (65 to 16).

Examination of the Russian regions' debt structure (see Fig. 21) reveals a change toward a notable increase in federal budget loans up to 42.1%, thus adding 7.2 percentage points to the value seen earlier in 2016.

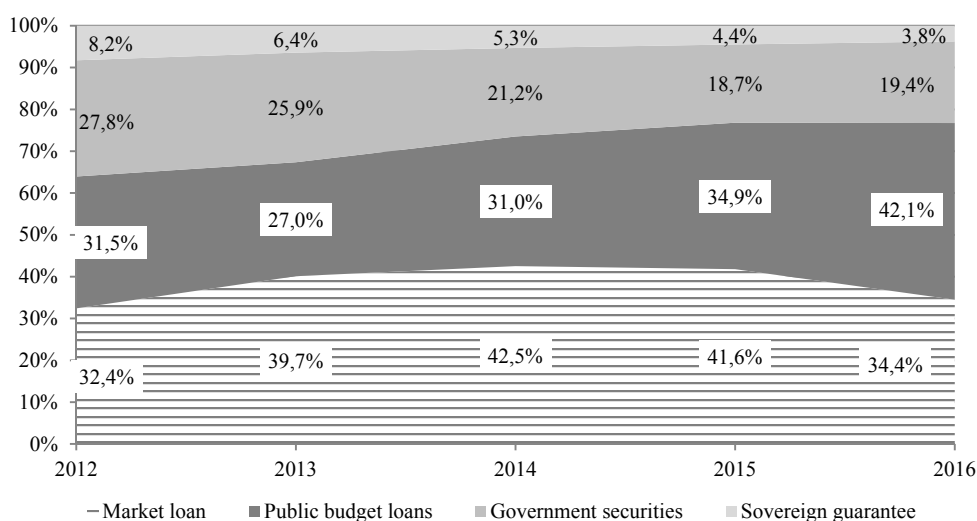


Fig. 21. Public debt structure of subjects of the Russian Federation in 2012–2016

Notes. 1) the presented data exclude the Crimean Federal Okrug (to ensure full compatibility of various periods); 2) in 2015–2016, 0.4% of the public debt owed by subjects of the Russian Federation is accounted for by other debt instruments not shown in the diagram (mostly Kemerovo Region's liabilities).

Source: Russia's Ministry of Finance.

Fiscal debt increased amid a plunging percentage of commercial loans (-7.3 percentage points) and a small percentage growth of securities (+0.8 percentage points). Thus this once again points to the above noted trend toward replacing commercial debt with budget loans across regional budgets, thereby reflecting current federal policy priorities toward regions. This however creates the risk of heavier dependence of subjects of the Russian Federation on federal budget loans, and thereby pressurizing harder Russia's Ministry of Finance and government to write off or freeze the relevant payments. No matter how simple such a measure appears to be to the extent of addressing the accumulated debt issue facing certain subjects of the Russian Federation, it may seriously undermine the budget discipline at the regional level and aggravate the issue of soft budget restrictions by sub-national government authorities in Russia.

* * *

On the whole, a reversal of certain negative trends developed in 2014–2015 was observed in 2016. The percentage of sub-federal budgets in the budget system increased in general, growth

rates of tax and nontax revenues outpaced the inflation rate, both deficit and debt were reduced (as a percentage of GDP). However, there were few negative trends worth pointing out. For instance, the decline in personal income tax revenues was indicative of a declining household real income. All in all, Russia's regions faced a heterogeneous financial situation. Further cuts to federal budget transfers had an adverse effect on regional revenues.

2.2.4. Description of main off-budget funds¹

In the following, we analyze the budget execution of the two main (in terms of size and value for the budget system) public off-budget funds: The Pension Fund of Russia (hereinafter – PFR) and The Federal Compulsory Medical Insurance Fund (hereinafter – FCMIF).

Pension Fund of Russia

The PFR's revenues amounted to RUB 7625bn, or 8.9% of GDP, in 2016. The year-over-year PFR's revenues increased 7.0% in nominal terms and 1.5% in real terms (or by 0.32 percentage points of GDP). The PFR expenditure amounted to RUB 7829bn (or 9.1% of GDP). The PFR's expenditure increased 2.1% in nominal terms and decreased by 3.1% in real terms (or by 0.9 percentage points of GDP). While the Pension Fund's budget was RUB 543.6bn in deficit (or 0.65% of GDP) in 2015, it was notably reduced to RUB 204.4bn (or 0.24% of GDP) in 2016 on account of higher-than-expected growth of revenues.

We now consider more carefully the PFR revenue components in 2016 (see *Table 30*).

Table 30

Pension Fund of Russia' revenues in 2015–2016, rubles in millions

	2015	2016	Revenue nominal growth in 2016, % change – year to year	Revenue real growth in 2016, % change – year to year
Revenues, total	7,126,634	7,625,248	107.0	101.5
including				
Tax and nontax revenues	4,021,467	4,258,412	105.9	100.5
Compulsory social insurance contributions	3,878,731	4,144,434	106.9	101.4
Uncompensated receipts	3,105,167	3,366,836	108.4	102.9
Federal budget transfers to the budget of the Pension Fund of Russia	3,091,683	3,355,303	108.5	103.0
including				
Compulsory pension insurance transfers from the federal budget to the budget of the Pension Fund of Russia	814,181	988,588	121.4	115.2
including				
Federal budget transfers to the budget of the Pension Fund of Russia for the notional pension capital valorization	680,098	676,878	99.5	94.4
Federal budget transfers to the budget of the Pension Fund of Russia as compensation for the insurance component due to adding non-qualifying periods to the pensionable service	9,065	12,079	133.2	126.4
Federal budget transfers to the budget of the Pension Fund of Russia as compensation for shortfalls in the Pension Fund of Russia's budget revenues due to the establishment of reduced rates on compulsory pension insurance contributions	342,898	392,037	114.3	108.5

Sources: the data for 2015 are based on Federal Law of October 31, 2016 No. 378-FZ “On Execution of the Budget of the Pension Fund of Russia in 2015”, the data for 2016 are based on the data released by the Federal Treasury: Federal Treasury of Russia, Russian public off-budget funds' budget as at January 1, 2017. Gaidar Institute own calculations.

¹ Authors of chapter: N. Aksentiev – FRI under Finance Ministry of Russia, ISAF RANEPА; E. Grishina – ISAF RANEPА.

Compulsory social insurance contributions amounted to RUB 4144bn (or 4.83% of GDP) in 2016. The insurance contribution inflow increased 6.9% in nominal terms and 1.4% in real terms, whereas insurance contributions subject to the additional rate for insured individuals exposed to harmful working conditions fell 2.9% in nominal terms, thus reflecting job cuts in progress.

The PFR budget received RUB 3355bn from the federal budget in 2016, which is a YoY increase of 8.5% in nominal terms and of 3.0% in real terms. The biggest (in size) compulsory pension insurance transfer from the federal budget amounted to RUB 988,6bn in 2016, which is a YoY increase of 15.2% in real terms. In real terms, transfers to the PFR for retirement benefits as part of social welfare, as well as notional pension capital valorization transfers, contracted by 7.5% and 5.6% respectively, whereas transfers for retirement benefits due to adding non-qualifying periods to the pensionable service, as well as due to the establishment of reduced rates on compulsory pension insurance contributions, increased 26.4% and 8.5% respectively.

We now consider more carefully the PFR expenditure components in 2016 (see *Table 31*).

Table 31

Pension Fund of Russia’s budget expenditure in 2015–2016, rubles in millions

	2015	2016	Expenditure nominal growth in 2016, % change – year to year	Expenditure real growth in 2016, % change – year to year
Budget expenditure – total	7,670,270	7,829,672	102.1	96.9
including				
Nationwide issues	104,781	107,256	102.4	97.1
including the exercise of functions of governing bodies of public off-budget funds of the Russian Federation	102,414	106,447	103.9	98.6
Social security policy	7,565,387	7,722,322	102.1	96.9
Retirement benefits	6,264,047	6,613,400	105.6	100.2
including				
Payment of the federal social security supplement to retirement benefits as part of social security benefits related to other than program activities of management bodies of public off-budget funds of the Russian Federation (social security benefits and other payments to individuals)	42,145	99,807	236.8	224.7
Payment of the insurance component of pension as part of social security benefits related to other than program activities of management bodies of public off-budget funds of the Russian Federation (social security benefits and other payments to individuals)	5,782,134	6,050,187	104.6	99.3
Payment of public retirement benefits as part of social security benefits related to other than program activities of management bodies of public off-budget funds of the Russian Federation (social security benefits and other payments to individuals)	390,950	414,886	106.1	100.7
Social security benefits for individuals	444,145	462,053	104.0	98.7
including the retirement savings transfer to nongovernment pension funds as part of public functions within the framework of social security policy related to other than program activities of management bodies of public off-budget funds of the Russian Federation (social security benefits and other payments to individuals)	527,033	279,669	53.1	50.4

Sources: the data for 2015 are based on Federal Law of October 31, 2016 No. 378-FZ “On Execution of the Budget of the Pension Fund of Russia in 2015”, the data for 2016 are based on the data released by the Federal Treasury: Federal Treasury of Russia, Russian public off-budget funds’ budget as at January 1, 2017. Gaidar Institute own calculations.

In 2016, the PFR spent RUB 106.4bn on the exercise of functions of governing bodies of public off-budget funds of the Russian Federation, which is a YoY decline of 1.4% in real terms. RUB 7722bn were spent on social security policy, down 3.1% in real terms. Spending on retirement benefits rose both in nominal terms (+5.6%) and in real terms (+0.2%). In real terms, spending on the insurance component were reduced by 0.7%, whereas spending on public retirement benefits rose 0.7%. In 2016, spending on the funded component rose 35.4% in real terms, reflecting growth of funded pension entitlements among those who retired during the period under review.

A substantial amount was spent on the federal social security supplement to retirement benefits – a 2.4-fold increase in nominal terms, from RUB 42.1bn in 2015 to RUB 99.8bn in 2016 – because some regions switched from the provision of regional social security supplement to the federal social security benefit.

In 2016, the PFR spent RUB 462.1bn on social security benefits for individuals, which is a YoY growth of 4.0% in nominal terms (+1.3% in real terms). RUB 298.0bn were spent on monthly cash payments (MCPs) to disabled individuals, which is a 1.8% hike in real terms, and RUB 281.6bn were spent on the provision of maternity (family) capital, an increase of 5.5%, whereas spending on MCPs to veterans were cut 0.7% in real terms. RUB 67.2bn were spent on compensations to persons nursing unemployable citizens and disabled children, a 1.1% hike in real terms. Even the spending on social security for holders of the Soviet Union Hero Gold Star and of the Socialist Labor Hero Gold Star was reduced in nominal terms due to attrition of the said categories of beneficiaries.

All in all, it may be inferred that the PFR's budget equilibrium improved in 2016: the budget deficit was reduced (by 0.42 percentage points of GDP), while budget revenues increased due to the growth of insurance component contributions (by 0.16 percentage points of GDP).

Federal Compulsory Medical Insurance Fund

In 2016, the Federal Compulsory Medical Insurance Fund's (hereinafter – FCMIF) budget revenues totaled RUB 1658bn (see *Table 32*). Compulsory medical insurance contributions for individuals accounted for about 98% of the revenues: RUB 1006bn in compulsory medical insurance contributions for employees (including RUB 11bn in self-employed individuals' contributions), and RUB 618bn in contributions for unemployed individuals. The federal budget transfer as compensation for shortfalls in the FCMIF revenues arising from the establishment of reduced rates on compulsory medical insurance (hereinafter – CMI) for certain categories of payers amounted to RUB 25.4bn. The refund for targeted transfers not used in the past year, the last among the traditional key FCMIF revenue items, amounted to RUB 7.7bn in 2016.

In 2016, the FCMIF's revenues saw a meager decline of about 0.04% in real terms compared with 2015. However, allowance must be made for the fact that the FCMIF's real revenues rose steadily until the previous year, and a halt in growth may aggravate the CMI deficit issue down the road, especially in light of the need to raise medical personnel wages to the levels set forth in the *Presidential Executive Orders of May 2012*.

In 2016, the FCMIF's expenditure amounted to RUB 1.590bn, most of which was accounted for by the subvention (RUB 1459bn or 92% of total expenditures) to local CMI funds for the implementation of the CMI baseline scheme (see *Table 33*).

Table 32

Federal Compulsory Medical Insurance Fund's revenues in 2016

Revenues	Implementation, RUB bn	implementation %	Real change compared with 2015
Total	1657.6	99.8%	0.0%
Including:			
Compulsory medical insurance contributions for employees	1006.4	98.8%	3.6%
Compulsory medical insurance contributions for unemployed individuals	617.8	100.0%	-4.9%
Intergovernmental transfer to the Federal Compulsory Medical Insurance Fund' budget for compensation for shortfalls of revenues arising from the establishment of reduced rates on compulsory medical insurance contributions	25.4	100.0%	1.2%
Refund for transfers not used over previous years	7.7	-	-38.2%

Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

Table 33

Federal Compulsory Medical Insurance Fund' expenditure in 2016

Expenditure	Spent, RUB bn	Spent, %	Real change compared with 2015
Total:	1590.2	94.2	-7.9
Including:			
Subventions to the budget of local compulsory medical insurance funds for the provision of financing to the organization of compulsory medical insurance on the territory of subjects of the Russian Federation	1458.6	100.0	-3.0
Other intergovernmental fiscal transfers for the provision of financing to lump-sum payments to medical personnel	2.9	91.9	49.2
Other intergovernmental fiscal transfers to the budget of local compulsory medical insurance funds for the provision of extra financing to specialized, including high-tech, medical aid within the scope of the compulsory medical insurance baseline scheme	15.0	100.0	51.1
Provision of financing to prenatal, labor and postnatal care, as well as to preventive medical examination for infants at the age of one year or less	17.8	95.0	-7.9
Financial aid for the provision of high-tech medical aid outside the scope of the compulsory medical insurance baseline scheme	89.0	98.1	8.7
Co-financing of costs arising from the provision of high-tech medical aid to nationals of Russia outside the scope of the compulsory medical insurance baseline scheme	5.4	90.0	1.8
Equilibrium grant from the Federal Compulsory Medical Insurance Fund's budget to the federal budget	0.0	0.0	-100.0
Other expenditures	1.5	29.1	-81.1
Budget execution results: surplus (+) / deficit (-)	+67.7	-251.9	-98.1

Sources: Federal Treasury of Russia, Gaidar Institute own calculations.

In addition, local compulsory medical insurance funds received other intergovernmental fiscal transfers for the provision of financing to lump-sum payments to medical personnel (RUB 2.9bn) and extra financing to specialized, including high-tech, medical aid within the scope of the CMI baseline scheme (RUB 15bn). Unused appropriations were observed only with regard to transfers for the provision of financing to lump-sum payments to medical personnel: RUB 3.2bn were initially supposed to be allotted for this purpose.

In 2016, RUB 17.8bn were spent on the annual FCMIF transfer to the Social Insurance Fund for the provision of financing to prenatal, labor and postnatal care, as well as preventive medical examination for infants at the age of one year or less, a YoY decline of about 3% in nominal terms.

In 2016, the federal budget received two FCMIF transfers, namely the financial aid for the provision of high-tech medical aid outside the scope of the CMI baseline scheme (RUB 89bn) and for co-financing of costs arising from the provision of high-tech medical aid to nationals of Russia outside the scope of the CMI baseline scheme (RUB 5bn). The implementation of these transfers was 98 and 90% respectively.

Another transfer to the federal budget – the equilibrium grant (or the so-called ‘reverse transfer’) worth RUB 91.2bn – was initially budgeted in the FCMIF. This type of transfer worth about RUB 92bn was made for the first time in 2015. While this transfer was also made in 2016 under Paragraph 22, Article 51, Federal Law No. 326 “On Compulsory Medical Insurance in the Russian Federation”, the relevant provision was repealed at the end of the year, and therefore the money was ultimately left in the FCMIF. The need to accumulate FCMIF’s resources for raising medical personnel wages was an informal reason for the ‘reverse transfer’ repeal. At the same time, the repeal enabled the FCMIF to run a budget surplus of more than RUB 67bn for the first time since 2013. In addition, the repeal partially accounts for a substantial (about 8%) decline in the FCMIF’s expenditure in real terms compared with 2015. The expenditure in real terms was also driven down by a 3% fall of subventions earmarked for the implementation of the CMI baseline scheme.

Section 3. Financial markets and financial institutions

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 – RANEPА.

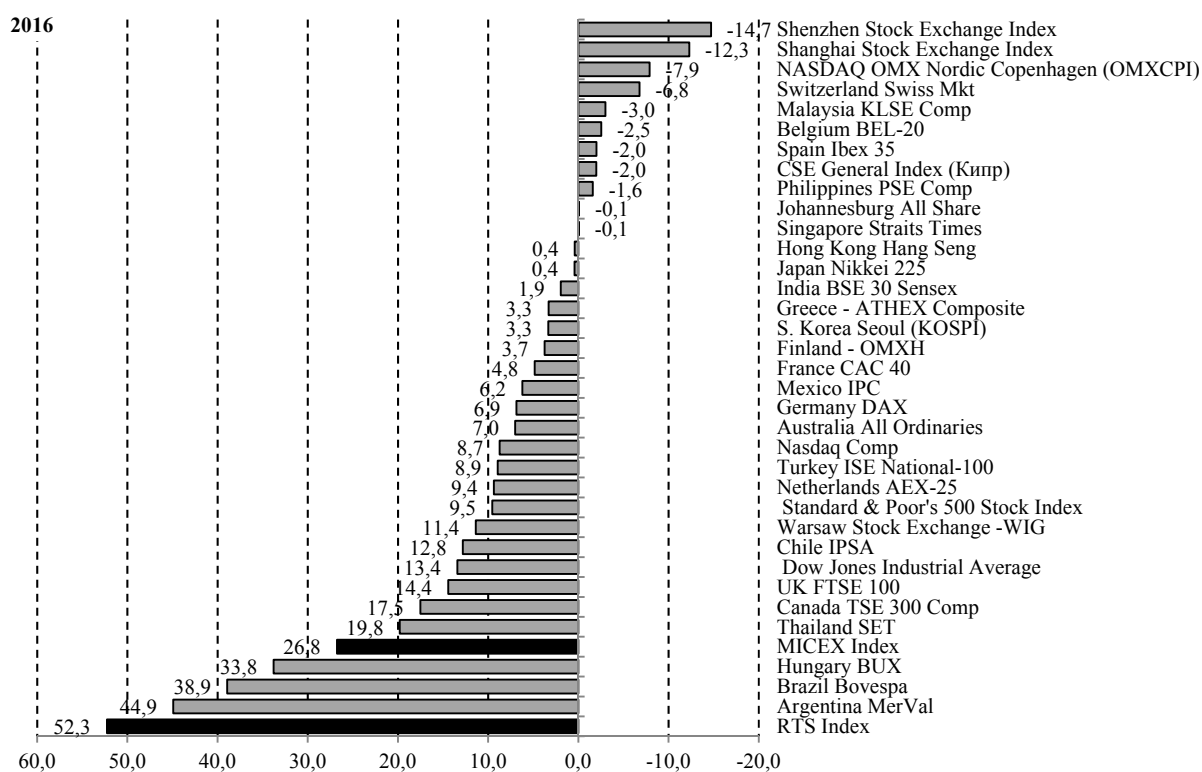


Fig. 1. The rates of return of the major stock indices on the world's biggest exchanges in 2016, % per annum

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.

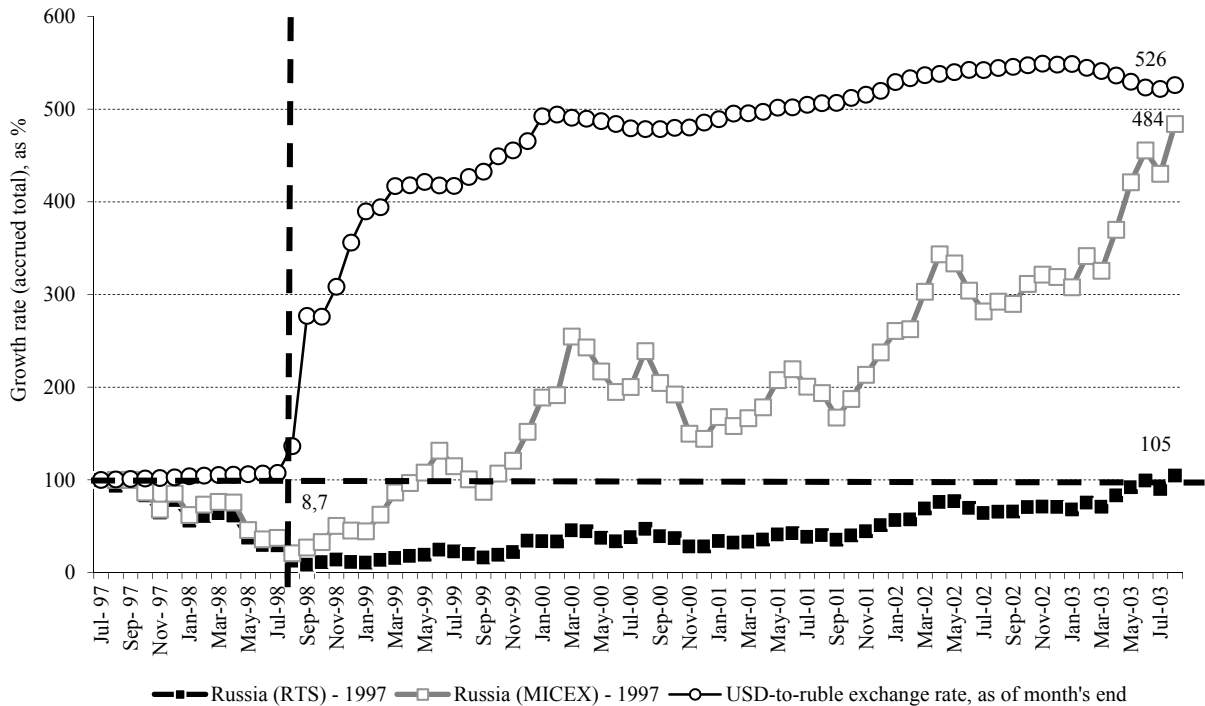


Fig. 2. The movement of the USD-to-ruble exchange rate, the RTS Index, and the MICEX Index in 1997–2003 (July 1997 = 100%)

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).

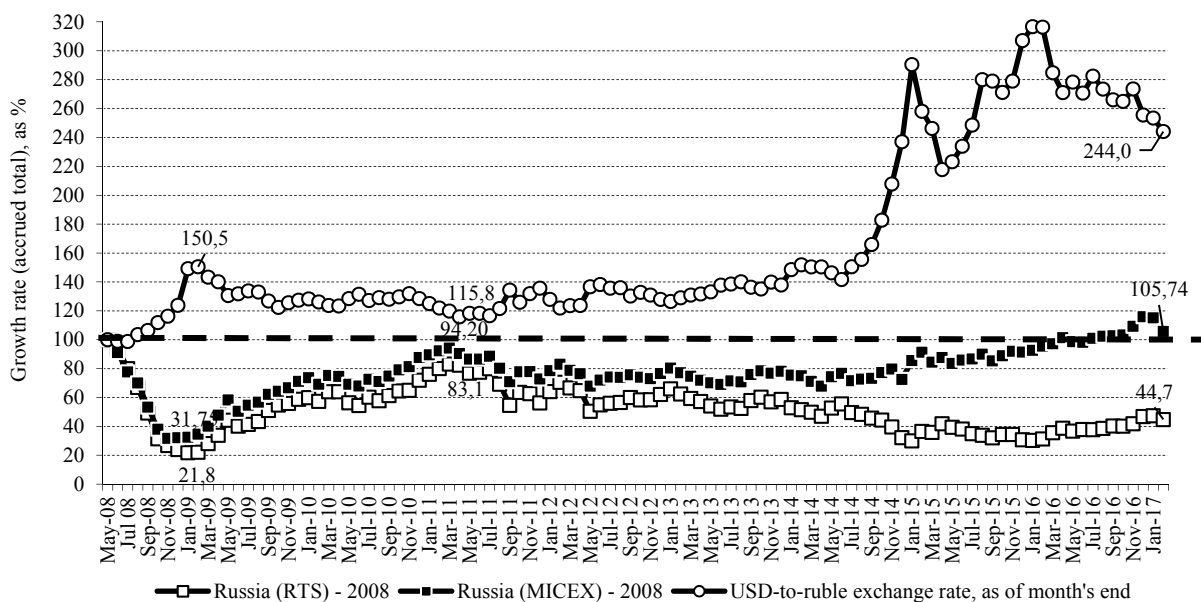


Fig. 3. The movement of the USD-to-ruble exchange rate, the RTS Index, and the MICEX Index from May 2008 through February 2017 (May 2008 = 100%)

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.

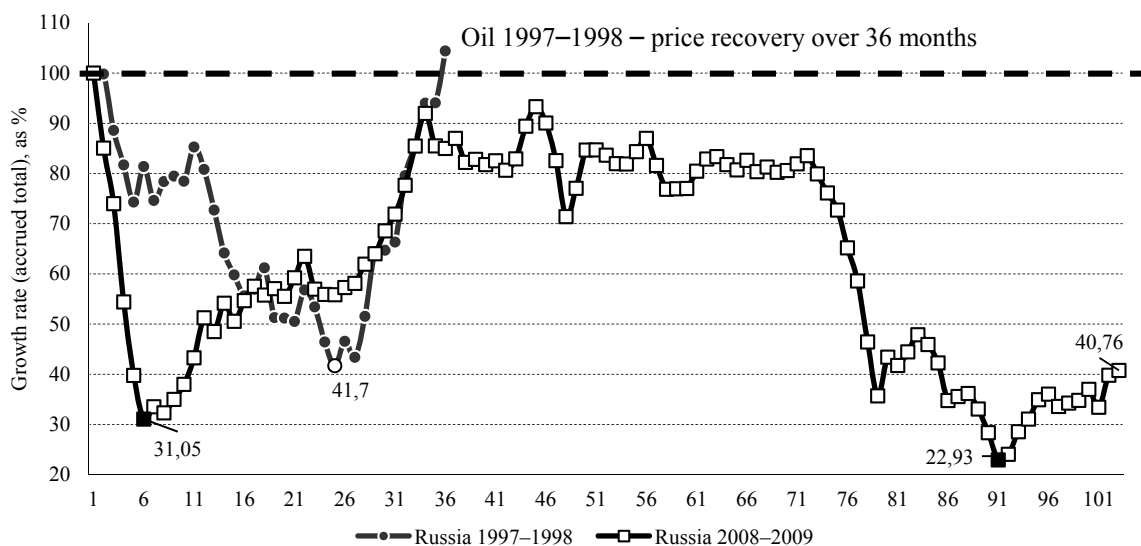


Fig. 4. The growth rate of price of Brent crude during the financial crises in Russia (peak price = 100%), as of February 2017

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.

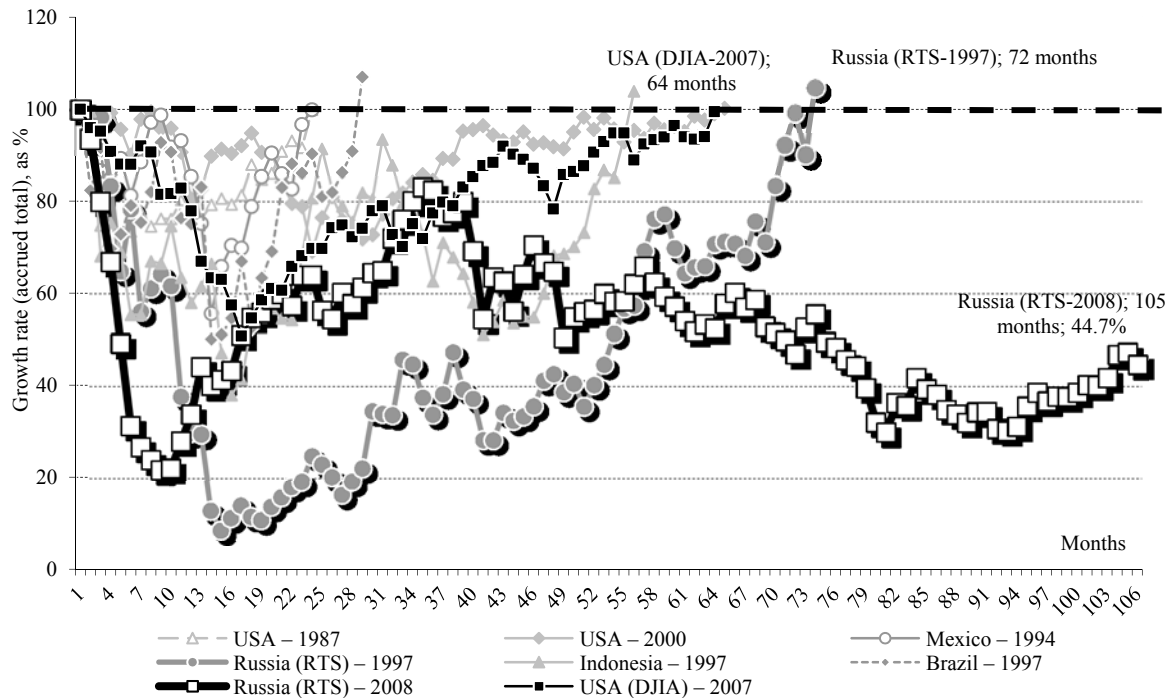


Fig. 5. The depth and length of short-term financial crises around the world, as of February 2017 (peak = 100%)

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 (DJIA) in the USA after the Great Depression took 303 months, or 25.3 years. In 2015, that record was broken by the Japanese index NIKKEI-225, which as of February 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.

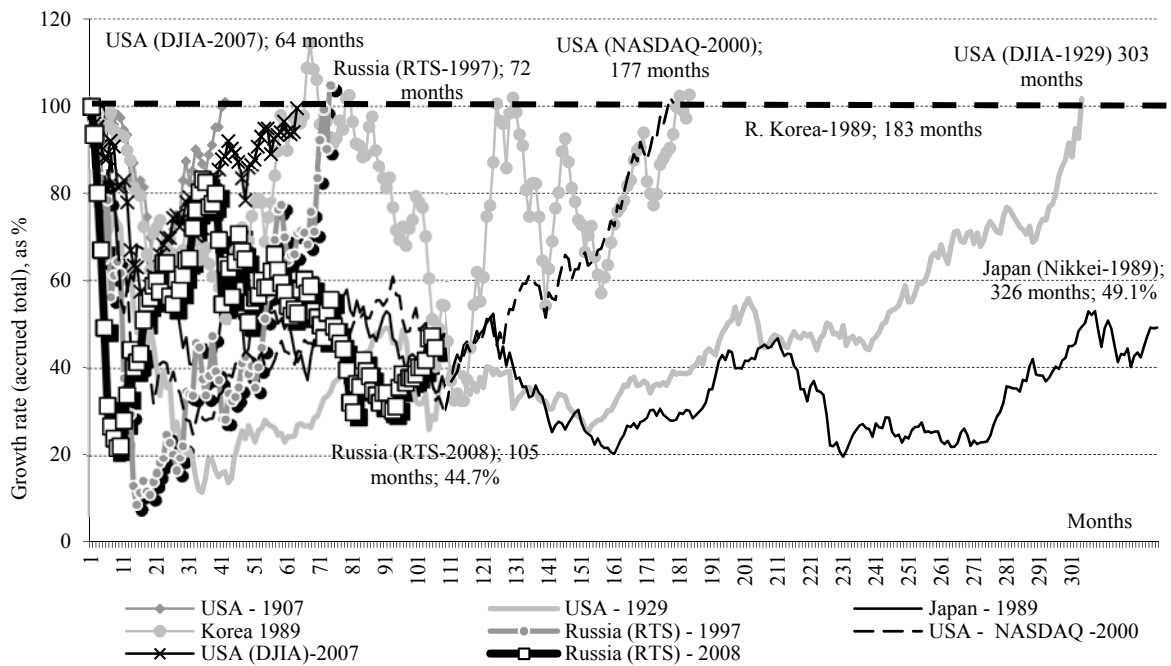


Fig. 6. The depth and length of long-term financial crises around the world, as of February 2017 (peak = 100%)

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

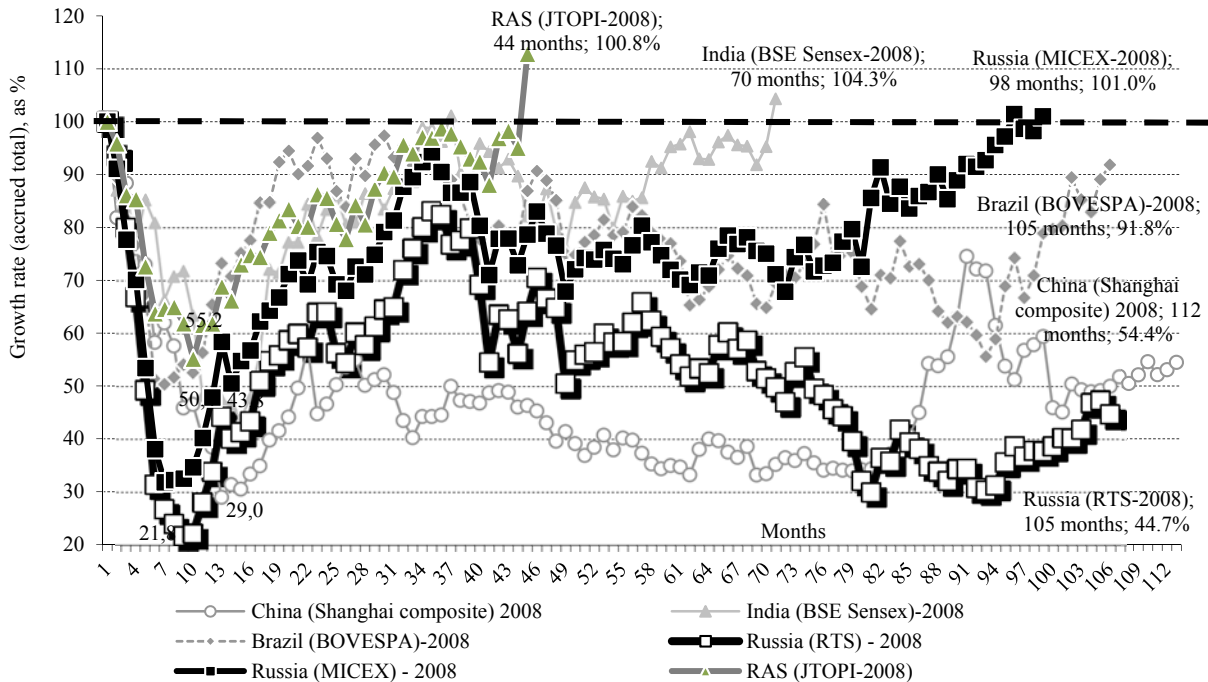


Fig. 7. The depth and length of the current financial crises in the BRICS countries, as of February 2017 (peak = 100%)

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 Ghouli, 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%.

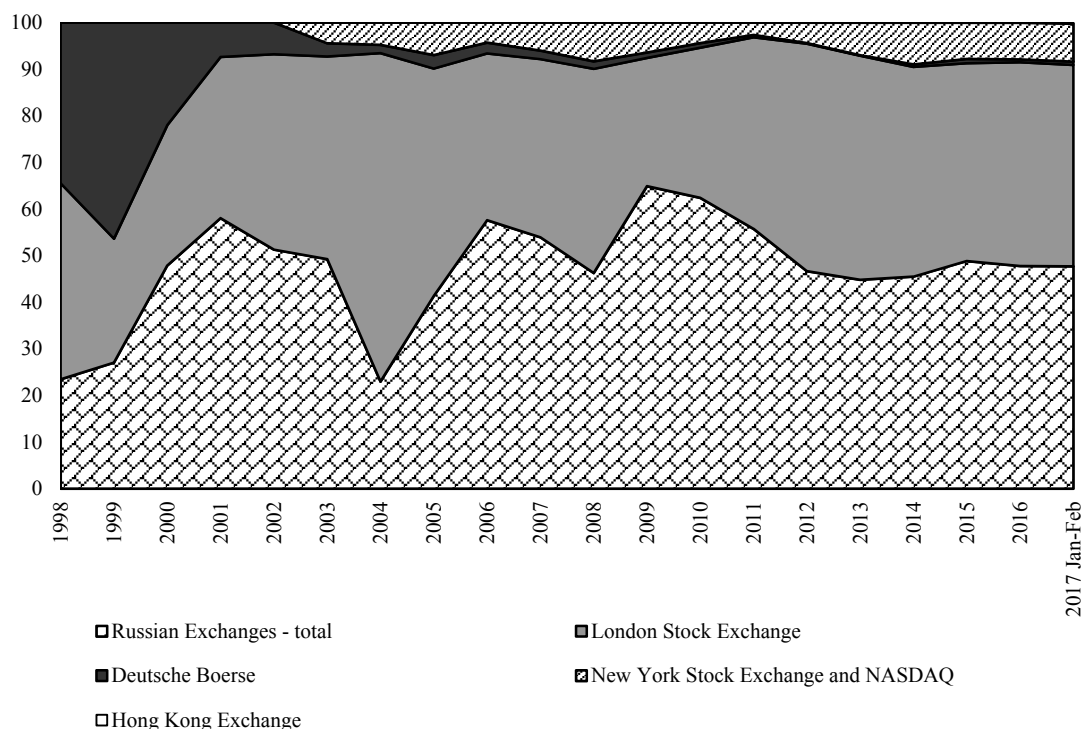


Fig. 8. The volume of trade in equity financial instruments issued by Russian JSCs over the period from 1998 through February 2017,¹ as %

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.

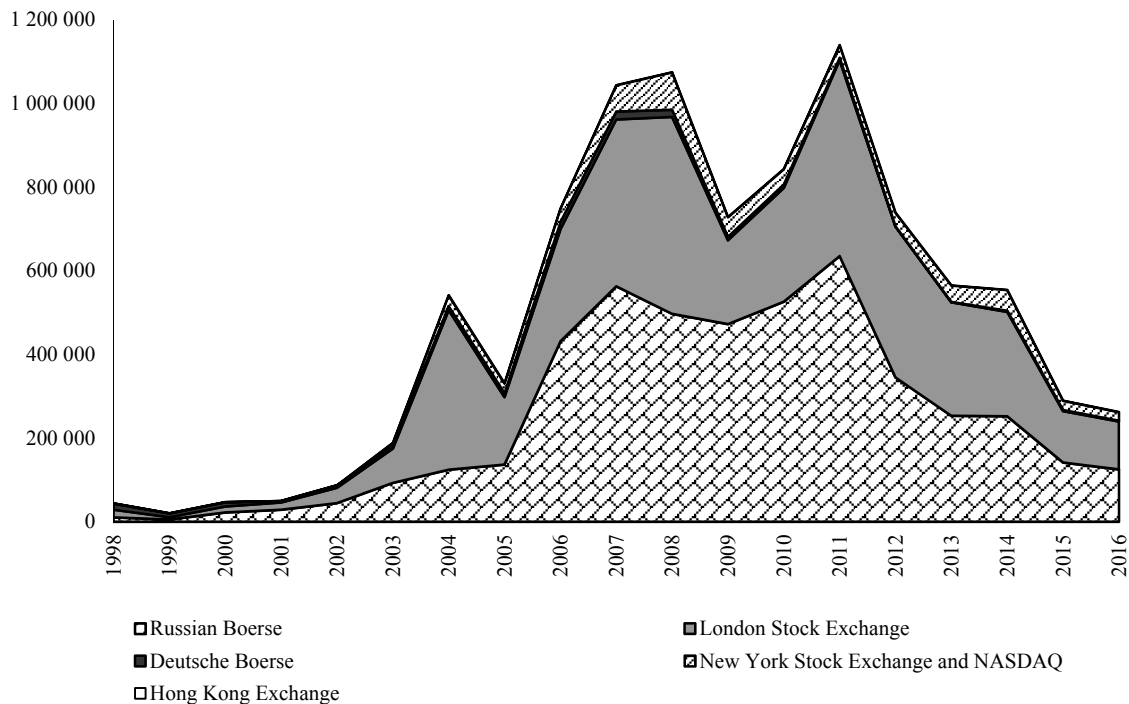


Fig. 9. The volume of trade in equity financial instruments issued by Russian JSCs on various stock exchanges over the period from 1998 through February 2017, m USD¹

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.

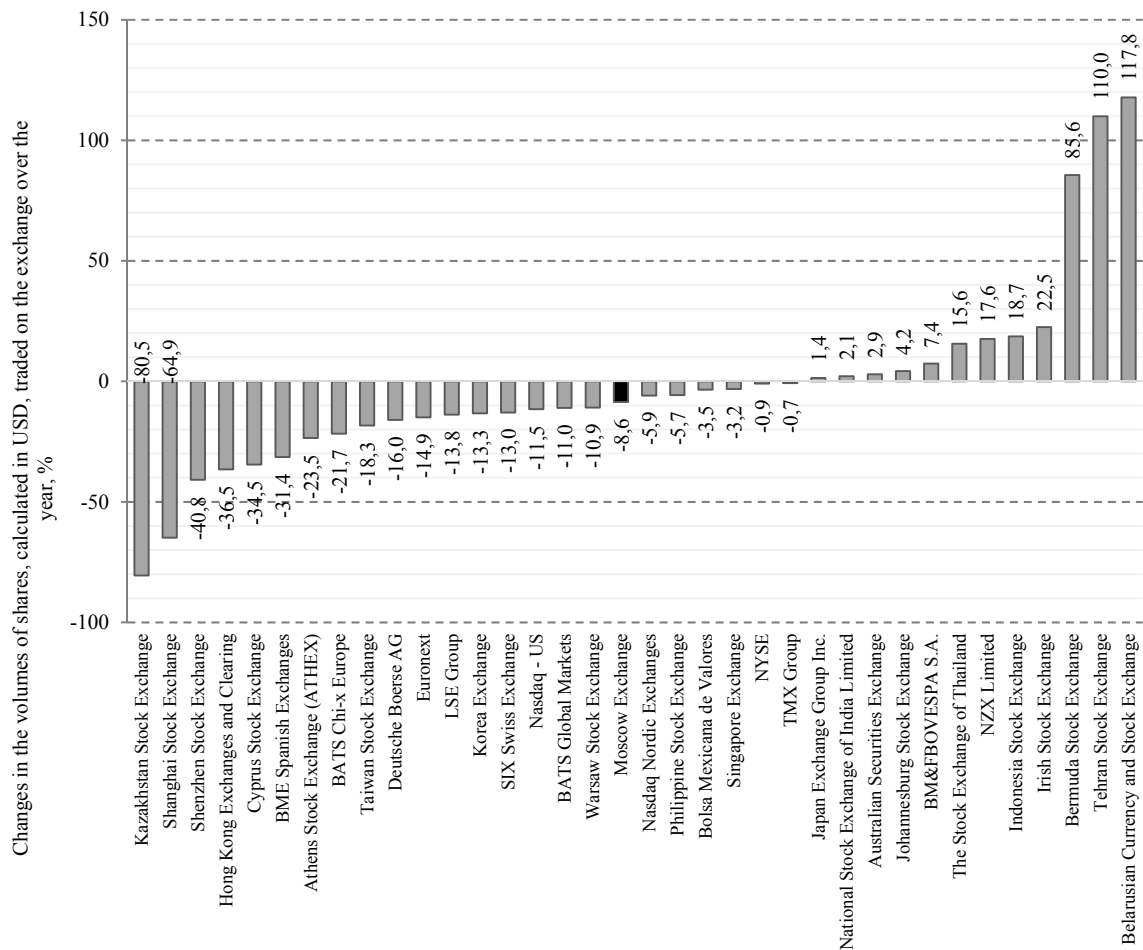


Fig. 10. Changes in the volumes of shares traded on exchanges, calculated in US dollars, in 2016, as %

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.

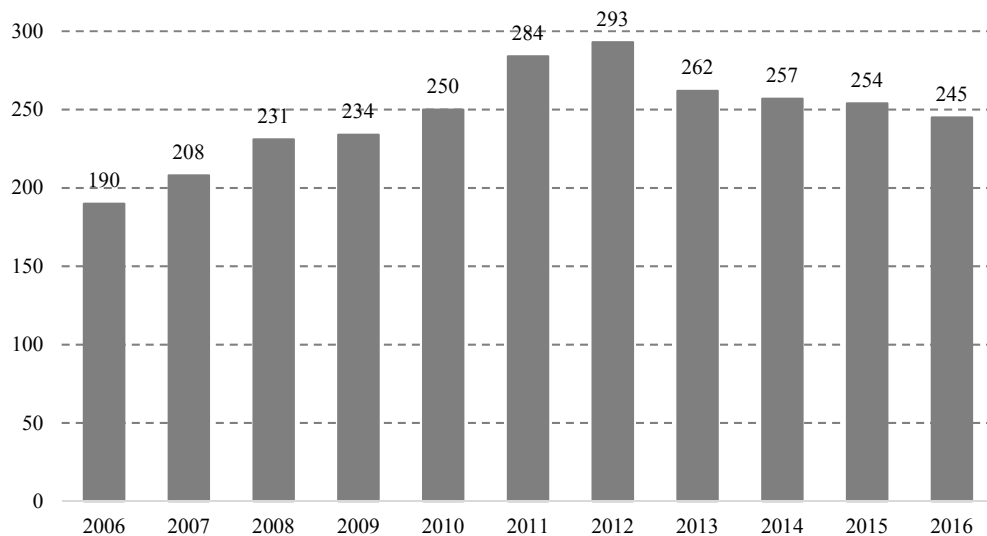


Fig. 11. The number of companies listed on the Moscow Exchange in 2006–2016¹

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.

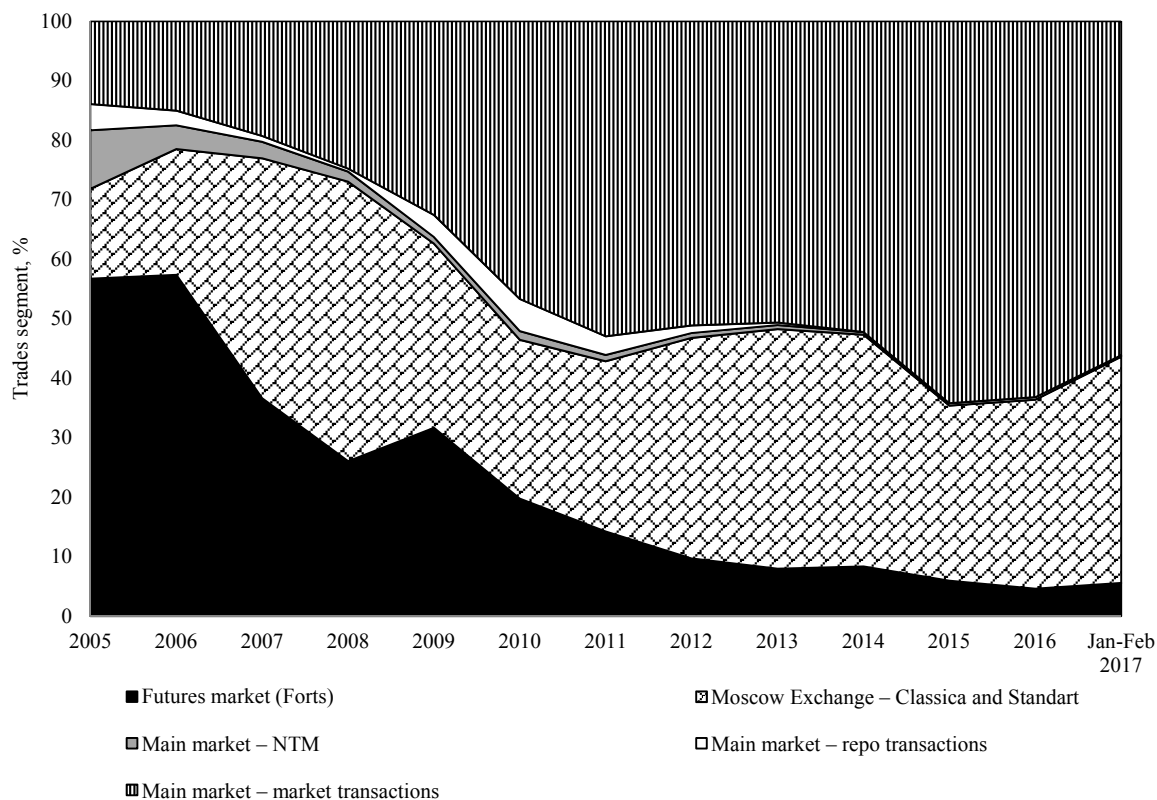


Fig. 12. The structure of markets for shares and derivatives on the Moscow Exchange from January 2005 through February 2017

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.

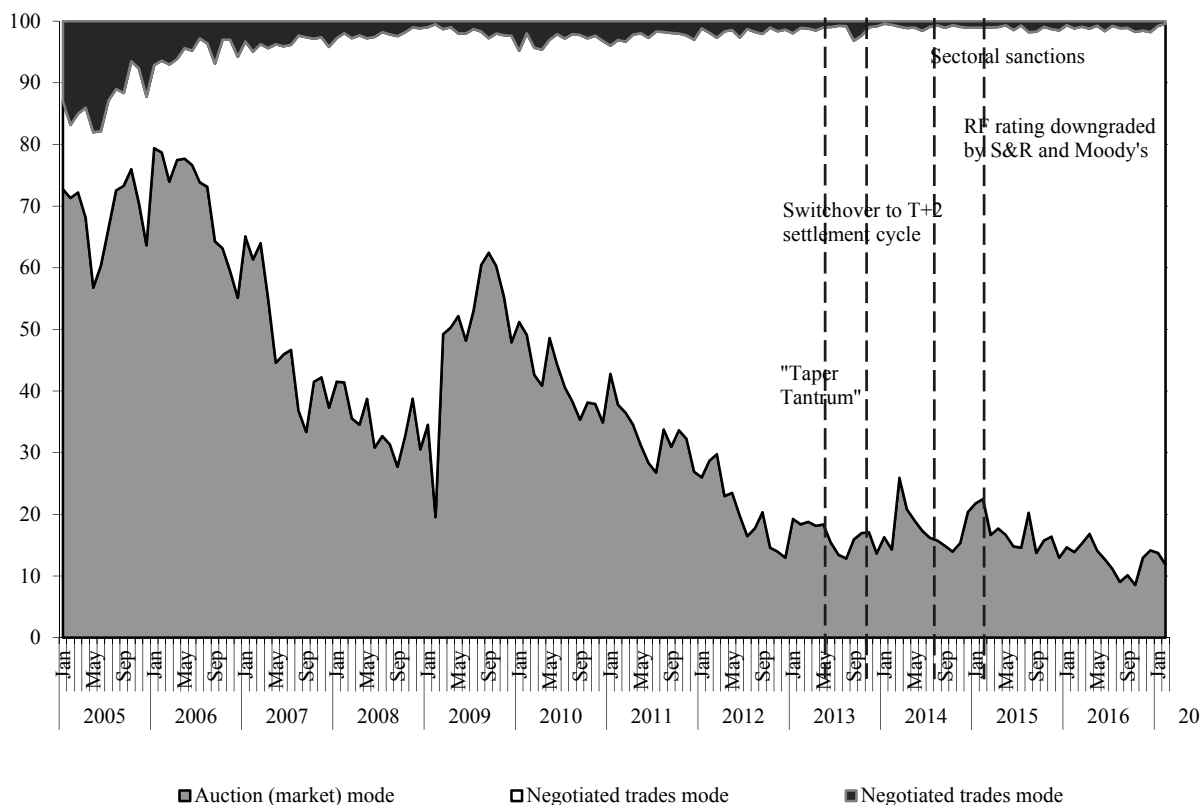


Fig. 13. The structure of trades in shares on the Moscow Exchange’s Main Market from January 2005 through February 2017, %

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

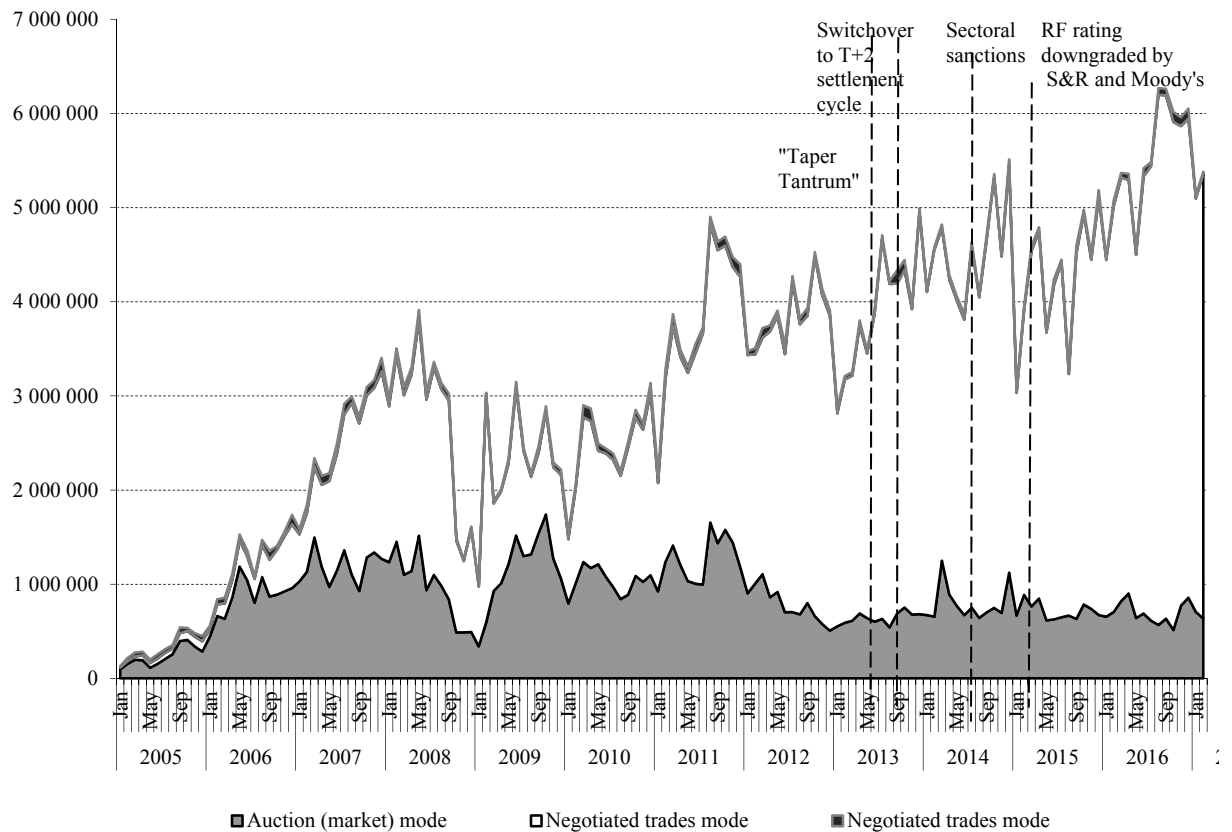


Fig. 14. The volume of trades in shares on the Moscow Exchange's Main Market from January 2005 through February 2017, RUB m

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.

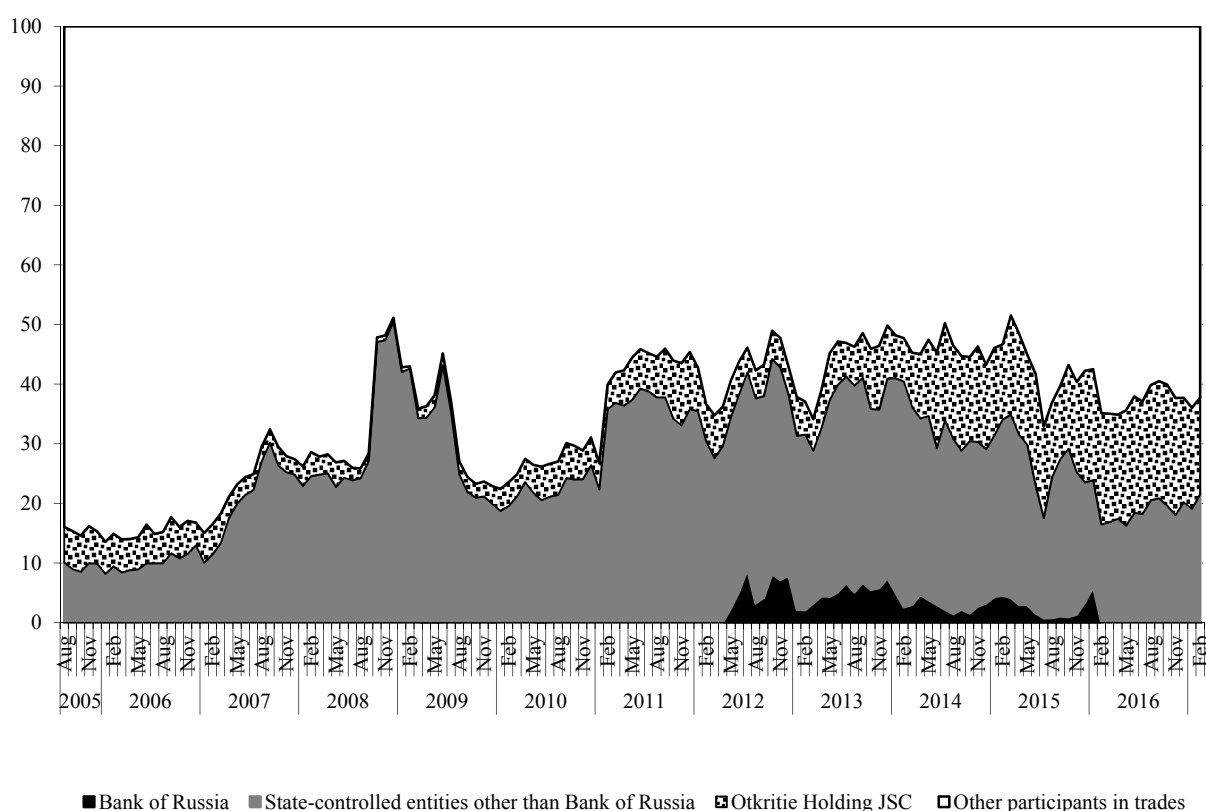


Fig. 15. The relative shares of private broker companies and SCCs in equity trades on the Moscow Exchange over the period from August 2005 through February 2017, %

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
Otkritie Holding JSC	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: $\text{HHI} = (D_1)^2 + (D_2)^2 + \dots + (D_m)^2$, 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.

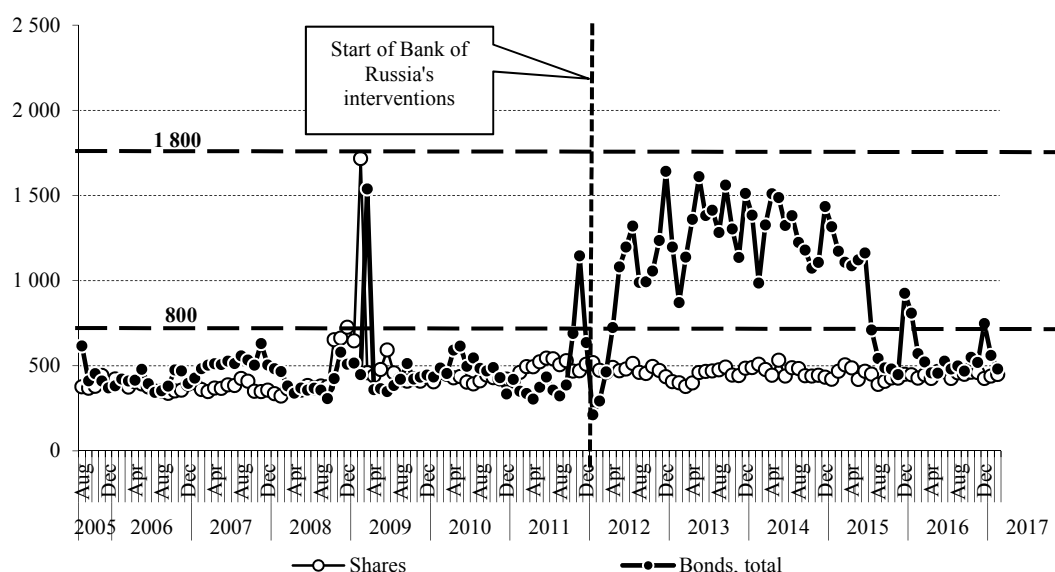


Fig. 16. The Herfindahl–Hirschman index, based on secondary trades volume on the Moscow Exchange (all trade modes)¹

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

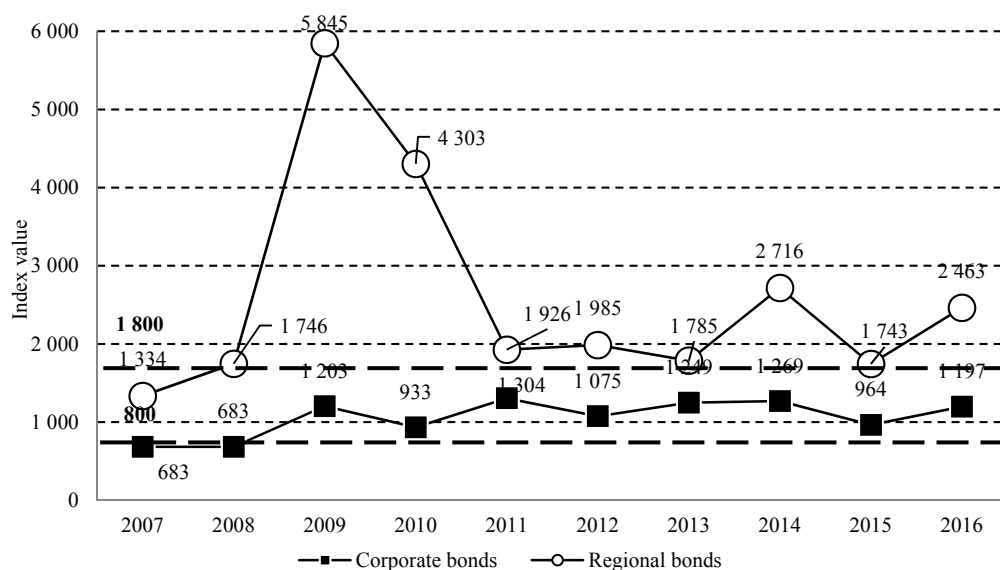


Fig. 17. The Herfindahl–Hirschman index, based on data on trade organization services for ruble-denominated corporate and regional bonds in 2007–2016

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.

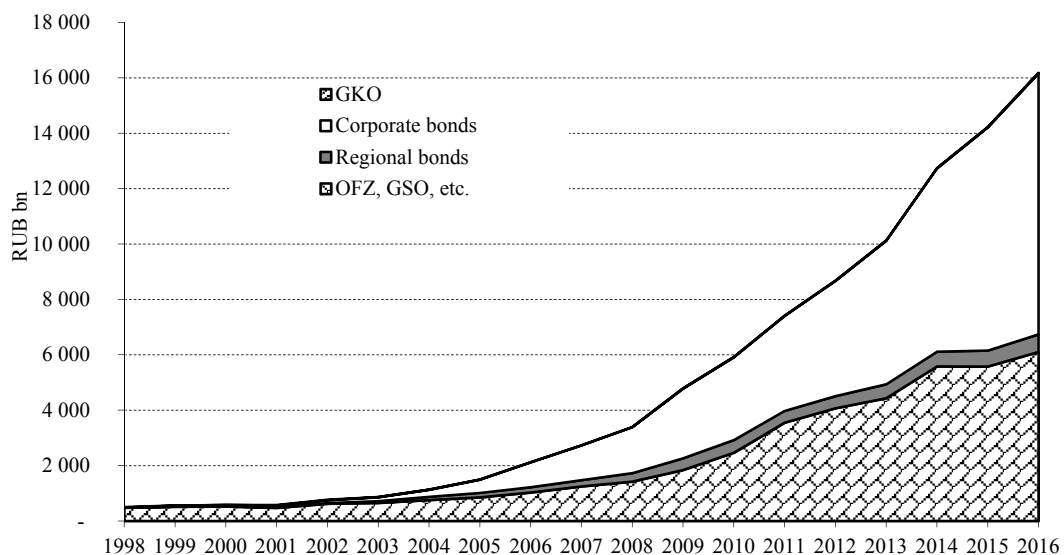


Fig. 18. The volume of ruble-denominated bonds in circulation, RUB bn

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.

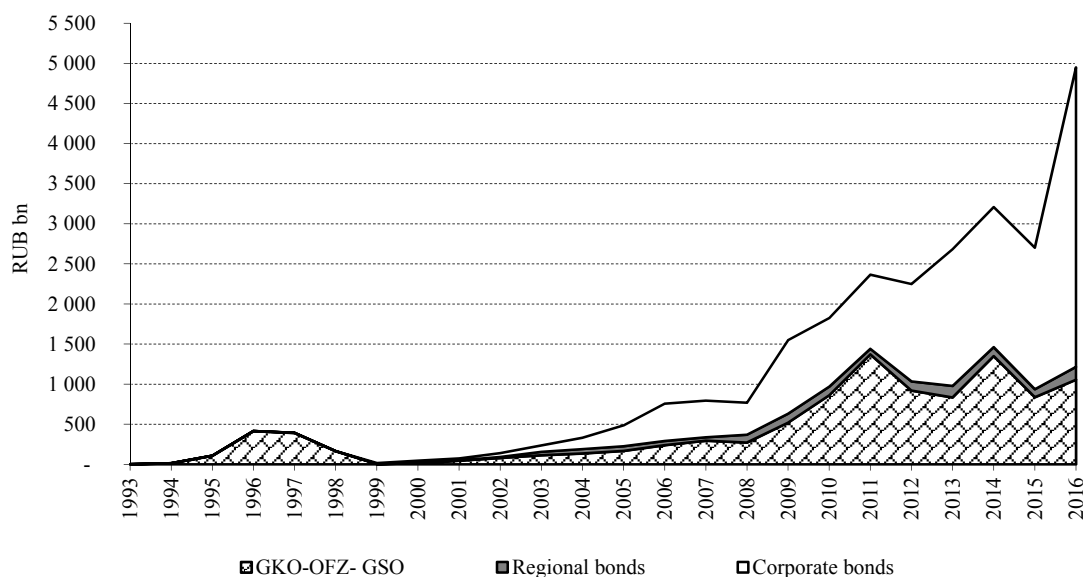


Fig. 19. The value volume of ruble-denominated bond issues¹ placed in 1993–2016

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.

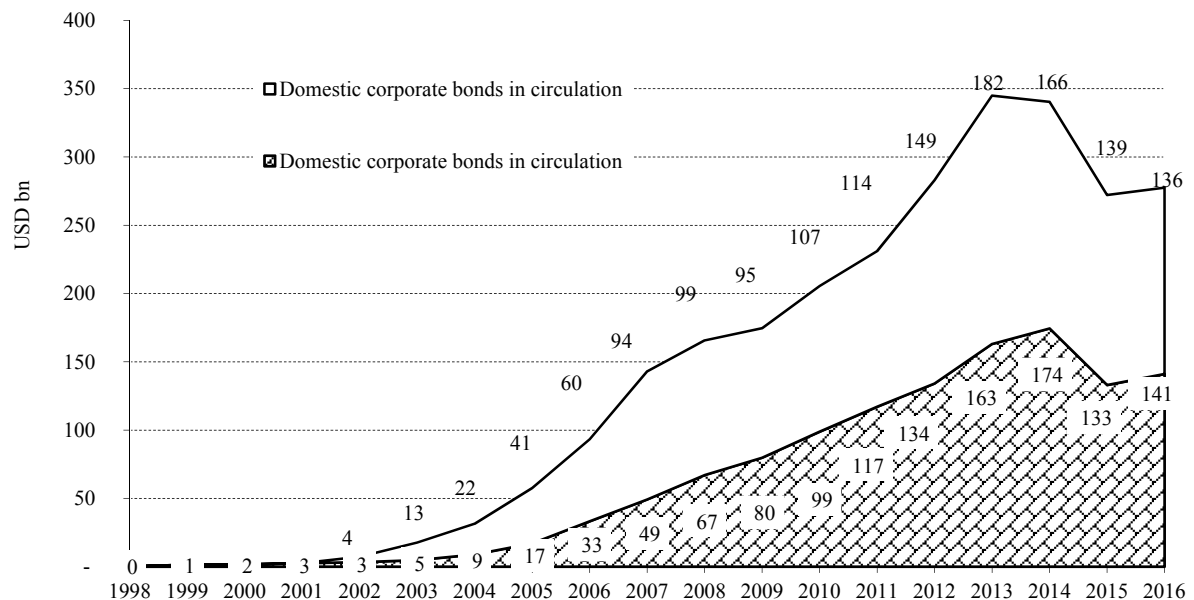


Fig. 20. The volume of Russian corporate bonds in circulation

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.

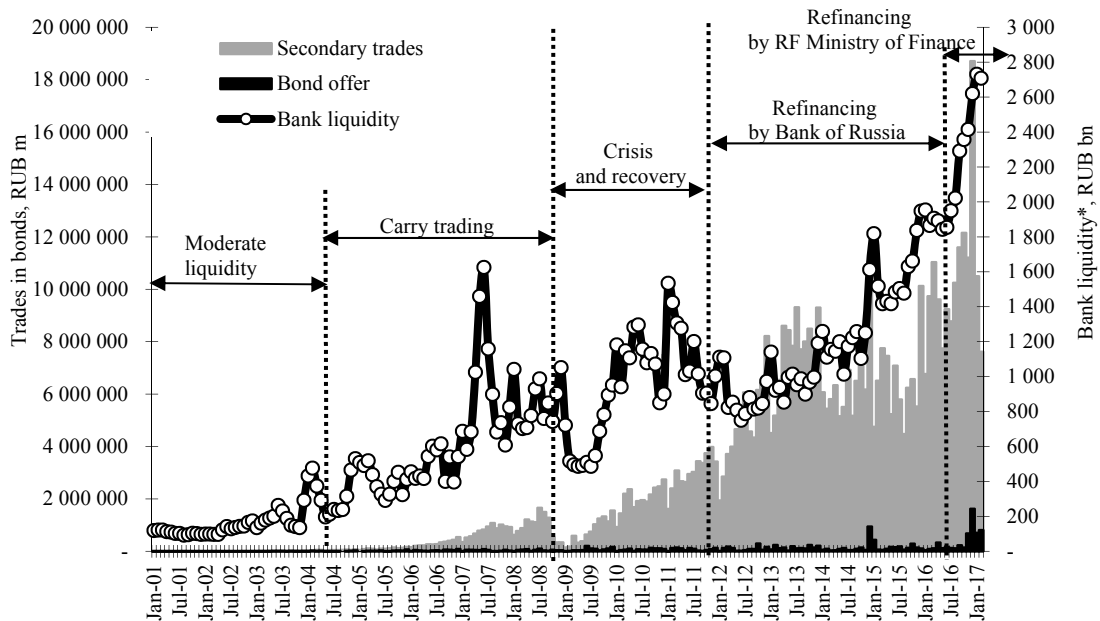


Fig. 21. Operations with corporate bonds and bank liquidity over the period from January 2001 through February 2017

* 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.

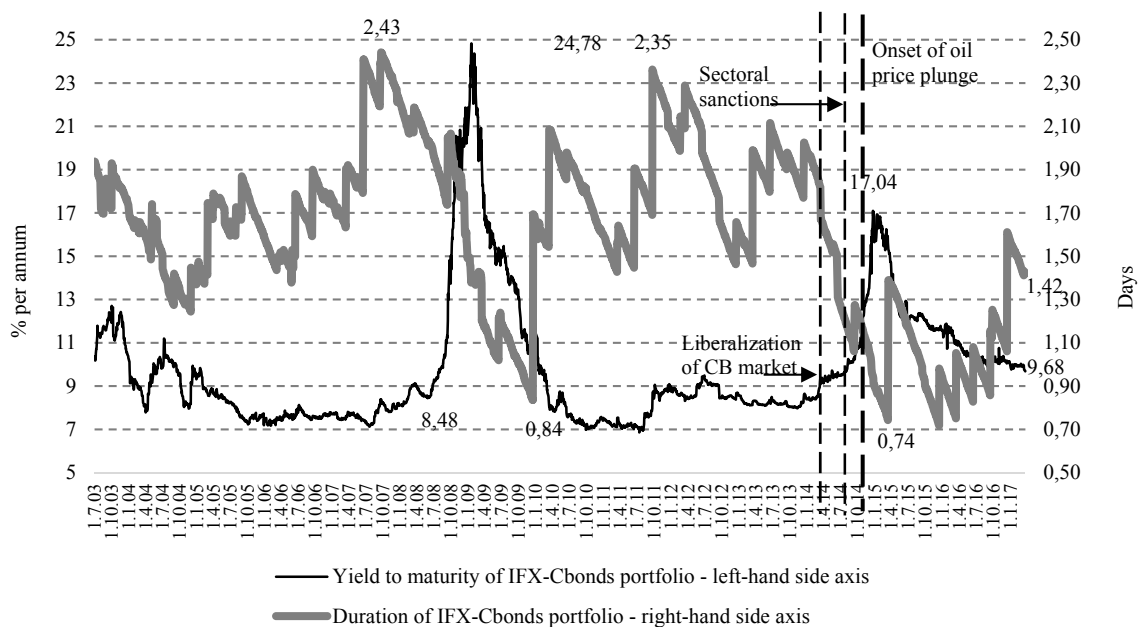


Fig. 22. The yield to maturity and duration indices of IFX-Cbonds portfolio over the period from July 1, 2003 to March 23, 2017

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.

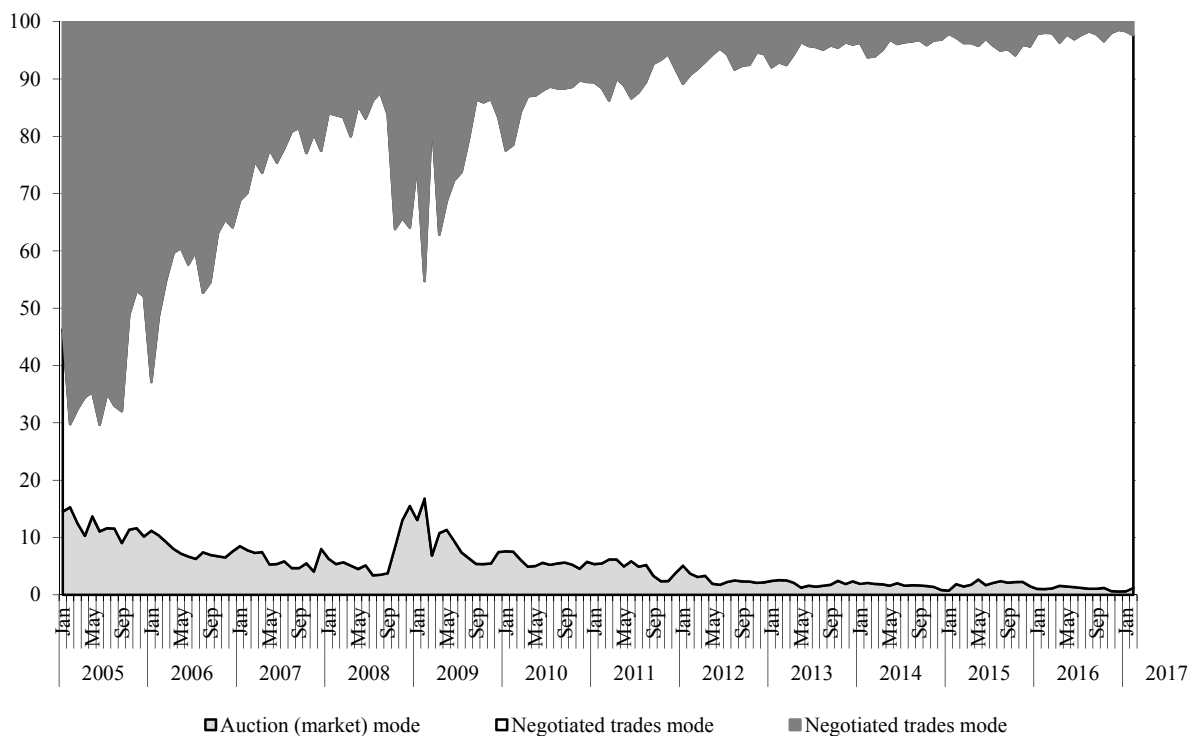


Fig. 23. The structure of trades in corporate bonds on the Moscow Exchange, %

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.

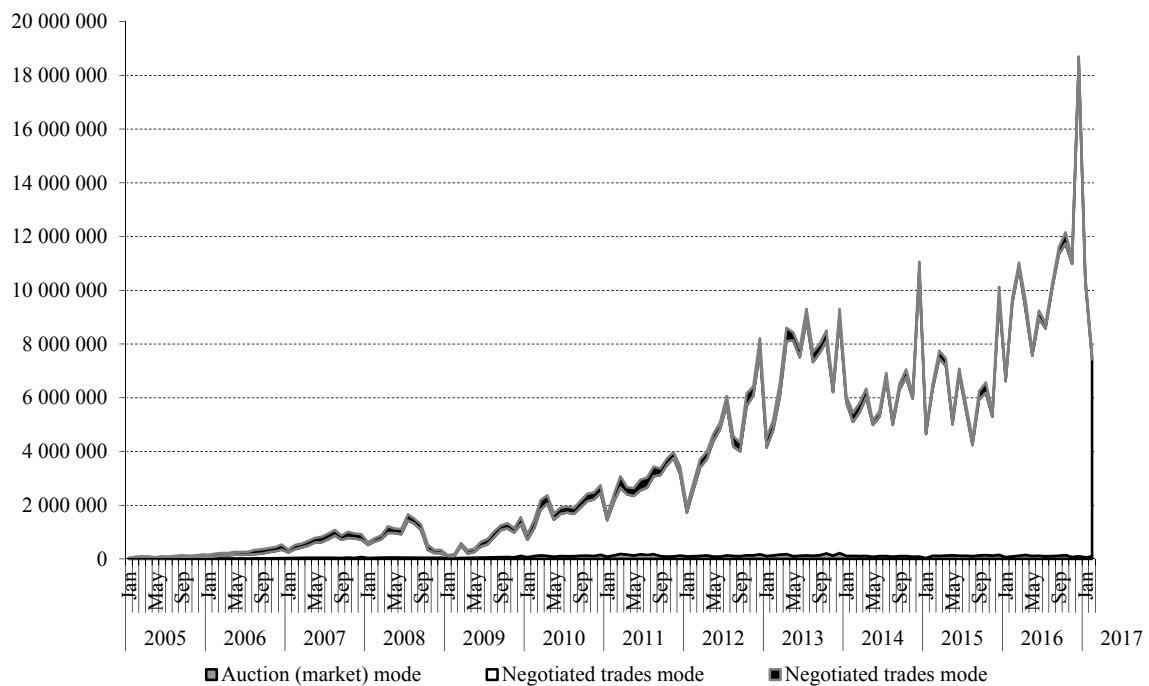


Fig. 24. The value volume of trades in corporate bonds on the Moscow Exchange, in millions of rubles

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.

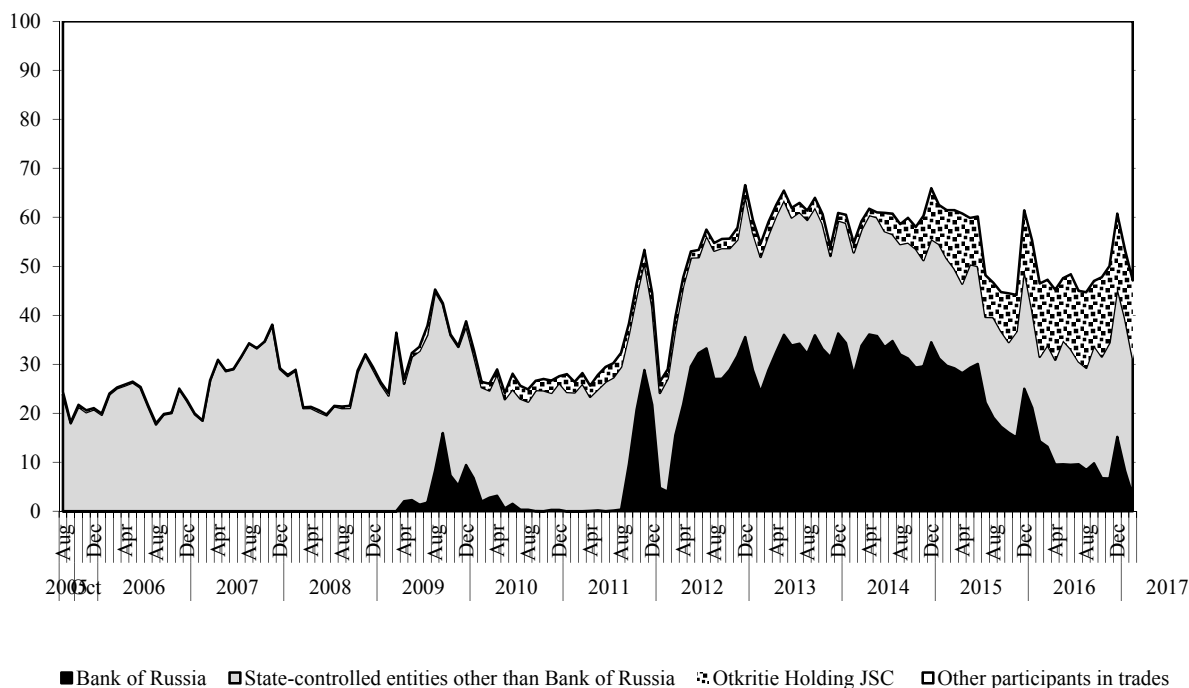


Fig. 25. The relative shares of private brokers and SCCs companies in trades in bonds on the Moscow Exchange, %

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

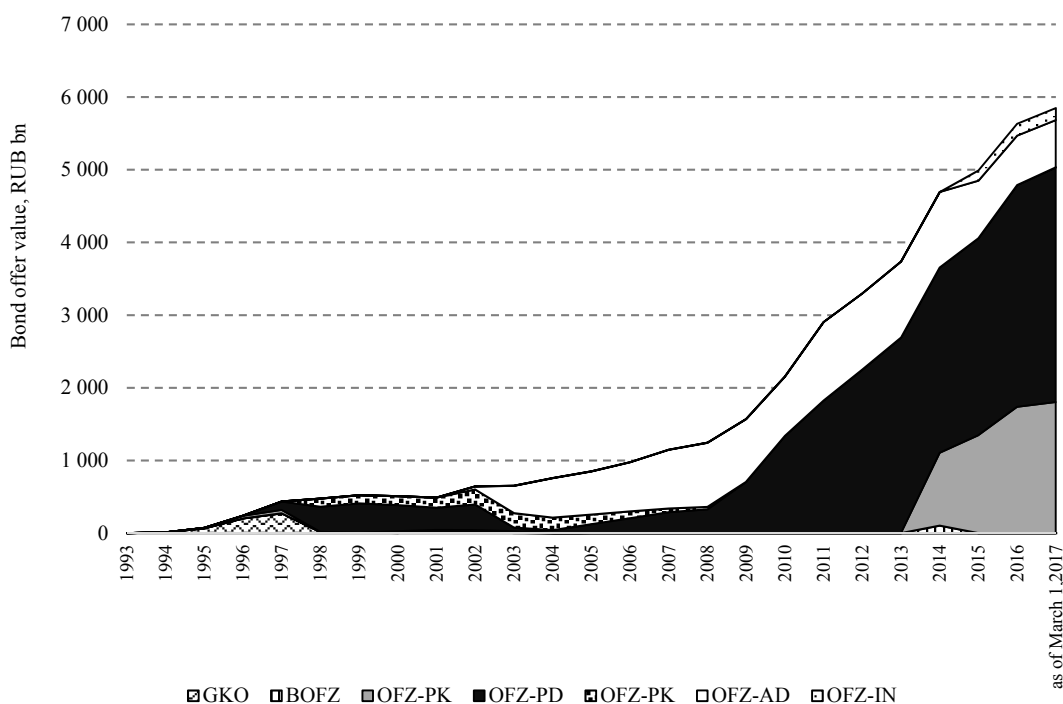


Fig. 26. The value volume of GKO-OFZ offering over the period from 1993 through February 2017, RUB bn

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 Finance 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%.

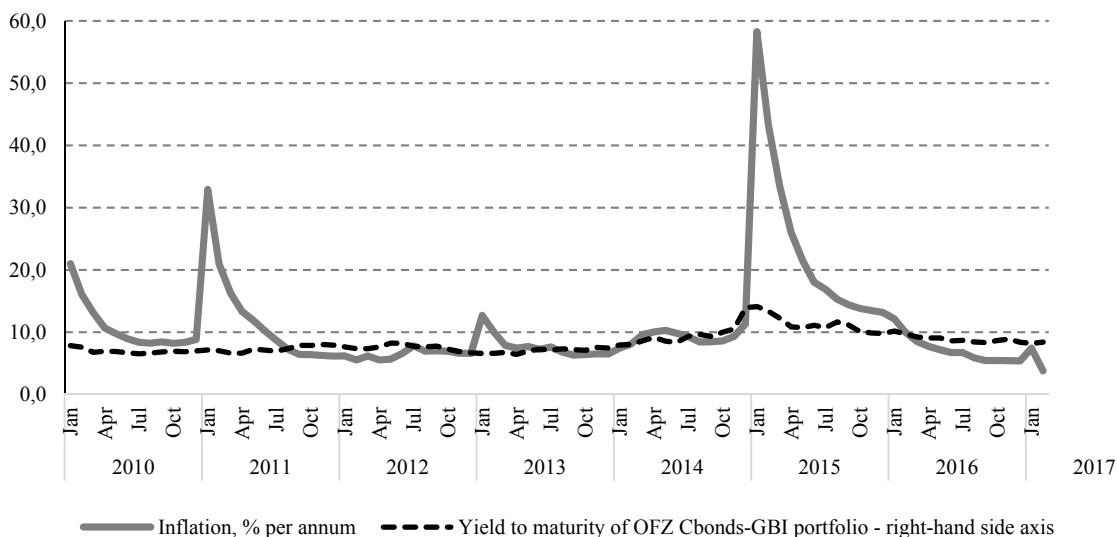


Fig. 27. The movement of inflation and yield to maturity of OFZ Cbonds-GBI portfolio over the period from January 11, 2010 to March 23, 2017

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.

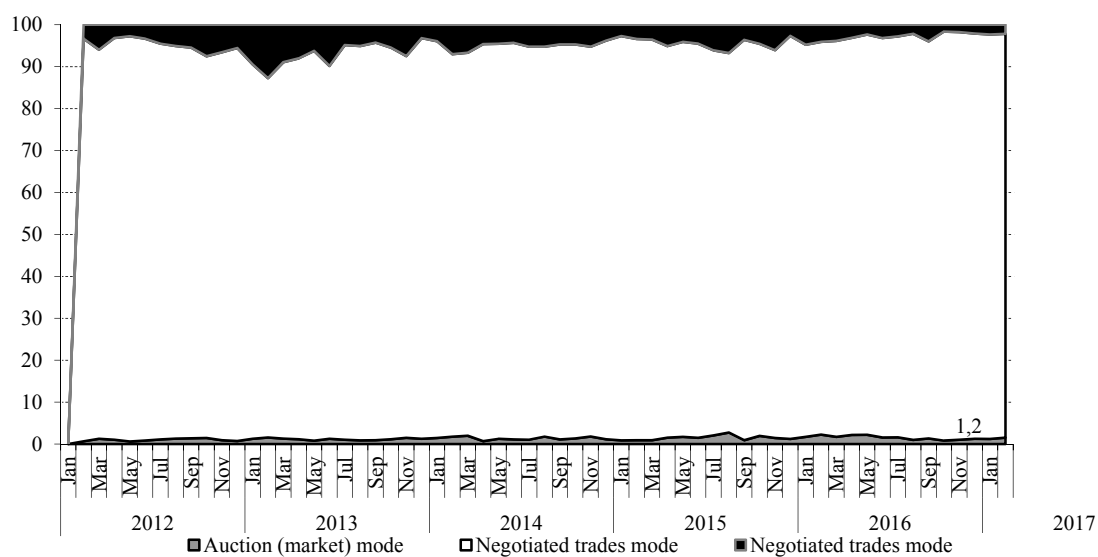


Fig. 28. The structure of transactions in federal bonds on the Moscow Exchange from February 2012 through February 2017, %

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

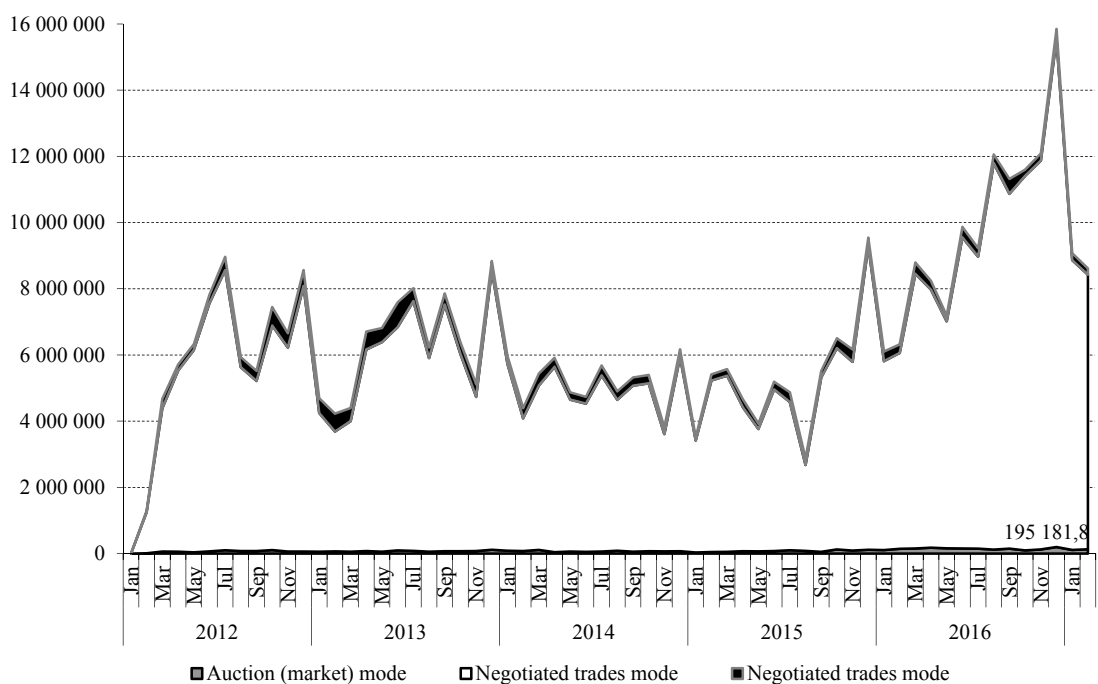


Fig. 29. The value volume of trades in federal bonds on the Moscow Exchange from February 2012 through February 2017, RUB m

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%.

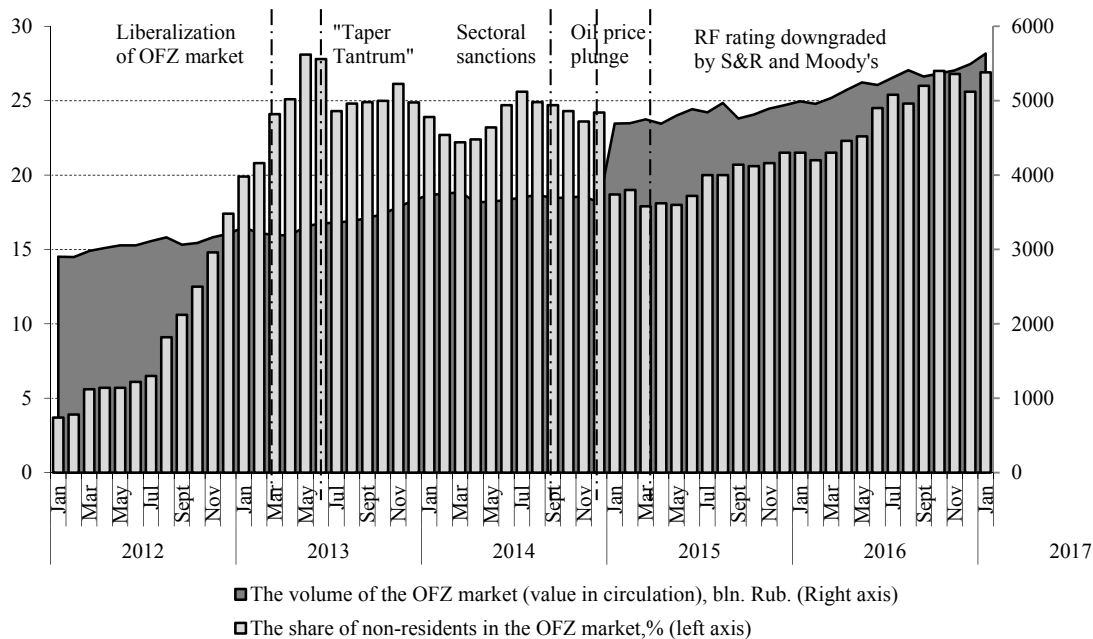


Fig. 30. The participation of non-residents in the OFZ market¹ from February 2012 through January 2017

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.

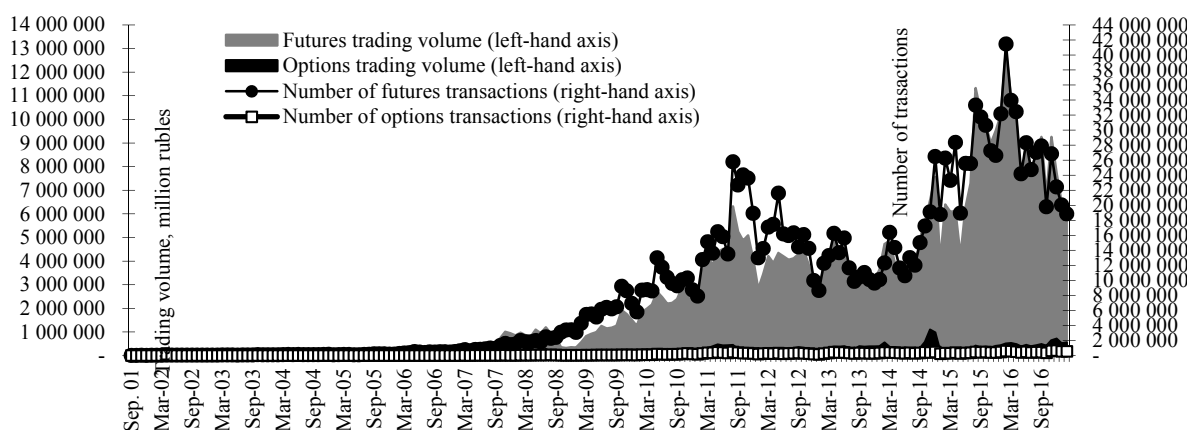


Fig. 31. Trading volumes and number of transactions in MOEX derivatives market in the period between September 9, 2001 and February 28, 2017

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.

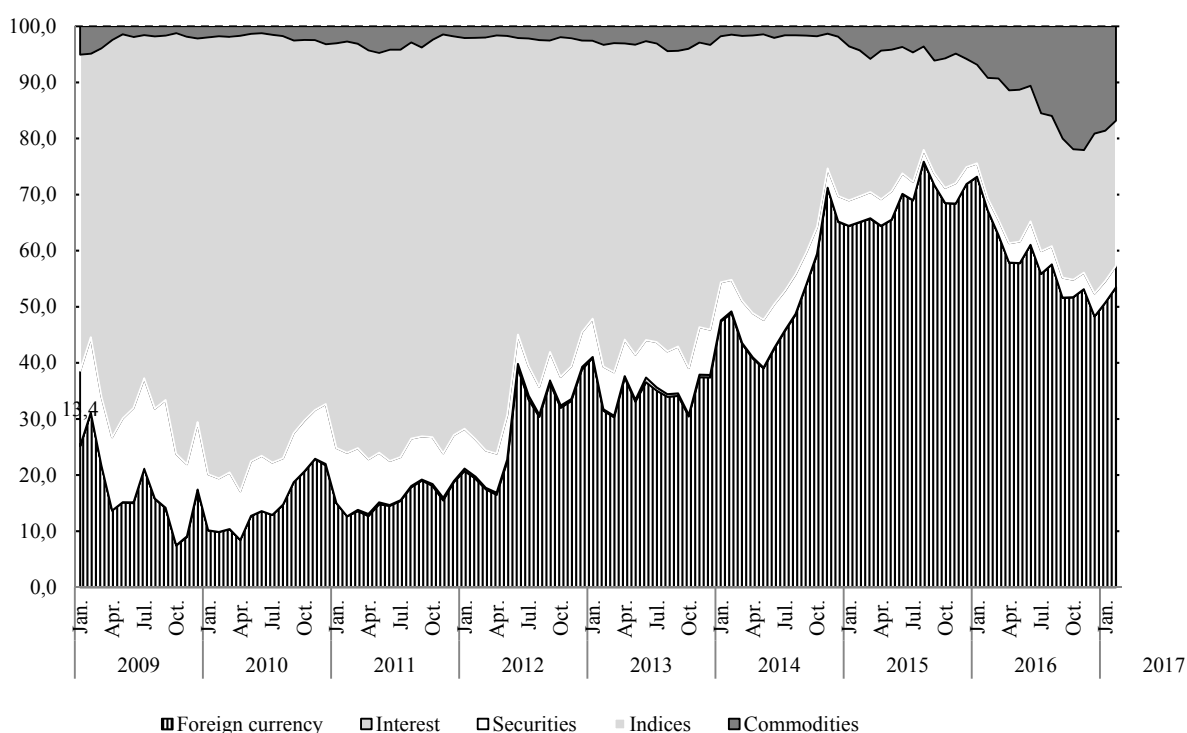


Fig. 32. MOEX futures market structure in the period between 2009 and February 2017, as % of transaction value

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.

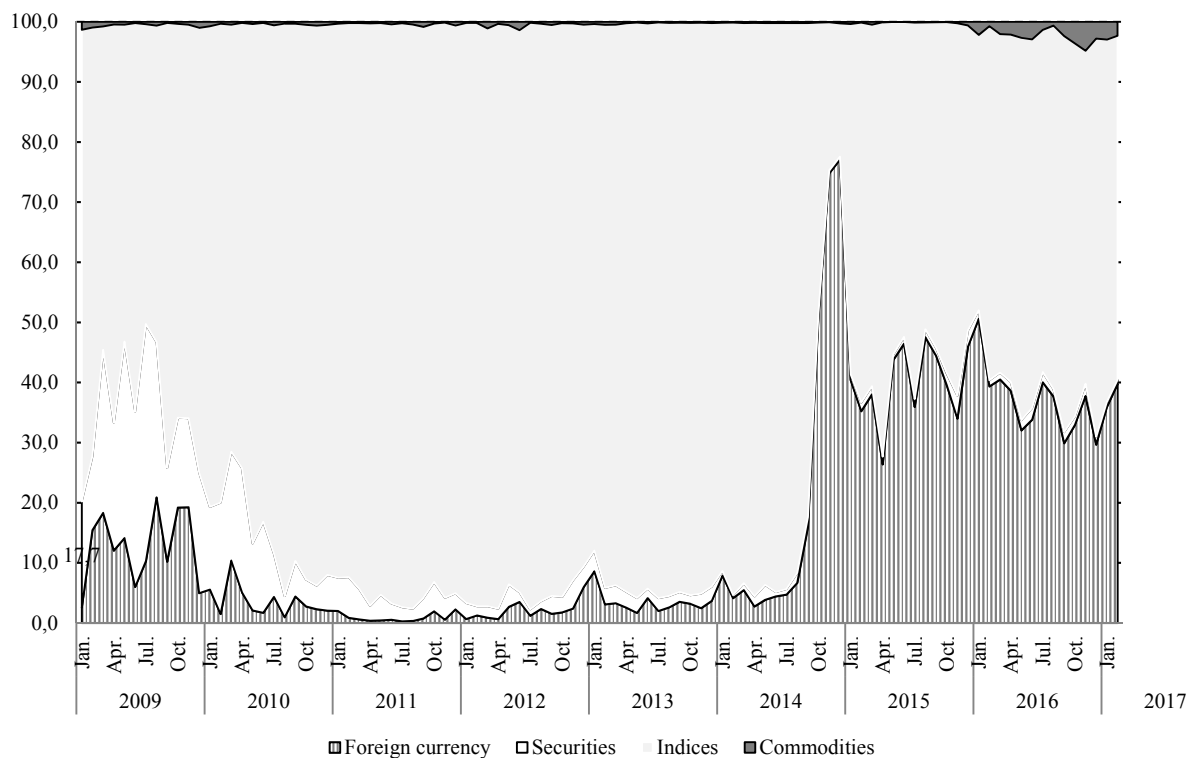


Fig. 33. MOEX options market structure in the period between 2009 and February 2017, as % of transaction value

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.

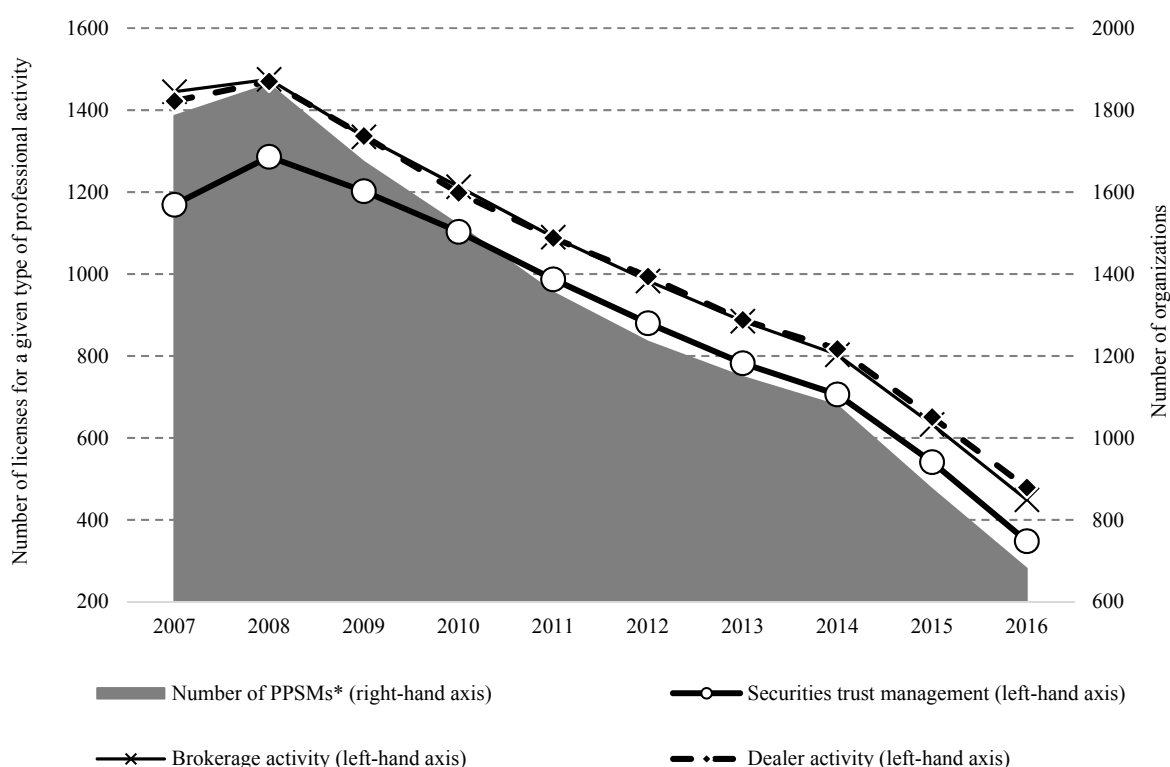


Fig. 34. Number of brokerage, dealer, securities trust management licenses and of securities market professional participants

* 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
	OAo 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 OAo 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*).

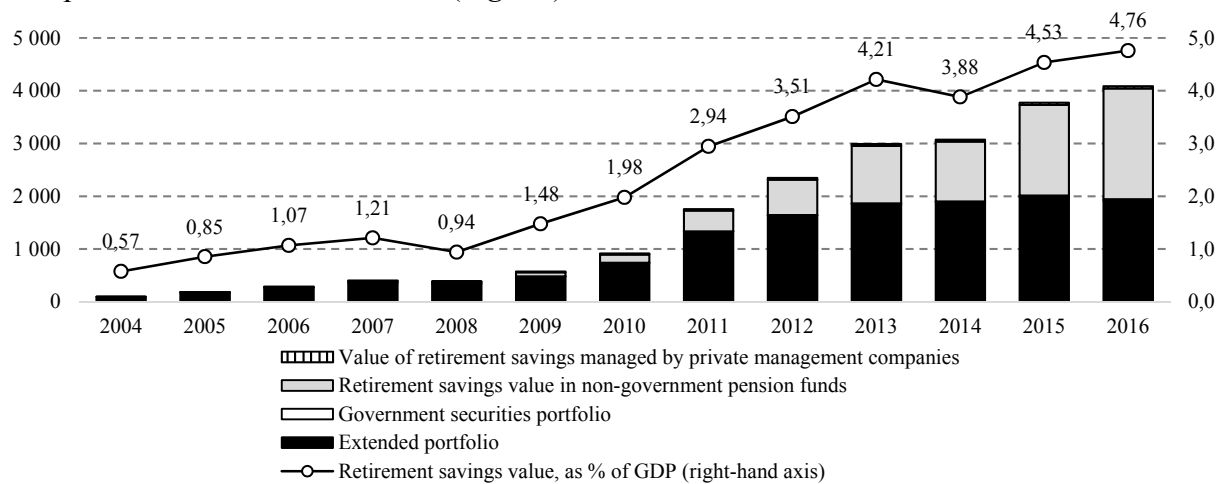


Fig. 35. Composition of retirement savings in 2004–2016, bn Rb

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*).

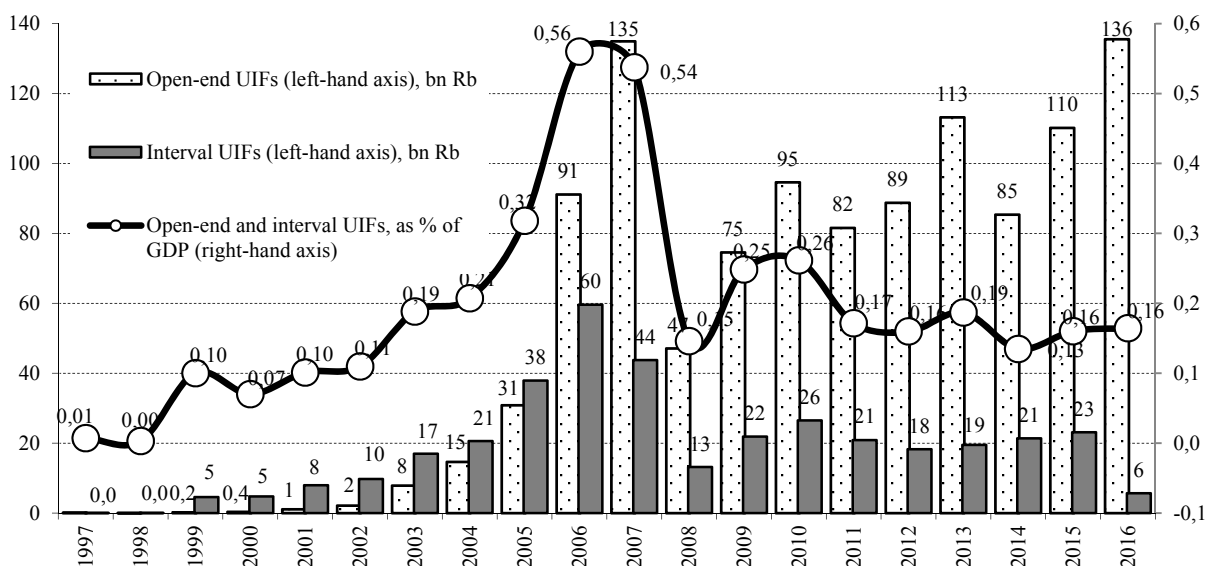


Fig. 36. Open-end/interval UIFs' relative and absolute size

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%.

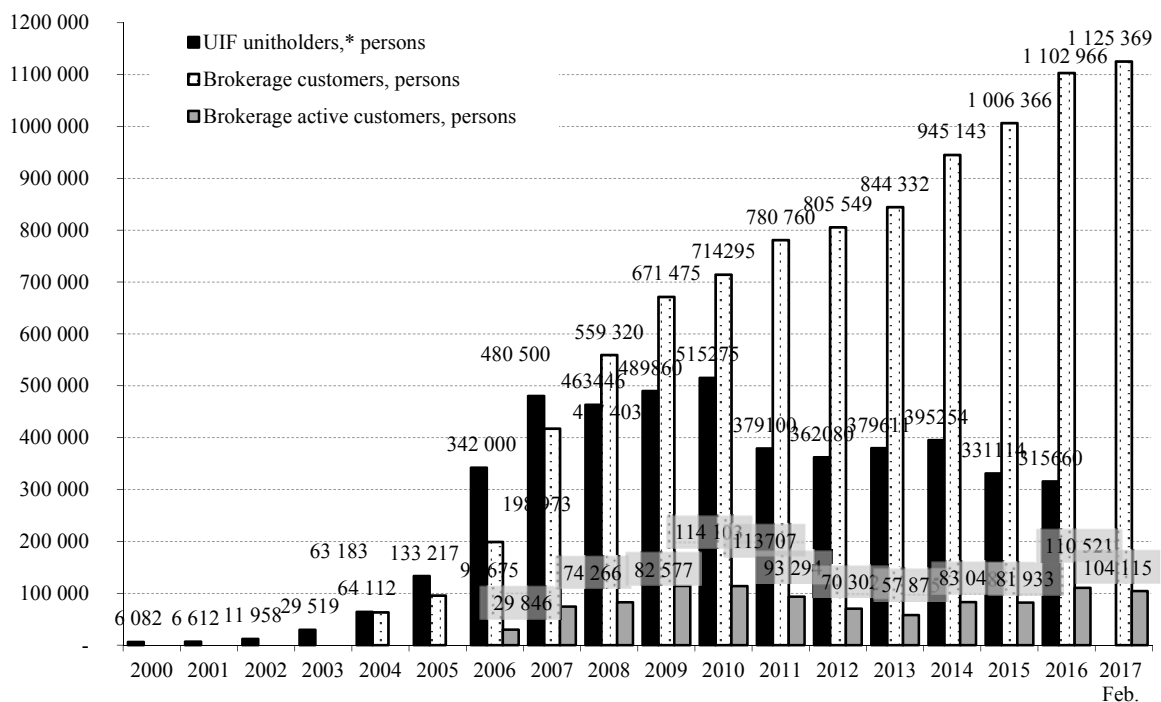


Fig. 37. Number of MOEX retail customers in management companies and brokers

* 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.

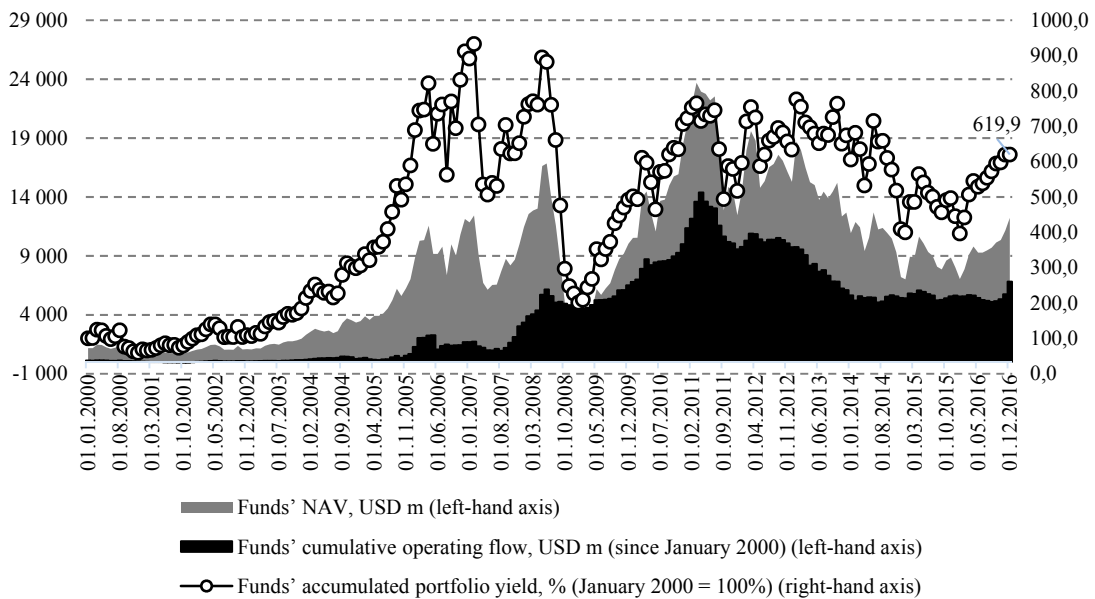


Fig. 38. Size, cash flows and accumulated yield of foreign funds investing in Russia in the period between January 2000 and December 2016

Source: own calculations based on EPFR's data

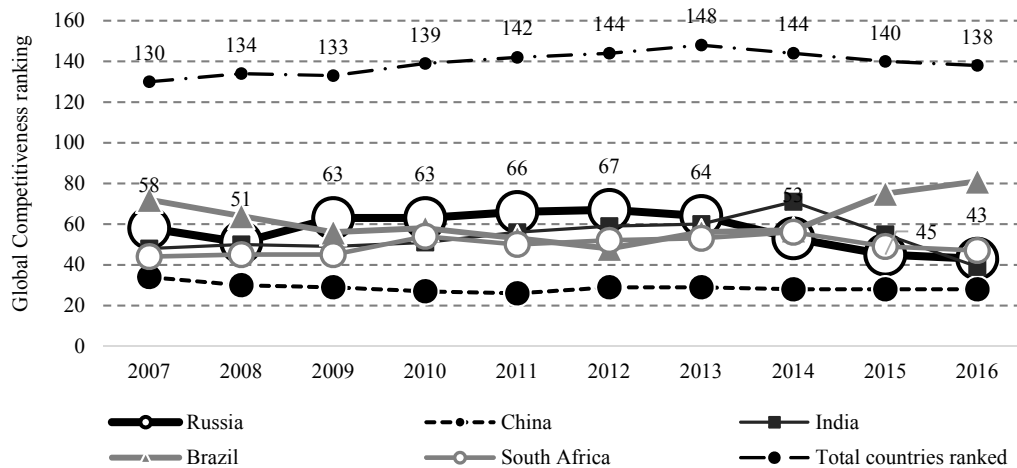


Fig. 39. BRICS countries global competitiveness index based on The Global Competitiveness Report published by The World Economic Forum in 2007–2016

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.

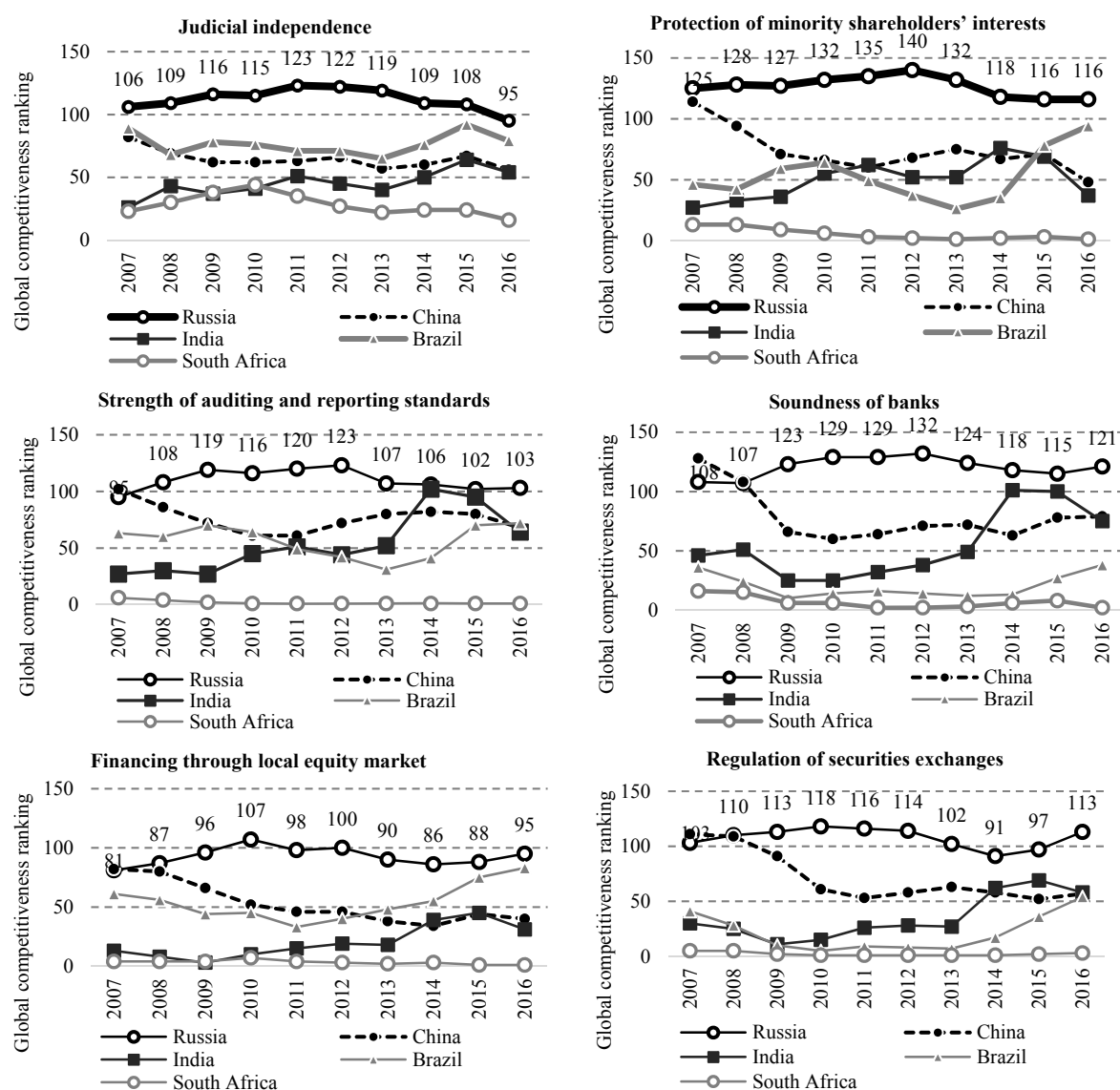


Fig. 40. WEF global competitiveness ranking of BRICS countries on certain criteria relevant for conservative portfolio investors' decisions

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.

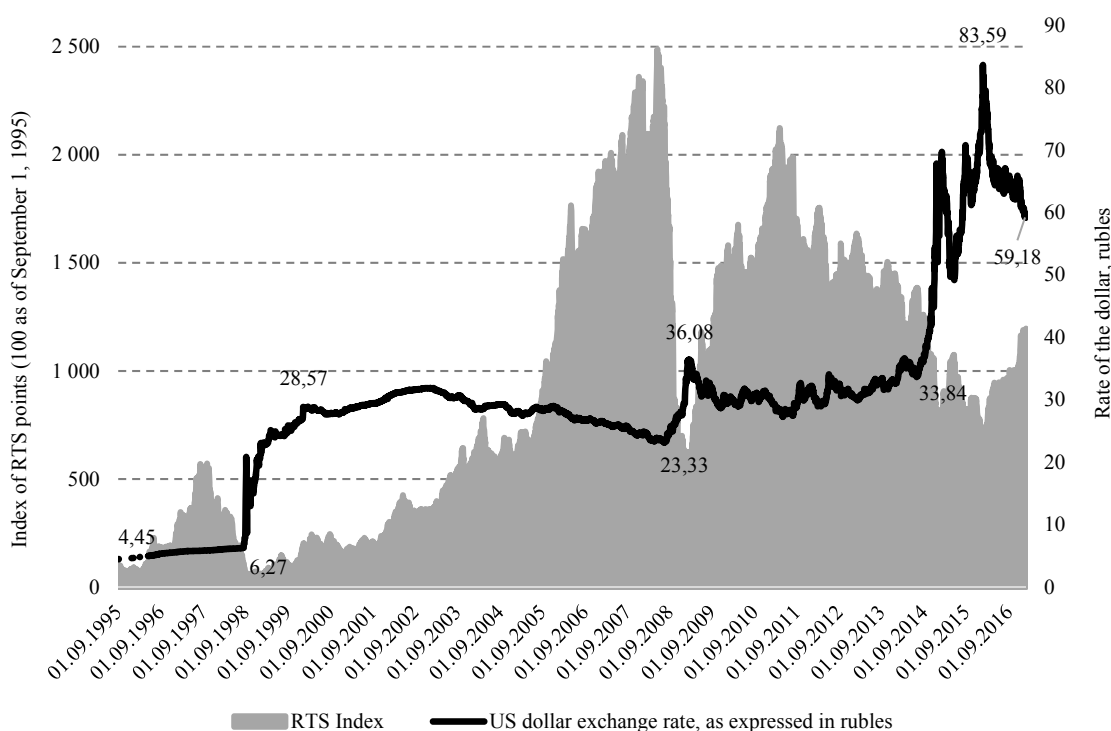


Fig. 41. RTS Index and ruble exchange rate in the period between September 1, 1995 and January 27, 2017

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.

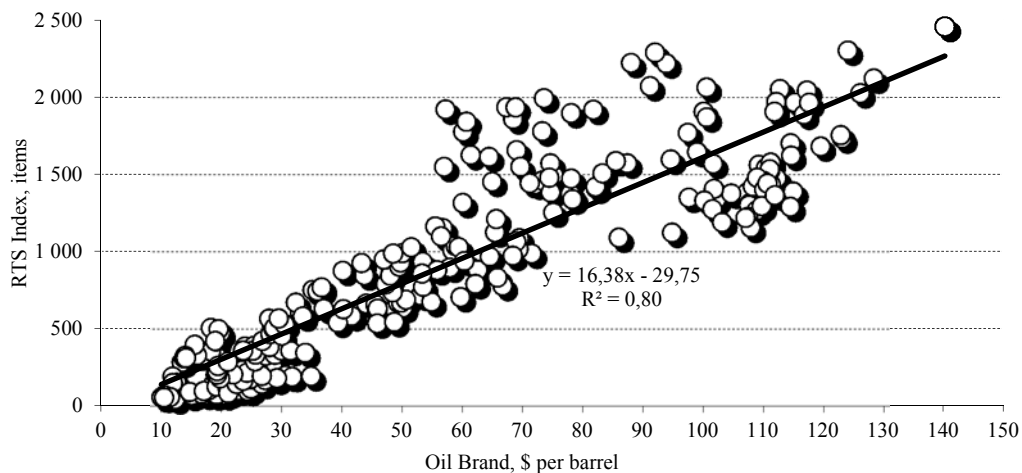


Fig. 42. RTS Index’s reliance on Brent crude oil prices in the period between September 1995 and February 2017

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. Gurevich 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.

3.8. Municipal and sub-federal debt market¹

3.8.1. Market development dynamics

According to the *2016 year-end data*, the regional consolidated budget and local government off-budget funds' budget ran a deficit of Rb 303.5m and thereby reached an almost deficit-free level.

By comparison, the regional consolidated budget and local government off-budget funds' budget amounted to Rb 178.7bn (0.22% of GDP) in 2015.

In 2016, the budget of subjects of the Russian Federation ran a deficit of Rb 2.4bn, urban districts' budget ran a deficit of Rb 16.3bn, federal-status cities' inner-city municipalities' budget ran a surplus of Rb 0.3bn, municipal areas' budget ran a surplus of Rb 11.4bn, urban and rural settlements' budget ran a deficit of Rb 5.4bn, local government off-budget funds' budget ran a surplus of Rb 12.3bn.

In 2015, the budget of subjects of the Russian Federation ran a deficit of Rb 108.2bn, urban districts' budget ran a deficit of Rb 52.1bn, inner-city municipalities' budget in the federal-status cities of Moscow and St. Petersburg ran a surplus of Rb 1.4bn, municipal areas' budget ran a deficit of Rb 10.5bn, urban and rural settlements' budget ran a surplus of Rb 2.2bn, local government off-budget funds' budget ran a deficit of Rb 7.1bn.

Table 12

Ratio of regional consolidated budget surplus (deficit) and of regional budgets to budget expenditure in 2007–2016, %

Year	Regional consolidated budget*	Regional budgets
2016	–	0.003
2015	-1.6	-1.3
2014	-4.6	-4.9
2013	-6.4	-8.1
2012	-3.0	-3.5
2011	-0.2	-0.3
2010	-1.4	-1.6
2009	-5.3	-5.3
2008	-0.7	-0.7
2007	0.8	0.6

* including state off-budget funds.

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

¹ Author of chapter: A. Shadrin – Ministry of Economy of Russia.

Table 13

Local budget surplus (deficit) to budget expenditure ratio in 2007–2016, %

Year	Inner-city municipalities budget in federal-status cities	Urban districts' budget	Municipal areas' budget	Urban and rural settlements' budget
2016	1.3	-0.9	0.8	-1.5
2015	6.7	-3.0	-0.7	-0.6
2014	6.0	-2.2	-1.4	0.7
2013	-3.47	-2.61	-5.59	2.24
2012	2.26	-2.01	-0.08	1.34
2011	6.15	-2.10	1.13	0.64
2010	-1.12	-1.16	-0.11	1.72
2009	-0.63	-3.32	-1.88	2.63
2008	-1.47	1.09	-0.26	2.72
2007	5.34	1.23	-0.04	2.34

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

As of January 1, 2017, the consolidated budget (including local government off-budget funds) of 58 subjects of the Russian Federation ran a deficit (76 regions in 2015). The overall deficit amounted to Rb 198.0bn, or 3.1% of the revenue side (Rb 377.6bn in 2015, or 3.3% of the revenue side of budgets that ran a deficit).

The median budget deficit value stood at 5.7% relative to a given budget revenue. The highest ratio of budget deficit to budget revenue was recorded in Nenets Autonomous Okrug (22.0%), the Republic of Khakassia (21.3%), the city of Sevastopol (13.8%), Kostroma Region (12.0%), the Republic of Crimea (10.8%). St. Petersburg accounted for more than 9.7% (or Rb 19.2bn) of the total consolidated budget deficit, Krasnoyarsk Territory constituted more than 7.6% (or Rb 15.1bn) thereof, and the Republic of Crimea represented more than 7.2% (or Rb 14.3bn) thereof (*Table 14*).

In 2016, the consolidated budget of 27 subjects of the Russian Federation ran a surplus (compared with 9 regions in 2015). These regions ran an overall budget surplus of Rb 197.8bn, or 3.7% of the revenue side (Rb 199.0bn, or 6.0% of the revenue side, in 2015). The median budget surplus value stood at 2.8% relative to the revenue side.

The biggest ratio of surplus to consolidated budget revenues was recorded in Chukotka Autonomous Okrug (8.2%, or Rb 2.8bn) and Moscow (6.0%, or Rb 121.7bn). In 2016, Moscow accounted for 61.2% of the overall surplus of regional budgets that ran a surplus, compared with 73.2%, or Rb 145.7bn, in 2015.

Table 14

Execution of consolidated budgets of subjects of the Russian Federation in 2016

	Budget revenues, rubles in billions	Budget deficit (surplus), rubles in billions	Deficit (surplus) to revenue ratio, %	borrowing to revenues ratio, %	Net borrowing to revenues ratio, %	Redemption costs to earnings ratio, %
1	2	3	4	5	6	7
Central Federal Okrug						
Belgorod Region	95.5	3.1	3.2	10.8	2.6	8.1
Bryansk Region	68.7	-0.7	-1.1	13.3	0.6	12.7
Vladimir Region	74.4	-1.8	-2.4	5.6	-0.1	5.6
Voronezh Region	125.7	-1.1	-0.9	52.1	2.2	50.0
Ivanovo Region	46.0	1.3	2.9	60.9	3.3	57.6
Tver Region	75.7	-3.5	-4.6	22.6	-1.8	24.3
Kaluga Region	70.6	1.5	2.2	33.6	4.8	28.8
Kostroma Region	32.8	3.9	12.0	64.6	14.0	50.7
Kursk Region	62.4	2.2	3.6	50.7	3.3	47.4
Lipetsk Region	71.9	0.4	0.6	4.8	-2.9	7.7
Moscow Region	632.8	-10.0	-1.6	10.2	0.1	10.1

RUSSIAN ECONOMY IN 2016
trends and outlooks

Cont'd

1	2	3	4	5	6	7
Orel Region	39.5	3.3	8.2	36.5	8.1	28.3
Ryazan Region	64.1	-1.9	-3.0	22.8	-0.6	23.4
Smolensk Region	51.8	1.9	3.7	109.5	5.6	103.9
Tambov Region	60.6	2.3	3.8	29.8	4.0	25.9
Tula Region	93.0	0.3	0.4	13.9	1.3	12.6
Yaroslavl Region	76.8	5.0	6.5	78.3	6.6	71.8
City of Moscow	2 031.6	-121.7	-6.0	0.0	-3.6	3.6
City of Baikonur	3.5	0.1	3.6	0.0	0.0	0.0
Total	3 777.4	-115.2	-3.1	12.1	-1.2	13.2
North-West Federal Okrug						
Republic of Karelia	48.7	2.6	5.3	30.3	3.1	27.2
Republic of Komi	86.0	6.2	7.3	93.2	9.7	83.5
Arkhangelsk Region	93.7	4.8	5.1	95.0	4.5	90.5
Vologda Region	78.7	-4.5	-5.7	24.0	-3.3	27.3
Kaliningrad Region	93.7	2.8	3.0	23.5	1.4	22.1
Leningrad Region	151.8	-2.9	-1.9	1.1	-2.4	3.5
Murmansk Region	85.7	-2.5	-2.9	53.2	0.1	53.1
Novgorod Region	38.7	0.2	0.6	34.5	0.5	33.9
Pskov Region	35.9	1.4	4.0	75.8	4.2	71.6
St. Petersburg	544.6	19.2	3.5	0.0	-0.2	0.2
Nenets Autonomous Okrug	15.6	3.4	22.0	49.4	16.9	32.5
Total	1 273.1	30.9	2.4	25.2	1.0	24.2
South Federal Okrug						
Republic of Kalmykia	14.3	0.6	3.9	32.9	2.3	30.6
Krasnodar Territory	310.4	-2.4	-0.8	16.3	2.4	13.9
Astrakhan Region	47.7	1.6	3.3	40.1	7.2	32.9
Volgograd Region	123.5	6.6	5.3	37.5	4.6	32.9
Rostov Region	226.6	-4.6	-2.0	3.8	-0.1	3.9
City of Sevastopol	25.4	3.5	13.8	0.0	0.0	0.0
Republic of Crimea	133.3	14.3	10.8	3.8	3.8	0.0
Republic of Adygei (Adygei)	21.9	-0.4	-1.9	10.6	-0.5	11.0
Total	903.0	19.0	2.1	15.1	2.4	12.8
North-Caucasian Federal Okrug						
Republic of Dagestan	122.0	-2.3	-1.9	5.7	-1.0	6.7
Kabardino-Balkar Republic	37.8	2.8	7.5	84.8	7.9	76.9
Republic of Northern Ossetia-Alania	32.5	-0.2	-0.5	26.6	0.5	26.1
Republic of Ingushetia	32.5	-1.2	-3.6	21.5	-2.6	24.1
Stavropol Territory	124.0	3.7	3.0	75.1	3.9	71.2
Karachayevo-Cherkessian Republic	24.8	0.6	2.6	52.3	1.8	50.6
Chechen Republic	83.4	-0.9	-1.1	2.6	-0.7	3.3
Total	457.1	2.6	0.6	35.6	1.2	34.4
Privolzhskiy Federal Okrug						
Republic of Bashkortostan	233.5	-10.1	-4.3	3.1	0.2	2.9
Republic of Mariy-El	33.2	0.4	1.2	32.8	1.3	31.5
Republic of Mordovia	48.9	4.4	9.0	78.1	17.0	69.2
Republic of Tatarstan (Tatarstan)	293.9	-0.1	0.0	9.9	1.2	8.7
Udmurt Republic	88.2	7.9	9.0	45.6	8.5	37.0

Cont'd

1	2	3	4	5	6	7
Republic of Chuvashia -- Chuvashia	60.0	-1.7	-2.8	32.3	0.3	32.1
Nizhniy Novgorod Region	194.0	3.7	1.9	107.2	3.2	104.0
Kirov Region	67.5	2.9	4.3	95.2	4.6	90.5
Samara Region	201.2	5.3	2.6	22.5	3.1	19.6
Orenburg Region	110.5	0.7	0.6	23.0	0.4	22.6
Penza Region	67.1	0.1	0.2	14.9	0.6	14.3
Perm Territory	158.4	0.6	0.4	52.3	1.0	51.4
Saratov Region	115.3	0.1	0.1	35.9	0.6	35.3
Ulyanovsk Region	66.9	1.1	1.6	32.1	2.8	29.3
Total	1 738.5	15.3	0.9	37.0	2.1	34.9
Urals Federal Okrug						
Kurgan Region	46.7	2.8	6.0	19.2	7.1	12.1
Sverdlovsk Region	285.7	4.6	1.6	61.1	2.1	59.0
Tyumen Region	157.2	-4.4	-2.8	0.0	0.0	0.0
Chelyabinsk Region	196.9	-0.1	0.0	12.0	-0.6	12.6
Hanty-Mansiyskiy Autonomous Okrug -- Yugra	272.8	9.0	3.3	4.0	1.3	2.7
Yamalo-Nenets Autonomous Okrug	166.3	0.4	0.2	15.1	-1.9	17.0
Total	1 125.5	12.3	1.1	21.6	0.7	20.8
Siberia Federal Okrug						
Republic of Buryatia	63.6	2.4	3.8	25.0	0.3	24.6
Republic of Tyva	29.4	-1.0	-3.2	15.6	-0.5	16.1
Altai Territory	122.7	-5.2	-4.2	1.7	-0.3	2.1
Krasnoyarsk Territory	262.9	15.1	5.7	30.5	4.9	25.6
Irkutsk Region	184.4	-1.3	-0.7	39.4	-0.9	40.3
Kemerovo Region	162.9	5.4	3.3	16.8	4.0	12.7
Novosibirsk Region	173.1	0.6	0.4	94.6	1.6	93.0
Omsk Region	102.4	5.4	5.3	147.1	4.8	142.2
Tomsk Region	80.9	0.4	0.5	52.3	3.2	49.2
Republic of Altai	20.4	0.0	0.2	6.4	-1.1	7.5
Republic of Khakassia	33.2	7.1	21.3	80.6	17.0	61.3
Zabaykalskiy Territory	68.8	-0.6	-0.9	50.2	0.5	49.7
Total	1 304.7	28.5	2.2	47.7	2.6	45.1
Far East Federal Okrug						
Republic of Sakha (Yakutia)	217.5	7.8	3.6	12.3	3.4	8.8
Primorskiy Territory	135.4	-4.7	-3.4	6.0	-1.3	7.3
Khabarovsk Territory	121.1	4.6	3.8	24.7	4.1	20.6
Amur Region	68.5	-3.5	-5.1	45.5	0.3	45.2
Kamchatka Territory	79.5	0.8	1.0	6.3	-2.4	8.8
Magadan Region	36.4	0.8	2.2	13.8	21.0	13.8
Sakhalin Region	165.6	3.2	1.9	0.0	-0.2	0.2
Jewish Autonomous Region	13.6	0.7	5.2	42.1	3.8	38.3
Chukotka Autonomous Okrug	34.3	-2.8	-8.2	13.7	-5.6	19.3
Total	872.0	6.9	0.8	13.4	0.8	12.5
Total Russian Federation	11 451.3	0.3	...	23.6	0.7	22.9

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

3.8.2. Debt structure

According to the data released by The Russian Finance Ministry, the debt accumulated by the subjects of the Russian Federation in 2016 increased Rb 34.5bn to Rb 2.353.1bn as the debt accumulated by municipalities rose Rb 23.0bn to Rb 364.3bn.

Table 15

Regional and local budgets net borrowing, % of GDP

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Net borrowing by sub-federal and local governments	0.17	0.29	0.74	0.51	0.21	0.33	0.61	0.53	0.33	0.10
Including:										
repayable loans from budgets at other levels	-0.01	0.03	0.33	0.37	0.15	0.01	0.06	0.24	0.21	0.21
Sub-federal (municipal) bonds	0.08	0.17	0.24	0.07	-0.11	0.06	0.12	-0.01	-0.01	0.04
Other borrowings	0.10	0.09	0.17	0.07	0.17	0.26	0.43	0.30	0.13	-0.15

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

Regions and municipalities borrowed a total of Rb 2700.2bn. The top-ranked borrowers were Nizhniy Novgorod Region (Rb 208.0bn), Sverdlovsk Region (Rb 174.4bn), Novosibirsk Region (Rb 163.8bn), Omsk Region (Rb 150.5bn), Stavropol Territory (Rb 93.1bn), Krasnoyarsk Territory (Rb 80.1bn), Voronezh Region (Rb 65.5bn), Moscow Region (Rb 64.3bn).

Securities issues accounted for 5.9% of the total consolidated regional budget, loans from higher-level budgets (budget loans) constituted 44.6% thereof, loans from commercial banks and international credit institutions amounted to 49.5% thereof.

Total net debt of the consolidated regional budget amounted to Rb 83.0bn. The highest ratio of net debt to budget revenues was recorded in Magadan Region (21.0%), the Republic of Mordovia and Republic of Khakassia (each 17.0%) (Table 14).

The top-ranked net borrowers were Krasnoyarsk Territory (Rb 12.8bn), the Republic of Komi (Rb 8.3bn), as well as the Udmurt Republic, the Republic of Sakha (Yakutia) and Krasnodar Territory (each Rb 7.5bn).

Twenty three regions had their accumulated debt reduced by repaying more for outstanding debt instruments compared to new fundraising, including Moscow (Rb 72.4bn), Leningrad Region (Rb 3.6bn), Yamalo-Nenets Autonomous Okrug (Rb 3.2bn).

3.8.3. Domestic bond issues

Twenty five subjects of the Russian Federation and 3 municipalities had their bond prospectus registered in 2016 (compared with 18 regions and 3 municipalities which issued bonds in 2015). The following regions had their bond prospectus registered with Russia's Ministry of Finance in 2016: Krasnoyarsk Territory, Nizhniy Novgorod Region, St. Petersburg, Tomsk Region, Republic of Sakha (Yakutia), Yaroslavl Region, Udmurt Republic, Samara Region, Belgorod Region, Orenburg Region, Republic of Mordovia, Republic of Khakassia, Republic of Komi, Republic of Karelia, Stavropol Territory, Novosibirsk Region, Omsk Region, Sverdlovsk Region, Hanty-Mansiyskiy Autonomous Okrug, Irkutsk Region, Moscow Region, Tyumen Region, Tambov Region, Yamalo-Nenets Autonomous Okrug, the cities of Novosibirsk, Tomsk and Omsk.

In 2016, the amount of placed bonds was Rb 160.5bn, which is an increase of more than 60% in nominal terms compared with the level seen in 2015 (Rb 98.5bn). Thus, sub-federal and municipal bond issues saw a YoY increase from 0.12% to 0.19% of GDP (Table 16).

Table 16

Amount of issued sub-federal and municipal securities, % of GDP

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Issue	0.26	0.43	0.41	0.25	0.10	0.19	0.23	0.16	0.12	0.19
Redemption	0.18	0.26	0.16	0.18	0.21	0.13	0.12	0.17	0.13	0.15
Net financing	0.08	0.17	0.24	0.07	-0.11	0.06	0.12	-0.01	-0.01	0.04

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

The top-ranked security issuers were Moscow Region (Rb 25.0bn, or 15.6% of total domestic securities issue), Yamalo-Nenets Autonomous Okrug (Rb 20bn, or 12.5%), Krasnoyarsk Territory (Rb 18.2bn, or 11.4%).

Hence the top-3 issuers accounted for 39.5% of the total regional and municipal bonds placed (Table 17).

Table 17

Sub-federal and municipal securities placement in 2016

Subject of the Russian Federation	Amount issued, rubles in billions	Issuer's percentage of total amount issued, %	Amount issued to domestic borrowing ratio, %
Central Federal Okrug			
Belgorod Region	3.5	2.2	34.0
Moscow Region	25.0	15.6	38.9
Tambov Region	1.6	1.0	8.9
Yaroslavl Region	4.5	2.8	7.5
North-West Federal Okrug			
Republic of Karelia	1.0	0.6	6.8
Republic of Komi	3.1	1.9	3.9
Kaliningrad Region	1.0	0.6	4.5
North-Caucasian Federal Okrug			
Stavropol Territory	4.8	3.0	5.2
Privolzhskiy Federal Okrug			
Republic of Mordovia	5.0	3.1	13.1
Udmurt Republic	5.0	3.1	12.4
Nizhniy Novgorod Region	10.0	6.2	4.8
Samara Region	10.0	6.2	22.1
Urals Federal Okrug			
Sverdlovsk Region	5.0	3.1	2.9
Hanty-Mansiyskiy Autonomous Okrug	6.0	3.7	55.6
Yamalo-Nenets Autonomous Okrug	20.0	12.5	79.8
Siberia Federal Okrug			
Krasnoyarsk Territory	18.2	11.4	22.8
Irkutsk Region	5.0	3.1	6.9
Novosibirsk Region	8.0	5.0	4.9
Omsk Region	7.5	4.6	4.9
Tomsk Region	5.9	3.6	13.8
Republic of Khakassia	5.0	3.1	18.7
Far East Federal Okrug			
Republic of Sakha (Yakutia)	5.5	3.4	20.6
Russian Federation – Total:	160.5	100.0	5.9

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

The highest level of securitization (79.8%) was observed in Yamalo-Nenets Autonomous Okrug.

In 2016, the amount of securities issued by subjects of the Russian Federation and municipalities exceeded by Rb 32.0bn the amount of redeemed securities, while the amount of redeemed bonds was Rb 5.8bn above that of issued bonds in 2015 (Table 18).

Table 18

**Net borrowing in the domestic market for sub-federal
and municipal securities, rubles
in thousands**

	Consolidated regional budget	Regional budgets	Municipal budgets
2016			
Net borrowings	31 983 694.1	26 696 369.2	5 287 324.9
Raising funds	160 505 656.8	153 656 387.9	6 849 268.9
Principal repayment	128 521 962.7	126 960 018.7	1 561 944.0
2015			
Net borrowings	-5 817 814.4	-7 108 555.7	1 290 741.3
Raising funds	98 458 019.0	94 251 869.0	4 206 150.0
Principal repayment	104 275 833.3	101 360 424.7	2 915 408.6
2014			
Net borrowings	-9 235 928.1	-7 410 458.9	-1 825 469.2
Raising funds	111 494 394.7	110 094 379.7	1 400 015.9
Principal repayment	120 730 322.8	117 504 838.6	3 225 484.2
2013			
Net borrowings	77 610 485.8	75 454 011.5	2 156 474.3
Raising funds	154 642 004.9	149 641 823.0	5 000 181.9
Principal repayment	77 031 519.1	74 187 811.5	2 843 707.6
2012			
Net borrowings	38 175 959.8	36 797 479.3	1 378 480.5
Raising funds	119 855 045.4	115 953 169.3	3 901 876.1
Principal repayment	81 679 085.5	79 155 690.0	2 523 395.5
2011			
Net borrowings	-58 202 600.7	-57 113 066.4	-1 089 534.3
Raising funds	55 050 750.6	53 366 195.4	1 684 555.1
Principal repayment	113 253 351.3	110 479 261.9	2 774 089.4
2010			
Net borrowings	29 774 599.3	28 611 970.0	1 162 629.3
Raising funds	111 106 318.3	105 854 346.2	5 251 972.1
Principal repayment	81 331 719.0	77 242 376.2	-4 089 342.8
2009			
Net borrowings	95 457 576.8	97 916 509.1	-2 458 932.3
Raising funds	158 114 034.3	153 992 570.1	4 121 464.2
Principal repayment	62 656 457.5	56 076 061.0	6 580 396.5
2008			
Net borrowings	68 851 271.9	72 984 947.8	-4 133 675.9
Raising funds	178 565 731.4	177 324 359.3	1 241 372.1
Principal repayment	109 714 459.5	104 339 411.5	5 375 048.0
2007			
Net borrowings	25 867 011	23 691 970	2 175 041
Raising funds	84 159 197	79 889 761	4 269 436
Principal repayment	58 292 185	56 197 791	2 094 394

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

Most of the regions that issue securities on a regular basis continued doing so in 2016. Krasnoyarsk Territory and Nizhniy Novgorod Region issue bonds annually since 2003 and 2004 respectively (Table 19).

Table 19

Sub-federal and municipal securities prospectus registration in 1999–2016

Issuer	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	2	3	4	5	6	7	8	9	10	11
Subjects of the Russian Federation										
Krasnoyarsk Territory	*	*	*	*	*	*	*	*	*	*
Nizhniy Novgorod Region	*	*	*	*	*	*	*	*	*	*
St. Petersburg	*	*	*	*	*	*	*	*	*	*

Cont'd

1	2	3	4	5	6	7	8	9	10	11
Tomsk Region	*	*		*	*	*	*	*	*	*
Republic of Sakha (Yakutia)	*	*		*	*	*	*	*	*	*
Yaroslavl Region	*	*		*	*	*	*	*	*	*
Udmurt Republic	*	*		*	*	*	*	*	*	*
Samara Region	*	*	*		*	*	*	*	*	*
Belgorod Region		*				*	*	*	*	*
Orenburg Region						*	*	*	*	*
Republic of Mordovia							*	*	*	*
Republic of Khakassia				*		*	*	*	*	*
Republic of Komi		*		*	*		*	*	*	*
Republic of Karelia	*	*	*	*	*	*	*	*		*
Stavropol Territory		*			*	*	*	*		*
Novosibirsk Region	*						*	*		*
Omsk Region							*	*		*
Sverdlovsk Region				*	*	*		*		*
Hanty-Mansiyskiy Autonomous Okrug			*				*	*		*
Irkutsk Region	*	*	*			*			*	*
Moscow Region	*	*								*
Yamalo-Nenets Autonomous Okrug										*
Tyumen Region										*
Tambov Region										*
Volgograd Region	*	*	*	*	*	*	*	*	*	
Republic of Bashkortostan	*				*	*	*	*	*	
Tula Region						*	*	*	*	
Krasnodar Territory	*			*		*			*	
Tver Region	*	*	*	*	*	*	*	*		
Lipetsk Region	*	*				*	*	*		
Voronezh Region	*					*	*	*		
Smolensk Region							*	*		
Republic of Chuvashia	*	*	*		*	*	*	*		
Republic of Mariy-El						*	*	*		
Leningrad Region							*	*		
Magadan Region							*	*		
Kostroma Region	*				*		*			
Moscow		*	*	*			*			
Kemerovo Region							*			
Kaluga Region	*	*			*	*				
Vologda Region					*	*				
Ryazan Region				*		*				
Ivanovo Region	*				*					
Republic of Buryatia					*					
Murmansk Region				*						
Penza Region	*	*								
Ulyanovsk Region	*	*								
Kurgan Region		*								
Republic of Kalmykia	*									
Khabarovsk Territory										
Kabardino-Balkar Republic										
Bryansk Region										
Sakhalin Region										
Kursk Region										
Primorskiy Territory										
Republic of Kalmykia	*									
Khabarovsk Territory										

RUSSIAN ECONOMY IN 2016

trends and outlooks

Cont'd

1	2	3	4	5	6	7	8	9	10	11
Kabardino-Balkar Republic										
Bryansk Region										
Sakhalin Region										
Municipalities										
City of Novosibirsk				*	*	*	*	*	*	*
City of Tomsk	*	*		*		*		*	*	*
City of Omsk								*		*
City of Volgograd		*	*	*	*	*		*	*	
City of Volzhskiy, Volgograd Region.								*		
City of Krasnoyarsk	*	*	*	*	*	*				
City of Kazan	*		*	*	*					
City of Krasnodar				*	*					
City of Ufa				*						
City of Elektrostal, Moscow Region	*		*							
City of Smolensk			*							
City of Lipetsk	*	*								
City of Magadan	*	*								
City of Bratsk		*								
City of Novorossiysk		*								
City of Yekaterinburg	*									
Kalinin District, Moscow Region	*									
Noginsk District, Moscow Region	*									
City of Blagoveshchensk	*									
City of Cheboksary	*									
City of Balashikha, Moscow Region	*									
Odintsovo District, Moscow Region										
City of Astrakhan										
City of Bryansk										
City of Voronezh										
City of Orekhovo-Zuevo, Moscow Region										
City of Yaroslavl										
City of Voronezh										
City of Yuzhno-Sakhalinsk										
City of Novocheboksarsk										
City of Angarsk										
Vurnarskiy District, Republic of Chuvashia										
City of Shumerlya, Republic of Chuvashia										
City of Barnaul										
City of Perm										
City of Nizhny Novgorod										
City of Kostroma										
City of Arkhangelsk										
City of Dzerzhinsky										

Source: Russia's Finance Ministry.

3.9. Russia's banking sector¹

3.9.1. Banking sector's main trends

Asset-holding dynamics and quantity of banks in business

In 2016, Russian banks' total asset holdings contracted by 3.5% in nominal terms – from Rb 83.0 trillion as of January 1, 2016 to Rb 80.0 trillion as of January 1, 2017. In 2015, Russian banks' total asset holdings increased 6.9%. The decline in the nominal value of banks' asset holdings in 2016 was recorded for the first time since asset-holding data began to be published in 1998. An appreciating ruble had a substantial adverse effect on the asset-holding dynamics. In 2016, the ruble gained 16.8% and 19.9% against the US dollar and the euro respectively, and therefore the ruble equivalent of assets held in foreign currency dropped considerably during the year. Banks' asset holdings, as adjusted for the revaluation of assets held in foreign currency, increased slightly by 2.1% in 2016 after a 1.5% fall in 2015. Thus, the value of banking sector's asset holdings was steady over the past two years.

Relative to the size of the Russian economy, the value of banks' asset holdings was down from 100% in 2015 to 93% in 2016 (*Fig. 43*) due to the fact that the 2016 decline in the nominal value of asset holdings was coupled with growth from Rb 83.2 trillion to Rb 85.9 trillion in the nominal value of GDP. The nominal value of GDP was on a steady rise over the past few years despite the contraction in volume terms in 2015/2016.

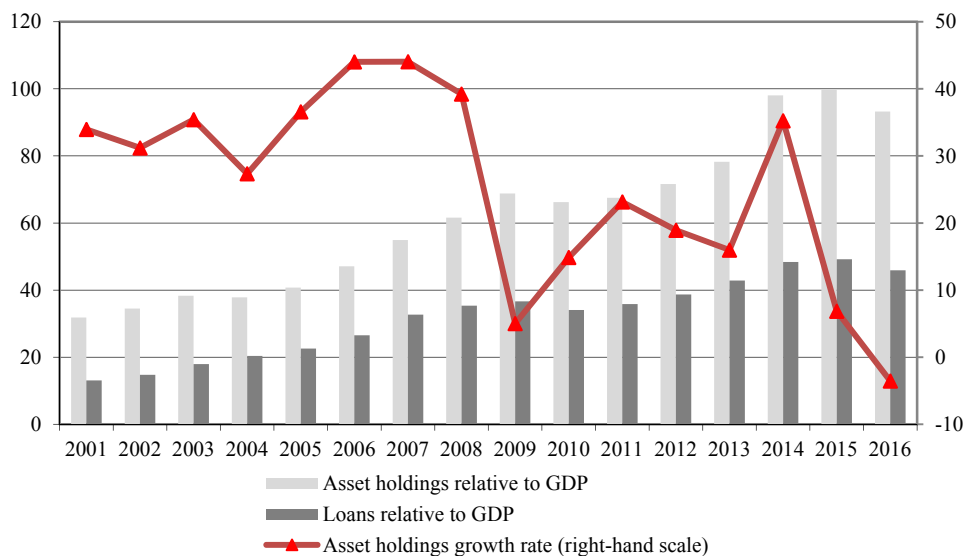


Fig. 43. Banks' asset holdings growth rate and banking sector size relative to Russian economy size, %

Source: Bank of Russia, Rosstat, own estimates.

The process whereby some of the credit institutions were forced out of the market on grounds of failing to meet the regulator's requirements continued in 2016. Ninety seven banking licenses were revoked during the year. While the number of revoked banking licenses was much the

¹ Author of chapter: M. Khromov – Gaidar Institute, IAES RANEPA.

same over the past three years (86 in 2014 and 93 in 2015), most of the revocations were observed in 2016. More than 300 banks had their banking license revoked since Elvira Nabiullina took over as Governor of the Bank of Russia. The total number of banks in business decreased by more than one third, from 956 as of January 1, 2013 to 623 as of January 1, 2017.

The size of asset holdings of banks which had their license revoked in 2016 reached Rb 1.2 trillion, hitting a 3-year high and accounting for 1.4% of the total Russian banking sector’s asset holdings recorded earlier in the year. Given slow growth rates in the banking sector’s asset holdings, banking license revocations had a strong effect on the asset-holding dynamics as a whole. In 2015/2016, for instance, banks’ asset holdings, as adjusted for the exchange rate revaluation, increased Rb 0.5 trillion, while those of banks which had their license revoked were 4.5 times this amount, reaching Rb 2.3 trillion.

Retail deposits in banks who had their license revoked in 2016 reached Rb 478bn, with about 87% of the amount being eligible for reimbursement by the Deposit Insurance Agency (Fig. 44). The ratio remained stable in 2014–2016 mainly due to a double increase in the upper limit for reimbursement late in 2014.

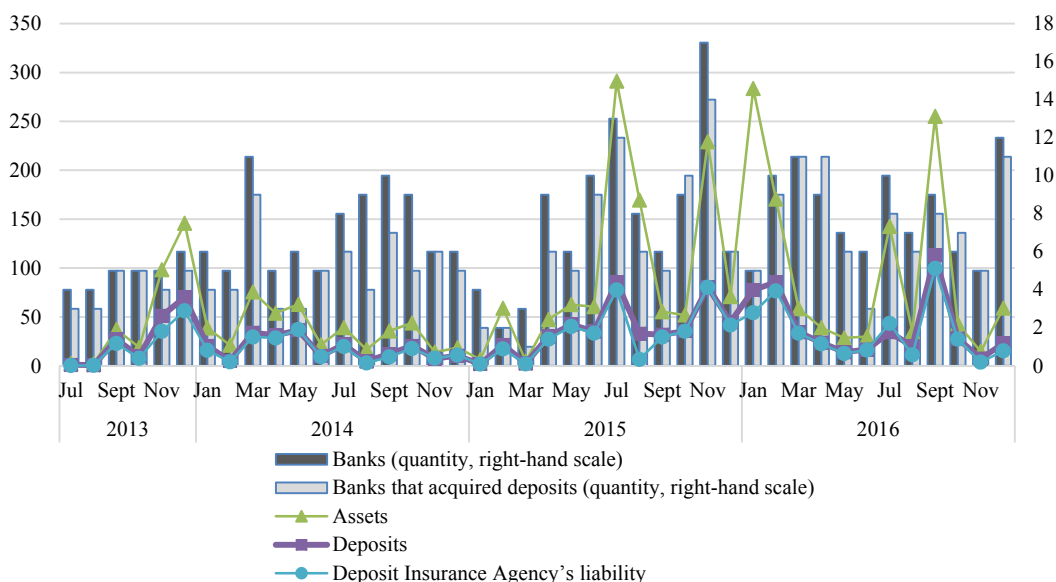


Fig. 44. Main performance figures for banks which had their license revoked

Sources: Bank of Russia, Deposit Insurance Agency, own calculations.

Profit and capital

The banking sector’ financial performance figures are still moderate. In 2016, the year-over-year ROE reached 13% after a sharp plunge in profits in 2014/2015 when the year-over-year ROE dropped to 9% and 3% respectively. However, the indicator is considerably lower than that recorded in the period between 2011 and 2013 when it reached 17–20%, not to mention the period of 2005–2007 when it was more than 25% a year. The foregoing is responsible for Russian banks’ low investment appeal to both existing holders and new investors.

At the same time, the nominal volume of bank profits reached Rb 930bn in 2016. Banks generated bigger profits only in the banner years of 2012–2013 (Rb 1012bn and Rb 994bn respectively). The key growth factor for profits in 2016 was a sudden deceleration in the growth

of allowances for loan loss provisions which increased only Rb 188bn in 2016 vs. Rb 1202bn and Rb 1352bn in 2014 and in 2015 respectively. The volume of profits, save for operations with such provisions, decreased for two straight years from Rb 1.8 trillion in 2014 to Rb 1.1 trillion in 2016. This gives evidence that banks continued to see their actual earnings decline despite technical growth of nominal profits and ROE.

Russian banks' equity capital¹ increased Rb 403bn, or by 4.5%, in 2016. In nominal terms, it was the smallest amount on record since 2010 when bank's capital increased Rb 110bn. In the period between 2014 and 2015, banks' capital increased Rb 864bn and Rb 1080bn, respectively. Nonetheless, the capital adequacy standard (H1) in 2016 showed positive dynamics by increasing from 12.7 to 13.1% due to stable risk-weighted asset holdings. The 2016 decline in total banks' asset holdings resulted in slowing of overall growth in risk-weighted asset holdings. Risks relating to balance-sheet accounts lowered, too. However, the increase in the volume of operations exposed to a higher-than-normal risk, as well as the mounting transaction risk in the banking sector, compensated for the reduction of the balance-sheet accounts risk, and therefore risk-weighted asset holdings increased 0.5% in 2016.

The increase in banks' ploughed-back profits as a result of recovered balance-sheet profits became the predominant source of banks' equity capital in 2016. In 2016, banks' charter capital and additional paid-in capital increased only Rb 59bn, reaching the lowest volume on record since 2004. This reflects an extremely low investment appeal of the banking sector to holders and outside investors.

Cash flow transformation by the banking sector

In 2016, retail accounts and deposits (*Fig. 45*) became the predominant source of financial resources in banks' balance sheet, accounting for almost a half, or Rb 2.2 trillion, of the total cash flows redistributed by the banking sector. Banks' equity capital constituted to one fourth of the resources. In addition, banks reduced their assets held in foreign currency by a comparable value over the year, thus providing for another one fourth of the banking sector's disposable resources. It is worth noting that a small reduction of the corporate credit portfolio was responsible for corporate loans making no contribution to the real economy financing in 2016.

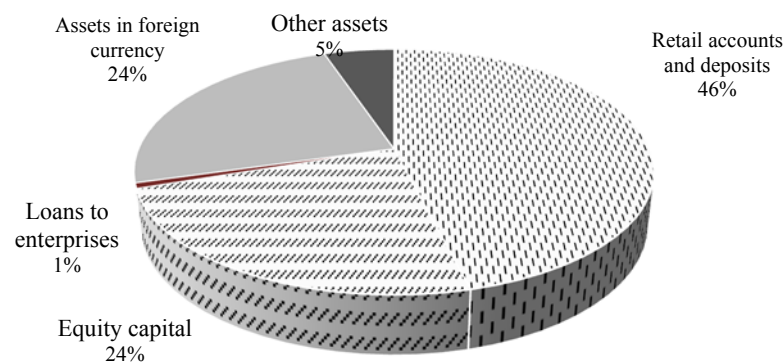


Fig. 45. Banking sector's resources accumulation pattern (growing liabilities and declining assets) in 2016, as % of total

Sources: Bank of Russia, own calculations.

¹ Calculated using reporting form No. 123.

The banking sector's resources utilization pattern gives evidence that banks failed to perform their macroeconomic function as financial intermediaries in 2016, but they instead focused on their internal objectives of optimizing banking finance instruments. For instance, the principal way of utilizing financial resources in 2016 was repayment of debts owed to the Bank of Russia. More than a half of the disposable financial resources were spent for the purpose (*Fig. 46*). Another more than one third of the resources were spent on reducing bank liabilities, including overseas debts. Only a little more than 10% of the reallocated bank financial resources were spent on asset accumulation, most of which were spent on building up the portfolio of Russian residents' debt instruments, primarily MinFin bonds.

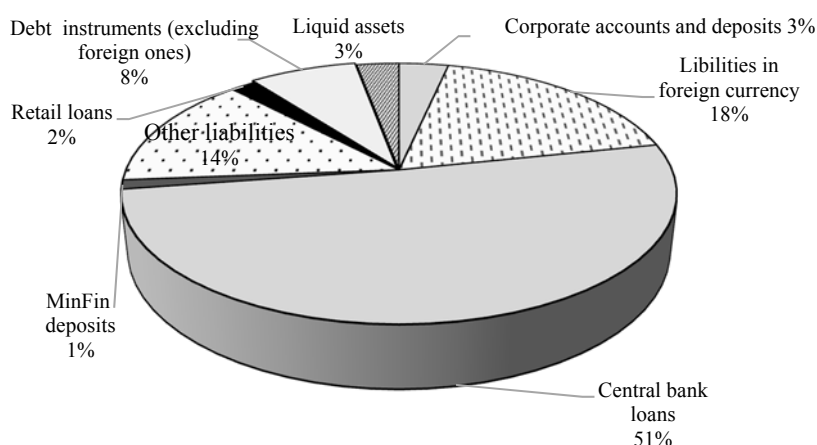


Fig. 46. Banking sector's resources spending pattern (growing assets and declining liabilities) in 2016, as % of total

Sources: Bank of Russia, own calculations.

3.9.2. Banks and corporate sector

The balance of balance-sheet operations of banks and corporate customers tended to zero in 2016. A curious result of the past year was that corporate customers stopped accumulating both their financial resources on bank accounts and deposits and their outstanding loans from banks. However, close-to-zero figures for both banks' asset- and liabilities-side operations with corporate customers resulted from mixed trends of certain components thereof.

Fundraising from corporate customers

In 2016, the balance of corporate customers' accounts and deposits in banks decreased by 0.7% to Rb 20.5 trillion following a 10.6% growth in 2015, whereas the balance of ruble-denominated accounts and deposits continued growing in 2016 (+5.3%), albeit at a slower pace than that recorded a year earlier (8.1% in 2015). This was coupled with a decline of 12.1% in dollar terms in corporate customers' foreign currency holdings (a 11.8% increase in 2015). The share of foreign currency holdings in the total volume of corporate customers' non-cash holdings in banks fell from 40 to 31% in 2016.

There is a huge balance of corporate customers' time deposits in banks, thus indicating a lack of appealing options for investing in the real production sector. At the same time, a positive signal is that the upward trend toward growth in corporate customers' time deposits was over,

according to the 2016 year-end figures. The share of time deposits in the total volume of corporate customers' money held in the banking system hit the highest level as at the end of 2014 (62.8%), whereas it remained almost unchanged (62.6%) in 2015, and then decreased to 60.0% in 2016.

In addition, the balance of corporate customers' time deposits was down relative to business activity in economy. The balance fell to 30 days of business turnover in 2016, whereas it was equivalent to 35 days in 2015. The balance of settlement accounts remained stable relative to the size of economy, being equivalent to 20–22 days of business turnover. At the same time, the above mentioned dollarization processes were observed in both corporate customers' current accounts and time deposits in 2016. In 2016, the share of foreign currency holdings in corporate customers' current accounts and time deposits shrank from 28 to 22% and from 46 to 37%, respectively.

All in all, corporate customers' time deposits totaled about Rb 12 trillion earlier in 2017. Given that bank deposits tend to gradually lose investment appeal in response to a stronger ruble and lower interest rates, the amount could be sufficient to boost fixed investment in 2017.

Corporate loans

In 2016, Russian banks extended Rb 35.6 trillion in corporate loans, which is 3.9% above the amount extended in the corresponding period of 2015. However, such a moderate growth was insufficient to compensate for the collapse of 2015 when lending dropped 11.1% in volume terms compared with 2014, a year of peak volumes in the lending market when banks extended Rb 38.5 trillion in loans to corporate customers. Corporate loans declined to a total of 7.7% over the past two years.

Lending in rubles saw a slightly faster growth rate. A total of Rb 32.4 trillion in ruble-denominated loans were extended in 2016, or by 8.0% more than a year earlier. The two-year fall has not been overcome to date. In 2016, the ruble segment of the lending market shrank by 2.5% compared with 2014.

Lending in foreign currency continued declining at a fast pace. In 2016, banks extended USD 48bn in foreign currency loans to corporate borrowers, which is 29.9% below the amount extended in the same period of 2015. In 2015, lending in foreign currency developed at even more faster, almost double, pace of 48.9%. In dollar terms, bank foreign currency loans dropped by almost two third, 64.1%, within just two years. The ruble equivalent of foreign currency lending decreased as well, showing a decline of 24.9% in 2016 compared with 2015 and of 39.8% compared with 2014.

Lending volumes fell not only in absolute terms but also relative to scales of economic activity. Russian banks' new loans to the economy were comparable with 30–31% of business turnover when credit activity hit peak levels (in 2013/H1 2014). The data available as at the end of 2015 show a 25% decline in the ratio mainly due to substantial downturn in the lending market earlier in 2015. In 2016, the volume of bank loans to corporate borrowers accounted for 24% of business turnover over the same period (*Fig. 17*).

Predictably, the deceleration in new loans growth resulted in slower credit portfolio growth rates in banks. In 2015, outstanding loans to corporate borrowers increased merely 5.0% following a 11.1% hike in 2014, and the growth rate of outstanding loans to corporate borrowers slowed to zero (-0.1% year-over-year) as at 2016 year end.

The large business segment remained the driving force in the lending market. In 2016, corporate customers that represented large businesses took up Rb 30.3 trillion in new bank

loans, accounting for 85% of the total volume of new loans extended. The volume of loans to large businesses increased 5.2% over 2015, which was insufficient to compensate for the fall recorded in the preceding year, as was the case with the market as a whole. In 2016, the volume of new loans dropped by 2.1% compared with that recorded in 2014.

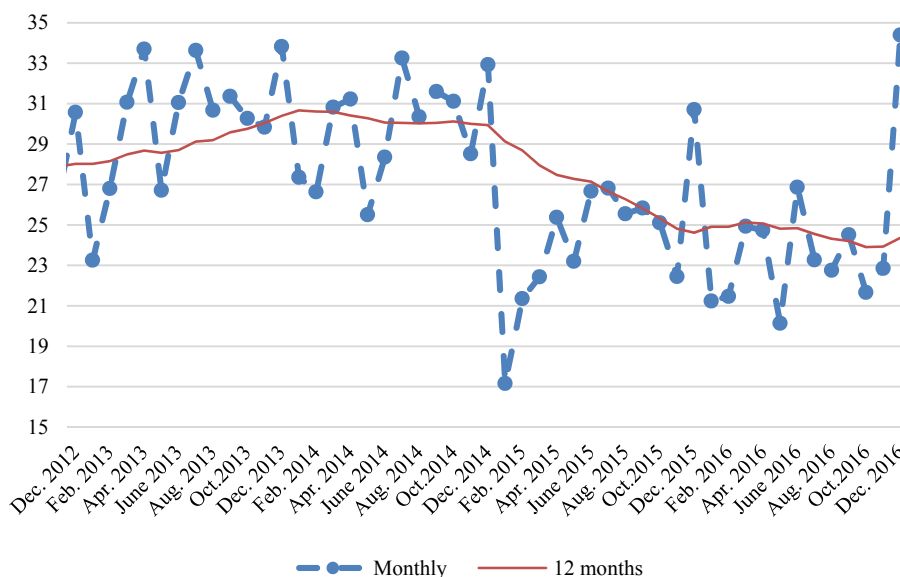


Fig. 47. The ratio of extended corporate loans to business turnover, %

Sources: Bank of Russia, Rosstat, own calculations.

While the dynamics of loans to large businesses can be described as relatively stable, the lending volume for SMBs continued declining. New loans worth Rb 5.3 trillion were extended in this lending market segment in 2016, which is 2.9% less than that recorded in the corresponding period of 2015, and is nearly one third (30.3%) less than that of 2014.

The quality of loans to corporate borrowers almost stabilized in 2016. The 2016 year-end share of delinquencies in the total volume of outstanding bank loans to enterprises stood at 6.9%, which is slightly higher than 6.8% recorded at the beginning of the year, and most of the decline was seen in the second half of the year (a peak of 7.5% was recorded in August). The quality of ruble-denominated loans remained worse than that in the market as a whole. The 2016 year-end share of delinquencies in ruble-denominated loans dropped to 8.0% from a peak of 8.8% recorded in late August 2016. Foreign currency loans remained a safer lending option for banks. The share of delinquent foreign currency loans stood at only 3.1%, and the quality of loans of this type improved almost throughout the entire year since March when delinquent foreign currency loans hit a peak of 4.0%.

Foreign currency loans continued being driven by negative dynamics despite an improving quality in terms of delinquencies. Obviously it is mounting risks for banks that were responsible for the deceleration of lending. However, while credit risks were responsible most for the decline in the ruble-denominated loan segment, the fall in foreign currency loans was precisely due to exchange rate risks which became too high for banks because of a highly volatile ruble exchange rate.

In terms of borrower’s business size, there was still a wide gap between the quality of credit portfolio and borrowers represented by large businesses and by SMBs. The quality of debt servicing for major customers was above the market average. The 2016 year-end share of delinquencies in the total volume of major corporate customers’ accounts payable to banks stood at 5.5%, reaching a peak of 6.2% over the course of 2016. In the mid-2016, the share of delinquencies in the total volume of outstanding bank loans to SMBs reached a peak of 15.6%, but decreased to 14.2% over the past few months. Thus, in terms of borrower’s business size, there was visible relationship between the dynamics of the given lending market segment and the quality of loans therein.

Interest rates on ruble-denominated corporate loans were cut throughout the entire 2016, mirroring largely, and even outrunning slightly, the trend toward a lower key rate (*Fig. 48*). The interest rate on ruble-denominated loans was lowered in October 2016 to 12.1% p.a. from 13.4% earlier in the year. The gap between the Bank of Russia key rate and the rate on ruble-denominated corporate loans narrowed to 2 percentage points, whereas it was more than 3.5 percentage points in 2015. This may be a circumstantial evidence of a higher-than-normal regulator key rate – the lending market is already prepared to further interest rate cuts.

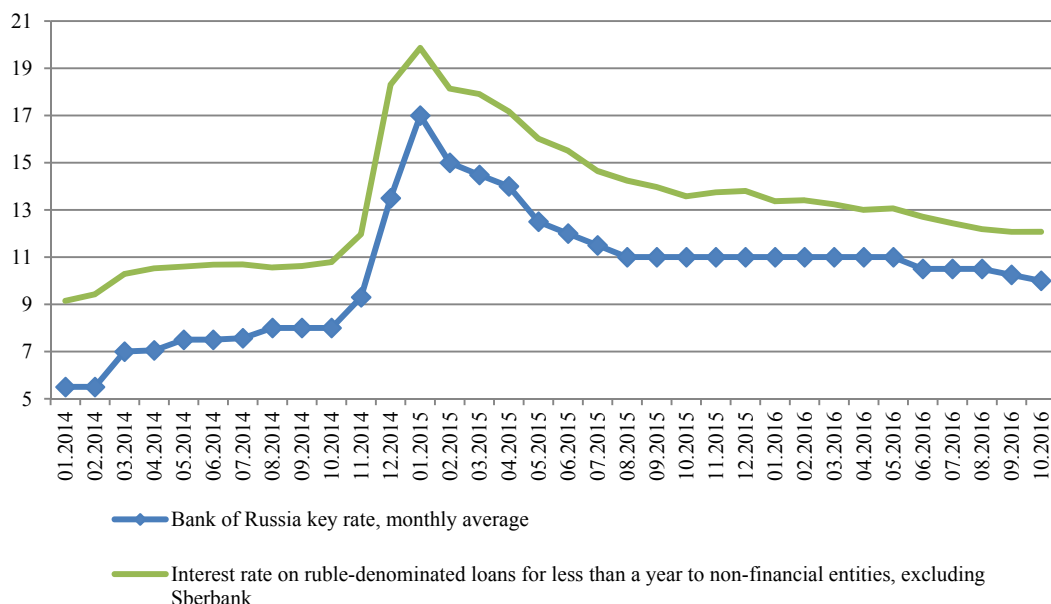


Fig. 48. Interest rate on ruble-denominated corporate loans and Bank of Russia key rate

Source: Bank of Russia.

3.9.3. Banks and households

Retail deposit acquisition

Retail bank accounts growth rates decelerated notably in 2016. The balance of retail accounts and deposits in banks increased 9.7% during the year, whereas it rose 16.9% in 2015. In absolute terms, the household saving inflow to the banking sector contracted by 28%, from Rb 3.1 trillion in 2015 to Rb 2.2 trillion in 2016. Nevertheless, as noted above, retail accounts and deposits became the predominant source for the banking sector resources.

The deceleration of retail resources inflow to the banking sector was not a result of slowing household saving rate. Individuals increased steadily their cash balance in hand in 2016 compared with 2015. For instance, the amount of cash outside of the banking sector increased Rb 476bn during 2016, whereas it was up only Rb 68bn in 2015. In addition, individuals' demand for foreign currency in cash increased. In 2016, individuals purchased from banks and withdrew from bank accounts a total of USD 15.9bn, which is three times less than that in 2015 (USD 5.5bn).

It is worth noting here that total foreign currency demand, including noncash holdings on foreign currency accounts and deposits in Russian banks, did not grow fast enough in 2016, from USD 14.7bn in 2015 to USD 17.5bn in 2016, which is due to the fact that foreign currency deposit inflows to banks almost stopped in 2016. In 2016, foreign currency deposits increased just USD 1.6bn following a growth of USD 9.2bn in 2015. Thus, individuals switched their preferences toward cash while retaining demand for foreign currency. A similar picture was observed in ruble savings, too. The deceleration in ruble deposits' nominal growth rate in 2016 compared with 2015 was compensated in full with growing cash holdings.

Such changes to the saving pattern could be caused by the following aspects. First, banks lowered steadily interest rates on retail deposits in 2016, especially on foreign currency deposits. The established level of interest rates on foreign currency deposits in 2016 was not appealing in terms of converting foreign currency in cash into noncash holdings.

Thus, the decline in the household saving rate on bank deposits in 2016 compared with 2015 did mean a decline in the saving rate as a whole. Including cash, the saving rate in 2016 increased to 6.0% of households cash income after the fall to 1.7% in 2014 and the recovery to 4.7% in 2015. However, it was still below the level seen in 2011/2013 when individuals increased annually the total volume of cash and noncash holdings by an average of 7.1% of their cash income.

Table 20
Dynamics of basic components of household savings

	Average in 2011/2013	2014	2015	2016
Rubles in billions				
Money held in bank accounts and deposits	2203	-595	3021	2265
Foreign currency in cash	-21	1227	-579	520
Rubles in cash	641	186	68	476
Total	2823	817	2509	3260
As % of income				
Money held in bank accounts and deposits	5,5	-1,2	5,6	4,2
Foreign currency in cash	-0,1	2,6	-1,1	1,0
Rubles in cash	1,6	0,4	0,1	0,9
Total	7,1	1,7	4,7	6,0

Retail loans

According to the data for 2016 year end, bank outstanding loans to households increased 0.7% after a 7.3% fall in 2015. In terms of borrowing currency, growth was observed exclusively in ruble-denominated loans, with a 1.6% increase in outstanding ruble-denominated loans (a 6.8% decline was recorded in 2015). Outstanding retail foreign currency loans continued to fall steadily for a long period. Positive growth in outstanding retail foreign currency loans was last recorded in 2007 when it was up 42% in dollar terms. This retail lending segment stopped growing as late as 2008. Outstanding bank foreign currency loans to retail

customers never increased since then. In 2016, the amount of foreign currency loans dropped to USD 2.7bn, or by 33%.

The 2016 recovery of positive growth rates of banks' credit portfolio was driven up exclusively by housing mortgage loans. Outstanding retail housing mortgage loans never declined throughout the entire period since 2011, although this market segment growth rates also decelerated considerably in 2015 – from a peak of 33% year-over-year in the fall of 2014 to a 9.7% low as at 2015 year end. In 2016, outstanding retail housing mortgage loans increased 12.9%.

As to consumer loans, the picture was completely different. Outstanding loans continued to fall for two consecutive years despite slowing growth rate deceleration – from 14% in 2015 to 5% in 2016 – in this lending market segment. Although some months of 2016 saw insignificant growth in outstanding consumer loans, there was no return to a steady growth yet.

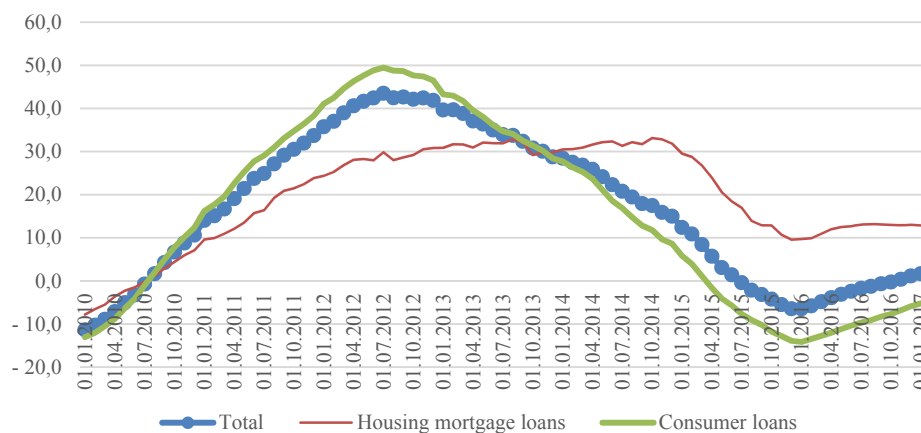


Fig. 49. Growth rates of outstanding loans to households, % change 12 months

Sources: Bank of Russia, own calculations.

As a result, the structure of outstanding retail loans switched toward longer and cheaper housing mortgage loans. As of January 1, 2017, the share of housing mortgage loans in total outstanding retail loans reached an all-time high of 42%, gaining 4 percentage points in 2016 alone (from 38% as of January 1, 2016). The lowest share of housing mortgage loans stood at 27% late in 2013 following the consumer lending boom of 2011/2013 when outstanding consumer loans growth rates reached 50% year-over-year.

The change in the outstanding loans structure can be regarded as favorable factor for households' financial status. This has direct relevance to the level of debt burden on households' disposable income. The increase in the share of housing mortgage loans in the total amount of outstanding retail loans leads to, all other things being equal, longer average maturities and a lower cost of outstanding loan servicing. Longer maturities of outstanding loans requires less regular payments, with the outstanding amount being the same.

However, the retail credit portfolio average weighted maturities fell from 48 to 45 months at 2016 year end. The consumer loan maturities saw a deeper fall from 37 to 32 months at 2016 year end, whereas housing mortgage loan maturities remained almost unchanged, at the 12-year level, in 2016, thus being a constraining factor for shorter maturities of banks' aggregate retail credit portfolio.

The actual value of retail credit portfolio stood at 16.6% p.a., with a meager change, at 2016 year end. It is however worth noting that the 2-year trend toward depreciation of outstanding retail loans stopped (the debt value reached 18% p.a. in 2013). The dynamics of banks' retail credit portfolio value is first of all determined by the cost of consumer loans. The average weighted interest rate on housing mortgage loans remained at a stable level of about 12.5–12.7% p.a. At the same time, the consumer credit portfolio value rose from 18.7% p.a. in 2015 to 19.2% p.a. in 2016. Thus, the stable cost of outstanding loans for borrowers was secured by growth in the share of cheaper mortgage loans in the retail lending structure.

The debt burden relative to households' disposable income was 9.6% in 2016, like in 2015. In nominal terms, households' disposable income amounted to Rb 50.0 trillion in 2016, which is 0.5% higher than that of 2015. The amount of compulsory payments on bank loans (the amount of scheduled repayment and interest payments) was Rb 4.6 trillion, which corresponds to the level of 2015. It is of interest that a small growth in the principal repayment amount within the bank loan servicing structure was almost completely offset by a decline of Rb 32bn in interest payments in 2016 compared with Rb 33bn in 2015. With the foregoing debt structure and value, this gives evidence that it was the growth in the share of cheaper housing mortgage loans that secured a stable debt burden on households' income in 2016.

The contribution of bank loans to households' finances remained negative despite recovering positive growth rates of banks' outstanding retail loans in 2016. This resulted from substantial interest payments which outran considerably the growth in outstanding loans. For instance, households' interest payments on bank loans were worth Rb 1.8 trillion in 2016. And outstanding loans increased merely Rb 0.2 trillion, as noted above. Thus, bank loans were responsible for a Rb 1.6 trillion decline in households' total budget in 2016 (-Rb 2.5 trillion in 2015), or by 4.2% (6.9% in 2015) of the 2016 total households' consumer spending, including retail turnover, payments for paid services and foodservice costs. During the 2014/2016 period of lending market's negative contribution to households' budget, the contribution can be assessed an average of 4.3% of households' consumer spending, whereas bank loans' positive contribution accounted for only 2.8% of households' consumer spending during the lending booms of 2011/2013.

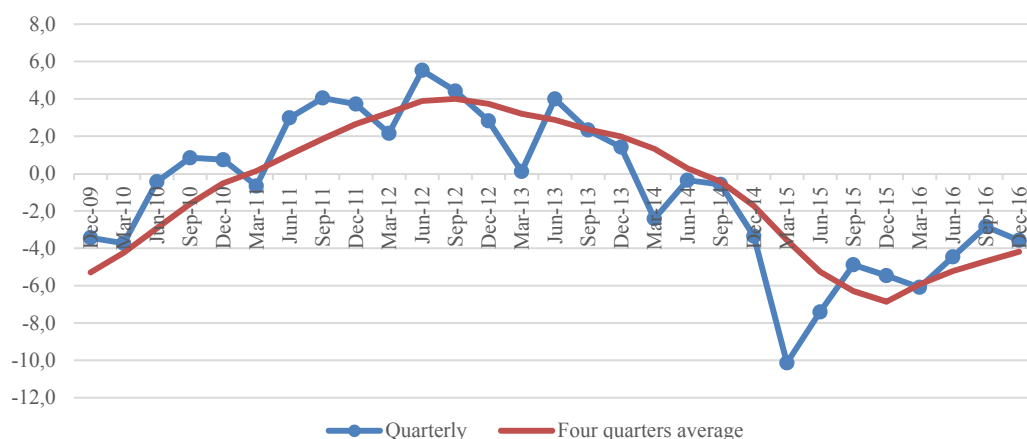


Fig. 50. Contribution of loans to households' disposable resources, as % of consumer spending

Sources: Rosstat, Bank of Russia, own calculations.

The quality of credit portfolio in 2016 can be described as bad debts ceasing to rise. The share of overdue retail loans in the total volume of retail loans fell by only 0.1 percentage points, from 8.4 to 8.3%. However, given that this indicator reached 9% in the middle of the year, the trend changed indeed. A similar situation was observed with regard to the ratio of retail loan loss provisions to the amount of banks' outstanding retail loans. The ratio fell from 11.2% to 10.8% during the year, reaching 11.6% in the spring of 2016. The quality of retail credit portfolio improved in 2016 mainly because banks shifted from more risky consumer loans to less risky housing mortgage loans that tend to exhibit a lower level of overdue loans.

Section 4. The real sector of the economy

4.1. The macrostructure of production¹

4.1.1. The behavior of the Russian economy in 2016: internal and external demand

For the Russian economy, the year 2016 was a period of its gradual adaptation to the new conditions determined by low prices for hydrocarbons and mineral resources coupled with the continuing anti-Russian sanctions and Russian counter-sanctions. The annual and quarter-by-quarter behavior of the economy indicated a gradual relaxation of the current crisis with regard to practically all major macro-parameters, brought about by a notable drop in the rate of inflation, changes in the structure of production, the fall in costs resulting from the ruble's depreciation, progress of the import substitution processes, and a relative stability in the labor market.

Table 1

Main macroeconomic indices for 2013–2016, as %, relative to previous period

	2013	2014	2015	2016	Quarter			
					I	II	III	IV
1	2	3	4	5	6	7	8	9
GDP	101.3	100.7	97.8	99.8	98.8	99.4	99.6	99.3
External factors								
Foreign trade turnover (calculated by the balance of payments methodology)	100.0	93.2	66.4	88.6	72.9	81.6	96.2	104.5
exports	98.9	95.2	68.7	82.5	66.8	74.2	90.3	101.9
imports	101.6	90.2	62.7	99.2	85.3	95.8	105.5	108.5
balance	94.2	104.6	78.6	60.8	48.8	50.6	64.0	91.1
Oil prices, USD/barrel	100.41	94.21	50.12	44.05	31.12	39.14	43.14	50.08
Official RUB/USD exchange rate, as of period's end	33.73	56.26	72.88	60.66	67.61	64.26	63.16	60.66
Internal factors								
Investment in fixed assets	100.8	98.5	89.9	99.1	95.2	96.1	100.5	98.7
Consumer demand	104.4	102.0	90.2	95.0	95.7	94.8	96.9	98.7
Turnover of retail trade	103.9	102.7	90.0	94.8	94.2	94.1	95.5	95.2
Paid services rendered to population	102.3	101.3	98.0	99.7	99.8	99.5	100.0	100.3
Output of goods and services, by basic type of economic activity	100.1	100.5	95.9	100.4	99.6	100.4	100.4	100.8
Industry	100.4	101.7	96.6	101.1	99.4	101.0	99.9	101.9
Agriculture	105.8	103.5	102.6	104.8	103.6	103.3	105.6	105.0

¹ Author of chapter: O. Izryadnova – Gaidar Institute, RANEPa.

RUSSIAN ECONOMY IN 2016

trends and outlooks

Cont'd

1	2	3	4	5	6	7	8	9
Building construction	101.1	97.7	95.2	95.7	94.5	91.7	96.4	98.0
Transport	100.6	99.9	100.2	101.8	101.5	101.1	102.8	101.8
Social parameters								
Real disposable income	104.0	99.3	96.8	94.1	95.8	93.7	93.5	94.0
Real charged wage	104.8	101.2	91.0	100.6	99.4	100.3	101.2	101.5
Real size of allotted pension	102.8	100.9	96.2	96.6	97.2	95.6	96.2	97.1
Labor market								
Number of employed	99.8	100.2	99.6	100.1	99.8	100.0	100.2	100.4
Unemployment rate	5.5	5.2	5.6	5.5	5.9	5.7	5.3	5.4
<i>For reference:</i>								
Consumer Price Index (relative to December of previous year)	106.5	111.4	112.9	105.4	102.1	103.3	104.1	105.1
Key rate (as of period's end)	5.5	17.0	11.0	10.0				
Labor productivity	101.8	100.9	96.8	99.7	99.0	99.4	99.4	98.9

Source: Rosstat.

The principal factors behind the negligible (by 0.2%) slide in GDP in 2016 vs. by 2.7% of GDP a year earlier were the reduction in the rate of decrease of internal demand and the retention of net exports (calculated by the SNA methodology) in positive territory.

The distinctive features of the macroeconomic situation in 2016 were determined by the differently directed dynamics of external and internal demand. The extensive use of major factors of production under changing external conditions increased disproportions in the fields of production, consumption, and investment activity. On the one hand, changes in the global market situation had a negative impact on the level of demand for Russian exports, while on the other, the restrictions related to the anti-Russian sanctions resulted in a considerable drop in imports and a number of structural shifts in their structure. The shrinkage in internal demand, which was not compensated for by the behavior of exports, remained the principal factor behind the decline in the rate of development of the Russian economy. However, judging by the quarter-by-quarter behavior of internal demand, it can be said with confidence that the rate of shrinkage in internal demand was gradually decreasing over the course of 2016, thus promising to become the factor most likely to shape Russia's economic situation in 2017.

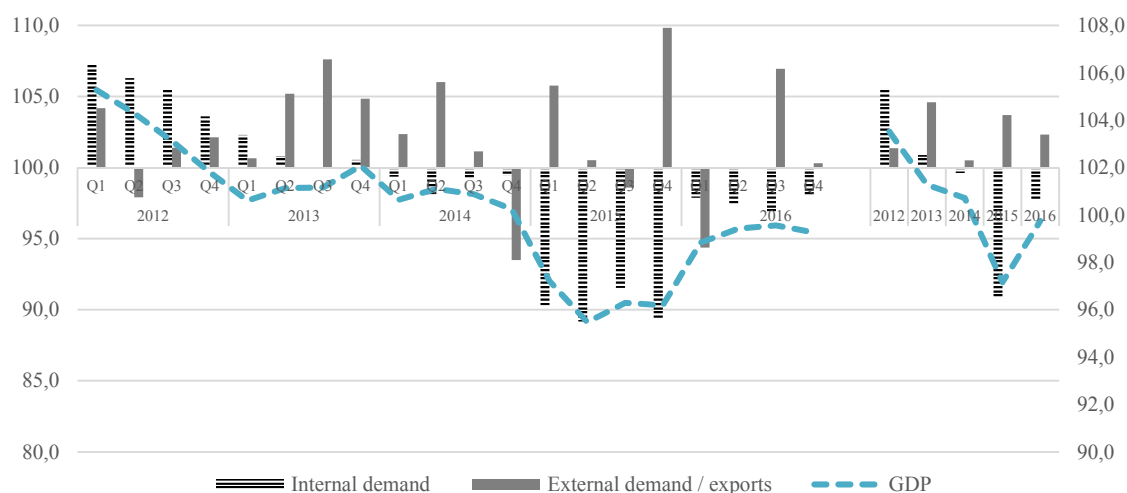


Fig. 1. Behavior of GDP, by component of internal and external demand, in 2012–2016, as % of the corresponding period of the previous year

Source: based on data released by Rosstat.

A comparative analysis of the changes in internal demand indicates that the distinctive feature of 2015 and 2016 was the simultaneous contraction of the investment and consumer markets. While in the period 2012–2014 the dynamic growth in actual household final consumption had compensated for the shrinkage of the capital market, the shrinkage of consumer demand resulting from the drop in personal income was much more significant than the shrinkage of the investment market. In 2016, household final consumption and investment in fixed assets amounted to 85.87% and 99.1% relative to their 2014 levels respectively. Investment demand was at its lowest point in Q1–Q3 2015, while Q3 2016 saw a 0.5% growth in investment in fixed assets relative to the same period of 2015. However, in Q4 2016, there was a resumption of the slide in investment, with investment returning to its average values of H1 2016. The consumer market had been very slowly recovering from the consequences of the acute crisis of 2015. In 2016, personal real disposable income dropped by 5.9% on the previous year, versus by 3.2% in 2015 relative to 2014. The 2016 decline in personal real disposable income was its largest drop in 15 years.

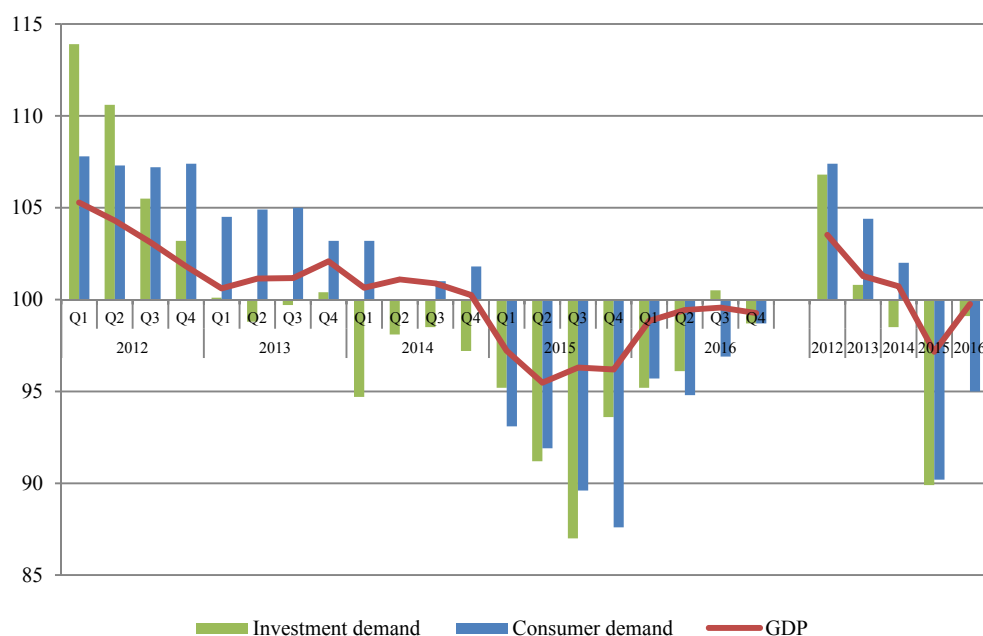


Fig. 2. The dynamics of investment and consumer demand, as % of the corresponding period of the previous year

Source: based on data released by Rosstat.

The distinctive features of the formation of the domestic market's resources in 2014–2016 were determined, on the one hand, by changes in the dynamics of production of goods and services for domestic consumption and for export markets, and by the pace and structure of imports, on the other. In 2012 and 2013, one of the major factors behind the sustenance of the domestic market's positive behavior was a broad trend towards accelerating the pace of growth in imports with respect to the dynamics of GDP. The pace of production of goods and services for the domestic market began to decline in Q3 2013. As a result, in 2014 and 2015, that trend was reversed due to the impacts of both internal and external factors, and replaced by a simultaneous drop in imports and domestic output. In 2015, in a situation characterized by

economic uncertainty, a significant rise in inflation and very limited opportunities to remedy the loss of many important external sources of finance, Russia’s domestic market notably shrank. The volume of imports (value in comparable prices) amounted to 68.8% of their volume in 2013, notwithstanding the fact that the ruble had been devalued 2.2-fold. The devaluation of the ruble had mixed effects on the Russian economy. On the one hand, it reduced the impacts of external factors on individual sectors of the Russian economy and facilitated imports substitution, while on the other, it led to a rise in production costs due to an increase in the price of intermediate and investment goods imports.

The dynamics of domestic production was determined by the price competitiveness of Russian goods and services against their imported analogues, and by the widening gap in production efficiency between the tradable and non-tradable sectors. As a result, in 2015, domestic production of goods and services for the Russian domestic market dropped by 4.6% on the previous year, thus determining the prospects for the Russian economy in 2016.

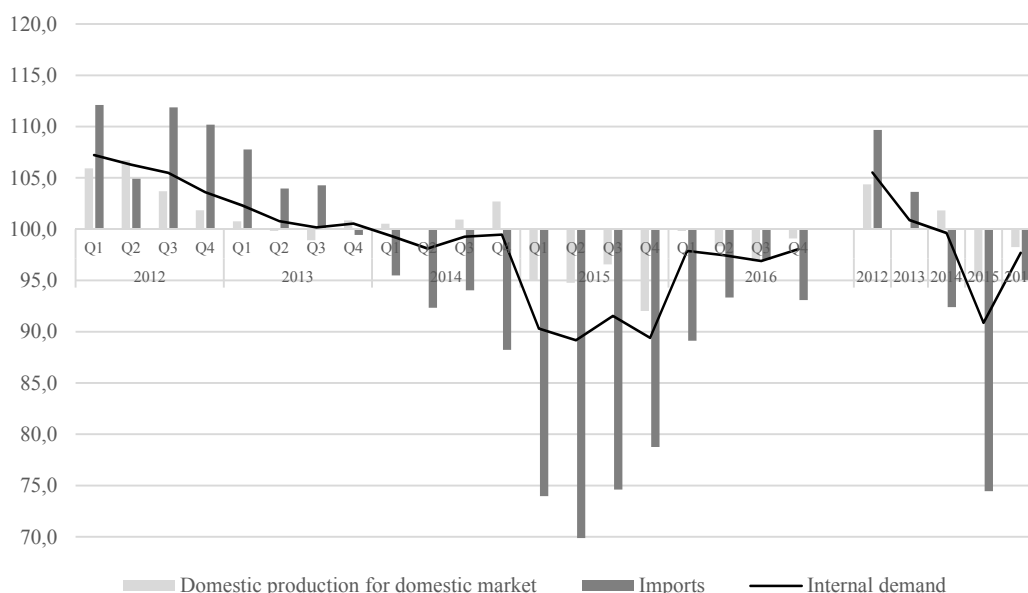


Fig. 3. The dynamics of internal demand, by component, in 2012–2016, as % of the corresponding period of the previous year

Source: based on data released by Rosstat.

In 2016, the dynamics of imports was heavily impacted by the gradual strengthening of the ruble, by the positive dynamics of the balanced financial result of enterprises’ activity and by the pressure, exacted by deferred demand, toward increase in investment and intermediate goods imports. In H1 2016, the long-going decline in the difference in the depth of the downward slide between imports and exports gave way, in August 2016, to the recovery in import demand.

In 2016, the pace and structure of imports were significantly affected by the pressure of postponed demand. In 2014 and 2015, the drop in investment in fixed assets led to a simultaneous contraction of demand for both domestically produced and imported capital goods and to strengthening negative trends on the domestic market. A number of additional difficulties emerged due to the anti-Russian sanctions and the restrictions on imports of some types of

technological equipment necessary for implementing the investment plans of mineral extracting and processing enterprises, as well as infrastructure projects. In 2016, consumer and intermediate imports declined, while imports of investment goods increased, which gave the internal investment market a boost and provided an additional impetus to overcoming the recession of domestic production.

The sharp drop in imports in 2015 was followed by a number of structural changes in the domestic market: as early as Q2 2016, the share of domestically produced goods in retail trade commodity resources increased to 64%, and to 78% in the commodity resources of retail trade in food products. This trend was sustained by the resumption of the positive dynamics of production in the consumer sector of the economy. The rate of decline in production of goods and services for the domestic market dipped to a low 1.7% from 4.6% a year earlier.

Table 2

Structure of imports, by function type (calculated by the balance of payments methodology), %

	Goods		
	consumer	investment	intermediate
2012	38.1	24.9	37.0
2013	37.6	24.3	38.0
2014	36.1	24.5	39.4
2015	36.4	23.2	40.4
Q1	37.7	21.6	40.7
Q2	36.4	21.7	41.9
Q3	35.2	23.6	41.2
Q4	36.3	25.6	38.1
2016	38.7	26.7	34.6
Q1	36.9	19.2	43.9
Q2	35.7	23.7	40.6
Q3	36.9	30.9	32.2
Q4	38.7	28.0	33.3

Source: Rosstat.

Table 3

Structure of retail trade commodity resources in actual prices, %

	Retail trade commodity resources	Including commodities		Share of food imports in commodity resources of retail trade in food products
		produced domestically	imported	
2012	100	56	44	34
2013	100	56	44	36
2014	100	58	42	34
2015	100	62	38	28
2016	100	62	38	23
Q1	100	62	38	24
Q2	100	64	36	22
Q3	100	61	39	22
Q4	100	60	40	22

Source: Rosstat.

On the whole in 2016, the dynamics and structure of domestic production of goods and services was determined by a shift towards increasing the output of goods and services for the external market.

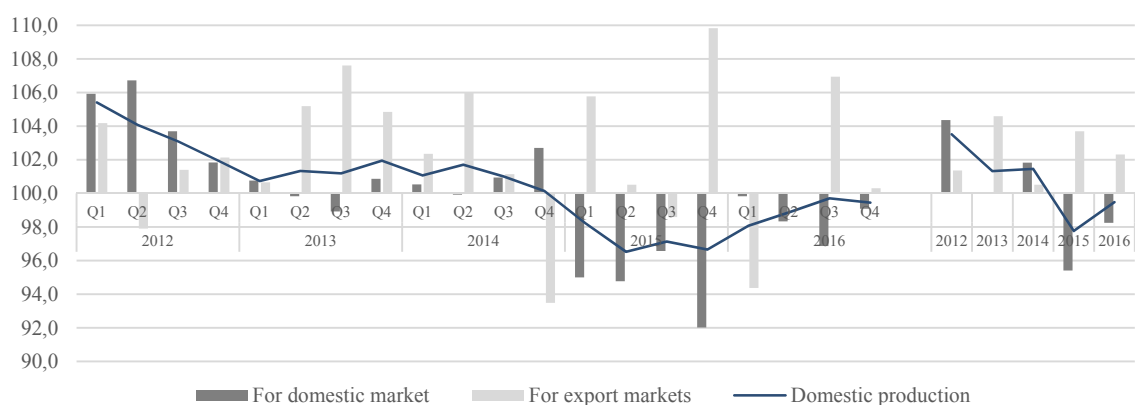


Fig. 4. The dynamics of domestic production of goods and services, by component, in 2012–2016, as % of the corresponding quarter of the previous year

Source: based on data released by Rosstat.

4.1.2. The expenditure components of GDP in 2012–2016: consumer and investment demand

The structure of expenditure-based GDP is determined by the ratio between final consumption and gross capital formation. The year 2016 saw a decline in the share and pace of final consumption, which was caused in the main by a notable drop in household final consumption. The dynamics of the expenditure components of GDP are indicative of an increase in the share of gross capital formation due to the growth of circulating tangible assets resources and the reduction in the share of net exports.

Table 4

The structure of expenditure-based GDP, in actual prices, in 2012–2016, %

	2012	2013	2014	2015	2016
Gross domestic product	100.0	100.0	100.0	100.0	100.0
including:	0.0	0.0	0.0	0.0	0.0
final consumption expenditure	70.4	73.7	71.4	69.8	69.4
household	51.3	53.6	53.1	52.0	51.0
state government	18.7	19.7	17.9	17.5	18.0
non-profit organizations rendering services to households	0.4	0.4	0.4	0.4	0.4
Gross capital formation	22.9	21.1	22.1	22.4	23.8
gross accumulation of fixed assets	20.2	20.2	21.1	20.7	21.1
changes in circulating tangible assets resources	2.7	0.9	1.0	1.6	2.7
Net exports	6.8	5.6	6.5	8.1	5.0
Statistical deviation	-0.1	-0.4	0.0	-0.2	1.8

Source: Rosstat.

One of the distinctive features of the Russian economy in 2015 and 2016 was a more pronounced drop in household final consumption than that demonstrated by Russia’s GDP and investment in fixed assets. While in the period 2010–2014 the main factor sustaining the positive trend in the development of the Russian economy was growth in per-capita consumption, in 2015 and 2016 the drop in the real personal income resulted in an almost 15% shrinkage in household final consumption relative to 2014.

Both household final consumption and the retail market were at their lowest points in Q4 2015. As the rate of inflation decreased from 12.9% to 5.4% over the course of 2016, the rate

of decline in consumer demand gradually diminished. In 2016, household final consumption contracted by 5.0% on 2015, while the turnover of retail trade and the market of paid services rendered to the population declined by 5.2% and 0.3% respectively relative to the previous year.

An analysis of the dynamics of consumer prices and consumer demand indicates that the population responded to high inflation and changes in the magnitude and structure of prices by drastically curbing the consumer demand for non-food products and paid services, and by gradually reducing the consumer demand for food products.

As the population became to be better adapted to the new market situation, and the pressure of postponed consumer demand became stronger, the quarterly indices of 2016 gradually began to demonstrate less prominent downward trends in the turnover of retail trade. However, although in 2016 the consumer price index and the food price index stood at their 25-year lows of 105.4% and 104.3% respectively, the accumulated growth potential of consumer prices and the drop in the real income of the population became mighty factors restraining the dynamics of the consumer market. As a result, over the period 2014–2016, the turnover of the food market declined by 13.8%, and that of the non-food market by 15.6%.

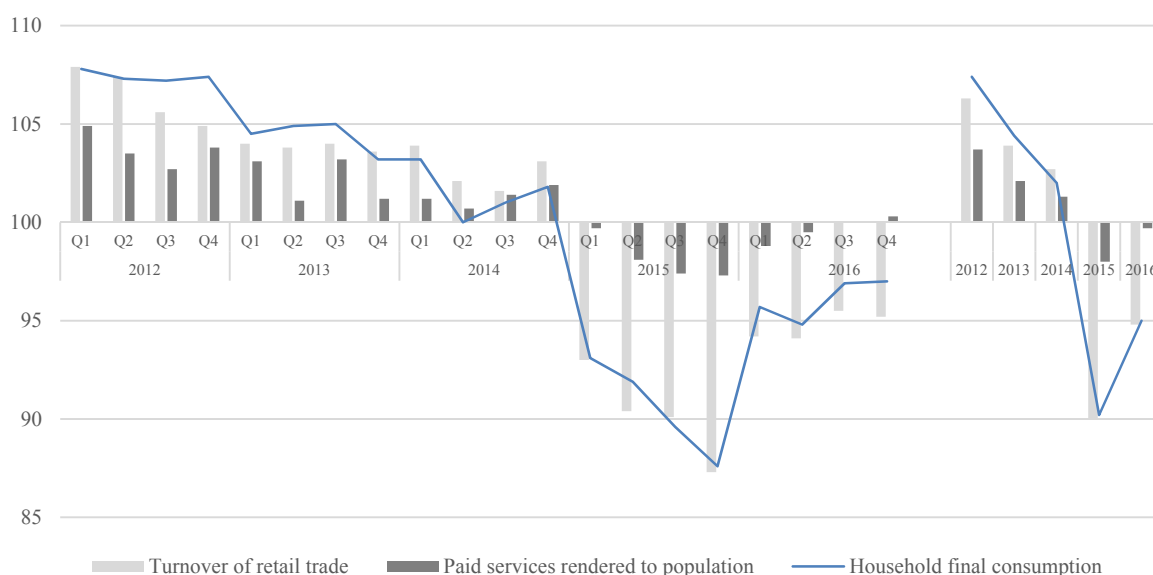


Fig. 5. The dynamics of household final consumption in 2012–2016, as % of the corresponding period of the previous year

Source: Rosstat.

The change in the level and structure of prices made a considerable impact on the dynamics and composition of household consumption expenditure. As the growth in nominal income of the population was weak, purchases of food and articles of prime necessity accounted for the major part of household consumption expenditure.

The crisis had a number of consequences, including the narrowing range of available goods, the decline in delivery orders for many expensive commodities, and the withdrawal from the market of quite a few suppliers and manufacturers. The drop in demand affected not only the relatively hi-tech consumer market segments (computers; consumer electronic products; communications equipment), but also the food market segments oriented to the high-income strata of the population.

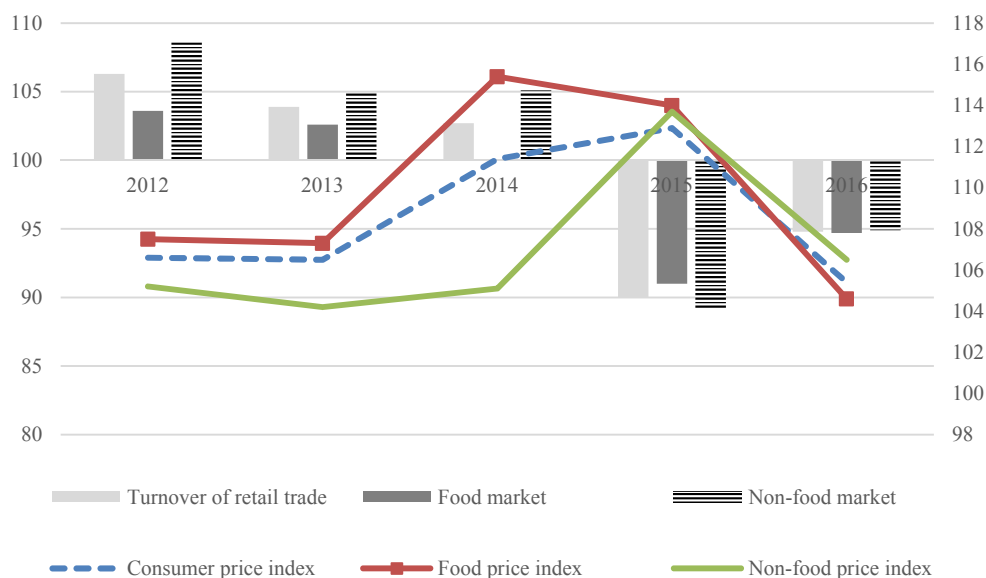


Fig. 6. The dynamics of the turnover of retail trade and consumer prices in 2012–2016, as % of the previous year

Source: Rosstat.

While nominal and real wages continued on a weak upward trend, the shares of earnings, income from property and income from entrepreneurial activity in the personal income structure visibly declined; at the same time, the share of social benefits increased. In 2016, the share of labor remuneration in the money income of the population stood at its 5-year low of 64.8%, while the share of social benefits grew to 19.1%, and the shares of income from property and income from entrepreneurial activity remained at their previous level.

Table 5

**Structure of personal money income
in 2011–2016, %**

	2011	2012	2013	2014	2015	2016
Total money income	100	100	100	100	100	100
Earnings, including hidden payments	65.6	66.0	65.3	65.8	65.6	64.8
Social benefits	18.3	18.3	18.6	18.0	18.3	19.1
Income from entrepreneurial activity	8.9	8.6	8.6	8.4	7.9	7.8
Income from property	5.2	5.1	5.5	5.8	6.2	6.3
Other types of income	2.0	2.0	2.0	2.0	2.0	2.0

Source: Rosstat.

The drop in the income of the population and the persistence of pronounced social differentiation and inequality in income distribution resulted in some increase in poverty rates and made a negative impact on the character of consumer activity. In 2016, the growth rate of personal income in nominal terms was on the decline, and there were further changes in the structure of personal money income spending: thus, the share of current consumption expenditure in the total volume of personal money income increased, while the share of savings declined to 11.3% (by 3.0 pp).



Fig. 7. Changes in the structure of personal money income spending, as % of the previous year

Source: based on data released by Rosstat.

The dynamic growth of financial assets in 2015 resulted in a shrinkage of the share of property acquisition due to the high interest rates on housing loans and housing mortgage loans, as well as a plunge of current *consumption* expenditure due to the shift of demand towards the cheaper goods segment. However, in 2016, while savings displayed an overall downward trend, there were some structural shifts resulting from an increased share of property acquisition expenditure. This trend was sustained by the lowering interest rates on loans, slower pace of inflation, and broader supply in the housing market. Meanwhile, its indices stayed significantly below their pre-crisis level of 2012, both in terms of volume and the actual share of property acquisition expenditure.

Low investment activity of the population and businesses alike represented one of the negative features of the economic situation in 2014–2016.

In 2016, the share of gross savings in GDP amounted to 30.6% vs. 31.2% in 2011. The share of gross savings in 2016 increased to 21.1%, while their structure altered due to the increased share of accumulated reserves. A distinctive feature of Russia's investment model is the substantial share of savings, where a significant portion is not transformed into investment in fixed assets. In 2016, the index of investment in fixed assets as a percentage of GDP shrank to 17.0%, or by nearly 2 pp relative to 2013.

Table 6

**The main indicators of the investment potential of the Russian economy
in the period 2011–2016, % of GDP**

	2011	2012	2013	2014	2015	2016
Gross savings	31.2	29.6	26.3	28.6	30.2	30.6
Gross accumulation of fixed assets	20.0	20.2	20.2	21.1	20.7	21.1
Deposits made by individuals, as of end of year	19.9	21.3	23.9	23.4	27.9	27.1
Size of Reserve Fund, as of end of year	1.4	2.8	4.0	6.1	4.4	1.1
Size of National Wealth Fund, as of end of year	4.7	4.0	4.1	5.4	6.3	5.0
Investment in fixed assets	18.5	18.8	18.9	17.6	17.5	17.0

Note. The calculations based on data from 2014 onwards were done by the SNA-2008 methodology, and include the results of R&D and weapon systems investments; therefore these are incomparable with data for the previous years.

Source: Rosstat.

In 2016, the dynamics and structure of Russia's expenditure-based GDP were negatively impacted by a 10.5% drop in investment in fixed assets relative to 2013, the year which saw the emergence of a trend towards stabilization of investment activity. In Q3 2014, the investment slump began to deepen under the impact of the growing cost of credit resources, the restrictions on Russian companies' access to international capital and debt markets, and high geopolitical risks. In 2015, investment in fixed assets shrank by 8.4% relative to 2014. However, in 2016, the rate of decline in construction investment notably slackened, which had a positive effect on Russia's domestic market. In 2016, investment in fixed assets declined by 0.9% on the previous year, while the volume of construction works shrank by 4.3% relative to 2015.

An analysis of Russia's capital account shows that the Russian economy has been in a net creditor position for quite a long time. The drastic change, in 2014, in the global politico-economic situation resulted in the intensification of capital outflow from Russia, which involved both the banking and non-financial sectors. In 2014, capital outflow from Russia hit its 20-year high of USD 153.0bn. In 2015 and 2016, net capital outflow from Russia dipped to USD 57.5bn and USD 15.4bn respectively. An analysis of the structure of Russia's expenditure-based GDP and capital account visibly illustrates the asymmetric character of the formation of internal savings resources and their use for investment purposes.

4.1.3. Changes in the GDP structure by income source

The Russian economy's recent development patterns reflect its shrinking development potential, which has become manifest in the high intensity of the use of production capacities, absence of large-scale investment projects, and low unemployment rate. Besides, the situation has been further complicated by the long-term upward trend displayed by the growth rate of production costs, which has been pushed up by the tariff policies of infrastructure provider monopolies and the accelerated wage growth relative to labor productivity. Low production efficiency remains one of the main factors that push down industry productivity and the low competitive capacity of Russia's domestic products in the domestic and foreign markets. Over the period 2010–2013, productivity decline was demonstrated by practically all major types of economic activity.

Table 7

Productivity indices of sold goods, works, and services by type of economic activity in 2012–2016, as %

	2012	2013	2014	2015	2016
National economy, total	8.6	7.0	7.3	9.3	8.1
Agriculture, hunting and forestry	10.7	5.2	17.4	21.3	16.8
Fishery and fish-breeding	16.2	16.5	28.6	49.4	61.0
Mineral extraction	28.0	22.1	19.2	26.8	27.2
Processing industries	10.7	8.8	9.9	12.4	10.5
Production and distribution of electric energy, gas and water	3.9	4.4	3.7	5.5	7.8
Building construction	5.0	8.3	3.4	5.4	5.5
Wholesale and retail trade	6.7	6.5	6.1	7.1	5.3
Hotels and restaurants	5.9	6.0	4.4	5.8	6.1
Transport and communications	11.1	9.7	8.4	10.6	10.8
of these: communications	23.7	23.6	20.8	21.4	18.2
Financial activity	0.8	0.5	1.5	0.5	0.7
Real estate transactions, property lease and services	10.6	10.4	10.7	9.7	12.0
Government administration and military defense; social insurance	8.3	7.8	10.3	11.7	-12.5
Education	2.5	11.8	2.3	6.2	6.2
Healthcare and welfare	6.6	4.8	6.2	7.0	10.6

Source: Rosstat.

Over the period 2014–2016, the movement of profitability indices and the financial result achieved by enterprises and organizations (balance of profits and losses) was strongly influenced by changes in producer pricing policies. The year 2014 saw a reversal in the trend that had been visible for four straight years: the producer price indices in industry, building construction and agriculture began to display dynamic growth. In 2015, the producer price index in industry amounted to 110.7%, including processing industries – 111.2%, mineral extraction – 109.8%, building construction – 106.9. The producer price index in agriculture gained 10.8%. In 2016, producer pricing policies were somewhat adjusted. Producers responded to the persistent domestic demand shrinkage trend by restraining the growth of prices for their products. In 2016, the producer price index in industry amounted to 107.4%, that in building construction – to 103.2%, and that in agriculture – to 101.8%. Given that the changes in the movement of prices coincided with an accelerated growth rate of the average nominal wage, the share of gross profits in GDP shrank in 2016 on the previous year, but still remained above its 2011–2014 level. The year 2016 saw a shift in the income structure from its corporate towards personal component. In 2016, the share of wages in GDP amounted to 46.6%, rising 1.61 pp above the corresponding index for 2015. As a result, the total productivity index across the national economy lost 1 pp relative to its 2015 level. The accelerated wage growth trend relative to that of labor productivity reemerged once again.

Table 8

Price and tariff indices in December 2010–2016, to December of previous year, %

	2010	2011	2012	2013	2014	2015	2016
Consumer Price Index	108.8	106.1	106.6	106.5	111.4	112.9	105.4
<i>Producer Price Index</i>	116.7	112.0	105.1	103.7	105.9	110.7	107.4
Mineral extraction	117.1	126.3	109.3	107.0	98.4	109.8	107.9
Extraction of fuel and energy resources	116.1	128.1	110.5	107.7	97.0	109.8	107.6
Mineral extraction, less extraction of fuel and energy resources	130.9	112.4	98.9	101.0	109.9	110.0	109.9
Processing industries	116.9	108.3	103.2	101.6	108.5	111.2	107.7
Production and distribution of electric energy, gas and water	113.8	105.1	107.0	108.1	104.5	109.3	105.1
<i>Producer Price Index in agriculture</i>	123.6	94.9	110.8	102.7	114.1	108.5	101.8
Aggregate price index in building construction	109.1	108.0	106.9	104.9	107.2	110.3	103.2
Freight tariff index	133.1	107.7	107.5	108.0	100.9	111.5	105.6

Source: Rosstat.

Table 9

GDP structure, at current prices, by income source, in 2011–2016, %

	2011	2012	2013	2014	2015	2016
Gross domestic product	100	100	100	100	100	100
Including:						
Wages of hired labor, including hidden remuneration and mixed incomes	43.9	44.2	46.7	47.2	45.0	46.6
Net taxes on production and imports	14.6	14.7	14.2	13.9	11.1	10.7
Gross profit in the economy and gross mixed incomes	41.5	41.1	39.1	38.9	43.9	42.7

Source: Rosstat.

The changes in the structure of costs and the balance of profits and losses were strongly influenced by the highly differentiated wage indices across the economy, depending on type of economic activity. The highest wages, for fifteen years in a row, have been observed in extracting industries, the production of oil and petroleum products, and the financial sector. Processing industries have demonstrated a continuing trend towards employment restructuring through cutting non-productive jobs. As a result, labor productivity in processing industries has

been growing at a rate that is higher than Russia's average, but wages, as before, have also been rising at an accelerated rate.

As wage is the major personal income component, the employment issue is one of the priority factors shaping consumer behavior. In face of the plummeting economic growth rate, the distinctive feature of the period 2015–2016 was an exceptionally low unemployment rate (calculated by the ILO methodology) of 5.5%. The total number of officially registered unemployed individuals declined by 0.2% relative to 2015, and amounted to 1.0m, while the unemployment rate was 1.2%.

The employer demand for workforce (estimated on the basis of applications filed with the local bodies of the Federal Service for Labor and Employment) has remained above its last year's level; the tension coefficient (the number of registered unemployed individuals per 100 job vacancies) in December 2016 was 86.8 vs. 101.3 a year earlier. In compliance with the established tradition in Russian practices, labor market adjustment in crisis situation is mainly achieved by means of wage cuts, part-time employment, and workforce spillover into the 'informal employment' sector, and not through an automatic surge of the unemployment rate. This phenomenon reflects not only the low level of labor force mobility, but also the weakness of government institutions responsible for labor market regulation.

While the labor turnover index (the number of hired vs. dismissed employees) is high, the turnover of jobs (liquidation of old jobs and creation of new ones) as a measure of job renewal has remained rather low. The turnover level is sustained predominantly by the liquidation of jobs by actively operating companies, and not by the creation of new jobs.

When analyzing the situation in the Russian labor market, one should note the following characteristic features: the labor market adapts to crisis conditions not through increasing the unemployment rate, but by relying on flexible remuneration schemes. Due to the underdeveloped contractual recruitment system in the sphere of labor relations and the low unemployment benefits, people prefer to stay employed during a crisis and work for a lower wage, or to work fewer hours.

Our analysis of the developments in the Russian economy over the last two decades demonstrates that, owing to the existing labor market model, the behavior pattern of the unemployment rate to acute economic crisis phenomena was smoother than that of wages, which plunged. In the current situation, the weak response of the unemployment index to unfavorable economic developments can likewise be explained by the employer policy aimed at keeping their qualified workforce, which is becoming cheaper in real terms, in expectation of future revival of economic activity. Besides, the factor that exerted downward pressure on unemployment rate growth was the supply deficit in the labor market determined by demographic factors and the outflow of migrants, whose earnings significantly plummeted due to the ruble's weakening.

The less than efficient use of production factors has remained one of the main reasons behind the dramatic slowdown in the pace of economic growth and the generally declining competitive capacity of the Russian economy as a whole. In the short run, the behavior of incomes and inflation will depend solely on the growth rate of labor productivity and return on investment - that is, total factor productivity.

4.1.4. The movement pattern and structure of production, by type of economic activity

The year-on-year decline in the volume of industrial output, by major type of economic activity, has been observed since 2015. The already unstable economic development pattern has been further destabilized by the declining investment activity, turnover of retail trade, and industrial production indices. Building construction output in 2016 amounted to 95.7%, the turnover of retail trade – to 94.8 % relative to the corresponding period of the previous year. In Q2 2016, after a five-quarter-long plunge, the industrial production index demonstrated slight growth. The year-end industrial production index for 2016 amounted to 101.1%, and specifically in processing industries – to 100.1% relative to its previous year's value. In 2016, as a year earlier, the economic situation was positively influenced by growth in mineral extraction (102.5% relative to 2015), agricultural produce (104.8%), and transport services (101.8%).

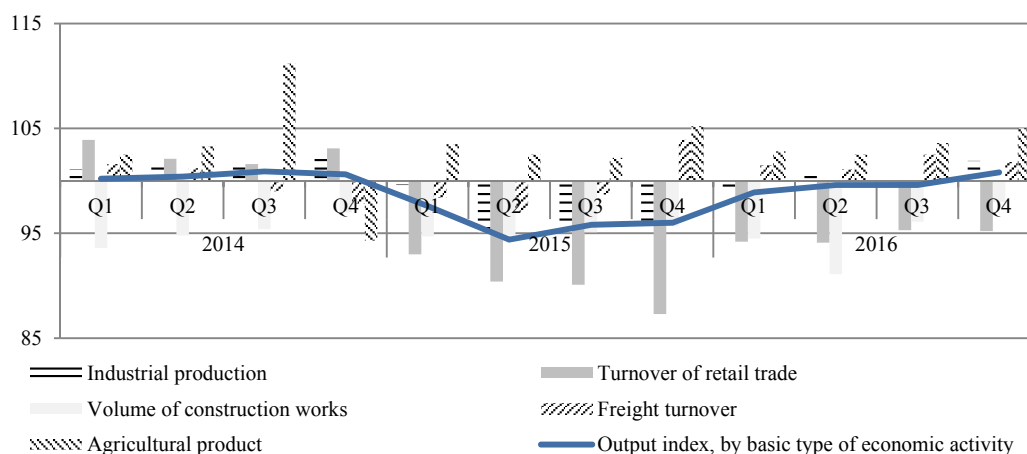


Fig. 8. The pace of industrial production, by type of economic activity, in 2014–2016, as % of the corresponding period of the previous year

Source: Rosstat.

Structural changes across the economy in 2016 were determined by the increasing role of the raw materials sector and related infrastructure. In 2016, growth of mineral extraction in annual terms amounted to 2.5%, including growth of extraction of fuel and energy mineral resources by 2.6%.

The output volume index in processing industries in 2016 followed a highly unstable movement pattern. The production index plunge by 3.1% in Q1 gave way to growth by 1.4% in Q2 relative to the same periods of 2015. When taken in annual terms, the 2016 output index in processing industries slipped into positive zone, with a growth of 0.1%.

The output volume indices in the processing industry are rather significantly diversified by type of economic activity. When the output volume movement patterns for each type of economic activity in 2016 are set against those observed in 2014, when processing industries still possessed some growth potential, it becomes obvious that recovery growth was achieved only in the chemical industry, the manufacturing of rubber & plastic products, and the food industry, which had managed to cope with the crisis phenomena. The specific features of these phenomena point to lack of proper restructuring in the domestic business sector and low motivation to move domestic products to new competitive markets. In such a situation, the

effects of Russia's retaliatory sanctions were more strongly felt by processing industries, which are oriented in the main to the domestic market.

As before, one of the problems faced by the Russian economy has been the targeted support of certain industries instead of a well-coordinated system of comprehensive measures designed to generally improve the overall conditions for doing business. Low investment demand determined a production decline in the machine-building complex and metallurgy, as well as decline in investment in housing and industrial construction. The most serious difficulties with regard to production recovery growth are experienced by the machinery and equipment manufacturing sector. Its output volume index in 2016 amounted to 96.8% relative to the previous year.

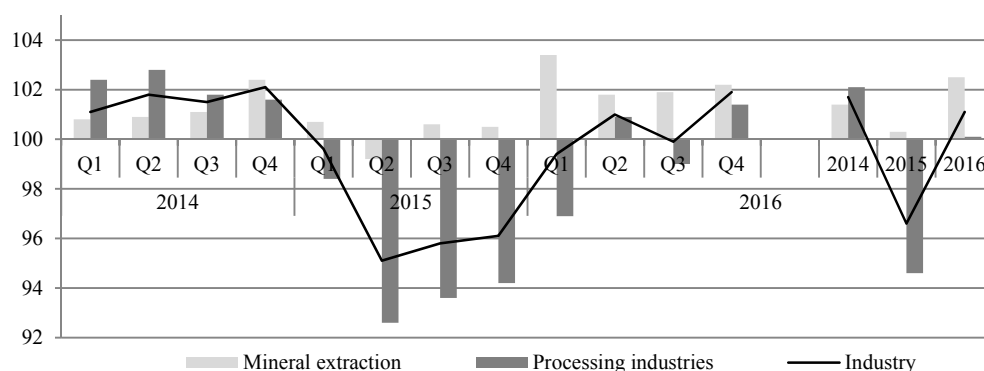


Fig. 9. The pace of industrial production, by type of economic activity, in 2014–2016, as % of the corresponding period of previous year

Source: Rosstat.

Table 10

The movement of production indices, by major type of processing industry, 2011–2016, as % of the previous year

	2011	2012	2013	2014	2015	2016
Processing industries	108.0	105.1	100.5	102.1	94.6	100.1
Food industry, including beverages and tobacco products	103.9	104.1	100.6	102.5	102	102.4
Textiles & textile products manufacturing	100.8	100.7	104.3	97.5	88.3	105.3
Leather production and leather products & footwear manufacturing	105.7	98.1	95.6	97.2	88.6	105.1
Timber & wood product processing	110.2	96.2	108.0	94.7	96.6	102.8
Cellulose & paper production; publishing and printing	106.5	105.8	94.8	100.4	93.7	100.8
Production of coke & petroleum products	103.8	103.1	102.3	105.7	100.3	97.6
Chemical production	109.5	104.1	105.4	100.1	106.3	105.3
Manufacturing of rubber & plastic products	111.4	112.8	105.9	107.5	96.3	105.4
Manufacturing of other non-metallic mineral products	107.4	110.7	98.0	101.8	92.2	93.4
Metallurgical production & finished products	107.0	104.8	100.0	100.6	93.5	97.7
Machinery & equipment manufacturing	111.1	102.7	96.6	92.2	88.9	103.8
Electric, electronic & optical equipment manufacturing	111.9	106.4	99.0	99.5	92.1	99.0
Transportation equipment manufacturing	117.2	110.3	102.2	108.5	91.5	97.0
Other industries	105.3	102.6	95.4	102.7	94.0	93.8

Source: Rosstat.

In 2015, the behavior of economic induces was negatively influenced by the simultaneous plunge of output both in the tradable and non-tradable sectors. In 2016, the slide of output in the tradable sector into positive zone became the factor that leveled the negative effects of the general situation in the economy. Output in the tradable sector amounted to 101.3%, and in the non-tradable sector – to 99.2% relative to 2015.

The economic development prospects will depend on the possibility to slow down the decline in the non-tradable sector, which is one of the strategic development goals for the Russian economy. It can be achieved by reversing the existing negative trends in the social sphere and boosting the investment and consumption rates.



Fig. 10. The dynamics of gross value added in the tradable and non-tradable sectors of the economy in 2012–2016, as % of the corresponding quarter of the previous year

Source: based on data released by Rosstat.

4.2. Decomposition of Russia’s GDP growth rates in 2016–2019¹

In his Annual Presidential Address to the Federal Assembly on 30 November 2016, Russian President Vladimir Putin underscored Russia’s goal to catch up with the world average growth rates by 2019–2020. As a reminder, the IMF projects 3.7% for the average annual growth rate of the global economy in the coming three years.² Earlier in November, Russia’s Ministry of Economic Development (MED) updated its forecast for Russia’s socio-economic development for 2017–2019³ whereby a 0.6% decline is projected for Russia’s GDP in 2016, while its baseline scenarios (see below) predict that economic growth rates will be barely higher than 2% by 2020 amid low crude oil prices and a lack of structural reforms.

Shortly after the MED’s updated forecast was released, the IMF upgraded its forecast for Russia’s GDP growth in 2016: while earlier in October the IMF projected a 0.8% year-over-year downturn for the Russian economy in 2016, the revised IMF forecast matches the abovementioned MED’s projection of 0.6%. The IMF notes in its comments on the forecast that Russia’s economy has managed to withstand the double shock of lower crude oil prices and imposition of sanctions, and there are signs of the economy entering a recovery phase.⁴ IMF analysts projected a 1.1% growth for Russia’s GDP in 2017, with the growth being driven in part by higher crude oil prices.

Furthermore, the year-end 2016 findings that Russian official statistical agencies published in early February 2017 have come to be even more optimistic: GDP growth rate in 2016 was only 0.2% below the value seen in 2015, according to Rosstat’s initial assessment.

¹ Authors of chapter: S. Drobyshevsky – Gaidar Institute, RANEPa; M. Kazakova – Gaidar Institute, RANEPa.

² <http://www.imf.org/external/pubs/ft/weo/2016/02/weodata/index.aspx>

³ <http://economy.gov.ru/minec/activity/sections/macro/2016241101>

⁴ <http://www.vedomosti.ru/newsline/economics/news/2016/11/29/667422-mvf-prognoz-vvp>

We will consider the foregoing MED's forecast for 2017–2019, as adjusted for the 2017 official findings and for the data on previous periods revised by the Rosstat. As was the case with previous forecasts, this one comprises three scenarios – baseline (aka conservative) scenario, “baseline +” scenario and target scenario.

The MED notes that the underlying scenarios of the forecast rest on the assumption that the policy of sanctions against Russia and Russia's countermeasures will continue over the entire projected period, as well as there will be no geopolitical and economic shocks. The forecast presumes macroeconomic and financial sustainability as long as social and foreign economic commitments are honored.¹

The baseline scenario presumes that Russia's economy will operate amid consistent external factors, while an allowance is made for a worsening of the foreign-policy environment and other conditions. This, as noted above, is a conservative scenario whereby the economic development model is not expected to undergo drastic changes. According to the baseline scenario, stagnation will give way to a recovery in 2017, and GDP will be up 0.6% year-over-year, to 2.1% by 2019. The recovery will take place amid rather low global crude oil prices (the Urals crude oil is traded at USD 40 a barrel over the entire projected period) and growth in capital outflows, from USD 18bn in 2016 to USD 25bn by 2019. The MED predicts stable investment activity by mid-2017 and further growth in investment in 2018, to 1.3% in 2018–2019, due to growth in private investment amid a decline in public investment.

The “baseline +” scenario presumes that Russia's economy will face a benign foreign-economic environment in 2017–2019. For instance, the Urals crude oil is expected to be traded at 48 USD a barrel in 2017, to USD 55 by 2019. The same scenario presumes an increase in household incomes and a consumer demand recovery. It also predicts that capital outflows will take a more subdued pace, down to USD 15bn in 2019. In this context, according to the MED, fixed investment are projected to recover at a faster pace than expected by the baseline scenario: fixed investment are anticipated to increase 2.9% in 2019 due to private and infrastructural investments. Hence the scenario predicts that GDP will raise from 1.1% in 2017 to 2.4% in 2019.

According to MED's documents, the target scenario focuses on achieving target values of socio-economic development and on addressing strategic planning objectives. The scenario presumes that in the medium term Russia's economy will enter a pathway of sustainable growth at a pace not slower than the world average growth rate while macroeconomic equilibrium is secured.² GDP is expected to grow at a higher rate, from 1.8% to 4.4% in 2017–2019. The target scenario focuses on an external environment similar to that of the “baseline +” scenario (in particular, crude oil price dynamics), however, the target scenario parameters can hardly be achieved, according to the MED, unless Russia's economic development model is transformed to an *investment-based model*, which implies a moderate growth in consumption spending in the first few years of the projected period, as well as lower costs for businesses. Economic growth under the given scenario will facilitate business environment, and hence it will help discourage net capital outflows which are expected to stop in 2019. The target scenario's active investment policy should facilitate average annual growth in fixed investment, up to 5.2% annually in the period between 2017 and 2019, which will be driven by a higher-than-anticipated growth in private and infrastructural investments.

In our view, given the above preconditions and external factors, the parameters of all the scenarios, excluding the target scenario that, according to the MED, does not expect drastic

¹ <http://economy.gov.ru/minec/activity/sections/macro/2016241101>

² <http://economy.gov.ru/minec/activity/sections/macro/2016241101>

changes in the growth model, can be met through serious structural changes to internal conditions for the development of Russia's economy. This assumption holds true based on the findings of decomposition of projected GDP growth rates using a method developed by the Gaidar Institute. The method employs the algorithm of decomposition of GDP growth rates into structural, foreign-trade and cyclical components that is applied in developed countries (OECD). We modified the method so that it could capture the specifics of the Russian economy that is heavily reliant on terms of trade.¹ The decomposition was performed using the key parameters of the updated scenario-based forecasting for Russia's socio-economic development for 2016–2019 (see the above-described scenarios of the forecast).

Fig. 11, 13–15 show the dynamics of Russia's actual GDP growth rate, as well as the dynamics resulting from decomposition of its structural, foreign-trade and cyclical (the sum of business cycles and random shocks components) components for the period between 1999 and 2019 for all the above three scenarios, as adjusted for Rosstat's data on the -0.2% decline in 2016.

Our estimates show that if the baseline scenario and the "baseline +" scenario materializes, the structural component of GDP growth rate would constantly slow down since 2005, to 0.6% in 2019 (and is apt to stabilize at this level beyond the projected period). A slower pace of the structural component of economic growth is driven by negative dynamics of its fundamental (structural) factors, namely a decline in the employment (the labor factor) due to demography downtrends and slower growth rates in fixed assets in volume terms (proxy variable for the capital factor).

If the target scenario materializes, that, as shown above, allows for transition to a new economic growth model in Russia, that is, growth in structural factors, then the structural component of GDP would go up to 1.5% in 2017, to stabilize at 2% in 2018–2019 (see *Fig. 11*).

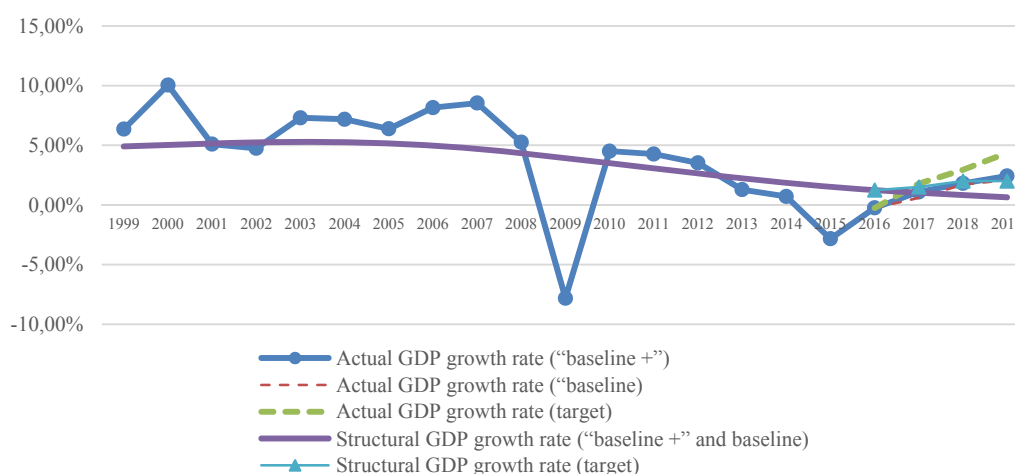


Fig. 11. Actual GDP growth rate and its structural component (all the three scenarios), year-over-year % change, 1999–2019

Sources: Rosstat, MED, IMF, own calculations.

¹ This method is described in detail in S. Sinelnikov-Murylev, S. Drobyshevsky, M. Kazakova. Decomposition of Russia's GDP growth rates in 1999–2014 // *Ekonomicheskaya Politika [Economic Policy]*. 2014. No. 5. PP. 7–37, as well as a monograph on Decomposition of Russia's GDP growth rates / S. Sinelnikov-Murylev [et al.]. - M.: Gaidar Institute Press, 2015. – 128 ps.: (Scientific Works Series / Gaidar Institute for Economic Policy; No. 167P).

Decomposition of projected GDP growth rates in 1999–2019 for all the three scenarios of socio-economic development in the Russian Federation reveals a negative foreign-trade component of GDP growth rates in 2016–2019 (see Fig. 13–15). The negative value is explained by the fact that all the three scenarios envisage global crude oil prices lower than average multiyear values within the given period (USD 74–85 a barrel, Fig. 12).

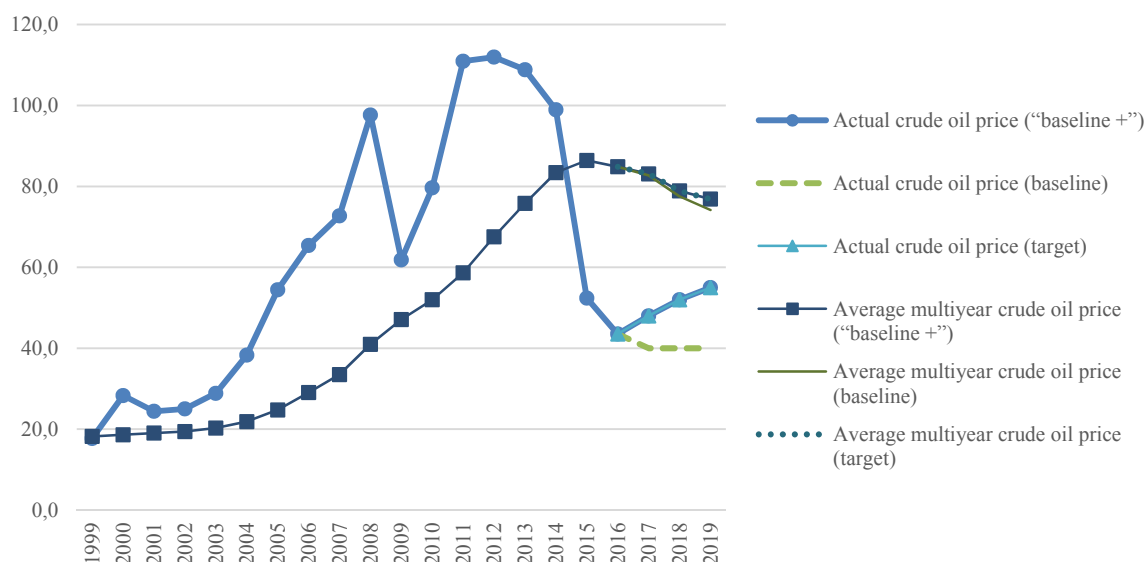


Fig. 12. Actual and average multiyear crude oil price, USD/barrel, 1999–2019 (all the three scenarios)

Sources: IMF, own calculations.

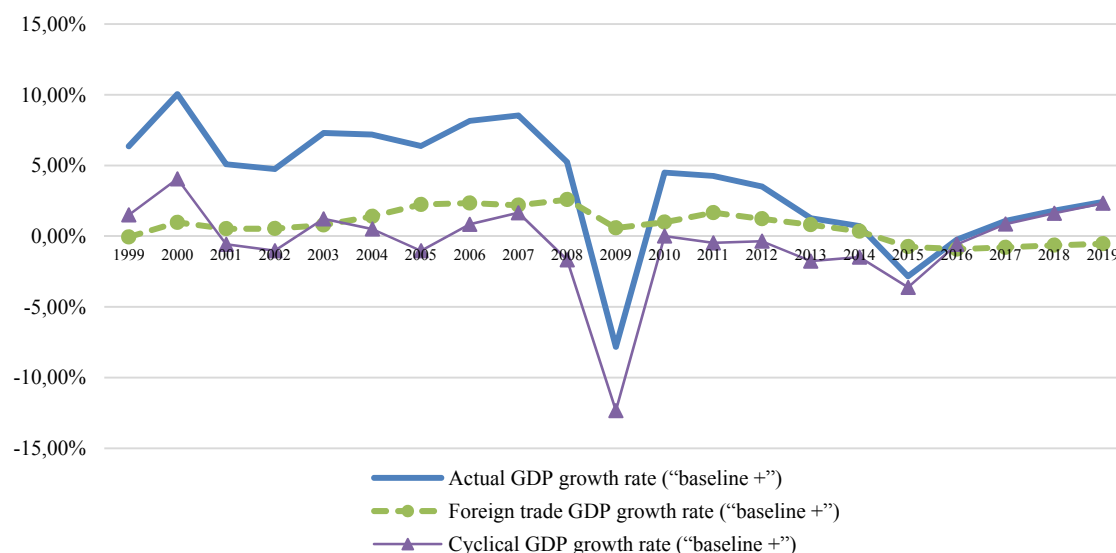


Fig. 13. Actual GDP growth rate and its foreign-trade and cyclical components, year-over-year % change, 1999–2019 (“baseline +” scenario)

Sources: Rosstat, MED, IMF, own calculations.

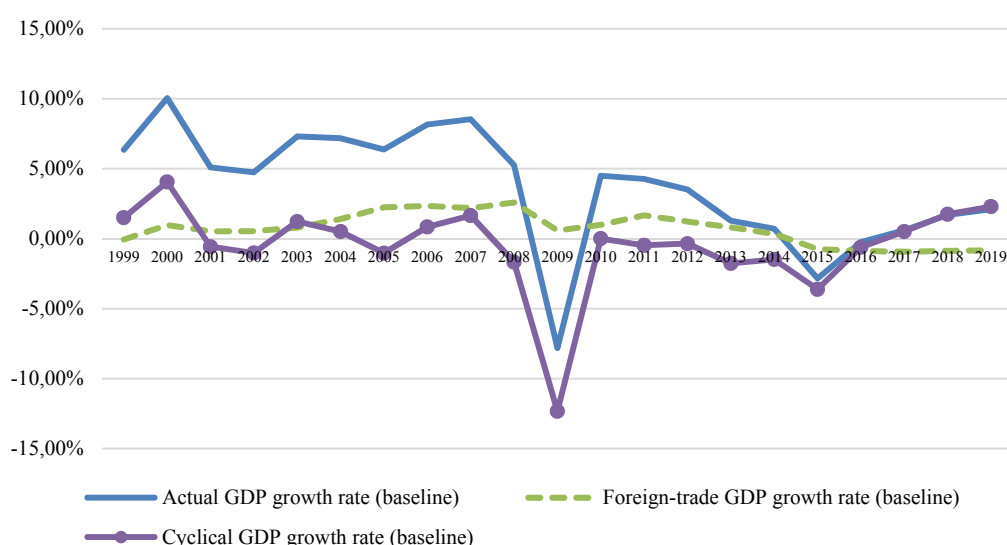


Fig. 14. Actual GDP growth rate and its foreign-trade and cyclical components, year-over-year % change, 1999–2019 (baseline scenario)

Sources: Rosstat, MED, IMF, own calculations.

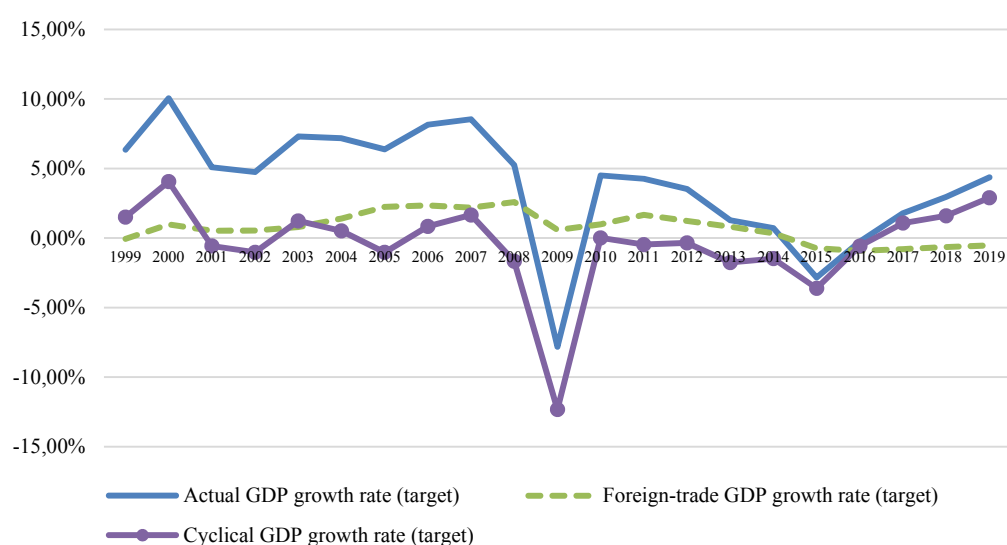


Fig. 15. Actual GDP growth rate and its foreign-trade and cyclical components, year-over-year % change, 1999–2019 (target scenario)

Sources: Rosstat, MED, IMF, own calculations.

The cyclical component of Russia’s GDP growth rate has since 2008 been negative, as shown in Fig. 13–15. It appears that the downward dynamics was driven by raised uncertainty and risks to Russia’s economy amid a highly volatile ruble exchange rate and, since 2014, a combined shock of adverse effects of economic sanctions and countersanctions, higher inflation and deteriorated access to fundraising.

The findings of decomposition of Russia’s GDP growth rates in 2016–2019 in context of the “baseline +” and baseline scenarios of MED’s forecasting of Russia’s socio-economic

development whose key parameters are described above, lead to the conclusion that the above scenarios – including projected GDP growth rates amid crude oil prices lower than average multiyear prices, a lack of growth in the fundamental factors of economic development and the total factor productivity (TFP) (and hence a lower structural component of growth) – cannot materialize unless there is an upsurge of the cyclical component (to about 2.3% by 2019), which, in our view, may happen as a result of an upsurge in cyclical GDP after the negative shock of 2015 is gone, or on the assumption that the economy will stay at the bottom (lower phase) of the business cycle, a marked positive shock of unclear nature.

The target scenario could materialize provided that the cyclical component is slightly higher (to 2.9% by the end of the projected period), however, in such a case, as noted above, Russia’s economy would operate under a brand new investment model, which implies a higher structural component of GDP growth whose dynamics is driven by fundamental factors.

We used decomposition of Russia’s economic development growth rates to estimate an output gap (i.e., the deviation of actual GDP from a potential output volume), as shown in *Fig. 16*. According to our estimation, in 2015 the output gap went negative under the baseline and “baseline +” scenarios and would stay negative within a range of -1–2% till 2018. The gap would be positive in 2019 under the above scenarios. As regard the target scenario, the gap would stay negative till 2017, and would regain positive values in 2018, to 2.4% by 2019.

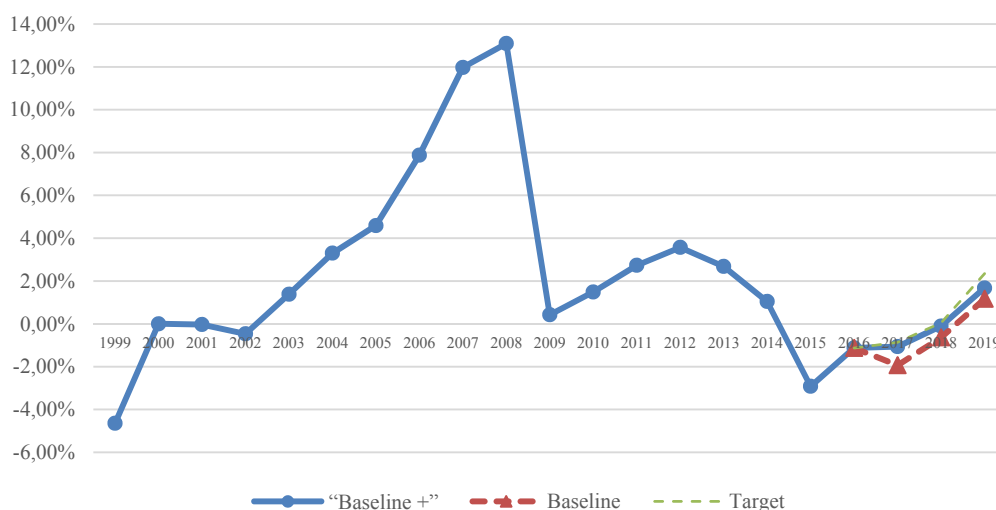


Fig. 16. Gap in Russia’s economic output (%), 1999–2019 (all the three scenarios)

Source: own calculations.

The findings lead to the question of what factors that could facilitate the implementation of the parameters envisaged by the above scenarios, except the target scenario. First, as shown above, the Russian economy cannot count on favorable terms of trade because a rather moderate level of crude oil prices, a way below the average multiyear level, is expected over the entire projected period.

Second, neither can the cyclical component facilitate growth rates of that high level because, as noted above, none of the above scenarios envisage preconditions for its growth.

Therefore, it is only through the growth of the structural component – the transition to a new economic development model focused on investment as a key factor – that the desired economic

growth rates can be achieved, as provided for by solely the target scenario. In other words, the best-case scenario for the Russian economy, namely sustainable GDP growth rates at a pace of worldwide average growth rates by 2019 (about 4% year-over-year), can materialize subject to a significant upsurge of GDP fundamental factors. According to our estimates, with the TFP as it is now (this precondition appears to be realistic amid continuing sanctions and a lack of foreign capital, as described by the MED), this goal can be achieved by engaging extra labor resources (about 4.5 million persons), as well as extra Rb 40 trillion of fixed investment in the period between 2016 and 2018.

4.3. Russian industrial enterprises in 2016 (on business surveys' findings)¹

Business surveys of industrial enterprises have been conducted by the Gaidar Institute using a European harmonized method in monthly cycles since September 1992, covering the entire territory of the Russian Federation. The panel size is around 1,000 enterprises employing over 13% of industrial employees. The panel is shifted towards large enterprises for each of the segregated sub-industries. The ratio of returned questionnaires is in the range of 70-75%.

Business survey questionnaire contains a limited number of questions (not more than 15–20). The questions are of a qualitative and not quantitative nature. Simple questions structure allows the respondents to fill out the questionnaire quickly and without using any documents. It is paramount that respondent at each enterprise is a manager of the highest level who has a full understanding of state of business and is directly linked to the business management.

We use specific derived index, which we call balance, for the analysis of business surveys results. Balances are calculated as difference between the percent of those who answered “go up” (or “above normal”) and percent of those who answered “go down” (or “below normal”). The obtained difference allows us to present responses to each question by one number with “+” or “-”.

Balance is interpreted as first derivative or process speed. When the balance of responses to a question of expected price shift is marked “+” this means that the average prices in the near future will be growing (for example, prevail those enterprises with responses about projected increase of their prices). For instance, increase of a monthly balance from +10% to +17% speaks about the fact that prices on average across industry will be growing faster because the number of enterprises projecting their growth have increased. Negative balance means a decline of average prices (more enterprises intend to cut their prices). Change of balance from -5% to -12% is interpreted as an increase of price fall intensity.

4.3.1. 2016: is industry still in crisis?

The Russian economy marked 2016 as a second year of the crisis. However, that is not true of Russian industry. The vast majority of indexes followed by Gaidar Institute in the course of monthly business surveys demonstrated that Russian industry was far crisis during last year.

First and general idea regarding the state in the sector is given by composite indexes computed on the basis of unique for the Russian survey statistics set of base values obtained during the 25-years history of IEP's business surveys. The Industrial Confidence Index is a common derived index for business surveys, the Industry Adaptability Index (“normal”) of

¹ Author of chapter: S. Tsukhlo – Gaidar Institute.

industry represents a new instrument of the Institute, which allows to clearly illustrate the features of how the Russian industrial sector goes through the crisis years of 2015–2016.

The **Industrial Confidence Index**¹ demonstrated that the beginning of 2016 was more complicated for Russian industry than the upper turning point in 2015 (*Fig. 17*).

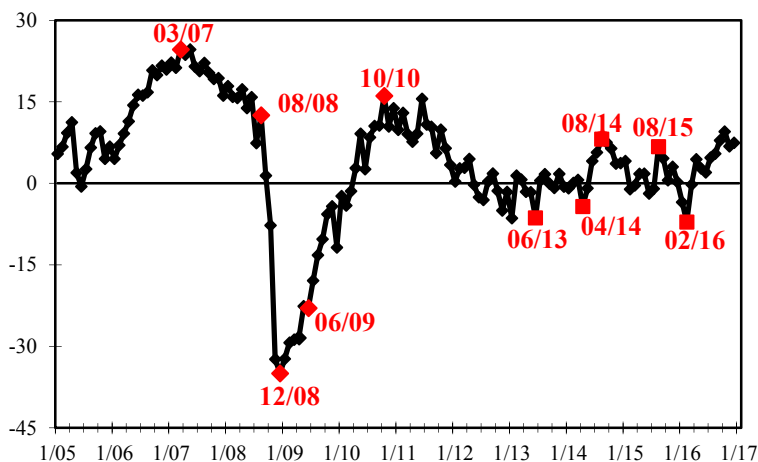


Fig. 17. IEP Industrial Confidence Index, 2005–2017

Initial values of the Index in 2016 demonstrated growing pessimism in industry against the background of relatively positive values by the year-end of 2015. For January–February 2016, the Index shed more than 8 points and final decline hit 13 points since August 2015 (when local maximum was obtained). Moreover, the Index was definitely in “minus.” However, later the situation started improving: March data regarding the state and forecast of Russian industrial enterprises were full of good news but exclusively regarding those indicators, which were unavailable to the official statistics. Following the February minimum, the Industrial Confidence Index moved up by 5 points and as a result returned to around zero. The April assessments of the state of business in Russian industry also were more positive than negative taking into consideration the publicity, which affected their formation. The Industrial Confidence Index has grown by merely 1 point, which was worth a lot in the context of total pessimism expressed by officials and experts. As a result, the Index secured a strong footing around zero. However, business surveys conducted in May 2016 demonstrated both stable industrial situation and downward expectations related to the situation in the months that followed. This conclusion was supported by the fact that Confidence Index stayed at the April level amid sharp decline of businesses’ optimism. Moreover, sure enough, in June the Index

¹ The Index is computed as a simple arithmetic average (difference in responses) to four questions from the IEP’s monthly business survey questionnaire:

- 1) Actual change of demand, balance = % growth – % decline;
- 2) Estimate of demand, difference of assessments = % above normal + % normal – % below normal;
- 3) Estimate of stocks of finished products, balance = % above normal – % below normal, opposite sign;
- 4) Plans for output change, balance = % growth – % decline.

Balances of questions 1 and 4 are seasonally and calendar adjusted. The Index can range from –100 to +100 points. Positive index values imply the prevalence of positive assessments. Negative index values mean that adverse assessments prevail. Decline of index’s values is the sign of deteriorating situation. Growth of index’s values – the sign of ameliorating situation.

shed several points and dropped to zero mark, thus remaining within previous bounds of uncertainty. Current sales performance nosedive was the main factor for the Index decline.

Aggregate data regarding the state of Russian enterprises in early H2 demonstrated further deterioration of the situation. The IPE's Industrial Confidence Index continued its downward trend having lost all gains posted in late Q1–early Q2 2016. Indicator's reduction in May–July constituted moderate 4 p.p., which, by the way, was rather in line with the slow-rolling current crisis. In July, the Index shed 1.5 p.p. and once again stayed at zero mark. In August, Russian industry exhibited small negative change in the situation. The latter as before said nothing definite about previous probable crisis trends. The IEP's Industrial Confidence Index remained around zero mark where it stayed for five consecutive months surpassing sentiments reduction as of early 2016. The September producers' assessments of state of business in Russian industry triggered growth of the Confidence Index to the best (for that moment) crisis values amid projections of stabilization and deterioration of industrial output dynamics. To note, we do not use the latter in any of our composite indexes, but it is the only index used by the majority of officials and experts even in the context of its small value in terms of information in the course of current slow rolling crisis. The October Industrial Confidence Index value demonstrated small nearly symbolic reduction in assessments of business situation following the September local maximum value of the Index. The November business survey exhibited a fall of the Confidence Index after registering in September–October 2016 of 5-year maximum of this aggregate indicator, which was due to a decrease of all comprising base values minus the Industrial Production Index. The December business surveys data secured stabilization of the Industrial Confidence Index at the November level, which looked very little like crisis and post-crisis values of this index. Industry continues to remain in a state, which is very hard to identify by passed years standards. Moreover, enterprises are rather (nearly by 75% according to our Adaptability Index (normal)) satisfied with their situation.

The Industry Adaptability (“Normality”) Index¹ significantly improves assessments of enterprises of the second crisis year.

In Q1 2016, business surveys exhibited decline of the Adaptability Index by 3 points. We have not registered so steep adverse change of the Index since the 2008–2009 global crisis. Therefore, the turn of 2016 inspired less confidence in Russian industry than the beginning of 2015. Two paramount for Russian industry indicators, assessments of book orders and assessments of sufficiency of expected book orders with industrial capacities, were drivers for reducing the Index. Then current volumes of book orders were estimated as “normal” by only 42% of enterprises, which was the lowest value of the Index since the beginning of 2010. In these circumstances decline of sufficient security in industrial capacity looked rather logical taking into consideration the fact that the share of responses “more than sufficient” went up. In other words, Russian industry posted increased overhang of excessive capacities to 28%. Solely 7% of businesses posted a shortage of capacities. The most likely reason for adverse assessments of the situation in industry at the turn of the year accounted for the lack of positive dynamics promised by the authorities: “bottom out” did not happen in 2015.

¹ The Index is the arithmetical average of the balances (in percentage points) of the responses to the questions about six components: order books, stocks of finished products, stocks of raw materials, available production capacities, current employment, financial and economic state of enterprises. Gaidar Institute for Economic Policy has been analyzing a set of these assessments since 1994. The Indicator is computed on a quarterly basis. The Adaptability Index (normality) shows the level of adaptability of Russian industry to current economic conditions. In other words: to what extent current operating conditions for Russian industry are considered normal.

However, already in Q2 enterprises restored previous non-crisis high assessments of state of business in industry: the Adaptability Index hit an all-time maximum of 72% (*Fig. 2*). Industry definitely put up with the inability to recover soon from the slow rolling crisis.

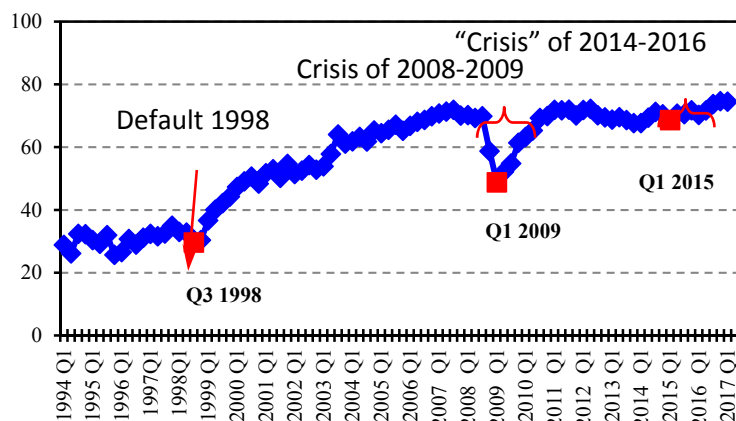


Fig. 18. Industrial Adaptability Index, 1994–2017, %
(share of enterprises estimating their indicators as “normal”)

Next quarter of the slow rolling crisis allowed businesses to better adapt to the current situation. The Adaptability Index hit 74 points, which was an all-time record for the entire 23-year period of its calculation. Previously (during fat “zero years” and during hard “inter-crisis” ones, and during previous “crisis” year) this index reached solely 72 points. Consequently, at the beginning of H2 of the second crisis year, Russian industry found itself well like never before. Because dynamics of the Index for entire previous years coincides with intuitive assessments of an even spare set of data released by the official industrial statistics (not to speak of the ultimate system of indicators of the IEP’s survey statistics), than, probably, one can recon that mentioned Index’s value correctly assesses the situation in Russian industry. Furthermore, it exceeds previous value by only 2 p.p., in other words is not an “outbreak.”

To note that since late 2010 our Index has been demonstrating very high stability. Even in Q1 2015, the Index dipped by only 1.8 points against the value of Q4 2014, although both the authorities and experts were preparing for the type of 2008–2009 crisis when Russian industry was hit hard. In late 2008, the Adaptability Index shed 11 p.p., and in early 2009 lost another 10 p.p. Enterprises and authorities took 6 months in order to return it to pre-crisis values.

At end-2016, the Adaptability Index hit an all-time high for the entire period of its calculation (1994–2016) of 75%. Businesses have miraculously adapted to the realities of the Russian economy and the economic policy. However, continuation and moreover “accomplishment of adaptation” are already fraught with danger of industry to seriously attempt a transition to statistically unquestionable output growth.

Calculation of the Adaptability Index along the sizes of enterprises have demonstrated that the index’s growth was secured by very large enterprises (with headcount above one thousand persons). In this group, the Index hit 79% in Q4 2016, which was an all-time high of the group indicator. To note, that these enterprises “entered” the crisis of 2015–2016 with adaptability at 71%, then raised and maintained it at the level of 74%, and in 2016, they managed to raise the Index by additional 5 p.p. Industrial enterprises of other sizes overcome the current crisis

harder. The Adaptability Index for small and medium-size enterprises (1-250 employed) is inferior to the Index of very large enterprises and has no positive dynamics for 2015–2016. During these crisis years, the level of adaptability in the group of small and medium-size enterprises constitutes 57–58%. Large enterprises (251–1,000 employees) assess the situation somewhat better. These businesses have managed to adapt to the current crisis at the level of 64%, but without any positive dynamics exhibited by the end of the second crisis year.

4.3.2. Dynamics of main indexes of Russian industry for 2016

In early 2016, attempts of Russian industry to increase output volumes amid slack and relatively stable demand whose projections for change were also stable resulted in a growth of excessive stocks of finished products, negative adjustment of output plans and investment sentiments. Moreover, stability, which the government was proud of, did not suit the majority of Russian industry. In January 2016, the share of responses “normal” for the current sales volume declined to 42%, which was 3-year minimum, although in August 2015, the level of demand satisfied 59% of producers. At the beginning of 2016, assessments of stocks of finished products gathered negative connotation. In January, the Index value dipped by another 3 points and since November 2015, the surplus moved up by 6 points reaching +10 points. On the one hand, formation of the negative trend for assessments of stocks of finished products was in place following a successful transition through the crisis year of 2015 with minimum level of surplus and with a maximum level of “normality.” On the other hand, these values were exceptionally moderate for crisis period. In 2009, balance of responses reached +25 points (according to quarter assessments). However, this indicator’s records were registered during the first years of economic reforms: +53 points in 1992, +44 points in 1994.

The February data for Russian industry demonstrated a lack of positive changes of demand and output, deterioration of assessments of existing volumes of demand and stocks amid growing pessimism regarding plans and projections. Attained in February sales volumes did not satisfy already 55% of businesses, which was the worst result of three previous years, although in August 2015 dissatisfaction with demand constituted solely 39% and in August – 38%. Attempts taken by Russian industry aimed at increasing production volumes in late 2015–beginning of 2016 and “to bottom out” still were not secured by sufficient book order volumes. Assessments of inventories confirmed this conclusion. In February 2016, the index’s balance reached maximum (in other words, lowest value) since May 2014, meanwhile during 20 previous months (by far being simple!) Russian industry steadily controlled the balance of demand and supply by keeping surplus of inventories during the majority of months at the minimum level, which previously was registered during unforgettable for our economy 2006–2007.

“Vagueness of the current economic situation and its prospects” rose sharply at the turn of 2016 thus becoming one of significant constraints for industrial growth. Respondents mentioned this factor in January 2016 by 8 percentage points more often in comparison with October 2015. This factor hit 48% securing 2nd place on the list of 17 factors, which limit industrial growth. At the same time, conventional (and acknowledged by everybody) constraint, low domestic demand, added solely 1 (one!) p.p. and hampered output growth of 53% of Russian industrial enterprises. Upsurge of misunderstanding by businesses of the current situation and even of its short-term prospects is explained by unfavorable combination of a whole number of factors. Firstly, the slow rolling crisis has denied businesses of a chance for a fast entrance into the crisis and fast exit the crisis. Secondly, protracted character of the crisis

has allowed enterprises to hear a wide range and constantly reviewed array of assessments of the current crisis and projections for its development including those made by the officials. This fact most likely misinformed businesses than contributed to their better understanding of the current economic situation and its prospects. Thirdly, the fact the geopolitical component contributed to the current crisis definitely reduced predictability of economic processes development. Another reason for vagueness were, probably, new ruble exchange rate principles. Drastic devaluation of the national currency in the context of its dependence on the oil price has a significant and ever-increasing negative impact on Russian industry. According to direct responses of enterprises, “undervalued ruble exchange rate and cost increase of imported equipment and raw materials” in early 2016 limit output growth of already one third of Russian industry, which propelled this constraint to 3rd place on the list of negative factors. Meanwhile in July 2014, solely 10% of businesses reported this factor, which put this factor to 9th place and sometimes even to 14th place on the list of 17 negative factors.

Export growth demand following ruble’s devaluation has not satisfied expectation of more than one fourth of domestic producers and the “low demand for exports” factor has come to 4th place on the list of constraints of industrial production growth according to proper domestic producers. At the same time, one should mention a reduction of downward pressure of competition with imports on the dynamics of Russian industrial production. In October 2013, imports interfered with one third of industrial producers, in April 2015 – with only 11%, and in January 2016 – with 12% of enterprises. The 1998 default reduced the negative impact of this factor to 3–5%, the 2008–2009 devaluation – to 9%. Thus, the 2014–2016 devaluation strengthened positions of domestic producers on the sales markets (most likely domestic ones), and created for them problems on the equipment and raw materials markets, especially, amid stalling import substitution with no Russian analogues.

In the end of Q1 2016, Russian industry reported about drastic and positive change of its assessments of stable dynamics of observed by us indexes and positive adjustment of their projections. Dissatisfaction with sales performance fell in March by 6 points. Therefore, negative trend of demand assessments in September 2015–February 2016 was stopped. Growth of confidence in demand projections was another positive sign. Following drastic February setback when seasonally adjusted balance of projections exhibited 11-months minimum, in March the index went up but to conventional for previous months zero level. Assessments of inventories were the third positive sign in March. Balance of this indicator following 6-months (also in September 2015–February 2016) slowdown fell in March by 5 p.p. and returned to a moderate for passed crises and conventional for the beginning of the current crisis level of surplus inventories assessments. Investment plans represented fourth positive sign in March. They achieved the best since September 2014 (in other words, since the onset of the current crisis) values. The balance of the index closely approached to zero mark, although remained negative but very small (-1 p.p.) in absolute magnitude. It should be noted that at the turn of 2015, it dipped below -30 p.p. Consequently, in spring 2016, industry nearly overcame a psychological barrier of investment pessimism (*Fig. 19*).

Russian businesses consider ruble’s strengthening as one of the factors for investments heading into plus. In 2015, the question regarding what ruble exchange rate would benefit the investment growth was asked twice: in May and in December. In December survey, respondents pointed to the investment growth already in 2016. Moreover, always, according to producers’ assessments, the impact of ruble exchange rate on the investment activity was rather definite. In May 2015, when ruble was strengthening the need for its revaluation for the investment

growth in proper production was pointed by 61% of enterprises. In December 2015, when ruble was losing strength this need was pointed by already 73% of enterprises.

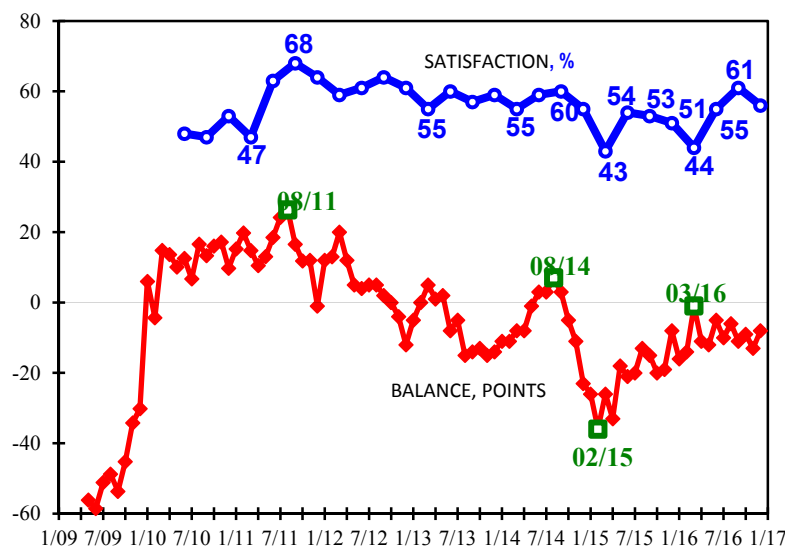


Fig. 19. Balance of expected changes of investments and satisfaction with their actual volumes

Actual dynamics of demand and output posted at the beginning of Q2 looked reassuringly non-crisis. Enterprises kept a tight control over stocks of finished products, projections and plans continued recovering following the February collapse. Sales volumes of industrial products achieved in April (estimated as “normal” for that stage of out complicated economic development) were satisfied by 53% of businesses, which was 7-moths maximum for the indicator. Industry, hereby, continued exhibiting high adaptability to actually existing but not been understood through conditions of crisis year 2016. Investment intentions, although were not characterized by stable positive dynamics, anyway were not as pessimistic as they were in 2015. In April, they once again “backed off”. The April index balance shed 9 points following the current crisis March maximum. The same picture was registered in December 2015–January 2016, when the balance following an upsurge by 13 p.p. returned to the previous levels of stable pessimism. Thus, positive signs of investment intentions in industry have not turned sustainable and have failed to maintain the investment growth. However, the mere fact of such signs at the level of enterprises was undoubtedly a positive signal.

Zero industrial growth of H1 2016 was well provisioned with highly qualified personnel. The share of responses “sufficient” in assessments of headcount of enterprises hit an all-time high of 80% (*Fig. 20*). Previously such result was obtained only in 2012 and 2013. The remaining 20% of responses were accounted for “more than sufficient” and “less than sufficient.” Balance of last two assessments (“more than” and “less than”) stays around near-zero values for already three quarters, in other words, excessive headcount in industry on the whole is totally offset by headcount shortage. At the same time, the share of responses “less than sufficient” declined in Q2 2016 to its minimum since 2010, i.e. since the end of the previous crisis. Excessive industrial employment has stabilized at the non-crisis level of 11%.

Prior to default period, the latter index stayed in the range of 35–40%, and during the crisis of 2008–2009 – in the range of 24–35%.

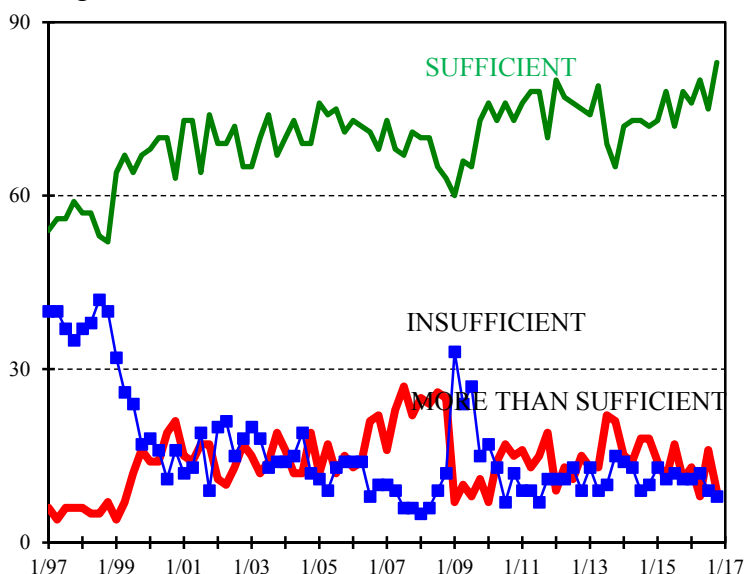


Fig. 20. Share of enterprises with excessive, sufficient and insufficient headcount, 1997–2016, %

Unexpected May positive demand dynamics increased satisfaction with achieved sales volumes to 54%, but did not boost respondents’ confidence in retention of an upward trend: demand projections, which were gaining confidence in March-April along seasonally and calendar adjusted factor data, in May unexpectedly collapsed by 8 points. Pessimism expressed by the officials and experts neither contributed to the industrial confidence growth.

Assessments of stocks of finished products confirm the conclusion about a positive demand dynamics. Excessive (balance) of stocks dipped sharply in March 2016 and stayed at the level of +2..+3 points. In May, building a balance of responses happened amid contraction of both responses “above normal” and responses “below normal.” As a result, shares of these responses (10 and 7%, respectively) hit an all-time minimum during the entire period (1992–2016) of instrumental observations of assessments (not volumes!) of inventories in Russian industry. Assessments of inventories as “normal” remained stable in the range of 70-72%. Reduction of the proportion of certain assessments of stocks (“above normal” + “normal” + “below normal”) happened owing to growth of percentage of responses “no answer”, which reflects a growth of misunderstanding by industry what physical quantity of stock was adequate current situation. In May 2016, rejection of their stock assessment hit 11% and thus exceeded the ration of responses “above normal” or “below normal”. Although still in January 2016, solely 5% of businesses rejected their certain assessments of stock.

In the wake of constantly postponed (even officially) industrial growth recovery which expected rate did not promise pleasant surprises, industry revised assessments of capacities provision in view of such pessimistic projections. Moreover, it was done in order to improve capacity provision, which looked absolutely logical. The shortage of capacities amid enterprises’ expectations of demand change for output declined in Q2 2016 to 5%. This is nearly a minimum level of equipment shortage reported for the entire monitoring period of the index

since 1993. The IEP business surveys registered lower shortage of capacities (3%) during pre-default period, in April 2009, and in January 2013.

H1 of the crisis year of 2016 brought for Russian industry a more positive demand and output dynamics. However, businesses were not ready to overcome the current low rolling crisis in their plans and projections. Seasonally adjusted balances of demand projections remained around zero value. The initial balance of output plans shed in June 11 points, and when seasonally adjusted – 2, and as a result sank to nearly minimum value of 2012-2016. Businesses did not have sufficient reasons for launching the output growth, which is statistically distinguishable by the authorities, firstly, owing to insufficient demand volumes, and secondly, due to vagueness of prospects for the Russian economic recovery out of a protracted crisis started in 2014.

The beginning of H2 exhibited instability of an upward trend in Russian industry and validity of neo-optimistic forecasts of Q2 2016. In July, demand for industrial products underwent, according to businesses, drastic for the second crisis year changes. However, Russian industry was comfortable with such course of events. The proportion of “normal” responses regarding current demand volumes since April exceeded 50%, in other words the majority of producers were nonetheless satisfied with their sales and more than confidently controlled their inventories. In July 2016, The percent of their “normal” responses hit another all-time record for the entire previous 290-month period of instrumental observation for this index – 76% of businesses considered their volumes as “normal.” The remaining 24% of enterprises reported assessments “above normal” but solely by 2–4 percentage points. In other words, traditional balance showed a symbolic and highly rational for the current historical moment excess of stocks of finished products.

At the beginning of Q3, industry selected principal factors, which hampered the output growth in the context of ruble’s strengthening. No less than half of Russian enterprises considered insufficient domestic demand was the main (most widespread) impediment for industrial growth. Maximum references of this factor (55%) was accounted for Q1 2016, i.e. by no means at the crisis peak of early 2015. By the way, vagueness of the current economic situation and its prospects – another constraint important for the current historical stage registered peak of references in early 2016. Then, nearly half of Russian industrial managers did not understand what was going on in the Russian economy. However, half a year later the level of misunderstanding fell to traditional for pre-crisis quarters level of 35%. However, growth of understanding most likely is due to perception of the fact that nothing is happening in the Russian economy and its prospects look similar.

Businesses gave 3rd place in the rating of industrial growth constraints to insufficient demand for exports factor. This seems logical in the wake of ruble’s appreciation, but reduction of references of this constraint down to 22% after 32% registered in Q4 2015 and 29% posted in Q1 2016 seems illogical. Apparently, previous wave of devaluation shaped then exaggerated and frustrated expectations for external demand growth. However, subsequent ruble’s appreciation and upward trend of domestic demand permitted Russian industry to reduce a request for export demand.

In Q3, Russian industry retained customary stagnation amid complete and uncomplicated in such situation control by enterprises of state of business. Following June upsurge of balance of demand change and July dip, industry confirmed a return to slack negative sales dynamics. However, on the whole, the results of survey monitoring of demand changes for the first 9 months of 2016 looked extremely ambiguously. Enterprises’ responses did not provide

reasons for concluding about a clear continuation of the crisis nor about its termination. Businesses' forecasts attested to a lack during first 9 months of 2016 of hopes for sales grow by Russian industry. Following a psychologically hard Q1 2015, industry was consistently forecasting approximately zero demand growth. However, at the beginning such forecasts were skeptically perceived by observers, who expected a full-scale crisis in 2015, thinking that enterprises underestimated "true" depth of a slump. In 2016, experts assessed retention of zero demand growth projections in industry as a mistake to the contrary: enterprises do not see "correct" moment for the onset of industrial growth, which will soon unfold, but does not materialize.

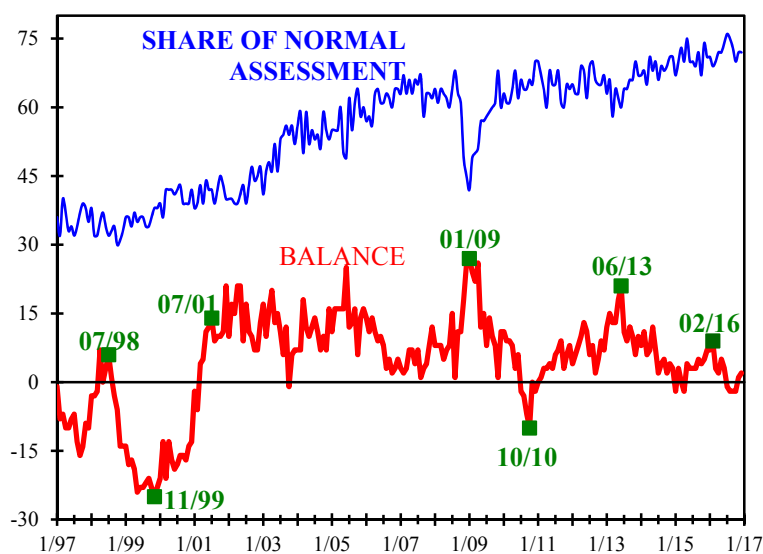


Fig. 21 Assessment of inventories balance, 1997–2016

Such demand dynamics enabled the enterprises to steadily control stocks of finished products (*Fig. 21*). In July-September, the proportion of responses as "normal" regarding physical volumes of inventories remained at all-time (1992–2016) maximum of 75%. The remaining 25% of responses approximately were divided half-and-half between responses "above normal" and "below normal," in other words, their balance stayed around zero level. The maximum (i.e. most crisis) value of inventories balance during current crisis was obtained in February 2016 and constituted +9 points: then 17% businesses assessed their stocks as "above normal" against 8% of responses "below normal." In December 2014 – March 2015 the balance of assessments steadily remained in the range of -2..+3 points and in no way corresponded the crisis pattern of Russian industry drawn by the authorities and experts.

The same situation is observed regarding industrial inputs. In Q3 2016, their proportion in responses "normal" hit an all-time high of 80%. Russian industry as never before was provided with industrial inputs to secure current output and even for its feasible changes, which unlikely will be shocking (but with "plus" sign) for producers. That is why enterprises not only boasted of sufficient industrial capacities but also were well provided with raw materials stock in order to satisfy feasible demand growth on their products.

Q4 2016 signaled clear positive changes in Russian industry. October demonstrated development of first hopes for weathering the stagnation. Demand dynamics for the first time

during the current crisis (even according to traditionally understated enterprises' assessments) exhibited "plus." Projections of sales have also hit positive balance values. Satisfaction with demand volumes retained high and far from crisis values. Meanwhile, enterprises' assessments of stocks of finished products exhibited a shortage of their physical volumes amid industry's unwillingness to start increasing stocks in the wake of uncertainty about stability of upward trends. Monitoring of industrial growth constraints confirms this conclusion. "Vagueness of the current economic situation and its prospects" comes to 2nd place in the rating of 17 negative factors. Since mid-2016, this factor hampered one third of Russian industrial enterprises to shape purposeful output strategy.

Businesses' investment plans demonstrated insufficient confidence of the sector in early start of industrial growth. Fluctuations of investment sentiments registered in mid-year with an upward trend began slowing down signaling growing investment pessimism. Industrial sector unwillingness to invest was explained not only by vagueness and unpredictability of macroeconomic situation, but by sufficiency, according to the majority of producers, of even shrinking volume of existing investments. In Q3 2016, sixty one per cent of enterprises assessed their investments in such a way, which was the crisis maximum of the index. The shortage of investments hampered the output growth in Q4 2016 of only 13% of enterprises, which was already the crisis minimum.

In November, Russian industry faced decline of demand dynamics, which forced the sector to slowdown a symbolic output growth and rather sharply adjust demand projections amid retention of high by the crisis terms of sufficiency of existing sales volumes. In this context, assessments of inventories exhibited rates exceptionally insignificant by volume and without a sign that enterprises were losing control over their volumes. Assessments of industrial inputs demonstrated in Q4 2016 still high readiness of the industrial sector to exit protracted stagnation. Eighty per cent of industrial producers boasted on normal for the current period stocks, which was close to an absolute maximum if the index for the entire 24-year period of IEP monitoring from 1993 through 2016. All-time high of 81% was obtained in early 2012, but it turned out to be unstable. Consequently, year-average assessments of stocks of raw and other materials in 2016 were the best: 79% of businesses assessed them as "normal", 15% – as "below normal", and 3% – as "above normal." Russian industrial sector held "shortage of raw and other material" in 2016 at 12th-13th places on the list of 17 factors that produce a negative impact on industry. Demand dynamics on industrial goods at the end of the year demonstrates non-typical for this time of the year positive outlook

The way Russian industrial sector finishes second crisis year encourages cautious optimism. Demand dynamics on industrial goods posted at the end of the year exhibits non-typical for this time of the year positive outlook. Demand projects avoided traditional December peak of pessimism prior to January national holidays and again registered maximum in the course of the current crisis. Assessments of stock of finished products have undergone changes, which attest to the development of positive sentiments in industry. Balance of responses ("above normal"–"below normal"), which in July-October was consistently negative, since November began gaining "positive" surplus of stocks and reached +3 points. The last value, naturally, in no way can be seen as a sign for overstocking. On the contrary, the industrial sector, most likely, stopped "disbelieving" in commencing output growth (precisely such situation was developing< for instance, during pre-default months) and started maintaining small but well managed surplus of stocks (that is characteristic to sustainable output growth). It should be noted that the industrial sector entered the current crisis anything but in a crisis manner: without

surplus of stocks of finished products. Later under the influence of promises of its prompt termination industry conducted policy of building moderate amounts of stock. However, “rebound from the bottom of recession” that eventually did not happen resulted in forming the largest for 2015–2016 surplus of stocks of finished products. Change in the official rhetoric and the onset of more realistic forecasts about the course of the crisis forced the industrial sector to get rid of surplus stocks of finished products (in May-June 2016) and then achieve “minus” according to assessments of balance of (July-October 2016) stocks.

* * *

The Russian industrial sector passed through the second year of economic crisis nearly as orderly as it passed the first one. Only in Q1 2016, businesses experienced some difficulties linked to the fact that promised by the authorities “rebound from the bottom of recession” eventually never happened. However, a change in rhetoric and careful policy regarding output and prices enabled Russian industry promptly adapt to officially acknowledged protracted crisis and assess its state at the end of 2016 as unprecedentedly “normal.”

4.4. Fixed investment¹

4.4.1. Investment resources and financial environment for investment

The period of 2014–2016 saw mixed investment dynamics driven by the factors and conditions for (1) recovery from the crisis of 2009–2012 and (2) for Russian economy’s adaptation amid restricted access to global capital markets. Russia’s investment crisis hit a peak in H1 2009, and fixed investment recovered bouncing back to pre-crisis levels by 2011 year end. Fixed investment accounted for 19.7% of GDP, one percentage point below the average of 2007–2008, despite a faster rate than GDP growth in the period of 2010–2011. In 2012, the year-on-year fixed investment growth of 6.8% was bolstered by major infrastructure and social investment projects in progress. However, with the savings available at that time, the fixed investment share in 2012 was still smaller than what it was prior to the crisis. Although fixed investment growth rates was close to zero in 2013, the year-on-year growth of 0.8% influenced the investment demand dynamics in the years that followed.

The investment crisis of 2014–2016 was the longest crisis (11 quarters of downturn) over the past 17 years, having its own specific features: the internal market was shrinking as personal and corporate incomes declined; supplies of imported investment products slowed amid sanctions; the structure of investment resources changed; access to global capital markets was restricted.

The investment crisis entered its acute phase in 2015, when fixed investment dropped 8.4% year on year. Fixed investments were discouraged by a soaring cost of credit facilities, mounting inflation, Russian ruble’s devaluation, changes to the pricing structure for imported investment products. The central bank key rate in 2015 varied within a range of 17.0% (December 16, 2014) and 11.0% (August 3, 2015), thus affecting the demand for fundraising for investment and for inventory build-up purposes. In 2015, prices of products manufactured

¹ Author of chapter: O. Izryadnova – Gaidar Institute, RANEPA.

by the investment/construction complex rose 10.3% relative to 2014, thus narrowing the market demand for its services, and therefore the investment/construction complex saw its ROA fall to 3.8% vs. 8.3% in 2013.

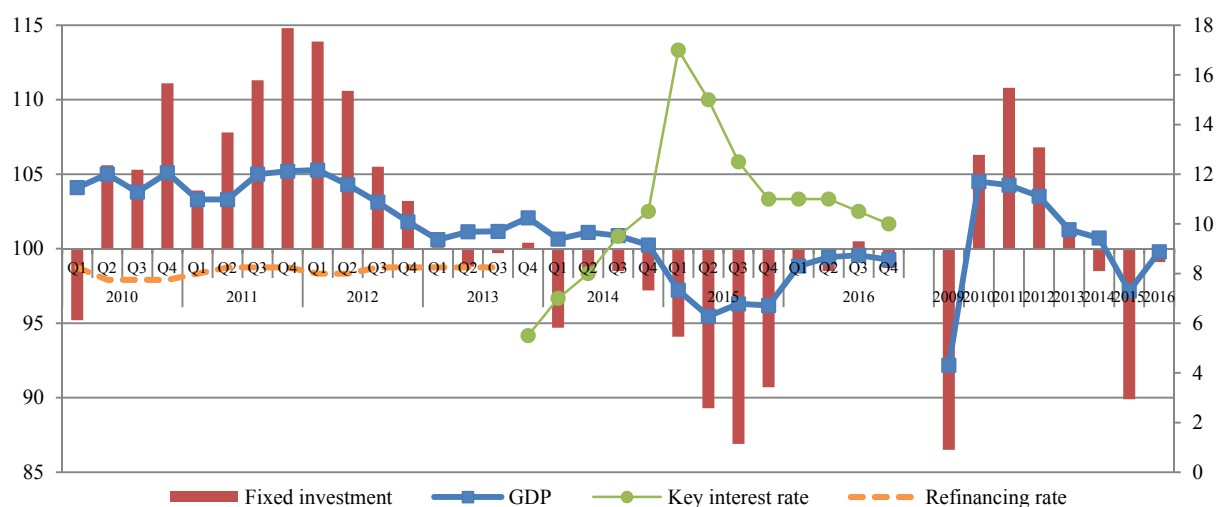


Fig. 22. Fixed investment dynamics in 2010–2016, % change, year on year

Source: Rosstat.

Although the investment crisis continued into 2016, there was an increasingly visible trend for the investment/construction complex toward adapting to a new economic environment.

In 2016, the decline in interest rates to 10.5% (July 14) and then to 10.0% (September 19) enabled the investment/construction complex to slow the fall rate and to recover some, albeit meager, growth in fixed investment (+0.5%) in Q3 2016. Note that the pricing policy of the investment/construction complex, which in 2014–2015 focused on anticipatory strong growth in prices, underwent drastic changes in 2016: the composite price index for investment products and services descended to 3.2% and the machinery and equipment price index decreased by 2.2% year on year. Therefore, the decline in fixed investment in 2016 was slower by 0.9% than that in 2015.

Table 11

Financial environment for investment in 2010–2016

Corrected	2010	2011	2012	2013	2014	2015	2016
Refinancing rate (year end), %	7.75	8.0	8.25	8.25			
Key interest rate (year end), %	-	-	-	5.50	17.00	11.0	10.0
Bank of Russia international reserves (year end), USD bn.	479.4	498.6	537.6	509.6	385.5	368.0	377.7
Net capital inflows (-) / outflows (+) in private sector, USD bn	30.8	81.4	53.9	60.3	152.1	57.5	15.4
Price indices, % change, Dec to Dec							
Consumer prices for goods and services	108.8	106.1	106.6	106.5	111.4	112.9	105.4
Industrial producer prices	116.7	112.0	105.1	103.7	105.9	112.4	107.4
Composite price index for imported investment products	109.1	108.0	106.9	104.9	107.2	110.3	103.2
Including							
producer prices for construction products	109.6	109.3	108.3	104.3	104.6	104.1	106.6
machinery and equipment	106.1	105.6	103.9	103.1	112.3	120.1	97.8
USD/Rb official exchange rate (year end), Rb/USD	30.48	32.20	30.37	32.73	56.26	72.88	62.10

Source: Rosstat.

The investment model of 2014–2016 had some specific features: an uptrend for the gross savings share due to a new ruble exchange rate emerged; growth in the share of profit and other mixed income in GDP amid a rising inflation rate had no significant effect on investment decisions; budget-funded investment dropped to 2.0% of GDP, including federal budget-funded investment (down to 1.1% of GDP), in response to a harder line on budget constraints; high interest rates spurred an uptrend for corporate and retail deposits. For instance, in 2015, corporate money in credit institutions and retail deposits accounted for 22.8% and 27.9% of GDP, respectively. The dynamics of corporate deposits in 2016 slowed down to 19.1% of GDP in response to a decline in interest rates.

Table 12

Key features of investment resources in 2011–2016, as % of GDP

	2011	2012	2013	2014	2015	2016
Gross savings	31.2	29.6	26.3	28.6	30.2	30.6
Gross fixed capital formation	20.0	20.2	20.2	21.1	20.7	21.1
Fixed investment	18.5	18.8	18.9	17.6	17.5	17.0
Gross profit and other mixed income	41.5	41.1	39.1	38.9	43.9	42.7
Consolidated budget revenues	34.9	35.0	34.4	33.8	32.3	32.0
Budget-funded investment	2.7	2.6	2.7	2.2	2.3	2.0
Including federal budget-funded investment	1.4	1.4	1.4	1.2	1.4	1.1
Financial assets growth and real estate purchase	9.7	8.7	9.3	7.8	11.7	n/a
Retail deposits (individuals)	19.9	21.3	23.9	23.4	27.9	28.1
Corporate deposits (legal entities)	14.0	14.3	15.3	21.5	22.8	19.1

Source: Rosstat.

The dynamics and the structure of capital formation for investment purposes were heavily influenced by restrictions on inward foreign investment in the Russian economy. In 2009, inward foreign direct investment in Russia's economy failed to recover in volume terms to the pre-crisis levels of 2008 despite positive dynamics within four years after a slump by more than a halve.

Table 13

Russia's direct investments in 2007–2016 (balance of payments), Rb bn.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	January-September 2016*
Direct investment	-11.1	-19.1	6.7	9.4	11.8	-1.8	17.3	35.1	15.7	6.0
outward	44.8	55.7	43.3	52.6	66.9	48.8	86.5	57.1	22.2	17.1
inward	55.9	74.8	36.6	43.2	55.1	50.6	69.2	22.0	6.5	11.2

* '+' is positive direct investment balance; '-' is negative direct investment balance.

Source: Bank of Russia.

Foreign investors behavior was strongly affected by downgraded sovereign ratings and mounting risks. Both direct investment in the Russian economy and returns on Russia's outward investment declined amid sanctions and restricted access to global capital markets. Inward foreign direct investment in the Russian economy in 2015 contracted by more than 3.4 times compared to 2014, to less than 10.6% over 2013, and outward investment dropped by 2.6 times, down 25.7% over 2013. In 2016, the scale of inward foreign direct investments increased in response to an economic relaxation in Russia, running at USD 11.2bn in the first three quarters compared with USD 6.5bn in the aggregate in 2015. Note that Russia is a net capital exporter since 2009.

4.4.2. Tangible assets of the construction/investment complex

Fixed investment basically focus on new construction projects, representing nearly 3/5 of total investment.

As a result of this policy, the average age of machinery and equipment fell to 11.5 as of the beginning of 2016, compared to 13.5 in 2010. Note, however, that the machinery and equipment fleet is generally characterized as having a high depreciation rate, a big share of used up and low-retirement-rate machinery and equipment. Such an imbalance of the reproductive structure of the machinery and equipment fleet impairs the effectiveness of fixed capital and makes the Russian economy less competitive. (see *Table 14*).

Table 14

Fixed assets key features as of the beginning of 2016

	2011	2012	2013	2014	2015	2016
Fixed assets depreciation rate (at year end), %	47.1	47.9	47.7	48.2	49.4	47.7
The share of used up machinery and equipment (at year end), %	21.0	22.0	21.8	22.1	23.1	24.5
Machinery and equipment average age	13.5	13.3	13.3	13.0	12.4	11.5
Renewal coefficient (new fixed assets, as % of fixed assets at year end, in constant prices)	3.7	4.6	4.8	4.6	4.3	3.9
Retirement rate (fixed assets liquidation, % of fixed assets as of the beginning of the year, in constant prices)	0.8	0.8	0.7	0.7	0.8	0.8

Source: Rosstat.

The share of machinery, equipment and means of transport in investment spending increased because new fixed investment targets were set, as well as owing to type-related specific characteristics of spending on new construction projects, reconstruction, modernization and upgrading of production facilities.

Table 15

Structure of using fixed investment by type of activity (in effective prices, excluding small businesses and investment volumes unobservable by direct statistical methods)*

	2005	2010	2011	2012	2013	2014	2015
Fixed investment – total	100	100	100	100	100	100	100
including:							
construction	54.5	61.1	58.1	58.3	57.7	59.2	58.6
modernization and reconstruction	21.7	18.8	19.3	19.5	18.8	17.4	17.3
acquisition of new fixed assets	23.8	20.1	22.8	22.2	23.5	23.4	24.1

*The data for 2016 will be released in H2 2017 as prescribed by the regulation for publishing statistical data

Source: Rosstat.

Investment money was reallocated by type of fixed assets under an updated price structure for investment products and services. Price correction was prompted by a 18.2% upsurge of prices of imported investment products in 2014-2015, including spending on machinery and equipment (up 34.9%). In 2016, price indices for investment machinery and equipment stood at 97.8% December over December. The adopted pricing strategy helped reduce costs and attain a positive net result. In 2013–2016, a lack of demand for products, high interest rates, as well as uncertainty about economic prospects, were the key factors preventing companies from investing. The share of enterprises considering the lack of own capital as the main investment constraint was equal to the average over the last five or six years, however, this was worsened by a lack of incentives for enhancing production technologies. Comparative analysis of changes to the structure of main types (by type) reveals an extremely low characteristics of adaptation to varying demand environment and production technologies. There is still a high degree of

deterioration and obsolescence of fixed assets, an adverse age composition of the machinery fleet, slow rates of renewal and retirement.

Russia’s machine-building complex has long been developing at a slower pace than fixed investment dynamics. The lack of domestically produced investment products was offset by imports of machinery and equipment. Prior to the financial crisis of 2008–2009 and the ruble’s devaluation of 2014–2015, enterprises purchased foreign equipment because of relatively low prices, high quality, and availability of after-sale service and support.

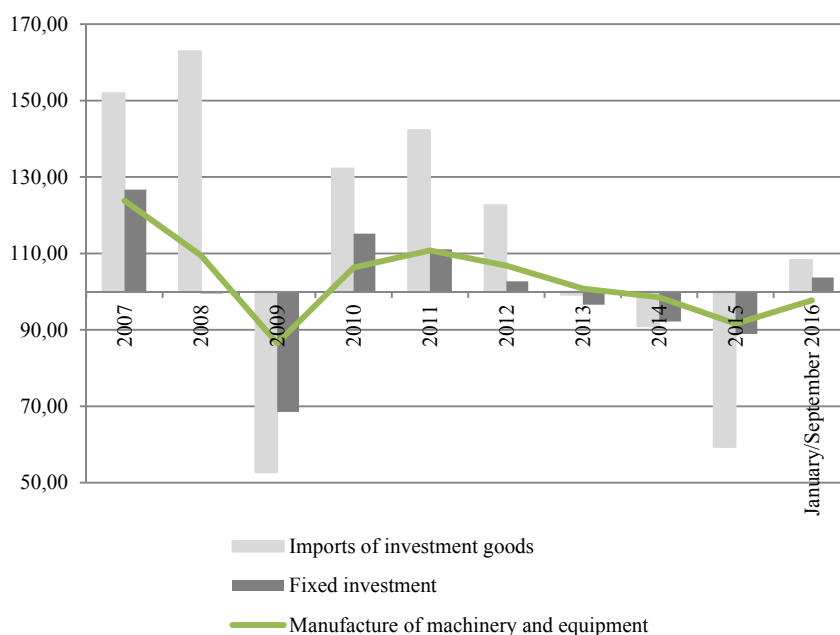


Fig. 23. Domestic production dynamics in machine-building complex, imports of machinery and equipment, and fixed investment in 2007–2016, % change, year on year

In January-September 2016, imports of investment products in volume terms accounted for 24.6% of total imports, adding 2.3 percentage points to the level seen in 2015. Positive dynamics of investment product imports and output of domestically manufactured machinery and equipment recovered simultaneously in Q3 2016 relative to the same period previous year, thus contributing to a positive fixed investment dynamics.

The dynamics of domestic production and technical and economic features of fixed assets in the investment/construction complex are definitely not strong enough to be able to boost economic modernization. There are some positive changes though. First, the share of fixed assets by type has changed over the last five years amid a faster than normal growth and renewal coefficients of manufacturing fixed assets as compared to the mineral extraction performance figures, as well as to the production and supply of electricity, gas and water; second, transport fixed assets increased at a fast pace; third, the share of trade and finance fixed assets increased showing an extremely high renewal coefficient; fourth, the share of social funds increased, with renewal coefficients being above the economy-wide average. Improved characteristics of fixed assets can facilitate the labor productivity growth potential contingent upon changes to qualitative characteristics of human capital. The Russian economy is facing growth in the capital-labor ratio amid declining capital-output ratio and labor productivity. Obviously the

investment issue shouldn't be limited to just fixed assets reproduction, it should include human capital investment, too.

Table 16

**Capital-labor ratio index and capital-output ratio index in 2013–2015,
% change, year on year***

	Capital-labor ratio index			Capital-output ratio index		
	2013	2014	2015	2013	2014	2015
Total	105.2	104.0	103.8	96.7	97.0	93.3
including:						
agriculture, hunting and forestry	103.1	103.7	104.5	103.3	99.6	100.5
fishing and fish hatchery	101.5	104.6	100.6	102.3	100.0	97.5
mineral extraction	107.0	107.1	104.8	90.8	95.9	94.8
manufacturing	107.9	108.0	108.0	98.2	94.7	89.4
production and supply of electricity, gas and water	107.9	106.0	106.3	92.2	94.1	94.0
construction	103.6	104.0	105.4	96.4	94.7	90.5
wholesale and retail trade	106.5	104.2	106.6	93.9	95.4	84.7
transport and communications	107.0	103.4	102.4	96.0	96.6	96.7
real estate operations, renting and provision of services	101.4	100.6	100.0	98.8	96.7	95.7

* The data for 2016 will be released in H2 2017 as prescribed by the regulation for publishing statistical data.

Source: Rosstat.

4.4.3. Fixed investment financing by source and by type of ownership

In 2016, own capital, 51.8% of total fixed investment in volume terms, remained the principal source of recourses formation and investment financing at enterprises and organizations. The dynamics and the structure of using own capital to finance fixed investment corresponds closely with financial performance figures. In 2016, the net financial result saw slower growth rates, and profits from sold goods, products and services dropped to 8.2% (January-September) vs. 9.5% a year earlier. This determined structural shifts and the size of fundraising to finance investment programs. In 2016, the share of bank loans was up to 10.6% (+2.4 percentage points over 2015), including Russian banks (up to 7.6%, +1.2 percentage points) and foreign banks (up to 2.9%, +1.2 percentage points). Although inward foreign fixed investment saw absolute decline compared to 2015, it was totally offset by a hike in foreign bank loans. The extent of bank participation in financing investment programs in 2016 was positively influenced by an upturn in the Russian banking sector, on the one hand, and by a slack in the capital outflow trend, on the other hand.

In 2016, budget funds as a source of investment financing represented 16.0% of total fixed investment in volume terms, down by 2.3 percentage points compared to 2015. The transformation of the 2016 year-end structure of budget-funded investment was driven by an increase in volumes and in the share of Russian subjects' budgets and local budgets, thus compensating for the decline in the scale of federal budget-funded investment. In 2016, the federal budget accounted for 9.0% of total fixed investment in volume terms compared to 11.3% in 2015.

Investment by individuals in 2015–2016 was characterized by an absolute decline in volume terms in shared participation (co-ownership) in housing construction projects. In 2016, the share of individual co-investors in housing construction projects shrank to 2.0% of total fixed investment compared to 2.4% a year earlier. In 2016, individual developers that used own

capital and bank loans for construction investment accounted for 39.6% of total commissioned residential property, compared to 41.2% in 2015.

Table 17

Fixed investment structure by source of financing (excluding small businesses and investment volumes unobservable by statistical methods), %

	2011	2012	2013	2014	2015	2016
Fixed investment total	100	100	100	100	100	100
Including by source of financing:						
own capital	41.9	44.5	45.2	45.7	50.2	51.8
fundraising	58.1	55.5	54.8	54.3	49.8	48.2
of which:						
bank loans	8.6	8.4	10.0	10.6	8.1	10.5
Russian bank loans	6.8	7.2	8.9	8.0	6.4	7.6
including foreign bank loans	1.8	1.2	1.1	2.6	1.7	2.9
fundraising from other organizations	5.8	6.1	6.2	6.4	6.7	5.4
inward foreign investments			0.8	0.9	1.1	0.5
budget funds	19.2	17.9	19.0	17.0	18.3	16.0
including:						
federal budget funds	10.1	9.7	10.0	9.0	11.3	9.0
subjects of Russia budget funds	7.9	7.1	7.5	6.5	5.7	5.9
off-budget funds	0.2	0.4	0.3	0.2	0.3	0.2
money generated from investment in shared participation in construction projects (legal entities and individuals)	2.0	2.7	2.9	3.5	3.2	2.8
including individuals	1.3	2.1	2.3	2.7	2.4	2.0
other	22.3	20.0	15.6	15.7	12.8	12.1

Source: Rosstat.

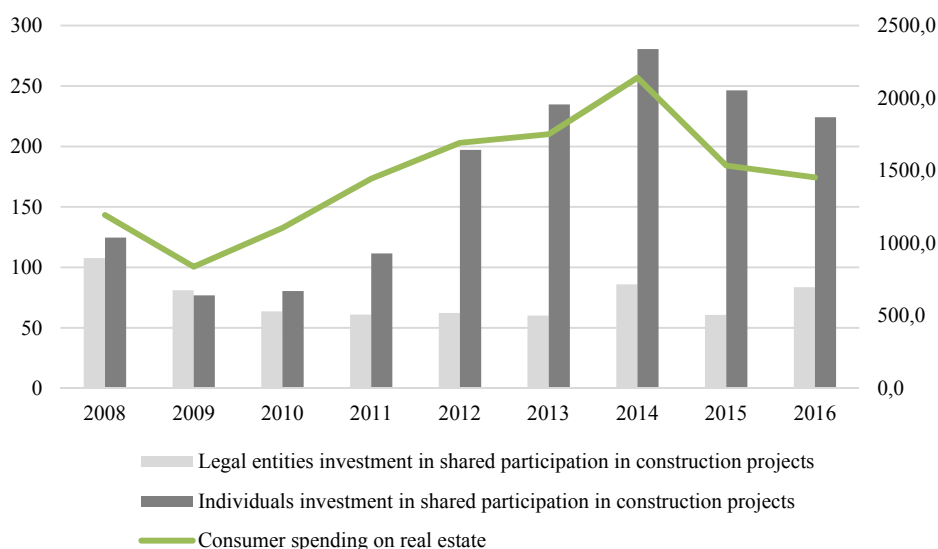


Fig. 24. Investment in shared participation in construction projects, and consumer spending on real estate in 2008–2016, Rb bn.

Source: Rosstat.

Amid a declining real personal cash income In 2015–2016, the share of consumer spending on real estate in total personal cash income and savings shrank gradually from 4.5% in 2014 to 2.9% in 2015, and to 2.5% (preliminary estimates) in 2016.

The national investment strategy of 2009–2016 rested on the acknowledgment that large businesses are major contributors to the national modernization and global competitiveness. To trigger the investment process, the state, first, was actively involved in developing the Russian corporate sector, focusing on the establishment, optimization and structural evolution, as well as improving competitiveness, of large companies. The state over the last few years was actively involved in the establishment of state-owned holding companies in aerospace and shipbuilding industries, railway and oil sectors. However, the financial crises of 2008–2009 and of 2014–2016 deepened the imbalance of public investment management, thus making it clear that in the absence of well-running ROI enhancement mechanisms the state should restrain from a policy of increasing its involvement and public investment amid budget deficit.

The share of state-owned enterprises and organizations in fixed investment financing contracted from 18.3% in 2008 to 13.7% in 2016. Investment processes were adversely affected by gradually weakening business activity of state-owned corporations.

Table 18

**Fixed investment indices in current prices by type of ownership,
% change, year on year**

	All types of ownership					Excluding small businesses	
	2011	2012	2013	2014	2015	2015	2016
Fixed investment - total	120.6	114.0	106.9	103.4	104.7	104.3	107.0
public	118.1	113.6	109.5	89.4	96.6	104.4	110.5
municipal	117.7	116.8	114.4	100.8	81.7	93.6	100.0
private	114.8	106.7	113.6	108.0	110.6	107.1	104.2
Russian mixed ownership	192.0	115.8	83.7	106.3	97.7	100.9	85.8
state-owned corporations	162.6	117.5	108.4	103.9	77.7	78.6	110.1
foreign and mixed Russian/foreign ownership	106.1	144.7	98.3	100.9	103.7	105.8	127.5

Source: Rosstat.

In the period between 2010 and 2016, privately-owned enterprises contributed to further growth in investment in nominal terms and compensated for inconsistent investment activities of state-owned and municipal enterprises. The share of fixed investment by private enterprises increased markedly, while the investment crisis at state-owned enterprises tended to continue and reflected their low efficiency.

The investment crises of 2008–2009 and of 2014–2016 severely affected foreign-owned enterprises. Positive investment dynamics for foreign-owned enterprises and joint ventures recovered at a moderate pace relative to the overall fixed investment dynamics in the Russian economy, as evaluated in current prices.

Analysis of capital formation for fixed investment by type of ownership, excluding small businesses, in 2016 shows that the private sector continued contributing positively to the investment process amid stabilized rates of public and mixed ownership and corrective growth in investment by state-owned corporations.

4.4.4. Fixed investment dynamics

The fixed investment downturn hit the bottom in Q3 2015. In 2016, the investment quarterly dynamics continued to follow the downtrend in the first half of the year, while there was a tiny growth in the third quarter. The annualized fixed investment and completed construction works stood at 99.1% and 95.7%, respectively, at the 2016 year end.

RUSSIAN ECONOMY IN 2016

trends and outlooks

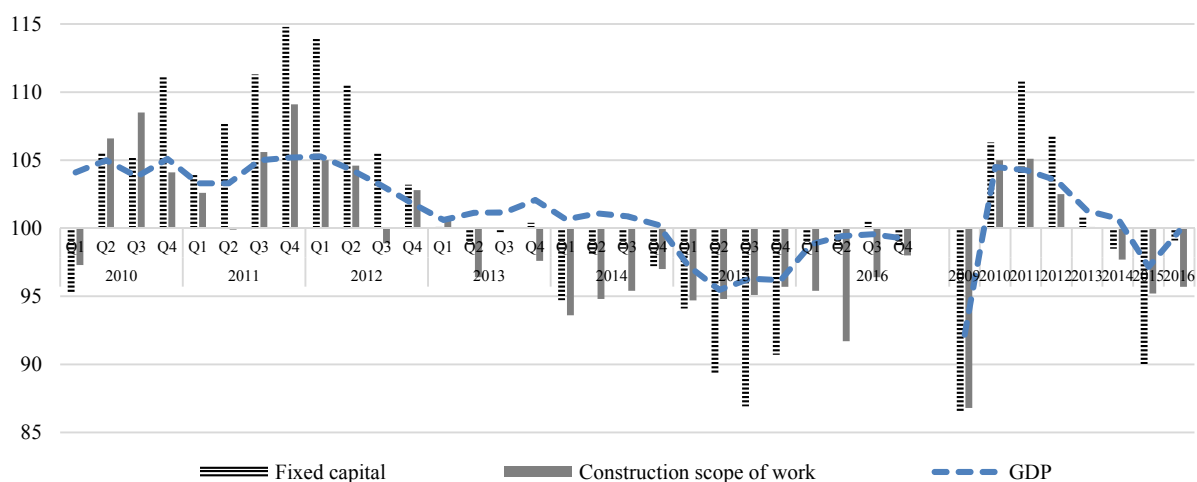


Fig. 25. Fixed investment dynamics in 2010–2016, % change, year on year

Source: Rosstat.

A wide gap which in late 2014 developed between the rate of commissioned residential property and the rate of scope of work reflected a decline in the required backlogs and accelerated the downturn in the construction complex in 2015–2016. While the 2014 fast-paced growth in housing construction mitigated the effect of shrinking industrial construction volumes on the overall scope of work dynamics, the simultaneous decline (since H2 2015) in commissioned residential, industrial and social property accelerated the downturn.

In Q3 2016, the rate of commissioned residential property recovered to positive values after a four-quarter-long negative dynamics. The recovery of growth in volume terms was supported by increase in construction investment (100.5% over January-September 2015) and real estate operations (101.8%). The decline in commissioned residential property and residential floor space got stronger in Q4 2016, and therefore the year-end decline was 6.5%, for the first time since 2010.

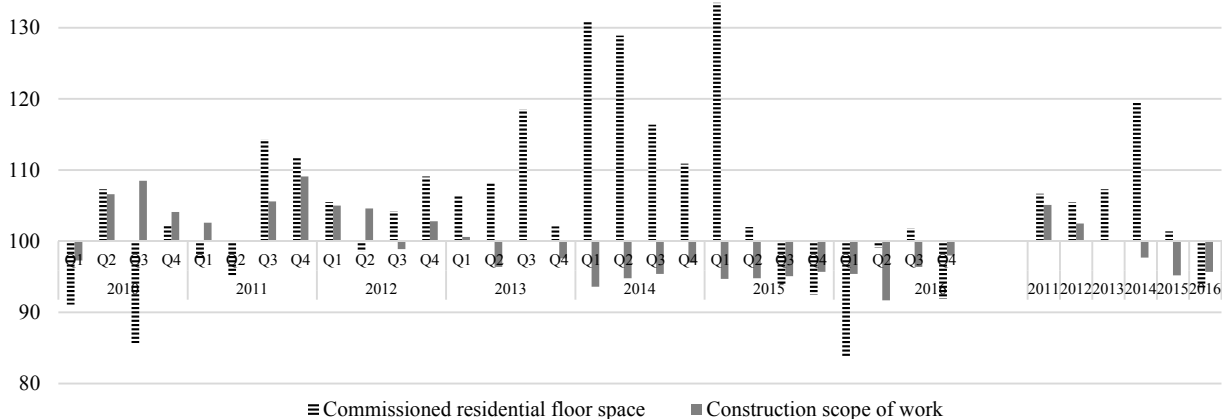


Fig. 26. Dynamics of commissioned residential floor space in 2010–2016, % change, year on year

Source: Rosstat.

The fixed investment dynamics is differentiated by large and small enterprises. With a 0.9% decline in total fixed investment in volume terms in 2016, fixed investment by large and medium-sized enterprises contracted by 1.2%.

Table 19

**Dynamics of fixed investment in physical volume,
in 2010–2016, % change, year on year**

	2010	2011	2012	2013	2014	2015	2016
Fixed investment (all types of ownership, including recalculations of investment unobservable by direct statistical methods)	103.7	105.0	109.6	100.8	98.5	89.9	99.1
Large and medium-sized entities (fixed investment excluding small businesses and investment volumes unobservable by direct statistical methods)	96.2	112.1	108.6	93.1	102.3	89.8	98.8

Source: Rosstat.

In 2016, the fixed investment structure by type of economic activity underwent changes compared to the previous year. Mineral extraction investment accelerated by 14.4% in 2016 relative to 2015 as investment in manufacturing and in production and supply of electricity and water dropped by 11.8% and 11.2% respectively, and therefore investment in the industrial sector contracted by 0.5% year on year.

Structural changes in manufacturing sector were determined by a fall in fixed investment in the machine-building complex (down 21.6%) and construction materials (down 29.7%). The specific features of changes to the structure of investment in the machine-building complex in 2016 were influenced by a slump (relative to 2015) in investment in electrical, electronic and optical equipment (down 22.9%) and machinery and equipment (down 35.2%), and means of transport (down 15.1%).

Another specific feature of 2016 was growth in fixed investment in chemicals and chemical products (up 8.3%), pulp and paper (up 20.1%) and metals (up 13.1%), which was related to both an increase in the export potential of these industries, as well as import substitution processes. Investment in refined petroleum products and in consumer sector dropped by 29.4% and 12.3% respectively, compared to 2015.

Table 20

**Fixed investment by type of economic activity (excluding small businesses
and investment in volume terms unobservable by direct statistical methods),
% change, year on year**

	2011	2012	2013	2014	2015	2016
Total	108.3	106.6	99.8	95.7	89.8	98.8
Agriculture, hunting and forestry	114.6	92.8	96.0	93.0	89.1	110.6
Fishing and fish hatchery	137.4	127.4	77.4	83.3	60.1	100.0
Mineral extraction	110.9	107.4	96.8	99.9	93.9	99.5
Industry	113.8	111.8	93.6	105.9	110.7	114.1
Production and supply of electricity, gas and water	105.3	106.7	101.4	98.6	90.5	88.2
Agriculture, hunting and forestry	114.7	101.7	95.8	92.9	70.1	88.8
Construction	90.6	79.9	84.0	81.2	83.7	103.5
Wholesale and retail trade	90.0	107.1	103.1	110.7	102.9	103.8
Transport and communications	118.3	98.4	88.5	92.1	86.4	99.7
Finance	136.8	111.4	80.8	74.9	81.5	107.4
Real estate buy/sell transactions	91.9	100.8	104.4	103.1	84.3	88.7
Public administration	112.4	98.7	93.7	84.4	88.7	110.0
Education	122.0	85.2	77.9	97.4	81.9	77.4
Healthcare and social security services	113.0	93.6	98.8	71.9	79.8	91.1
Other services	103.5	111.8	75.0	72.7	82.7	91.8

Source: Rosstat.

As regards the issues of promoting economic growth, it is infrastructure that should have been focused on, however, investment in transport and communications in 2016 was down 0.3% compared to 2015, including a 11.2% decline in investment in transport via pipelines. Retail trade investment dropped by 2.4% due to narrowed internal demand, whereas wholesale trade investment increased 27.8%.

The 2016 year-end fixed investment accounted for merely 88.2% of that in 2013, representing the 2017 initial operational terms and conditions for the investment/construction complex. Investment activity was driven by the following key factors: unequal rights for market agents; undue government influence and inefficient regulation of public and monopolized sectors; lack of drastic measures to restructure state-supported old companies; highly limited market access by new companies; poorly developed public and private partnership tools for promoting investment and creating new efficient jobs.

4.5. Oil and gas sector¹

The oil and gas sector is among principal sectors of the Russian economy and is the driving force in shaping the state budget revenues and the trade balance. In 2016, Russia’s crude oil production hit an all-time peak since 1990, and crude oil exports were close to an all-time high. Under the so-called tax maneuver in force in the oil industry, refining depth went up noticeably, production and export of fuel oil moved down and export of crude oil, a highly lucrative source of the budget revenues, increased.

4.5.1. Dynamics of global crude oil and gas prices

The recent steady supply glut in the world oil market has led to a significant decline in crude oil prices. Growing production of shale oil in the U.S. owing both to introduction of new extraction technologies and to high crude prices were main factors for the world crude oversupply. In this context, OPEC opted not to cut its production quota and de facto launched a policy of retaining its global market share. Subsequently, the price of Russian Urals crude oil dropped to an average of \$51.2, and to \$41.9 per barrel in 2016 (*Table 21*). This being said, the price dipped to \$28.8 per barrel in January 2016 (*Fig. 27*).

Table 21

World crude oil prices in 2010–2016, USD/bbl

	2010	2011	2012	2013	2014	2015	2016
Brent crude oil, Great Britain	79.6	111.0	112.0	108.8	98.9	52.4	44.0
Urals crude oil, Russia	78.3	109.1	110.3	107.7	97.7	51.2	41.9
Russian gas on European market, USD/thousand cub m	296.0	381.5	431.3	402.0	376.0	267.9	156.7

Sources: IMF, OECD/IEA, Rosstat.

Under the impact of low crude oil prices seen in 2016, the oil sector faced scaling back of oil production on cost-intensive deposits, first of all, on light tight oil deposits in the U.S. Investments in the most cost-intensive non-conventional deposits of oil in the U.S., tar sands in Canada and deepwater field in various parts of the world dipped significantly. At the same time, decrease of oil production in cost-intensive regions was actually offset by OPEC’s growing production striving to widen its market share.

¹ Author of chapter: Yu. Bobylev – Gaidar Institute, RANEPА.

Low crude oil prices promote expansion of their global market share for those countries whose revenues decisively depend on crude oil exports. By increasing crude oil shipments, those countries try to offset contraction of the revenues due to price decline. Consequently, OPEC member states constantly exceed their production quota.

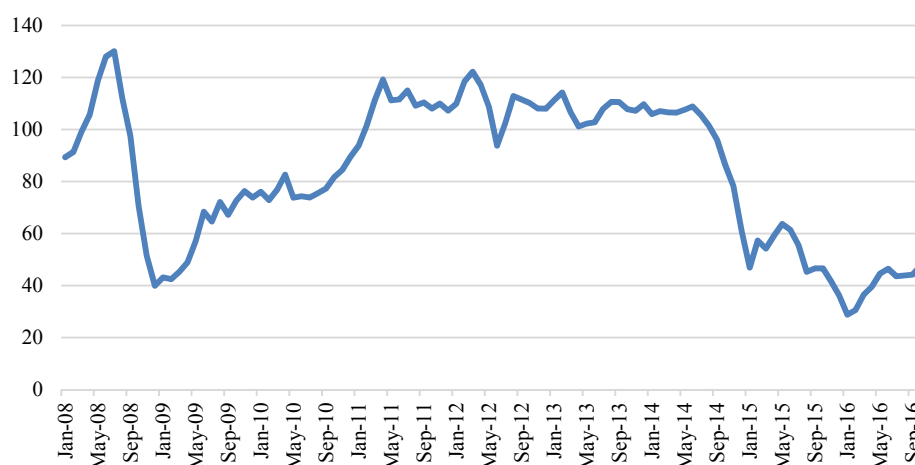


Fig. 27. Urals crude oil price in 2008–2016, USD/bbl.

Sources: OECD/IEA.

Saudi Arabia, the biggest OPEC producer, significantly built up crude oil production over the last two years. Main contribution in growing oil supply by OPEC in 2015 was attributed to Iraq, and in 2016 to Iran, which received an opportunity to increase oil shipments owing to lifting of sanctions. Consequently, growing oil production seen in Iran in 2016 totally offset decrease of oil production in the U.S.

Falling oil prices impelled oil-producing countries to curtail output volumes. In late 2016, OPEC and a number of non-OPEC producers, including Russia, reached a deal to cut oil output from January 1, 2017. According to the deal, OPEC producers (13 countries) were committed to slash their production by 1.2 mn barrels per day, and non-OPEC 11 producers – by 558 thousand barrels per day, including Russia - by 300,000 bbl/d.

Russian natural gas prices have also dropped on foreign market. Long-term contract prices, as a rule, are linked to petroleum products prices and follow with a certain lag global oil prices. At the same time, changes at the European gas market, which happened in recent years, which materialized in increased supply of gas by other gas producers and lower spot prices on gas in comparison with long-term contract prices offered by Gazprom exerts downward pressure on Russian gas selling prices. In 2015, Russian gas price declined by 29% on European market compared with the previous year and by 41.5% in 2016.

4.5.2. Dynamics and structure of production in oil and gas sector

Russia's crude oil output dynamics stood positive despite falling oil prices and enforcement of financial and technology-related sanctions (*Table 22*). In 2016, it hit an all-time high of 549 million tons since 1990. Crude oil extraction was positively affected by investment, ruble's devaluation, which reduced expenses of oil companies in dollar terms and ensured efficiency of their operations amid low oil prices. It was also positively influenced by putting into operation of several new large oilfields, as well as tax system updates, which facilitated the

development of new oil producing areas and the upgrade of producing oilfields.¹ In the meantime, production conditions are deteriorating. Significant part of producing oilfields has entered a declining production stage and new oilfields in the majority of cases have inferior mining-and-geological and geographical factors. Their development required higher investment, exploitation and transportation costs. In order to offset oil output plunge at producing oilfields, it is necessary to develop both new oilfields in areas with underdeveloped or lacking infrastructure and in extracting reserves of inferior quality in developed areas.

Table 22

Production and refining of crude oil in Russia in 2010–2016

	2010	2011	2012	2013	2014	2015	2016
Extraction of crude oil including gas condensate, m t	505.1	511.4	518.0	523.3	526.7	534.0	547.6
Primary crude oil refining, m t	249.3	258.0	270.0	278.0	294.4	287.2	284.5
Share of crude oil refining in crude production, %	49.4	50.4	52.1	53.1	55.9	53.8	52.0
Crude oil refining depth, %	71.1	70.8	71.5	71.7	72.4	74.4	79.1

Sources: Federal State Statistics Service (Rosstat), Russian Energy Ministry.

2016 demonstrated that the so called tax maneuver in force in the oil industry – a structural tax reform in this sector envisages stepwise reduction of export duties on both crude oil and petroleum products, as well as a higher mineral extraction tax (MET).² According to adopted parameters of the so-called tax maneuver, marginal oil export duty rate was cut from 59% in 2014 to 30% in 2017, and fuel oil export duty rate was raised from 66% to 10% from the oil export duty rate.³ This transformational change of the tax system has offered incentives for upgrading oil refining capacities and led to a change of a number of existing trends.

New trends emerged in 2015–2016, and some of them deserve to be mentioned here: first, oil refining depth increased notably as output and exports of fuel oil declined, second, crude oil exports growth more lucrative for state budget revenues than fuel oil exports, third, crude oil refining decline in volume terms owing to the two above factors (*Table 23*).

In 2016, oil refining depth hit Russia’s all-time high of 79.1%. Note, that in the period of 2000–2014, that is, during a long period until the “tax maneuver” took force, depth of oil refining in Russia constituted 71–72%, while it stood at 75.0% in 2015 (by contrast, this indicator comes to 90–95% in leading industrial countries).

Table 23

Production of crude oil, petroleum products and natural gas in 2010–2016, in % to the previous year

	2010	2011	2012	2013	2014	2015	2016
Crude oil including gas condensate	102.1	100.8	101.3	100.9	100.7	101.4	102.5
Primary oil refining	105.5	103.3	104.9	102.7	104.9	97.3	98.7
Motor gasoline	100.5	102.0	104.3	101.3	98.8	102.3	101.9
Diesel fuel	104.2	100.3	98.7	103.1	107.4	98.9	100.2
Fuel oil	108.5	104.6	101.6	103.3	102.0	91.1	80.2
Natural gas	111.4	102.9	97.7	102.1	95.7	98.7	101.0

Sources: Federal State Statistics Service, Russian Energy Ministry.

¹ See: Yury Bobylev. Development of the Oil Sector in Russia. *Voprosy Ekonomiki*. 2015. No6, pp. 45–62; Bobylev Yu.N., Rasenko O.A. Russian Oil Sector: main trends. Moscow, Delo Publishers. RANEPa, 2016.

² See: Bobylev Yu. N., Idrisov G.I, Sinelnikov-Murylev S.G. Export Duties on Oil and Petroleum Products: Cancel Expediency and Scenario Analysis. Moscow, Gaidar Institute Publishers, 2012.

³ See: Yu. Bobylev. Tax Maneuver in the Oil Sector. *Russian Economic Development*. 2015. No 8, pp. 45–49.

2016 saw a consolidation of state assets in the oil sector resulting from a state-controlled oil firm Rosneft buying controlling stake in Bashneft, another state-controlled oil firm. Rosneft market share has significantly grown because of this deal. In 2016, the share of Rosneft (with Bashneft) in the total Russian crude oil production hit 38.6%. Correspondingly, the portion of major Vertically Integrated Oil Companies on the market went up significantly: five major companies' (Rosneft, LUKOIL, Surgutneftegaz, Gazprom, and Tatneft) proportion accounted for 80.4% of crude oil output in 2016 (*Table 24*). Segment of small and medium-size oil companies remains relatively underdeveloped. Companies with 2.5 m t of crude oil production (roughly 50,000 barrels per day) account for solely 3.0% of Russia's crude oil output. (By contrast, in the U.S. the sector of small and medium-size oil companies demonstrated efficiently. The share of companies producing up to 50,000 barrels per day account for 46% of the overall crude oil output).

Table 24

**Major Russian oil producing companies
in 2010–2016**

	Oil output in 2010, m t	Share in total output, %	Oil output in 2015, m t	Share in total output, %	Oil output in 2016, m t	Share in total output, %
Rosneft	112.4	22.3	189.2	35.4	211.1	38.6
LUKOIL	90.1	17.8	85.7	16.0	83.0	15.2
TNK-BP	71.7	14.2	-	-	-	-
Surgutneftegaz	59.5	11.8	61.6	11.5	61.8	11.3
Gazprom including Gazprom neft	43.3	8.6	51.3	9.6	55.2	10.1
including: Gazprom	13.5	2.7	17.0	3.2	17.4	3.2
Gazprom neft	29.8	5.9	34.3	6.4	37.8	6.9
Tatneft	26.1	5.2	27.2	5.1	28.7	5.2
Bashneft	14.1	2.8	19.9	3.7	-	-
Slavneft	18.4	3.6	15.5	2.9	15.0	2.7
RussNeft	13.0	2.6	7.4	1.4	7.0	1.3
NOVATEK	3.8	0.8	4.7	0.9	8.0	1.5
PSA operators	14.4	2.9	15.0	2.8	16.0	2.9
Other producers	38.2	7.6	56.5	10.6	61.7	11.3

Sources: Russian Energy Ministry, own calculations.

Economic sanctions enforced in 2014 remained in place in 2016. Besides enforced finance-related sanctions, which restrict access of Russian oil and gas companies to foreign sources of financing, a number of developed countries introduced sweeping restrictions on shipments of exploration and production equipment and technologies in connection with deepwater, Arctic shelf, and shale oil and gas projects in Russia. All these projects critically depend on foreign oil and gas related technologies. Regarding the implementation of Arctic shelf and deepwater projects with long-term investment cycle, the negative impact from imposed sanctions can pop up in long-term perspective. Implementation of the majority of these projects is being put off due to their economic failure in the wake of low crude oil prices.

Development of the majority of Russian shale-oil deposits is also unprofitable in the context of low crude oil prices. However, technologies for the development of shale formations (horizontal drilling, hydraulic fracturing) are used in the development of traditional producing oil deposits, first of all, on the deposits with high level of reserve depletion.

It should be noted that there is a rather significant potential for additional output on the producing oilfields due to their more intensive development. Russia's oil recovery factor comes roughly to 28%, which is significantly less than the average world rate (by contrast, in the U/S/

this rate is in the range of 35-43%, in Norway—46%). In the wake of low global crude oil prices and enforced technology related sanctions, the development of extensively depleted fields by raising the production efficiency is of high importance for keeping oil production and export edge.

4.5.3. Dynamics and structure of oil and gas export

In 2016, Russia's exports of crude oil and petroleum products constituted 410.8 m tons, close to the all-time high of 2015. It should be noted that 2016 saw a notable growth of 4.2% of crude oil exports spurred by the so called tax maneuver and a 9.0% decline in exports of petroleum products mainly owing to a fall of fuel oil exports (*Tables 25 and 26*). The proportion of crude oil in the total oil exports constituted 62.0%, petroleum products—38.0%. This being said, the share of exports in the production came to 63.8%, in production of motor gasoline – 13.0% (by contrast, in 2010, the share of exports of motor gasoline in production of motor gasoline came to 8.2%, in 2015 – 12.1%).

Table 25

Ratio of production, consumption and exports of crude oil and natural gas in 2010–2016

	2010	2011	2012	2013	2014	2015	2016
Crude oil, m t							
Production	505.1	511.4	518.0	523.3	526.7	534.0	547.6
Exports, total	250.4	244.6	239.9	236.6	223.4	244.5	254.8
Exports to non-CIS countries	223.9	214.4	211.6	208.0	199.3	221.6	236.2
Exports to CIS countries	26.5	30.2	28.4	28.7	24.1	22.9	18.6
Net exports	249.3	243.5	239.1	235.8	222.6	241.6	254.0
Domestic consumption	125.9	140.7	142.1	137.5	141.3	122.2	138.3
Net exports as % of production	49.4	47.6	46.2	45.1	42.3	45.2	46.4
Petroleum products, m t							
Exports, total	132.2	130.6	138.1	151.4	164.8	171.5	156.0
Exports to non-CIS countries	126.6	120.0	121.2	141.1	155.2	163.3	148.1
Exports to CIS countries	5.6	10.6	16.9	10.3	9.6	8.3	8.0
Net exports	129.9	127.2	136.8	150.0	162.8	170.2	155.3
Crude oil and petroleum products, m t							
Net exports of crude oil and petroleum products	379.2	370.7	375.9	385.8	385.4	411.8	409.3
Net exports of crude oil and petroleum products as % of crude oil extraction	75.1	72.5	72.6	73.7	73.2	77.1	74.7
Natural gas, bn cu m							
Production	665.5	687.5	671.5	684.0	654.2	645.9	652.6
Exports, total	177.8	184.9	178.7	196.4	172.6	185.5	198.7
Exports to non-CIS countries	107.4	117.0	112.6	138.0	124.6	144.7	164.7
Exports to CIS countries	70.4	67.9	66.0	58.4	48.0	40.7	34.0
Net exports	173.5	179.2	171.6	189.3	165.5	178.4	189.8
Domestic consumption	492.0	508.3	499.9	494.7	488.7	467.5	462.8
Net exports as % of production	26.1	26.1	25.6	27.7	25.3	27.6	29.1

Sources: Federal State Statistics Service, Russian Energy Ministry, Federal Customs Service, own calculations.

Natural gas exports went up by 7.1% in comparison with the previous year. This being said, natural gas exports to far abroad countries hit an all-time record in 2016. However, due to a decline of gas shipments to CIS countries, the total gas exports failed to achieve the level of mid-2000s. Gas net export ratio in natural gas production came to 29.1% in 2016.

Analysis of Russia's crude oil exports over the course of a long period demonstrates a significant increase in the export-led component of oil industry compared to the pre-reform period.

Table 26

**Dynamics of exports of crude oil, petroleum products and natural gas
in 2010–2016, in % to previous year**

	2010	2011	2012	2013	2014	2015	2016
Crude oil	101.2	97.6	98.2	98.6	94.4	109.4	104.2
Petroleum products	106.2	98.5	104.4	109.6	108.7	104.1	91.0
Natural gas	105.6	104.0	96.6	109.9	87.9	107.5	107.1

Sources: Federal State Statistics Service, Federal Customs Service.

The share of net exports of crude oil and petroleum products in crude oil production went up from 47.7% in 1990 to 74.6% in 2016. This, however, is due not only to the increase in absolute volumes of exports but to market transformation of the Russian economy, more efficient oil consumption and the replacement of petroleum products (fuel oil) by natural gas.

The share of fuel and energy products in Russian exports fell from 69.5% in 2014 to 62.9% in 2015, and 58.1% in 2016, in response to a plunge in global crude oil and natural gas prices. In the meantime, the share of crude oil and petroleum products in Russian exports contracted, from 54.2% in 2014 to 41.6% in 2016. The share of natural gas in Russian exports constituted 11.0% in 2016 (*Table 27*).

Table 27

Fuel and energy products export value and ratio in 2010–2016

	2010		2014		2015		2016	
	USD bn	%*	USD bn	%*	USD bn	%*	USD bn	%*
Fuel and energy products, total	267.7	67.5	345.4	69.5	216.1	62.9	166.0	58.1
Including crude oil	134.6	34.0	153.9	31.0	89.6	26.1	73.7	25.8
Natural gas	47.6	12.0	54.7	11.0	41.8	12.2	31.3	11.0

* In % to total volume of Russian exports.

Source: Federal State Statistics Service.

4.5.4. Domestic price dynamics on energy products

The pricing mechanism for crude oil in the Russian domestic market is based on equal-netback pricing, that is, prices are equal to the world price less export duty and export transportation costs. The domestic price went up due to growing global crude oil and petroleum products prices. However, in second half of 2014–2016, the domestic price in dollar terms declined too, owing to a tumbling global crude oil price (*Table 28, Fig. 28*). At the same time, there is still a wide gap between world and domestic oil price due to high export duty. In the meantime, a convergence of international and domestic prices is observed owing to a lower rate of export duty envisaged as part of the tax maneuver. In 2014, the domestic price constituted 42.0% of the global price, while it was 61.0% in 2016.

Table 28

**Domestic prices on crude oil, petroleum products and natural gas in 2010–2016
(average producer price at year end, USD/t)**

	2010	2011	2012	2013	2014	2015	2016
Crude oil	248.2	303.3	341.1	346.1	178.9	156.7	207.8
Motor gasoline	547.9	576.9	628.7	614.4	372.3	301.8	380.3
Diesel fuel	536.1	644.9	774.2	698.0	419.3	349.4	421.3
Fuel oil	246.3	274.6	275.3	235.8	128.7	49.5	129.7
Gas, USD/thousand cu m	20.5	21.3	40.3	39.8	29.1	24.5	23.6

Sources: own calculations based on data released by Rosstat.

Domestic gas prices are under the state regulation. The government maintains a significantly lower level of domestic gas prices in order to preserve a competitive edge of the national economy. At the same time, certain convergence between domestic and world price on gas was observed as a result of a significant reduction of global gas price in 2016. In 2015, domestic gas price (purchase price by industrial consumers less indirect taxes) averaged roughly 26% of Russian gas price on European market, while in 2016 – 40.8%.

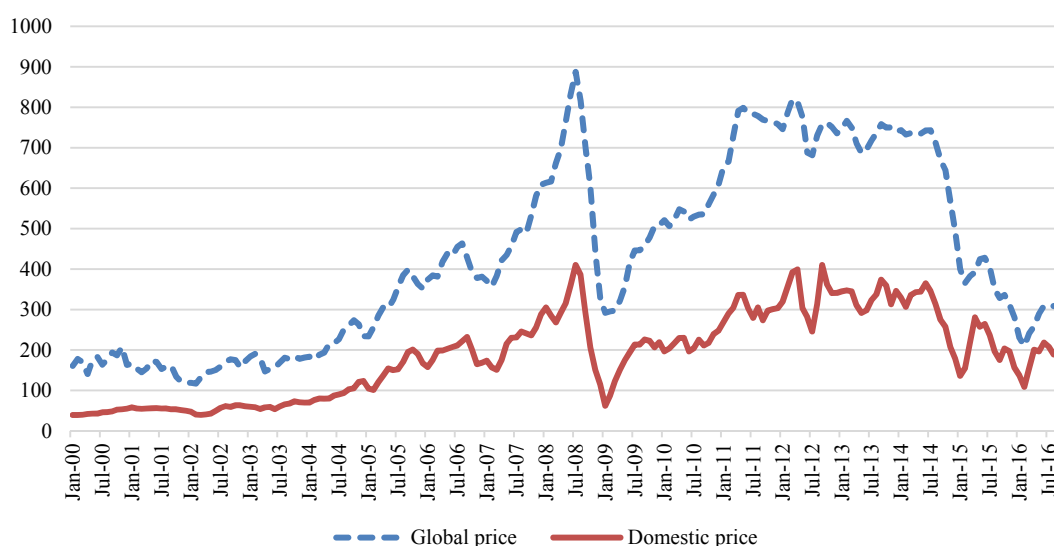


Fig. 28. Global and domestic oil prices in 2000–2016, USD/t

Sources: Rosstat, own calculations.

Motor gasoline prices continued the uptrend momentum in the domestic market despite a significant decline of global crude oil prices (*Table 29*). It primarily stemmed from the ruble’s devaluation and increased excises on petroleum products. Producers price their petroleum products so that the price assures a profitability equal to that of exports: the global (tax-free) price on a given product less export duty and export transportation costs (netback price). Domestic consumer pricing for motor gasoline is based on producer prices (netback prices) adjusted for indirect taxes (excises, VAT) and trade increment. Russian producer gasoline prices in dollar terms tumbled, too, amid descending world oil prices. In the meantime, significant depreciation of the ruble against the dollar and growth of excises stemmed an increase in the ruble-denominated consumer price of motor gasoline (*Fig. 29*).

Table 29

**Consumer prices on gasoline in Russia
in 2014–2016 RUB/l**

	2014 January	2015 January	2016 January	2016 July	2016 December
Regular unleaded gasoline	29.53	32.35	33.86	35.13	35.28
Gasoline 95 octane	32.64	35.16	36.81	38.14	38.34

Source: Rosstat.

Table 30

Excise rate on motor gasoline in 2014–2016 RUB/t

	2014	2015	2016 January-March	2016 April-December
Grade 4	9916	7300	10500	13100
Grade 5	6450	5530	7530	10130

Source: RF Tax Code (2014–2016 ed.).

Existing structure of gasoline consumer price against leading industrial countries is characterized by data given in *Table 31*. European countries have high gasoline prices and the highest tax burden on petroleum products. According to our calculations, the share of indirect taxes in the consumer price of gasoline is 35–43%¹ in Russia, whereas it is 65% in EU5 countries (Germany, France, Great Britain, Italy, and Spain), and 20% in the USA. Thus, regarding the tax burden on petroleum products, Russia ranks in the middle between EU5 and the USA, and it is close to Canada, another oil exporter.

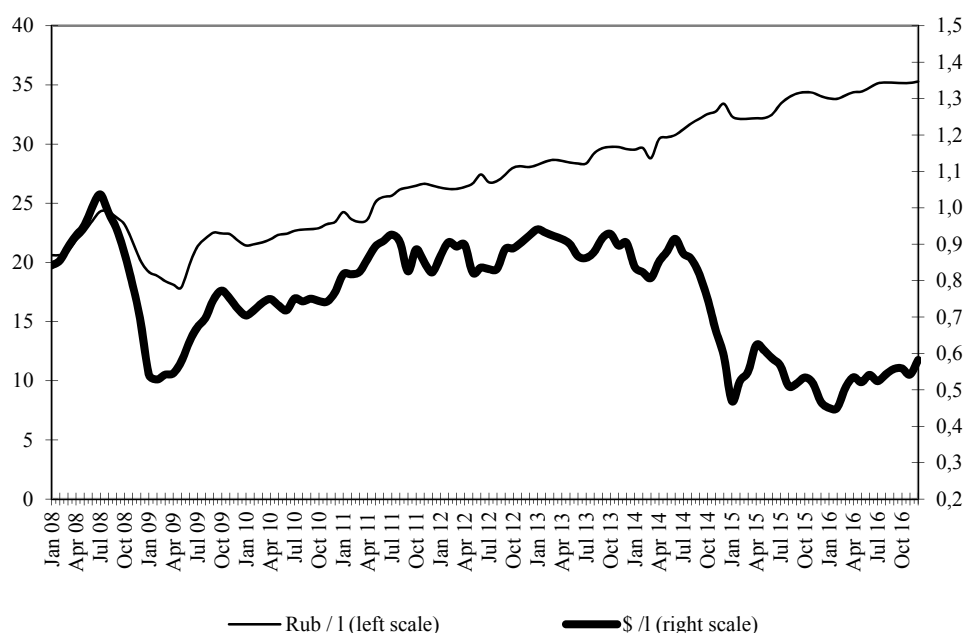


Fig. 29. Consumer price in ruble and dollar terms on regular unleaded gasoline in 2008–2016

Sources: Rosstat, own calculations.

Table 32 provides data as of the beginning of 2014, which gives outlook prior to the fall of crude oil prices and ruble’s devaluation. They represent a significant increase of the tax burden in gasoline price during recent two years. According to our calculations, the share of taxes in the consumer price of gasoline went up from 30–40% in 2014 to 35–43% in 2016. The share of taxes in the end consumer price went up on average across leading EU5 from 58 to 65%, and in the USA – from 13 to 20%. It is largely explained by that fact that amid lower gasoline price the share of taxes collected according to specific rates goes up.

¹ See: Yu. Bobylev. Gasoline prices in Russia and other countries: comparative analysis. Russian Economic Development. 2016. No. 10, pp. 28-31.

Table 31

Structure of consumer price on motor gasoline in Russia and other countries, July 2016

	Consumer price, USD/l	Taxes on consumers, USD/l	Prices less taxes, USD/l	Share of taxes in consumer price, %
Regular unleaded gasoline				
Russia	0.524	0.225	0.299	42.9
USA	0.583	0.119	0.464	20.4
Canada	0.791	0.294	0.497	37.2
Japan	1.191	0.634	0.557	53.2
Premium gasoline 95 octane				
Russia	0.569	0.199	0.370	35.0
Germany	1.471	0.962	0.509	65.4
Great Britain	1.472	1.009	0.463	68.5
France	1.454	0.963	0.491	66.2
Italy	1.616	1.100	0.516	68.1
Spain	1.291	0.738	0.553	57.2
Average across EU5	1.461	0.954	0.506	65.3

Sources: OECD/IEA; Rosstat; own calculations.

Table 32

**Taxes on motor gasoline in Russian and other countries: share of taxes
in gasoline consumer price, %**

	2014 January	2016 July
Regular unleaded gasoline		
Russia	40.1	42.9
USA	12.7	20.4
Canada	31.7	37.2
Japan	40.0	53.2
Premium gasoline 95 octane		
Russia	29.9	35.0
Germany	58.7	65.4
Great Britain	61.3	68.5
France	57.5	66.2
Italy	60.3	68.1
Spain	50.7	57.2
Average across EU5	57.7	65.3

Sources: own calculations based on data released by OECD/IEA and Rosstat.

Gasoline prices in Russia are approaching the US prices, reaching 90% of the American level stemming from lower taxes in gasoline prices and such tax burden. Furthermore, they remain significantly lower than in other developed economies: 66% less than prices in Canada, 44% less than in Japan, and 39% less compared to EU5 countries (Table 33). One can note a somewhat decline in relative gasoline prices in Russia compared to developed economies during last two years. For example, Russian gasoline price declined from 96% in 2014 to 90% against the USA, and from 44% to 39% against leading EU5.

Table 33

Consumer prices on motor gasoline in Russia against other countries, %

	2014 January	2016 July
USA	95.8	89.9
Canada	72.9	66.2
Japan	55.0	44.0
Germany	44.4	38.7
Great Britain	43.3	38.7
France	45.3	39.1
Italy	39.5	35.2
Spain	48.7	44.1
EU5	44.1	38.9

Source: own calculation based on the data released by OECD/IEA and Rosstat.

Thus, current regime of export duties and taxes on petroleum products in Russia assure lower prices on motor fuel on the domestic market compared to developed countries.

4.5.5. Prospects for Russian oil and gas sector

Russia disposes of significant oil resources, which allow maintaining high levels of production and export in many years to come. There is a high potential for crude oil extraction owing to both undeveloped deposits in undeveloped areas and oilfields in new producing areas. At the same time, there is a rather significant potential for additional extraction on already producing oilfields thanks to an in-depth development. Moreover, Russia disposes of extensive currently undeveloped unconventional oil reserves including shale oil. The oil refining capacity is important. Upgrade of the oil refining depth allows satisfying domestic demand in motor gasoline with relatively lower volumes of oil consumption.

In future, global demand for oil will grow, which will allow Russia to retain and even to increase current volumes of crude oil exports. This being said, shifts in the regional structure of global oil demand prompt diversification of crude oil exports, expansion of shipments to the East.

Meanwhile, potential of the Russian oil sector development to a significant degree will rely on the world oil prices. The oil market outlook is marked by factors, which will be contributing to the retention of relatively low oil prices. The most important factors are extensive shale oil reserves in the U.S., which will be rapidly put into production and create oil glut with global oil price above USD 60 per barrel and slowdown of economic growth in China.

In the context of low crude oil prices, options for the development of new oilfields and unconventional reserves will be significantly restricted in Russia because investment in the cost demanding projects will be unprofitable (first of all, it is true to the implementation of the Arctic shelf projects). In the circumstances, conventional oil reserves located onshore will be the basis for further development of the Russian oil sector. In-depth development of producing oilfields and increase of the oil recovery rate are of major importance. Options for additional oil production at such oil fields will largely depend on technological progress, development of import substitution aimed at increasing the oil recovery index.

Further development of the oil sector will require necessary tax conditions.¹ First, it is necessary to accomplish structural reform of the taxation system in this sector, which includes a gradual reduction of export duties on crude oil and petroleum products (up to their total abolition) and increase of MET. This reform will reduce subsidizing of the downstream sector and create incentives for its upgrading and improve refining margin. Simultaneously, this will cut Russia's subsidies to other EAEU countries and will strengthen incentives for increasing efficiency of the domestic oil consumption.

It is expedient to introduce at the new oilfields Additional Profits Tax (APT), which will ensure both resource rent extraction and necessary conditions for investment. APT is based on net income and represents a more flexible taxation instrument by contrast with MET and export duty. APT automatically brings the tax burden in line with oil production conditions on each specific oilfield. In doing so, necessary conditions for investments are being created including in the development of high cost intensive oilfields.

¹ See: Yu. Bobylev, O. Rasenko. Options for tax incentives for the oil sector. Russian Economic Development. 2016. No 7, pp. 66–69.

It is expedient to develop the sector of medium- and small-scale oil producing companies, which can be efficient in the development of relatively small-scale low profit deposits and hard-to-recover reserves. This requires development of a corresponding organizational and legal regime including significant reduction of administrative barriers.

4.6. Growth factors in the agriculture of Russia¹

In 2016, record-high yields of grain, including wheat, maize, sunflower, soya and sugar-beet were received. A new record in poultry meat production was set. Despite economic recession, gross agricultural output has been growing in the past few years. Such results are attributed by many experts to the effect of the embargo on imports of food from some countries and import substitution measures. However, neither the embargo nor import substitution was a decisive factor behind growth in agriculture. The most important factors were the interest of the business in developing agriculture, depreciation of the ruble and favorable weather conditions of the past few years.

4.6.1. Agricultural production dynamics

As regards output volumes of the main types of crop products, Russia surpassed the pre-reform levels: 1.4–1.7 times over as regards wheat, sugar-beet and vegetables and 3.3–4.6 times over as regards sunflower, soya and maize (*Table 34*).

Table 34

Gross harvest of the main agricultural crops, million tons

	On average in 1986–1990	2014	2015	2016 (preliminary data)	2016 as % of average in 1986–1990
Grain	104.3	105.3	104.8	119.1	114.2
Including wheat	43.5	59.7	61.8	73.3	168.5
Maize	3.3	11.3	13.2	13.8	418.2
Sugar-beet	33.2	33.5	39.0	48.3	145.5
sunflower	3.1	9.0	9.3	10.7	345.2
Soya	0.6	2.6	2.7	3.1	516.7
Potatoes	35.9	31.5	33.6	31.0	86.4
Vegetables and gourds	11.2	15.5	16.1	16.3	145.5
Fruits and berries	3.3	3.0	2.9	3.3	100.0

Source: Rosstat.

High growth rates were observed in industries with the highest levels of profitability. Russia has entered global markets and secured the leading positions: the country is rated the first as regards production of wheat, buckwheat and sugar beet pulp and the second as regards barley, peas, garbanzo, sunflower oil, oilseed meal, protein meal and flax seeds.

Gross harvest growth took place on the back of higher yields of agricultural crops as a result both of favorable weather conditions and technical and technological modernization based on utilization of the latest international breakthroughs. As compared to the 1986–1990 period, the most significant harvest growth was registered in production of sugar-beet, maize and fruits (almost twofold) and grain (70%) and soya, potatoes and vegetables (50%) (*Table 35*)

¹ Authors of chapter: V. Uzun – IAES RANEPА; N. Shagaida – IAES RANEPА.

Table 35

Harvest of the main agricultural crops, centner per ha

	On average in 1986–1990	2014	2015	2016 (preliminary data)	2016 as % of average in 1986–1990
Grain	15.9	24.1	23.7	26.0	163.5
Including wheat	20.1	25.0	23.9	26.3	130.8
maize	28.7	43.6	49.3	54.6	190.2
Sugar-beet	225	370.1	387.8	460	204.4
Sunflower	12.7	14	14.2	15.1	118.9
Soya	10.3	13.6	13.0	14.8	143.7
Potatoes	108	149.6	159.1	152.7	141.4
Vegetables and gourds	154	217.8	225.1	226.8	147.3
Fruits and berries	39.5	75.9	75.7	86.3	218.5

Source: Rosstat.

In livestock breeding, the situation differs by the sector. Production of poultry meat increased 2.6 times over as compared to the pre-reform period. In those sectors, on average by all the categories of farmsteads productivity indices are insignificantly inferior to those of developed countries.

The main specifics of 2016 consist in reduction of growth rates in production of poultry meat due to saturation of the internal market with domestic products. Poultry production reacts promptly both to changes in the market situation (the broiler growing period is the shortest one) and a drop in households' solvent demand (*Table 36*). In the past few years, the authorities and business were aimed at import substitution and were not prepared to enter global poultry meat markets.

At the same time, crisis is still going on in cattle breeding. Reduction of livestock and output has not been stopped. A slump in cattle breeding has a mixed dynamics in different categories of agricultural producers. As state support is rendered primarily to agricultural organizations, their milk production is growing, but its rates do not make up for losses of private subsidiary farms: in 2015 growth in agricultural organizations' milk production amounted to 353,000 tons with a drop of 464,000 tons in that of private subsidiary farms. Small business patterns failed to be integrated into vertical production chains despite the fact that their production is not virtually supported by the state unlike that of agricultural organizations. Sustainable growth in production of milk and cattle meat (with a drop in production thereof with farmsteads and agricultural organizations) by farming enterprises points to growth potential of cattle breeding production amid reduction of access barriers to land and lending resources for small business entities.

Table 36

Gross production and livestock output growth indices of all the categories of farmsteads

	Gross production				
	On average in 1986–1990	2014	2015	2016	2016 as % of average in 1986–1990
Cattle and poultry meat, thousand tons of slaughter weight	9671	9070	9565	9894**	102*
Including cattle stock	4096	1654	1649	n.a.	40.3
Pork	3347	2974	3099	n.a.	92.6
Fowl	1747	4161	4536	n.a.	259.6
Sheep and goats	369	204	205	n.a.	55.6
Other types of livestock	112	77	77	n.a.	68.8
Milk, million tons	54.2	30.8	30.8	30.7	56.6*
Eggs, billion units	47.9	41.9	42.6	43.5	90.8*

* 2016 as % of 1986–1990.

** estimated data

Source: Rosstat

Generally, in the past decade annual average growth rates of the agriculture were below than in the economy as a whole. Such a pattern is typical of developing and developed countries. It leads to reduction of the unit weight of agriculture in GDP. If the year 2005 is equal to 100% (*Agricultural Sector Development*, a national project and the first State Program of Support to Agriculture were started in 2006 and 2008, respectively), it can be seen that GDP growth rates are more stable – they fell only in 2009 and 2015 – while sustainable growth in added value of the agriculture has been observed only since 2012 (*Fig. 30*).

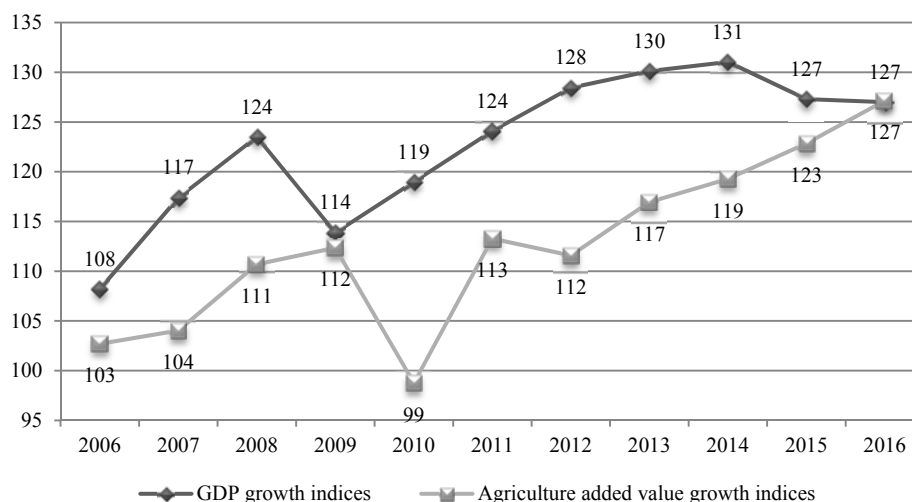


Fig. 30. Growth rates of GDP and agriculture added value (the year 2005 is equal to 100%)

Source: Rosstat.

Such unstable dynamics is largely related to prevalence of crop production in the pattern of agriculture which largely depends on weather conditions (in 2015 the share of crop production was equal to 54%). In the past decade, a dramatic drop in agriculture production growth rates was registered in the drought-ridden year of 2010 (12.1%) and 2012. In the past four years, amid dramatic reduction of economic growth rates or even recession growth in the agriculture was observed. (*Table 37*)

Table 37

Growth rates of GDP and added value in the agriculture, % of the previous period

	GDP growth indices	Agriculture added value growth indices
2006	108.2	102.7
2007	108.5	101.3
2008	105.2	106.4
2009	92.2	101.5
2010	104.5	87.9
On average in 2006–2010	103.7	100.0
2011	104.3	114.7
2012	103.5	98.5
2013	101.3	104.8
2014	100.7	102.0
2015	97.2	103.0
2016	99.8	104.8
On average in 2011–2016	101.1	104.4

Source: Rosstat

The main factor behind growth in the agriculture is the agrarian reform carried out early in 1990s. That reform brought about both positive and negative changes.¹ The positive impetus was given by privatization and development of private agrarian business (over 95% of the gross agrarian output is produced by tens of thousands of agricultural organizations, hundreds of thousands of farms and millions of individuals' farmsteads). The driver of development was private farmsteads' motivation to receive profit and accumulate capital. As a result, there was growth in output of the most profitable types of products on the basis of modernization of production facilities, utilization of international R&D achievements and reduction of costs. The above permitted to win competition on the domestic market as regards most products and enter global markets and secure leading positions there as regards grain and oil-yielding crops. At the same time, low-margin and loss-making industries of the agrarian sector either ceased to develop or shrank.

4.6.2. The main growth factors of agriculture in 2016

The Effect of Weather Conditions. In 2016, good weather conditions contributed to the agrarian sector's output growth. Favorable weather conditions had been observed for a few years. To receive an aggregated assessment of weather conditions, the method of correlation of indices of agricultural output with those of the share of lost seeds in the agricultural organizations' total cultivated area was utilized. From 2014, the index of the share of lost seeds has remained at a low level (*Fig. 31*). The above indices' correlation ratio amounts to -0.705. With lost seeds decreased by 1%, the agrarian sector's growth rates rise 1.1%.

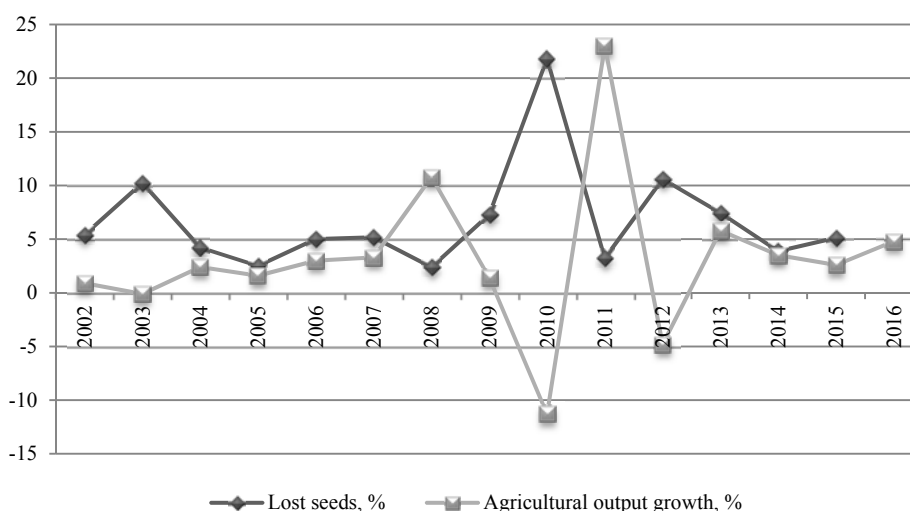


Fig. 31. Dynamics of agricultural output growth and the share of lost seeds with agricultural organizations, %

Source: The Ministry of Agriculture of the Russian Federation

¹ For more details on positive and negative consequences of the agrarian reform in Russia, see the Agrarian Reform in the Post-Soviet Russia: Mechanisms and Results. M. Delo Publishers, 2015. p. 352.

With a lack of data on lost seeds in 2016, estimates can be made on the basis of fragmentary data. So, the year 2016 was the warmest year throughout the entire history of agro-weather observations.¹ The state of seeds was estimated as a good one.²

According to the estimates of the director of the crop-production department of the Ministry of Agriculture of the Russian Federation, in 2016 the area where seeds were lost was insignificant.³ So, it can be said favorable weather conditions contributed to output growth in 2016.

Depreciation of the Ruble. With multiple factors simultaneously having an effect on development of the agriculture, it is rather difficult to single out the effect of depreciation of the ruble alone. Shown below is an illustration – with no strong evidence claimed – of the nature of that effect in terms of a pork market (*Table 38*).

Table 38

The effect of the USD exchange rate on competitiveness of domestic pork production

	2011	2012	2013	2014	2015	Price of 2015 against 2011, %
USD exchange rate	29.4	31.1	31.8	38.0	60.7	206.7
Global price: USD a ton	3047	3052	2999	3030	2401	78.6
Thousand RUB a ton	89.4	94.8	95.4	115.0	145.6	153.5
Price of import to Russia: USD a ton	3212	3347	3444	4036	3129	93.5
Thousand RUB a ton	94.3	104.0	109.6	153.2	189.8	182.5
Ex-factory meat price	132.7	131.4	121.0	163.5	151.6	115.3
Ratio of import price to sale price, %	71.1	79.1	90.6	93.7	125.2	158.3

Source: Calculations on the basis of the data of the Comtrade, the Federal Customs Service of the Russian Federation and the Unified Interdepartmental Statistical Information System.

In the period under review (2011–2015), the USD exchange rate against the ruble more than doubled, average world pork prices in US dollars fell by 21.4%, while import prices to Russia decreased by 6.5%. However, due to appreciation of the USD exchange rate import prices in rubles kept growing regularly and in 2015 surpassed by 82.2% the 2011 level. Also, prices at which meat-processing plants sold pork were growing, but at a much lower rate: in 2015 they were only 15.3% higher than in 2011. The dynamics of import and sale prices in rubles consistently contributed to higher competitiveness of domestic pork production. In 2011, pork cost 28.9% less with importers than with domestic producers. In subsequent years, the difference between import and domestic prices shrank and in 2015 domestic producers sold pork at a price which was 25.2% less than with importers. It is quite clear that the above happened due to a dramatic depreciation of the ruble in 2015 as compared to 2014 (the exchange rate rose from RUB 38 to RUB 60.7 per \$1). If in 2015 the exchange rate of the US dollar remained the same as in 2014 the import pork price would be equal to RUB 118,900 which is much lower than the price of domestic producers.

Similar processes took places in other industries. The above factors contributed to growth in profitability of production (in 2015 in general it was the highest one across agricultural organizations and most types of products in the past ten years). Growth in efficiency and competitiveness contributed to import substitution. However, depreciation of the ruble had the following negative consequences, too: it caused inflation rate growth, reduction of households'

¹ Rosgidromet, Report by V.A. Trach-Dolgikh, Director of the All-Russian Research Institute of Meteorology. Russian Crop Production-2016-17.

² Ibid.

³ P. Chekmarev. Crop Production is the Foundation of the Country's Food Security. Report delivered at the Russian Crop Production-2016-17 Conference sponsored by the Agroiinvestor magazine.

real incomes, a decrease in demand on produce, growth in the share of expenditures on food in families' budgets, particularly, low-income families' and growth in prices on import resources and fuel.

Food Embargo and Import Substitution. The government's signals in terms of a food embargo were heard by agricultural producers. Despite appreciation of import resources due to depreciation of the ruble, agricultural producers increased acres in crops which were in demand on domestic and international markets (*Table 39*).

Table 39

**Changes in acres in crops as compared
to 2013, %**

	2014/2013	2015/2013	2016/2013
Grain and grain legumes	101	102	103
Sugar-beet	102	113	123
Sunflower for grain	95	96	104
Potatoes*	99	100	96
Field vegetables	102	103	103

* Reduction of crops of potatoes is related to a high level of food assistance in the country and a traditionally high share of food production at households' farmsteads and agricultural organizations' low procurement prices.

Source: Rosstat.

By individual products, the import-export balance improved, too (*Table 40*). In some months of 2016, Russia approached the positive import-export food balance (see *Annex*). Such a situation was observed for the first time in the latest history. In the Soviet period it took place for the last time in the 1960s, that is, almost 60 years ago.

Table 40

**Import-export balance, % of the respective period
of the previous year**

	2014	2015	January-September 2016
Meat and processed meat	97	67	78
Milk and dairy products	97	86	98
Vegetables and gourds	101	70	n.a.
Fruits and berries	93	97	n.a.

Source: calculated on the basis of the balance data, Rosstat.

Domestic production has started to play an ever greater role in the pattern of potential volume of consumption: its share increased as compared to the total of domestic production and import-export balance (*Table 41*).

Table 41

**The share of domestic production in the pattern of potential volume
of consumption*, %**

	2014	2015	January-September 2016
Meat and processed meat	83	89	91
Milk and dairy products	78	81	85
Vegetables and gourds	89	92	n.a.
Fruits and berries	35	35	n.a.

*potential volume of consumption is the total of domestic production and import-export balance.

Source: calculated on the basis of the balance data, Rosstat.

Also, the share of imports in consumption is shrinking (*Table 42*).

Table 42

Correlation of volumes of imports and consumption, %

	2014	2015	January-September 2016
Meat and processed meat	18	13	11
Milk and dairy products	23	21	16
Vegetables and gourds	16	14	n.a.
Fruits and berries	64	66	n.a.

Source: calculated on the basis of the balance data, Rosstat.

The Rosstat's data on the share of import products in the retail trade's commodity stocks points to active import substitution, too (Table 43).

Table 43

The share of import food in the retail trade's food commodity stocks, %

		%			%
2013	Q 1	36	2015	Q 1	29
	Q 2	35		Q 2	26
	Q 3	35		III квартал	27
	Q 4	36		IV квартал	30
	Indicator value for year	36		Indicator value for year	28
2014	Q 1	36	2016	Q 1	24
	Q 2	33		Q 2	22
	Q 3	32		Q 3	22
	Q 4	36		Q 4	n.a.
	Indicator value for year	34		Indicator value for year	n.a.

Source: The Unified Interdepartmental Statistical Information System.

If one proceeds from the above aggregate data, it can be concluded that import substitution has crowned with success. However, analysis of actual consumption is required, too, for such a statement to be made. According to the 2015 data, it can be seen that with reduction of imports the actual consumption decreased as well, except for (Table 44) vegetables where not only consumption, but exports were growing (see Annex).

Table 44

**The volume of potential and actual consumption (personal and industrial),
% of the previous year**

	Volume of potential consumption (production + + import-export balance)			Actual consumption		
	2014	2015	January- September 2016	2014	2015	January- September 2016
Meat and processed meat	100	99	103	101	98	102
Milk and dairy products	100	97	99	99	98	99
Vegetables and gourds	104	101	n.a.	103	101	n.a.
Fruits and berries	96	97	n.a.	93	97	n.a.

Source: calculated on the basis of the balance data, Rosstat.

Similar conclusions can be made on the basis of analysis of individual most sensitive goods, rather than groups of products. According to the 2015 data¹, it is clear that import substitution was accompanied by simultaneous growth in consumption resources not only in respect of poultry meat and vegetables (from among agricultural products) alone. As regards other numerous products (beef, pork, fruits and berries and cheese), growth in domestic production failed to make up for import shrinkage (Table 45).

¹ The 2016 data for calculation of Table 44 and 45 are not available yet.

Table 45

Import substitution of agricultural products

Types of products	Production, thousand tons			Import, thousand tons			Import substitution, thousand tons	Growth (+) reduction (-) consumption, thousand tons
	2013	2015	Growth in 2015 as compared to 2013	2013	2015	Growth in 2015 as compared to 2013		
Beef, slaughter weight	1633	1649	16.1	661	438	-222.2	16.1	-206.1
Pork, slaughter weight	2816	3099	282.5	620	305	-315.6	282.5	-33.1
Poultry meat, slaughter weight	3831	4535.5	704.6	528	255	-272.8	272.8	431.8
Vegetables	14689	16111	1422.0	3000	2607	-392.6	392.6	1029.4
Fruits and berries (including grape)	3381	3379	-2.1	6412	5105	-1307.5	-	-1309.6
Butter	225	256	31.4	118	90	-28.1	28.1	3.3
Cheese and cheese products	435	589	153.8	440	208	-232.6	153.8	-78.8
Powder milk	116	124	7.4	35	33	-1.1	1.1	6.3
Sugar	4986	5748	761.7	612	1010	398.3	-	1160.0

Source: Rosstat and the Federal Customs Service of the Russian Federation

In the past few years, the pattern of food imports has changed dramatically: the share of meat processed and dairy products has decreased, while fruits and vegetables have gained the leading positions (*Table 46*).

Table 46

The pattern of food imports, %

	2013	2014	2015	2016
Meat and meat by-products	15.6	13.8	11.7	9.2
Fish and fish products	6.6	6.4	5.1	5.6
Dairy products, eggs; honey	10.3	9.7	7.7	8.6
Vegetables	6.7	7.4	7.2	5.6
Fruits and nuts	14.8	13.7	14.9	15.4
Alcohol and soft drinks	7.9	7.7	6.7	7.3
Other products	38.1	41.3	46.7	48.4
Total as regards group 1–24	100	100	100	100

Source: The Federal Customs Service of the Russian Federation.

So, both limitations of the market and positive signals to agricultural producers have crowned with some success in production, but import substitution has actually taken place only in production of poultry meat and vegetables.

Technological breakthroughs. After the reforms, the Russian business has gained access to international breakthroughs in agriculture. During the period of implementation of the national project – Development of the Agrarian Sector (2006–2007) – the linked index of investments into capital assets of agricultural organizations rose by 96%. Throughout implementation of state agriculture support programs (2008–2012 and 2013–2020), the index fell to 36% (in 2010) and then rose to 65% (in 2013). In the past two years, the index started to fall again (*Fig. 32*).

Despite limitation of investment funds, in the above period the Russian business carried out to a large extent technical and technological modernization in agriculture using international R&D breakthroughs. As regards individual crops, utilization of seeds and hybrids of foreign artificial selection was close to 100% (*Table 47*). According to the data of the Ministry of Agriculture, the share of imported component parts for green-houses, pig-breeding units (including slaughter department equipment) and dairy units amounted to 80%, 75% and 70%, respectively. In 2016, the share of imported herbicides amounted to 56%.

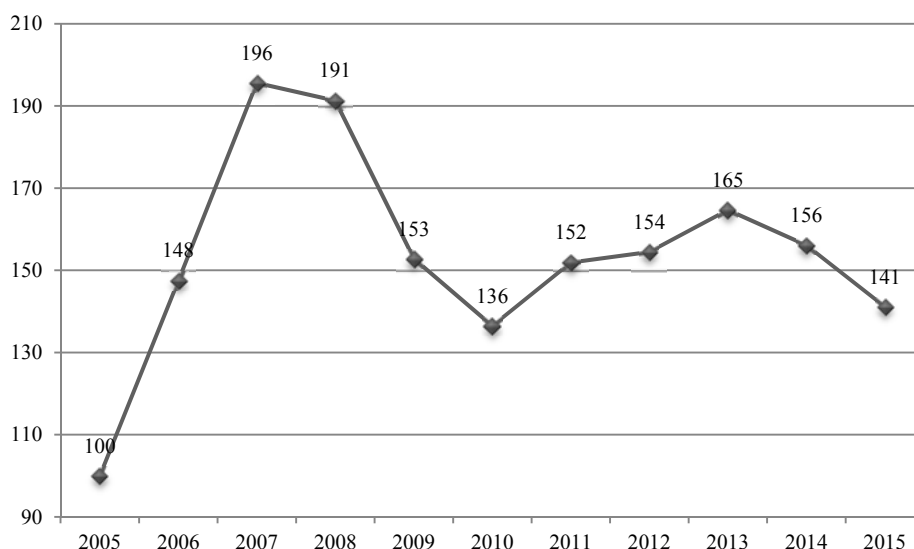


Fig. 32. Linked index of investments in capital assets of agricultural organizations

Source: The Unified Interdepartmental Statistical Information System.

Table 47

The share of imported seeds in the total volume of procurement

	2013	2016 (H1)
Vegetables	66	23
Maize	43	28
Sunflower	46	44
Sugar beet	96	69
Potatoes	62	

Source: The Ministry of Agriculture of the Russian Federation

Application of foreign technologies has contributed to considerable growth in crop yield (*Table 47*). For fairness' sake, it is to be noted that grain crops are cultivated primarily from Russian seeds.

Productivity of dairy cows at agricultural organizations rose from 4.3 tons in 2011 to 5.1 tons in 2015, while in 2016 it amounted to 5.3 tons (estimate). Expenditures on fodder per kilo of pork and poultry meat fell by twofold. As regards efficiency, Russian pork-breeding units and poultry farms are in no way inferior to similar ones in developed countries.¹ So, state-sponsored technological modernization of the agrarian sector contributed to efficiency growth.

¹ Utilization by the business of the latest international technical and technological breakthroughs contributed to growth in efficiency, output volumes and import substitution in the agrarian sector. However, in that period the government did not carry out an active policy to support national science, so, reduction of dependence on imports of products was accompanied by growing dependence on imports of know-how and technologies. That dependence can hardly be broken with the existing level of financing of the Russian science, however, as in the field of production it is important here to identify breakthrough lines in R&D to secure leading positions not only on the domestic market, but also on the international one.

4.6.3. The population's access to food

By 2015, the population of Russia was on average provided with food in accordance with recommended medical norms and the food pattern improved to become a more balanced one. Meat consumption even exceeded the recommended norms (*Table 48*).

Table 48

Food consumption (on average per consumer a year), kg

	1990	2000	2014	2015	Specified norm*
Bread products	97	109	95	95	96
Potatoes	94	93	59	58	90
Vegetables and gourds	85	82	98	100	140
Fruits and berries	37	27	76	71	100
Meat and processed meat	70	50	85	85	73
Dairy products	378	199	266	266	325
Eggs, pieces	231	202	216	218	260
Fish and fish products	15	14	22	21	22
Sugar and confectionery	32	30	31	31	24

*"Guidelines for Balanced Food Consumption Norms Meeting Modern Healthy Nutrition Requirements". Order No.614 of August 19, 2016 of the Ministry of Health of the Russian Federation.

Source: Rosstat, budget analysis data.

Improvements in consumption till 2014 were accompanied by reduction of the share of households' expenditures on food and that was a positive trend. However, from Q4 2014 expenditures on food started to grow (*Table 49*).

Table 49

The share of expenditures on food and alcohol-free beverages in households' consumer spendings, %

	2013	2014	2015	2016
Q 1	28.5	28.2	32.0	33.3
Q 2	26.8	30.1	30.7	33.3
Q 3	28.3	27.9	31.9	31.6
Q 4	26.3	27.8	30.9	n.a.

Source: Rosstat's budget analysis data.

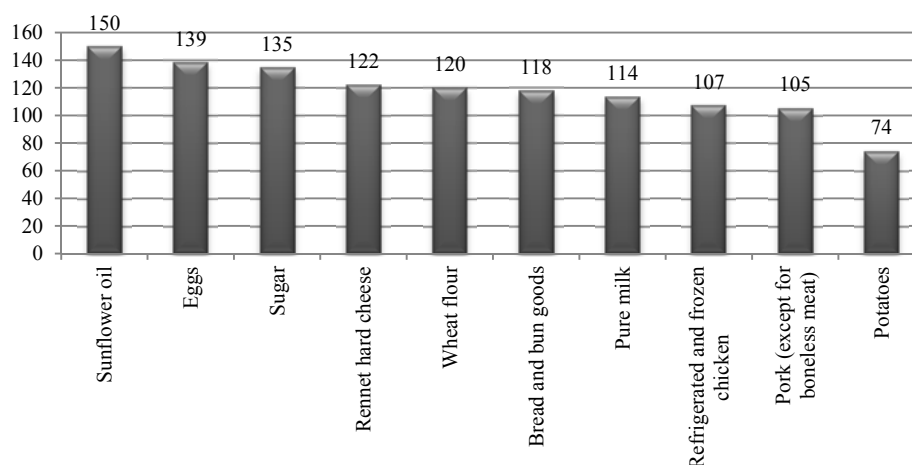


Fig. 33. Food price indices, % (January 11, 2016 against August 4, 2014)

Source: The Rosstat.

Growth in expenditures was primarily related to prices rises. So, after the food embargo was introduced, prices on pork and poultry meat used to grow by nearly 1% a week, but later they hit up against households' solvent demand and started to go down. As a result, general growth in prices on pork and poultry meat during the period of the embargo amounted to 4%-7%. (Fig. 33).

Price rises and a drop in households' incomes resulted in a reduction of volumes of purchased food. As early as September 2014, a decrease in sales volumes in comparative prices was observed. The above trend still prevails (Fig. 34).

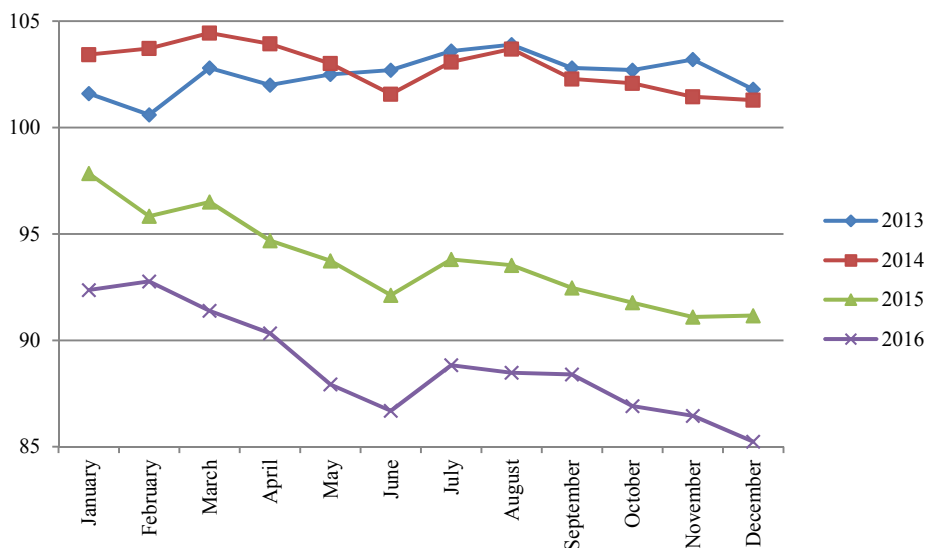


Fig. 34. Indices of the physical volume of food purchasing, % of the respective month 2012

Source: The Unified Interdepartmental Statistical Information System.

* * *

1. In 2016, the agriculture in Russia kept growing. As seen from the analysis, development was aimed at upgrading the level of households' satisfaction with food and ensuring food independence of Russia through import substitution and expansion to the global markets of grain and vegetable oil.

2. The main factors behind growth in the agriculture were favorable weather conditions in the main agricultural regions, depreciation of the ruble and technical modernization of the agrarian sector through utilization of the latest international achievements. The role of the national science and technologies is insignificant, so far. The business gives preference to imported seeds, livestock and fowl breeds, equipment, crop protection agents and biological additives. The above statement should in no way constitute grounds for introduction of limitations, quotas and duties on imports of those resources for agriculture as that may cause their appreciation.

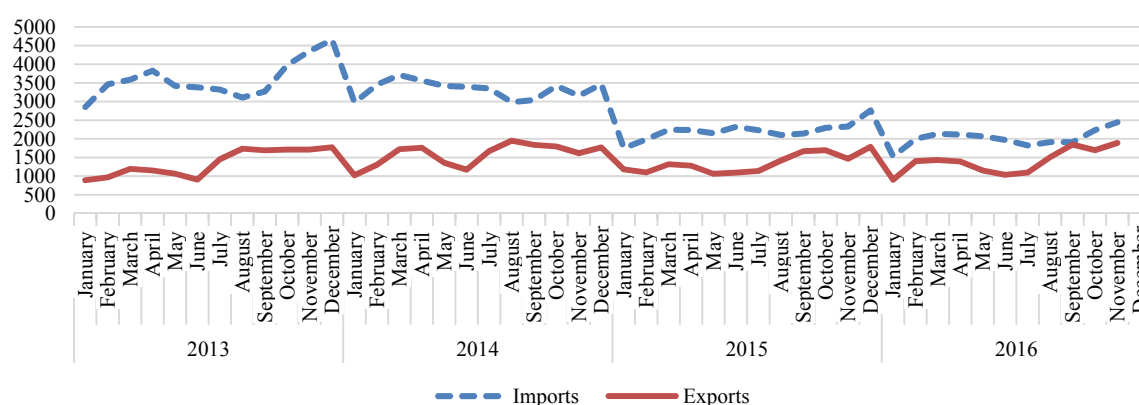
In Russia, funding of the national agrarian science per RUB 1 of the added value of agriculture is tens of times lower than in developed countries. Many transnational companies finance research in agriculture in a volume which largely exceeds the Russian budget. In such a situation, it would be expedient to increase substantially funding, modify the agrarian science,

identify breakthrough research lines to enter the markets of innovative products and stimulate business to make investments in development and promotion of innovative products, rather than impose a ban on import of technologies and know-how.

3. Traditional goals of development of agriculture – growth in the level of consumption and import substitution – have exhausted themselves: the advisable medical norms of consumption of the main products either have been achieved or were almost achieved and the main volumes of the earlier imported products have been replaced by domestic ones. An exception is fruits and berries which cannot be produced in Russian natural climate conditions and dairy products. They occupy a leading position in the pattern of food imports. As households' expenditures grow, seasonal consumption of vegetable, gourds, fruits and berries is smoothed over. In the off-season period, it is more advantageous to meet demand on numerous types of products by means of quality and less expensive import products. In such a situation, an increasingly important role should be given to promotion of exports and expansion to the global markets, otherwise, it would be impossible to maintain the existing growth rates of the agriculture.

4. Export-oriented growth in the agriculture requires radical changes in goal-setting for development. If before lines for development were determined proceeding from unsatisfied demand, the long-term policy should now be based on identification of Russia's competitive advantages on global markets. It is necessary to choose from a variety of types of products those products which can be produced with high quality and on a low cost basis thanks to favorable natural climate conditions and traditional industry. In a northern country, efforts to promote in a winter season cultivation of cucumbers, tomatoes and pepper are unlikely to be effective. In Russia, one should cultivate potatoes, carrots, cabbages and inexpensive field tomatoes and cucumbers, that is, traditional vegetables which are easy to grow. Huge areas of unutilized forage lands can become a base for establishment of cattle-, sheep- and horse-breeding ranchos. Rural territories with an excess of labor are advantageous for cultivation of labor-intensive crop-plants: fruits, vegetables, mushrooms and berries. It is to be noted that outdated production of the above types of products with utilization of obsolete technologies at households' backyards will never ensure access to global markets. For production of quality and inexpensive products, it is important to facilitate establishment of commercial farm enterprises equipped with modern production facilities and integrate them into food chains through cooperatives and integrator-companies.

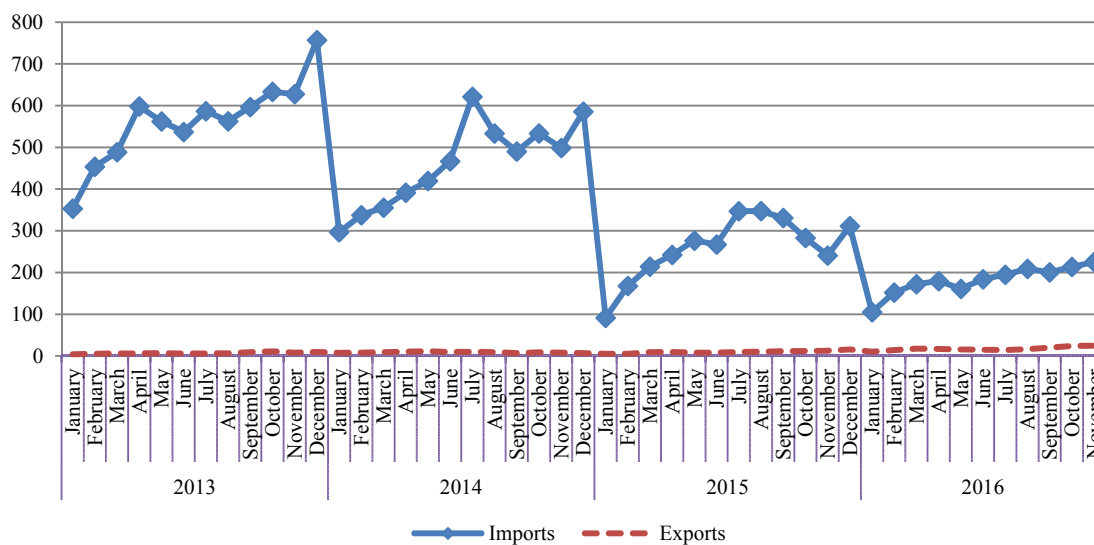
Annex



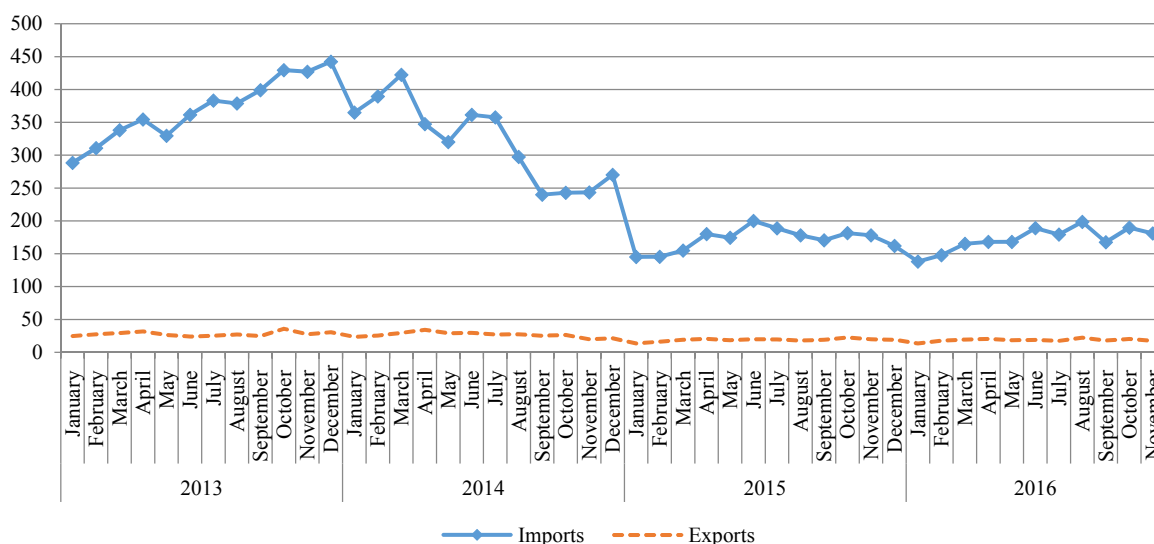
Imports and exports of food and agricultural primary products
(RF, 1-24 Foreign Economic Activity Commodity Classification), million US dollars

RUSSIAN ECONOMY IN 2016

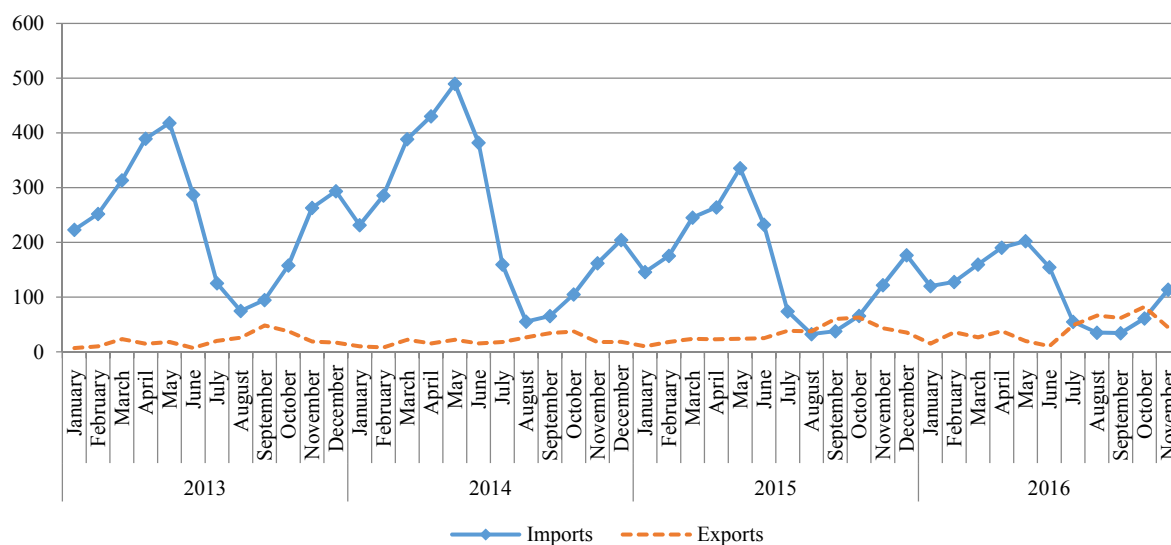
trends and outlooks



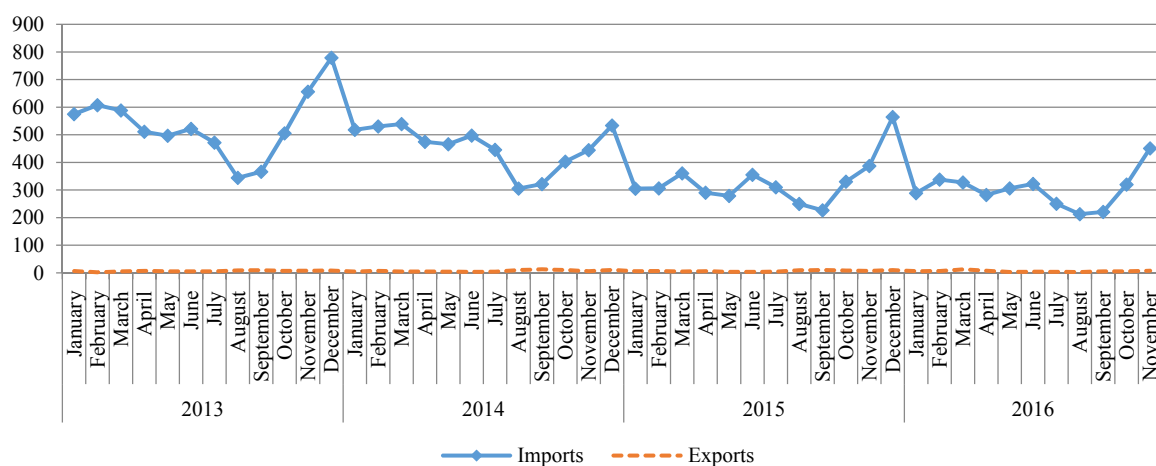
Imports and exports of meat and meat processed byproducts (RF, 02 Foreign Economic Activity Commodity Classification), million US dollars



Imports and exports of dairy products, eggs and natural honey (RF, 04 Foreign Economic Activity Commodity Classification), million US dollars.



Imports and exports of vegetables
(RF, 07 Foreign Economic Activity Commodity Classification), million US dollars.



Imports and exports of fruits and berries
(RF 08 Foreign Economic Activity Commodity Classification), million US dollars.

Source: The Federal Customs Service of the Russian Federation

4.7. Foreign trade¹

4.7.1. World trade outlook

In early 2017, international financial organizations adjusted their short- and medium-term forecasts. The World Bank report *Global Economic Prospects*², released in January 2017, and estimated global growth in 2016 at a post-crisis low of 2.3%. It was noted that growth in emerging markets and developing economies (EMDEs) is projected to rise in 2017 to 2.7%, reflecting receding obstacles to activity in commodity exporters and continued solid domestic demand in commodity importers. An increase in commodity prices will trigger the bottoming out in the largest emerging markets, including Russia and Brazil.

However, the World Bank forecast does not incorporate the spillovers of policy proposals by the new U.S. administration, as their scope and ultimate form are still uncertain. In the context of such uncertainty, weak investment activity will remain, which will hamper economic growth in many countries in medium term. The WB experts downgraded global growth by 0.1 p.p. against June estimates. Projection for 2018 was also revised down by 0.1 p.p. to 2.9%. In 2019, growth rates of the world economy will remain at 2.9%.

The World Bank left unchanged projections of the U.S. economic growth for 2017–2018 at 2.2 and 2.1%, respectively. In 2019, growth rates will decline to 1.9%. Projections of China's GDP for the current and next year were left flat at 6.5 and 6.3%. Projections for 2019 expect growth rate by 6.3%. Japan's GDP growth rates were revised up for 2017 to 0.9% against 0.5%, for 2018 to 0.8% against 0.7%, and for 2019, an increase is expected at 0.4%. Forecast for Eurozone for 2017 was revised down by 0.1 p.p. to 1.5%, for the next year was also downgraded by 0.1 p.p. to 1.4%. In 2019, Eurozone as expected will grow by 1.4%. According to the WB forecast, the Indian economy will be the fastest-growing in the coming three years: in 2017 by 7.6%, and in 2018–2019 by 7.8%.

The WB estimates for Russia compared to the Report on the Russian economy released in November 2016 remained flat: after the GDP decline in 2016 by 0.6% economic activity will accelerate to 1.5, 1.7 and 1.8%, respectively in 2017–2019.

According to the WB estimates, global commodity trade will grow by 2.5% compared to 2015. In 2017, it is expected that global trade will accelerate to 3.6%, and in 2018 - to 4.0%.

The International Monetary Fund expects global growth to accelerate from 3.1% in 2016 to 3.4% in 2017, and to 3.6% in 2018³ (*Table 50*). Events taking place in H2 2016 contributed to the fact that a number of large economies posted higher growth acceleration in early 2017. That is why, it becomes more feasible that the global economy growth in 2017–2018 is forecast to accelerate against slack growth rates of last year. However, this near-term forecast carries a wide range of risks, which can hamper global economy acceleration. For example, among them are high level of public and private indebtedness seen in many countries, retention of weak economic activity growth rates and deflation pressure in a number of advanced economies, unsettled conditions for the UK exit from the European Union, implications of the U.S. elections, and tight schedule of the upcoming national elections, among others.

¹ Author of chapter: N. Volovik – Gaidar Institute, RANEPA.

² <http://www.worldbank.org/en/publication/global-economic-prospects>

³ <http://www.imf.org/external/pubs/ft/weo/2017/update/01/>

Table 50

Dynamics of global GDP and world trade (growth rates in % to previous year)

	2010	2011	2012	2013	2014	2015	Estimate	Projections	
							2016	2017	2018
Global GDP	5.1	3.9	3.4	3.3	3.4	3.2	3.1	3.4	3.6
Advanced economies	3.0	1.7	1.2	1.4	1.8	2.1	1.6	1.9	2.0
United States	2.4	1.8	2.3	2.2	2.4	2.6	1.6	2.3	2.5
Euro zone	2.0	1.5	-0.7	-0.4	0.9	2.0	1.7	1.6	1.6
Germany	4.0	3.4	0.9	0.5	1.6	1.5	1.7	1.5	1.5
France	1.7	2.0	0.3	0.3	0.2	1.3	1.3	1.3	1.6
Great Britain	1.8	1.1	0.3	1.7	3.0	2.2	2.0	1.5	1.4
Emerging market and developing economies	7.4	6.2	5.1	4.7	4.6	4.0	4.1	4.5	4.8
Commonwealth of Independent States	4.8	4.8	3.4	2.2	1.0	-2.8	-0.1	1.5	1.8
Russia	4.3	4.3	3.4	1.3	0.6	-3.7	-0.6	1.1	1.2
Except Russia	6.0	6.1	3.6	4.2	1.9	-0.5	1.1	2.5	3.3
Developing countries, Asia	9.5	7.8	6.7	6.6	6.8	6.6	6.3	6.4	6.3
China	10.4	9.3	7.7	7.7	7.3	6.6	6.7	6.5	6.0
India	10.1	6.3	4.7	5.0	7.3	7.6	6.6	7.2	7.7
Latin America and Caribbean	6.2	4.6	2.9	2.7	1.3	0.0	-0.7	1.2	2.1
Brazil	7.5	2.7	1.0	2.5	0.1	-3.8	-3.5	0.2	1.5
Mexico	5.6	4.0	4.0	1.1	2.1	2.5	2.2	1.7	2.0
Global trade in goods and services	12.6	6.1	2.9	3.0	3.3	2.7	1.9	3.8	4.4
Advanced economies	11.4	4.7	1.2	1.4	3.4	4.0	2.0	3.6	3.8
Emerging market and developing economies	14.9	8.8	6.0	5.3	3.6	0.3	1.8	4.0	4.7

Source: data released by IMF (<http://www.imf.org/external/pubs/ft/weo/2016/02>).

According to the Bank of Russia estimates,¹ in 2016, the aggregate growth rates of Russia's trade partners remained flat at the 2015 level – around 2.0% per annum. This estimate is based on assumptions about a gradual slowdown of China's economy, on the one hand, and some economic recovery seen in the U.S., on the other hand.

In 2016, China's GDP registered the lowest growth rates seen during last 25 years. According to data released by the National Bureau of Statistics of China,² in 2016, economic activity in China accelerated by 6.7% up to USD 11.3 trillion. According to the IMF forecast, China's economy expanded by 6.6% over a year. To recap, in 2010, this index stayed at 10.6%, in 2011 – 9.5%, and in 2012 – 7.9%. The outcomes of 2013, China's economic growth slowed down to 7.8% and in 2015 – to 6.9%.³ During recent years, we observe a slowdown of China's industry growth rates as well as investment volume in fixed assets. Economy is decelerating due to high level of indebtedness and supply glut in a number of sectors. Budget investment and bank loans positively affect GDP expansion. According to the IMF forecast, in 2017, China's economy will expand by 6.5%. Principal risks of China's economy are linked with financing investment at the expense of debt buildup as well as with the policy of the new U.S. administration, which threatens China with protectionist measures.

According to the “advance” estimate released by the Bureau of Economic Analysis,⁴ in U.S. real GDP increased at an annual rate of 1.9% in the fourth quarter of 2016. In Q1 2016, the U.S.

¹ Bank of Russia official website. Report on monetary policy, No. 3, September 2016.

² National Bureau of Statistics of China official website: http://www.stats.gov.cn/english/PressRelease/201701/t20170124_1457667.html

³ IMF official website: http://www.imf.org/external/pubs/ft/weo/2016/02/weodata/weorept.aspx?sy=2000&ey=2020&scsm=1&ssd=1&sort=country&ds=.&br=1&c=924&s=NGDP_RPCH%2CNGDPD&grp=0&a=&pr.x=37&pr.y=11

⁴ https://www.bea.gov/newsreleases/national/gdp/2017/gdp4q16_adv.htm

GDP increased at an annual rate of 0.8%, in Q2 – 1.4%, and Q3 – 3.5%. The deceleration in real GDP reflected a downturn in exports, an acceleration in imports, a deceleration in personal consumption expenditures, and a downturn in federal government spending. It should be noted that preliminary estimate is based on incomplete data, which is subject to further revision. According to the outcomes of 2016, the U.S. GDP expanded, according to advance estimate, by 1.6%, which is the smallest growth since 2010.

According to data released by Eurostat,¹ in Q4 2016 compared to the previous quarter, according to a flash estimate, Eurozone seasonally adjusted GDP (EU19) expanded by 0.4% and by 0.5% in EU28. In Q3 2016, GDP also expanded by 0.4 and 0.5%, respectively. In comparison with Q3 2015, seasonally adjusted GDP increased by 1.7% in Eurozone and in EU28 – by 1.8%.

According to the World Trade Organization forecast,² world trade in 2016 grows at a slower pace than expected: expanding by just 1.7%, well below the April forecast of 2.8%. Merchandise trade turned out to be weaker amid deceleration in imports and deceleration of GDP growth in a number of advanced countries. Thus, this year would mark the slowest pace of trade and output growth since the financial crisis of 2009. The forecast for 2017 has also been revised down, with trade now expected to grow between 1.8% and 3.1%, down from 3.6% previously projected in the April forecast. This being said, the world trade is slowing down in all regions – in Asia, in EU and in the U.S.

According to data released by the WTO, in 2016, world merchandise trade volume contracted by 2.6% in comparison with 2015.³ Exports from Kazakhstan suffered the most (decline by 20%), Bolivia (by 22.6%) and the Russian Federation (by 17.5%).

In terms of merchandise trade turnover, the United States again ranked first on the list with USD 3,706bn. This said merchandise trade deficit remains: in 2016, it constituted USD 796.7bn.

In terms of merchandise trade turnover, China ranked second with USD 3,685.6bn. Since 1994, China's trade balance is positive and hit USD 510.7bn.

Germany ranked third on the list; its trade turnover in 2016 came to USD 2,394.1bn. Positive trade balance amounts to USD 285.1bn.

Russia's rating on the list of large exporters lost 2 points – from 15th place in 2015 (share of world trade at 2.29%) to 17th place in 2016 (with 1.9% share). In terms of imports, Russia makes it the 22nd largest importer against making it the 17th largest importer in 2015. The share of Russian imports in the overall world imports volume stayed at the 2015 level of 1.28%.

4.7.2. Terms of Russia's foreign trade, market conditions for major products of Russian export and import

World commodity prices downward trend commenced in 2011 and halted in 2016 when their gradual recovery began. In early 2016, world commodity market saw another round of deterioration. For example, Bloomberg Commodity Index (BCOM), which has 22 commodity futures in seven sectors, fell to 72.8759 points – the lowest level since 2009. However, by the year-end, BCOM increased by 19.6% to 87.1439 points. Maximum was registered in June at

¹ <http://ec.europa.eu/eurostat/documents/2995521/7868348/2-14022017-BP-EN.pdf/da0c1c33-2d80-4cc2-9f34-de2dab92aac5>

² Trade statistics and outlook: https://www.wto.org/english/news_e/pres16_e/pr779_e.htm

³ Calculated on data released in «Monthly merchandise trade values»: https://www.wto.org/english/res_e/statis_e/short_term_stats_e.htm

89.9368 points, which reflected growing prices on metals and crude oil, which grew from the 10-year lows to above USD 50 per barrel level.

Ongoing oil glut on the market, gradual increase of crude oil shipments by Iran after lifting of sanctions and slowdown of China's economy resulted in a new wave of falling oil prices seen in early 2016. In January 2016, Brent prices averaged in the range of USD 36.28 to USD 26.01 per barrel, monthly price averaged USD 30.8 per barrel, which is the lowest level since February 2004. In the following months (except July and November), growth of crude oil prices was observed in comparison with the previous month.

Nevertheless, year-average commodity prices stayed at the lowest for last 12 years level reflecting oversupply amid weak demand (*Fig. 35*). Compared to 2015, the World Bank energy price index shrank by 15.3%. Non-energy commodity prices declined by 2.6%. Metal prices fell by 5.9% in 2015 compared to 2015, and prices on agricultural raw materials declined by 0.2%.

On November 30, 2016, OPEC member states concluded a production cut agreement for the first time since 2008. These countries account for one third of the world oil production roughly 33.6 m barrels per day. According to the agreement, from January 1, 2017 production is cut by 1.2 m barrels per day.

On December 10, 2016, oil producing countries from outside OPEC agreed to trim production by 562 m barrels per day, including Russia will cut crude oil production by 300,000 barrels per day by May down to 10.95 m barrels per day. This being said, two thirds of the total reduction volume (by 200,000 barrels per day) must be achieved by the end of Q1 2017.

Crude oil price increased to maximum levels since mid-2015 on the back of the agreement about joint oil production cut aimed at reducing oil glut and maintaining market. Brent exceeded USD 55 per barrel level.

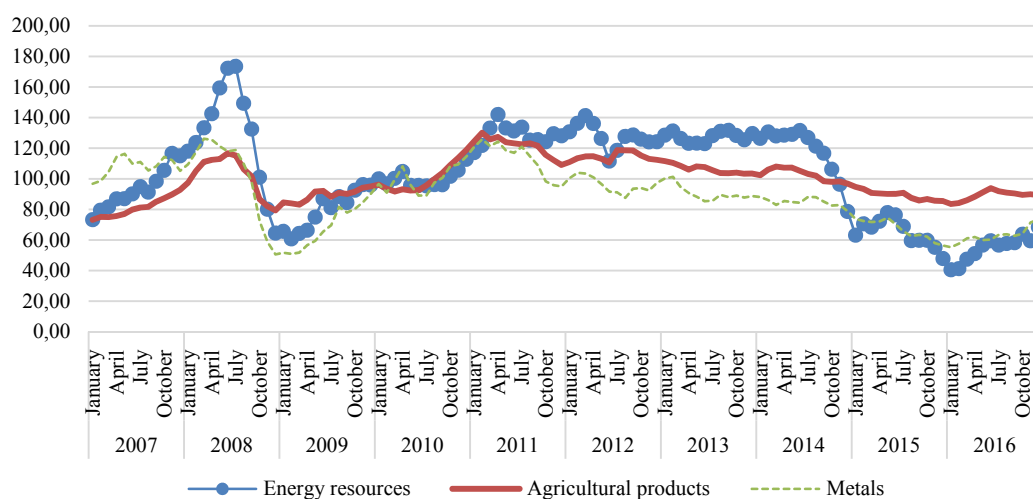


Fig. 35. Commodity price index (2010=100)

Source: data released by the World bank (<http://www.worldbank.org/en/research/commodity-markets#1>).

The Federal Open Market Committee (FOMC) at its meeting held on December 14, 2016, raised the federal funds rate to 0.5 – 0.75% per annum.¹ The rate was cut to 0 – 0.25% in December 2008 in order to revive the U.S. market in the wake of the global economic crisis. In December 2015, the rate was raised to the target range of 0.25-0.50%.

In the wake of an increase of the federal funds rate, the dollar strengthened, which led to a decline of commodities prices. On December 15, 2016, dollar index hit 103.56 points – maximum since December 2002. Oil prices strengthened by the agreement to trim oil production concluded by OPEC and other oil producers outside OPEC fell. On December 13, Brent spot price hit maximum USD 55.57 per barrel since July 2015 fell to USD 53.79 per barrel on December 14.

In 2016, Brent averaged USD 44.05 per barrel per annum down 15.9% than in 2015 (USD 52.37 per barrel).

Natural gas prices dynamics are still segmented across regions. In the U.S. in March 2016, natural gas price dipped to USD 1.7 per million BTU – the lowest fall since 1999. However, the price recovered on the back of inventories of underground gas storage facilities replenishment turned out to be below projected. Already in June, natural gas price hit USD 2.57 per barrel. According to the World Bank, natural gas spot price at Henry Hub in 2016 averaged USD 2.49 m BTU down 4.6% against 2015.

The heist natural gas prices remain in the South-East Asia, herewith in 2016, they declined by 33.8% in comparison with 2015. According to the data released by the World Bank, average price of liquefied gas imported by Japan in 2016 constituted USD 6.89 per m BTU.

The natural gas price on the European market fell by 37.2% in 2016 in comparison with 2015. Having said that, one should note commenced price growth since October – in comparison with September natural gas price increased by 1.9%, in November went up by 14.4% compared to the previous month, and in December moved up by 12% reflecting accelerated demand in the energy sector amid contraction of supplies due to natural gas production cut on the largest onshore gas field Groningen in Netherlands amid remaining concerns over high seismic activity.

Excessive supply amid insufficient output reduction and weak demand led to a deceleration of world non-ferrous metal price in late 2015-early 2016 to minimal values since the crisis year of 2009, after which nonferrous metal prices began gradually to revere reflecting an improved balance between demand and supply. The World Bank Price Index on metals up 4.7% in Q2 2016 compared to Q2, in Q3 up 4.3% against Q2. Consequently, aluminum went up by 17.3%, copper – by 21.9%, nickel – by 30.8%, lead – by 32.5% and zinc - by 68.8% in November 2016 compared to January 2016.

Nonetheless, average annual prices on on-ferrous metals hit long-term minimums. According to the London metal exchange data, in 2016, price on aluminum were lower by 3.6%, on nickel – by 22.1%, and on copper – by 11.7% than in 2015 (*Table 51*).

In 2016, Russia's terms of trade continued to deteriorate. In January-September 2016, terms of trade index constituted 79.1 points. This is due to the fact that prices for goods shipped abroad fell steeper than those imported to the territory of the Russian Federation. Average export price index constituted 76.9, and average import price index – 97.2% for 9 months of 2016 (*Fig. 36*).

¹ <https://www.federalreserve.gov/monetarypolicy/default.htm>

Table 51

Average annual world prices

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Brent, \$/bbl.	65.39	72.70	97.64	61.86	79.64	110.94	111.97	108.86	98.94	52.37	44.05
Natural gas (USA), USD/1 m BTU*	6.72	6.98	8.86	3.95	4.39	4.00	2.75	3.73	4.37	2.7	2.39
Natural gas, European market, USD/1 m BTU	8.47	8.56	13.41	8.71	8.29	10.52	11.47	11.79	10.05	7.4	4.47
Natural gas (Japan), USD/1 m BTU	7.08	7.68	12.55	8.94	10.85	14.66	16.55	15.96	16.04	10.6	6.88
Copper, USD/t	6722	7118	6956	5149	7534	8828	7962	7332.1	6863.4	5510.5	4867.9
Aluminum, USD/t	2570	2638	2573	1665	2173	2401	2023.3	1846.7	1867.4	1664.7	1604.2
Nickel, USD/t	24254	37230	21111	14655	21809	22910	17547	15032	16893	11863	9595.2

Source: calculated on data released by the World Bank.

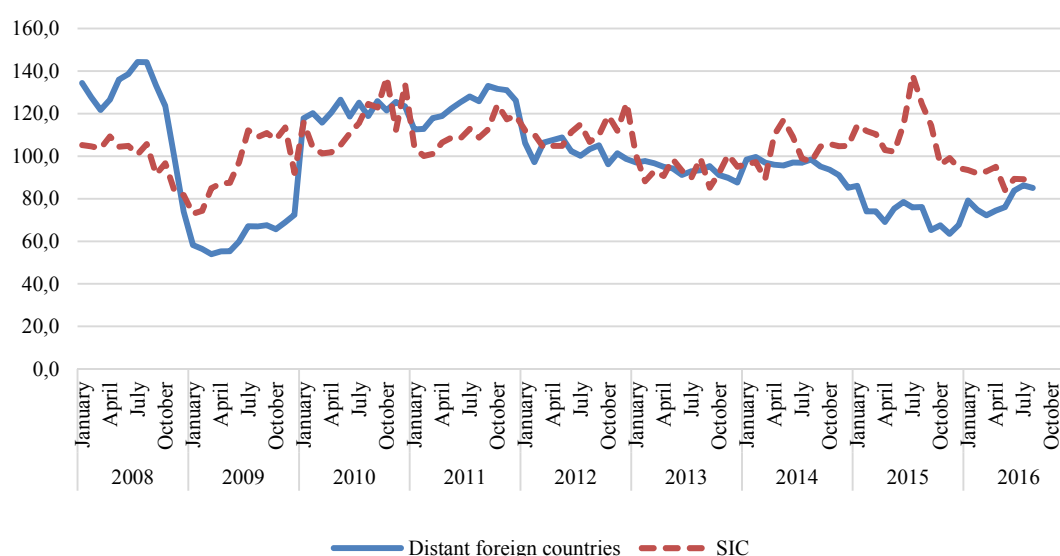


Fig. 36. Russia's terms of foreign trade index

Source: Ministry of Economic Development of Russia.

4.7.3. Main indexes of Russian foreign trade

Tear 2016 was the fourth one in a row, which saw contraction of foreign trade indexes: Russian foreign trade turnover calculated on balance of payments methodology came to USD 473.2bn down 11.4% against the same indicator of 2015. Foreign trade turnover with distant foreign countries shrank by 10.8% to USD 412.9bn, with CIS – by 15.7% to USD 60.3bn.

Export of goods in 2016 contracted by 17.5% to USD 281.8bn in 2016 compared to 2015, and imports shrank by 0.8% to USD 191.4%. Thus, value of exports is contracting at a high pace; meanwhile imports deceleration has significantly slowed. Current exports and imports dynamics ensured trade balance contraction by 39.1% down to USD 90.4bn – the lowest value since 2004 (Fig. 37).

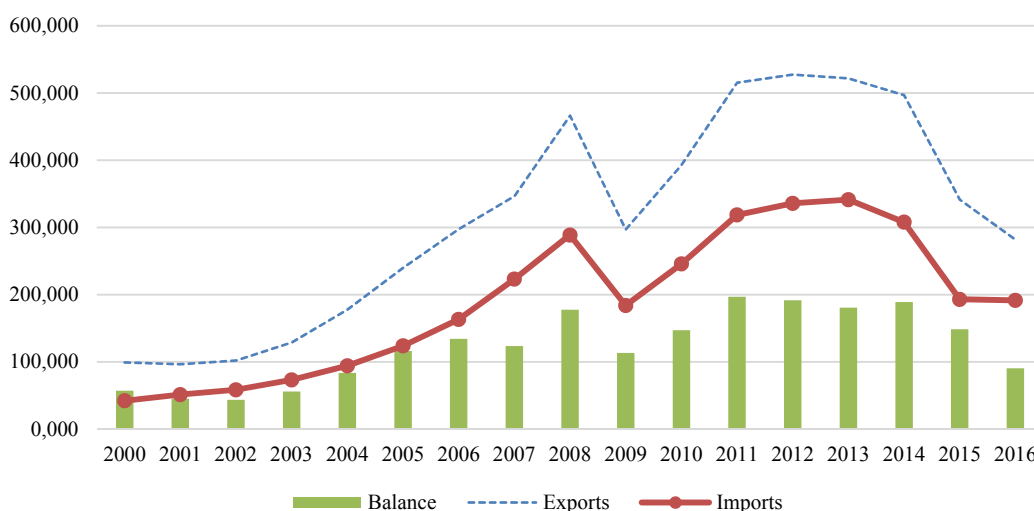


Fig. 37. Main indexes of Russian foreign trade (USD bn)

Source: Bank of Russia.

Just as in last year, Russian export negative dynamics was mainly determined by the price factor amid insignificant growth of quantum of exports abroad. Contraction of imports reflected both by a decline of average import prices and by contraction of quantum of imports to Russia (Table 52).

Table 52

Russia's foreign trade indexes in 2012–2016 (% to previous year)

	2012		2013		2014		2015		2016	
	Quantum	Average price	Quantum	Average price	Quantum	Average price	Quantum	Average price	Quantum	Average price
Exports	99.9	101.6	104.9	95.7	100.0	94.3	105.4	64.8	102.7	76.9
Imports	105.1	97.3	97.8	102.5	92.5	98.2	77.7	81.1	99.8	97.2

Sources: (Federal Customs Service of Russia (FCS), Ministry of Economic Development of Russia.

Relatively sustainable external demand amid strengthening of the national currency have contributed to a deceleration of exports quantum growth to 2.7% against 5.4% in 2015. Imports quantum have stabilized on the account of low base of last year in the context of easing of domestic consumer and investment demand slump.

Foreign trade imbalance coefficient (ratio between balance and trade turnover) declined from 27.8% in 2015 to 19.1% in 2016, which is the lowest fall since 1998.

Structure and dynamics of exports

2016 remains on track to be the fourth consecutive year with Russian exports contraction: in terms of value, exported goods in 2016 contracted by 17.5% to USD 281.8bn compared to 2015. Although deceleration rates have decreased, they remain high: deliveries to distant foreign countries have shrunk by 17.2%, and to the CIS countries – by 19.1%. The share of distant foreign countries in the overall volume of exports up 0.3 percentage points to 85.8% compared to the previous year (Table 53).

Table 53

Russia's exports dynamics

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Exports, bn USD	240.0	297.5	346.5	466.3	297.2	392.7	515.4	527.4	521.8	496.8	341.5	281.8
Including:												
Distant foreign countries	207.3	255.8	294.8	397.7	252.0	333.6	436.7	443.8	443.8	428.1	292.3	242.1
Growth rates, % to previous year												
Quantum index	110.7	104.7	105.8	105.0	96.8	97.0	110.0	97.8	99.9	104.9	109	102.7
Price Index	122.7	126.9	119.7	110.9	137.4	76.4	119.8	132.9	101.6	95.7	58.1	76.9

Sources: Bank of Russia, Ministry of Economic Development of Russia.

After falling in Q1 2016 to the lowest level since 2009, quarterly exports exhibited positive dynamics: value of exports increased by 12.5% in Q2 compared to Q1, by 4.9% in Q3 against Q2, and by 16.3% in Q4.

In 2016, export pattern reported the following changes (*Fig. 38*):

- Compared to 2015, the share of agricultural products went up from 4.7% to 6.0%, of timber and paper and pulp products up from 2.9% to 3.1%, metals and metal products up from 9.6% to 10.2%, machinery, equipment and means of transport up from 7.4% to 8.5%;
- Share of fuel and energy products in the overall volume of Russian exports contracted from 62.9% to 58.1% reflecting continued decline of contract prices amid growth of total volume of deliveries;
- Shares of other commodity groups from extended nomenclature remained practically at the last year level.

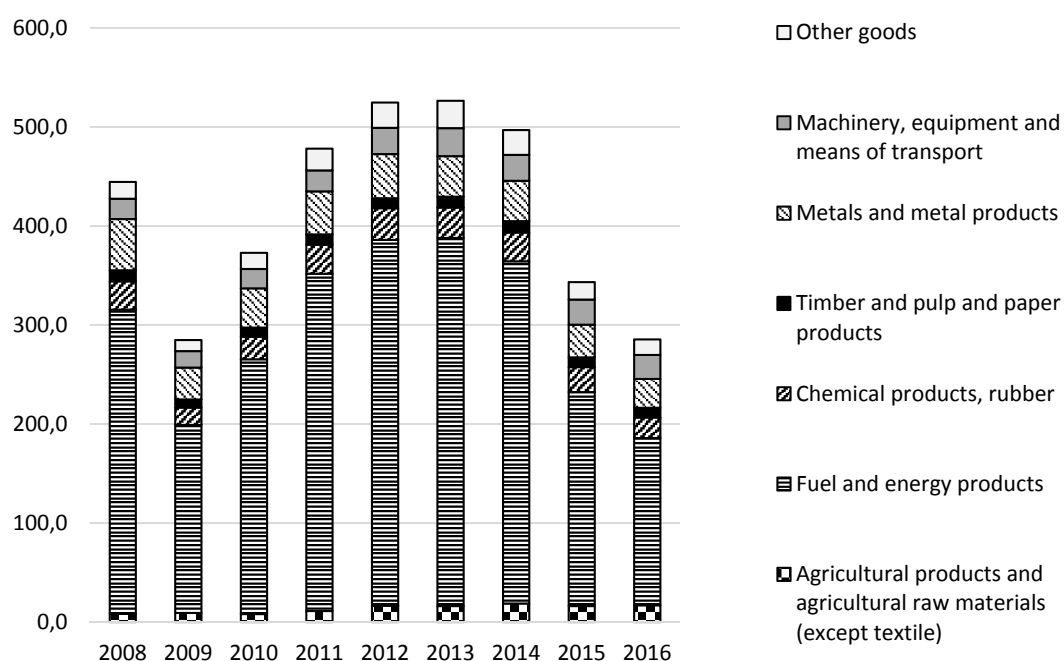


Fig. 38. Goods-wise dynamics of Russian exports (USD bn)

Source: FCS.

According to data released by the Ministry of Economic Development,¹ at the outcome of first three quarters of 2016, commodities exports declined by 24.1% to USD 91.0bn compared to the same period of 2015 reflecting mainly reduction of average contract prices on fuel and energy products – by 28.9% on crude oil and by 35.0% on natural gas.

Exports of manufactured goods declined by 21.7% to USD 110.6bn, meanwhile its share in the overall volume of exports went up by 0.7 percentage points by 2015 and constituted 54.8%. Negative dynamics of manufactured exports reflects a reduction of oil products exports value by 38.5% both on account of a decline of average prices by 32.1% and a decrease of physical volumes of deliveries by 9.4%.

Exports of industrial exports with high level of processing shrank by 6.7% to USD 20.3bn, advanced technology products – up by 15.7% to USD 6.3bn, and innovation goods – up by 17.6% to USD 16.4bn.

It should be noted, that in 2015 value volumes of exports significantly contracted across all commodity groups from extended classification of goods. Year 2016 demonstrated growth of exports of agricultural goods and agricultural raw materials (by 5.3%), of textiles and textile products and footwear (by 6%), of precious stones, precious metals and their products (by 13.1%), as well as of other goods (by 0.2%).

In 2016, agricultural exports volume constituted USD 17.0bn. Principal factors of agricultural products export growth were increase of domestic output, favorable for import ruble exchange rate, as well as reduction of households' purchasing power resulting in a contraction of domestic market for a majority of manufactured goods.

Russian exports agricultural products over 150 positions (level of 4 digits according to TK VED) in 19 categories. Traditionally, cereals ranked first place in the structure of Russia's agricultural products exports. According to the Food and Agriculture Organization forecast,² in 2016-2017 agricultural year main volume of cereal exports will account for Australia, the Russian Federation and the United States. According to preliminary data released by Russian State Statistics Service (Rosstat), in 2016, Russia boasted of a record cereal crop amounting to 119.1 m t, which contributed to exports growth. During 10 months of 2016 compared to the same period of 2015, wheat and meslin exports – up by 23.5% in physical terms, and by 8.9% in value terms.

Fish and seafood ranked second in the structure of agricultural exports. Their exports constituted USD 2.03bn during 9 months of 2016 – up by 3.0% against the same indicator seen in 2015.

Animal and vegetable fats and oils ranked third on the list. Their exports went up in January-September 2016 compared to January-September of 201 by 14.2% to USD 1.5bn 5.

Deliveries abroad of other agricultural products increase. For example, exports of meat and edible meat offal went up by 81.9%, of vegetables and some edible roots and tuber crops – up by 28.6%, oil seeds and oil-bearing fruits, medicinal herbs and plants for technical purposes – up by 31.7%.

Structure and dynamics of imports

Russia's imports in 2016 shrank compared to 2015 by 0.8% to USD 191.4 bn. Imports contraction was due to a reduction of deliveries from CIS countries, which cut their deliveries

¹ On current situation in the economy of the Russian Federation in January-October 2016 (related to foreign economic activity). Ministry of Economic Development.

² FAO official website: <http://www.fao.org/worldfoodsituation/csdb/ru/>

to Russia by 8.1% to USD 20.6bn. Russia imported from distant foreign countries goods to the tune of USD 170.8bn up 0.2% against the same indicator for 2015. The share of distant foreign countries in the total imports volume – up by 0.9 percentage points to 89.2% (Table 54).

Table 54

Russian imports dynamics (USD bn)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Imports, USD bn	123.8	163.2	223.1	288.7	183.9	245.7	318.6	335.8	341.3	307.9	192.9	191.4
Including:												
Distant foreign countries	104.3	141.3	194.1	253.8	162.7	213.2	273.8	288.4	295.0	271.9	170.5	170.8
Growth rates, % to previous year												
Quantum index	124.2	122.4	130.1	127.1	113.5	63.3	135.4	122.2	105.1	97.8	92.6	99.8
Price Index	106.1	106.5	105.5	107.6	117.8	99.1	101.6	109.1	97.3	102.5	99.8	97.2

Sources: Bank of Russia, Ministry of Economic Development of Russia.

During the year, rates of value of imports contraction were decelerating in line with the stabilization of the situation. In August 2016 for the first time since 2013, dynamics of imports was positive – value of imports exceeded the same indicator of 2015 by 13.0%. In the following months, growth remained – in September it constituted 7.9%, in October – 8.2%, in November – 6.4%, and in December – 10.6%.

Over 9 months of 2016, the share of investment goods in the structure of Russia’s imports increased compared to the same period of 2015 by 3.4 percentage points to 27.0%, the share of consumer goods, on the contrary, fell by 1.1 percentage points to 28.5%. Of special note is the contraction of proportion of agricultural products from 14.5% to 13.7% and growth of the share of machinery, equipment and means of transport from 44.8% to 47.4% (Fig. 39).

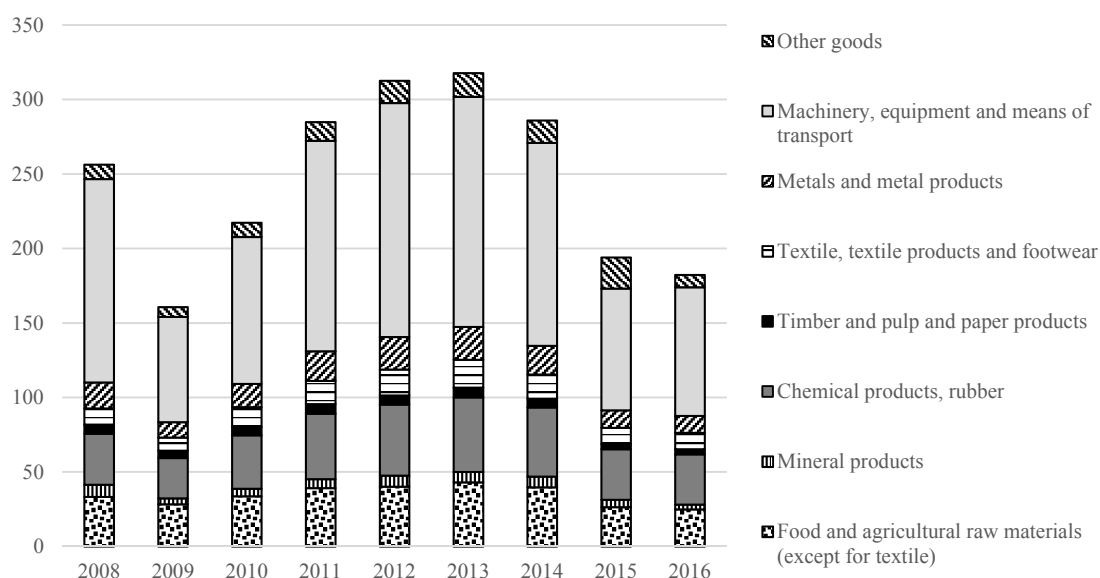


Fig. 39. Goods-wise dynamics of Russian imports (USD bn)

Source: FCS.

In early August 2014, Russia banned imports of agricultural products from those countries, which introduced sanctions against Russia – the U.S.A., the EU countries, Canada, Australia and Norway. Beef, pork, poultry, sausage, fish, vegetables, fruits, dairy products, among other were banned. In January-September 2016 in comparison with the same period of 2014, value imports of sanctioned products fell by 14.2% to USD 7.6bn.

According to the RF Government Regulation of November 30, 2015 No 1296, from January 1, 2016 imports of certain agricultural products were restricted from Turkey. This measure resulted in a contraction of Russia’s imports. In January-September 2016 in comparison with the January-September 2015, it fell by USD 585.3bn. Most of all suffered imports of fresh tomatoes down by USD 281.4bn, fresh grapes down by USD 68.7bn, and tangerines down by USD 43.0bn.

4.7.4. Regional pattern of Russia’s foreign trade

The regional pattern of Russia’s foreign trade retained growth share of the APEC observed during recent years on account of a contraction of the EU and the CIS countries in the foreign trade turnover. In 2016 compared to 2015, the share of the EU countries declined from 44.8% to 42.8%, the share of the CIS countries down from 12.6% to 12.1%. At the same time, the share of the APEC countries went up in 2016 to 30.0% against 28.1% seen in 2015 (*Fig. 40*).

The European Union still remains the biggest trading partner of the Russian Federation in spite of contraction of the EU countries’ share in Russia’s foreign trade turnover. Deterioration of geopolitical situation, the EU sanctions introduced against Russia and retaliatory measures undertaken by Russia resulted in an acceleration of contraction of the EU’s share. In 2016, Russia’s foreign trade turnover with those countries contracted by 15.0% mainly due to a decline of Russia’s exports by 21.2%.

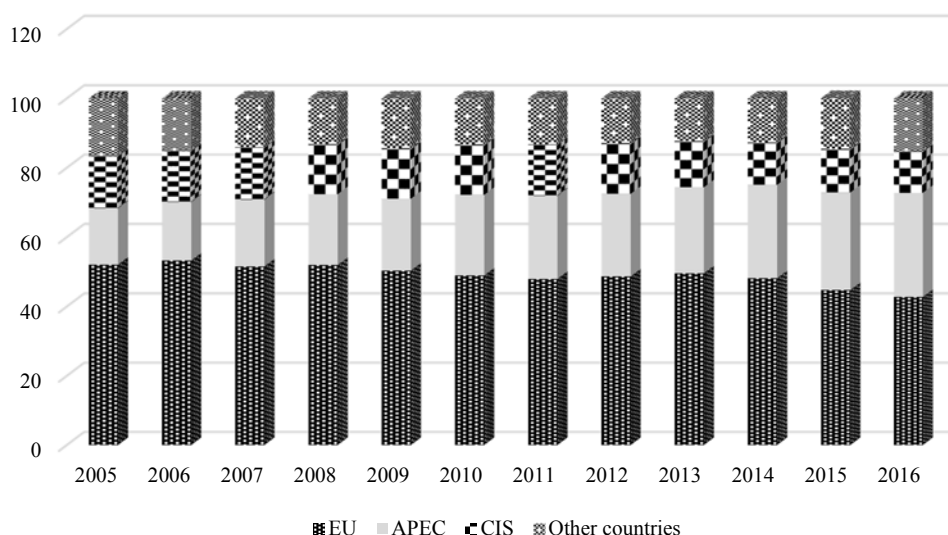


Fig. 40. Regional pattern of Russia’s foreign trade (% in foreign trade turnover)

Source: FCS.

Russia’s foreign trade turnover with the APEC countries shrank by 4.9%. Meanwhile, foreign trade turnover with China – up by 4.0%, Indonesia – by 33.4%, and Malaysia – by 12.3%.

Russia's foreign trade with the Commonwealth of Independent States contracted by 14.2%. Mutual trade with Azerbaijan (-30.3%) and Ukraine (-31.6%) has suffered most.

The situation radically changed reflecting triggering on January 1, 2016 of trade and economic chapter of the Association agreement between Ukraine and the EU. The implications of this deal had major significance for Russia amid signing Free Trade Zone Agreement with the CIS. Actually, Ukraine rejected to develop trade and economic cooperation within the CIS countries and opted for moving towards comprehensive integration with the EU. Consequently, in compliance with the Federal Law of December 30, 2015 No 410-FZ "On Suspension of Agreement for a Free Trade Zone with Ukraine" beginning January 1, 2016, which resulted in a further contraction of mutual trade turnover between two countries.

Since 2010, China ranks first on the list of major trade partners of Russia. Its share in Russia's foreign trade turnover went up in 2016 to 14.1% (in 2015 – 12.1%). At the same time, negative trade balance of Russia moved up significantly: in 2015, it amounted to USD 6.3bn, and in 2016–USD 10.1bn.

Russia has a negative trade balance with other APEC countries: with Vietnam (-USD1.1bn), Indonesia (-USD1.8bn), the U.S. (-USD1.3553bn), Malaysia (-USD0.2bn), and Thailand (-USD0.5bn). As a result, Russia has negative trade balance with entire region of Asia-Pacific economic cooperation (*Fig. 41*).

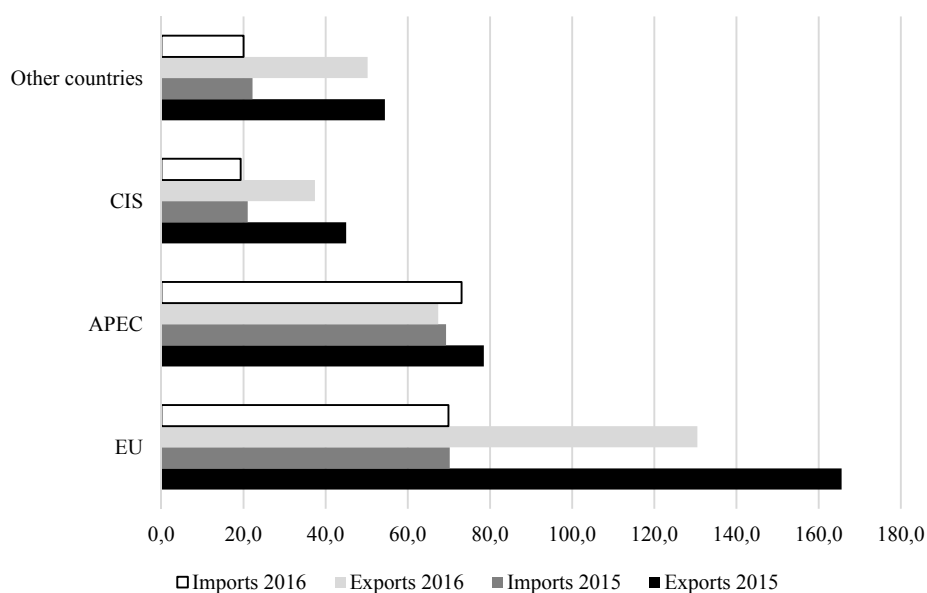


Fig. 41. Principal indexes of Russia's foreign trade across regions (USD bn)

Source: FCS.

2016 demonstrated acceleration of foreign trade activity with some other countries. For example, foreign trade turnover with Iran increased by 70.1% compared to 2015, with Cuba – by 82.6%, with Georgia – by 14.1%, and with Switzerland – by 10.1%.

4.7.5. Regulation of Russia's foreign trade¹

Tariff regulation

Export duties. In compliance with Regulation of the RF Government of March 29, 2013, No. 276, the Ministry of Economic Development of Russia was monthly revising export customs duty rates on crude oil and certain petroleum-based products.

Table 55

Rates of export customs duties on crude oil and petroleum-based products in 2014–2016 (USD/t)

	Crude oil	Petroleum-based products	
		Diesel fuel	Other types of petroleum products, except gasoline and diesel fuel
2014			
February 1	386.3	251	254.9
March 1	384.4	249.8	253.7
April 1	387.0	251.5	255.4
May 1	376.1	244.4	248.2
June 1	385.0	250.2	254.1
July 1	385.2	250.3	254.2
August 1	388.4	252.4	256.3
September 1	367.6	238.9	242.6
October 1	344.7	224.0	227.5
November 1	316.7	205.8	209.0
December 1	277.5	180.3	183.1
2015			
January 1	170.2	81.6	129.3
February 1	112.9	54.1	85.8
March 1	105.8	50.7	80.4
April 1	130.8	62.7	99.4
May 1	116.5	55.9	88.5
June 1	144.4	69.3	109.7
July 1	143.1	68.6	108.7
August 1	133.1	63.8	101.1
September 1	109.2	52.4	82.9
October 1	91.5	43.9	69.5
November 1	97.1	46.6	73.7
December 1	88.4	42.4	67.1
2016			
January 1	73.3	29.3	60.1
February 1	52.0	20.8	42.6
March 1	39.5	15.8	32.3
April 1	54.9	21.9	45.0
May 1	66.0	26.4	54.1
June 1	80.6	32.2	66.0
July 1	95.9	38.3	78.6
August 1	90.1	36.0	73.8
September 1	80.0	32.0	65.6
October 1	91.9	36.7	75.3
November 1	92.7	37.0	76.0
December 1	90.4	36.1	74.1

Sources: Regulation of RF Government, Information released by Ministry of Economic Development of Russia.

Regulation of the RF Government of November 30, 2015 No. 1290 “On Introduction of Amendments into Some Acts Approved by the Government of the Russian Federation” revised methodology for calculation of rates for the export customs duties on crude oil. It was decided

¹ Materials of the information and legal portal GARANT.RU were used in drafting this chapter

to apply in 2016 the same terms for calculation of rate for the export customs duty on crude oil when crude oil price exceeding USD 182 per ton as it was done in 2015. Originally, it was envisaged to reduce in 2016 the rate for the export customs duty on crude oil from 42% to 36%. However, in the current circumstances it was decided to ‘freeze’ the rate at 42%.

Decline of crude oil prices and implementation of the so called tax maneuver resulted in significant reduction in 2015–2016 export customs duties on crude oil and petroleum-based products (*Table 55*).

In compliance with Regulation of the RF Government of August 15, 2016 No. 797 “On Introduction of Amendments in Rates of Export Customs Duties on Goods Moved from the Russian Federation Outside the Borders of Members of Agreement of Customs Union,” since September 2016, export customs duties were lifted on 200 headings, and reduced on 7 headings. For example, export customs duties were reduced on sunflower seeds, lead, zinc and cobalt waste and scrap. Slashed to zero export customs duties on precious and semi-precious stones, unrefined copper, waste and lead scrap, coke and semi-coke from lignite, gas and coal tar, naphthalene, bituminous mastic, red fish (red salmon), soybeans, among other.

Import duties. In the framework of obligations undertaken by the Russian Federation at the accession to the World Trade Organization (WTO), by Decisions of EEC No. 26 of March 29, 2016 and No. 40 of May 16, 2016, starting from September 1, 2016, the new rates were imposed on import customs duties of certain types of goods. Amendments affected more than 1,700 codes of goods nomenclature of the total list of 11,600.

Non-tariff regulation

On November 2015, the WTO released its sixteenth monitoring report on Group of 20 (G20) trade measures.¹ G20 economies implemented a total of 85 new trade-restrictive measures during the period from mid-May to mid-October 2016. Currently, G20 apply 1,263 trade-restrictive measures – up by 5.6% compared to the number of such measures seen in the previous monitoring report.

During recent six months, the number of new trade-restrictive measures imposed by G20 decelerated to 17 new measures per month against 21 new measures imposed in the period from October 2015 to May 2016.

According to the WTO data as of June 30, 2016, sanitary and phytosanitary measures accounted for the highest share in the overall number of imposed trade-restrictive measures (27.8% of the total non-tariff measures). They are followed by technical barriers to trade (21.7%) and anti-dumping measures (14.6%).

From 1995 through 2015, India is the leader in imposition of anti-dumping measures by submitting 767 claims, which amounted to 15% of the overall number of filed claims totaling to 4,990. For the same period, the U.S. initiated 570 anti-dumping investigations, meanwhile the EU – 480. However, not all investigations may lead to the imposition of anti-dumping customs duties. India imposed 534 anti-dumping measures, the U.S. – 345, and the EU – 298.

In 2015, the U.S. overtook India by initiating 43 anti-dumping investigations and 22 investigations into unlawful export subsidies. During 2015, and the EU filed 12 claims against unfair trade practices.

In H1 2016, India initiated 48 anti-dumping investigations, the U.S. – 24, and the EU – 5.

¹ The World Trade Organization official website: https://www.wto.org/english/news_e/news16_e/trdev_09nov16_e.htm

Metal products, especially steel products, account for the largest share of anti-dumping investigations. Worldwide glut of steel, sharp decline of steel prices, significant change in trade flows, reduction of work places and growth of trade-restrictive measures – all these factors create growing tensions between countries. Therefore, out of 233 anti-dumping claims filed all over the world in 2015, 108 claims related to deliveries of steel products at a bargain price. More often claims relate to deliveries from the People’s Republic of China.

Articles 48–50 of the Treaty on Eurasian Economic Union of March 29, 2014 and by the Protocol on Application of special protective, anti-dumping, and countervailing measures with respect to third countries (Annex No 8 to the Treaty on Eurasian Economic Union) regulate imposition of trade-restrictive measures in the Eurasian Economic Union. Seventeen protective measures for domestic market are currently effective in the EAEU (*Table 56*).

Table 56

Protective measures of domestic market effective in the EAEU

No	Product	Type of measure	Exporter	Date of expiry
AD-8	Rolled steel with polymer coating	Anti-dumping	PRC	30.06.2017
AD-3	Rolling bearings	Anti-dumping	PRC	20.01.2018
AD-12	Iron enamel tubs	Anti-dumping	PRC	25.01.2018
AD-9	Graphite electrodes	Anti-dumping	Ukraine	25.01.2018
AD-11	Cold-worked seamless stainless pipes	Anti-dumping	PRC	14.05.2018
AD-10	Light commercial vehicles	Anti-dumping	Germany, Italy, Turkey	14.06.2018
AD-7	Steel forged rolls for rolling mills	Anti-dumping	Ukraine	25.06.2019
AD-15	Citric acid	Anti-dumping	PRC	09.04.2020
AD-14	Kitchen and cutlery from corrosion-resistant steel	Anti-dumping	PRC	18.06.2020
AD-16	Tubing and casing steel seamless pipes for drilling and oil and gas production	Anti-dumping	PRC	22.09.2020
AD-17	Bulldozers	Anti-dumping	PRC	11.12.2020
AD-18	Truck tires	Anti-dumping	PRC	17.12.2020
AD-19	Steel all-rolled wheals	Anti-dumping	Ukraine	21.01.2021
AD-21	Corrosion-resistant tubes and pipes	Anti-dumping	Ukraine	25.02.2021
AD-13	Rods	Anti-dumping	Ukraine	29.04.2021
AD-1	Certain types of steel pipes	Anti-dumping	Ukraine	01.06.2021
AD-20	Ferrosilicon manganese	Anti-dumping	Ukraine	27.10.2021

Источник: http://www.eurasiancommission.org/ru/act/trade/podm/mery/Pages/measures_list_applied.aspx

Restrictive measures applied to Russian goods. According to data presented in the Register of restrictive measures,¹ as of December 1, 2016, 125 restrictive measures were exposed, which hamper market access for Russian goods. Mainly, they are anti-dumping customs duties, which account for 32% of the overall number of imposed measures, special restrictive measures account for 13.6%, and sanitary and phytosanitary measures account for 8.8% (*Table 57*).

Currently 22 investigations are initiated, of which 12 are anti-dumping, and 10 – special protective, as well as 4 reviews of anti-dumping measures are initiated. However, two agreements on termination of anti-dumping procedures are in force.

Within the framework of sanctions implemented by the European Union, the U.S., Japan, Ukraine, Switzerland, Norway, Australia, New Zealand, Iceland, Lichtenstein, Montenegro, and Albania a ban is imposed on imports of goods originated from Crimea and Sevastopol.

¹ <http://www.ved.gov.ru/mdb/information/database/>

Table 57

Market protective measures applied by third countries against goods from the Russian Federation

Restrictive measure	2014	2015	2016
Anti-dumping measures	40	39	40
Special safeguard duty	9	15	17
Countervailing duty	-	1	1
TBT	9	9	10
SPS	3	7	11
Quotas (including tariff quotas)	2	3	3
Excises on the basis of discrimination	5	4	5
Ban on imports	4	3	4
Risks of imposition of measures	5	5	5
Other non-tariff measures	25	24	29
TOTAL	102	110	125

Source: Register of restrictive measures as of December of corresponding year.

Moreover, in response to events happened in Crimea and in the east of Ukraine, restrictive measures were imposed against a number of Russian organizations and individuals by the European Union, the U.S., Canada, Japan, Ukraine, Switzerland, Norway, Australia, New Zealand, Iceland, Lichtenstein, Montenegro, and Albania.

Integration processes

The free trade zone agreement between Eurasian Economic Union (EAEU) and the Socialist Republic of Vietnam (SRV) will come into force starting October 5, 2016¹, which creates new conditions for trade and economic activities for business of EAEU and Vietnam. It should be noted that this free trade zone agreement with third country is the first one for the EAEU.

Selection of Vietnam as the first country to have a free trade zone agreement with EAEU members is due to the combination of such factors as insignificant trade risks and big political importance. At the same time, the export pattern of Vietnam and EAEU member states is such that key export positions will not compete with one another on domestic market of member states of the agreement. This fact will allow to achieve balance of interests for all parties, which is the basis for a successful performance of a free trade zone.

As of today, trade turnover between Vietnam and the EAEU member states takes a small share in the trade volume of each of our countries. In 2015, foreign trade turnover between the EAEU member states and Vietnam amounted to USD 4.3bn (1.13% of the foreign trade turnover of Vietnam and 0.64% of the foreign trade turnover of EAEU), meanwhile 90.6% (USD 3.9bn) of the turnover accounts for the Russian Federation.

In 2016, Russia's foreign trade turnover with the Socialist Republic of Vietnam declined by 1.5% to USD 3.83bn reflecting a contraction of Russian goods deliveries to Vietnam by 25.5%. Meanwhile, imports of goods from Vietnam to the territory of the Russian Federation went up by 20.1%.

Until October 5, 2016, trade between the EAEU member states and Vietnam was subject to most favored nation treatment regime. Vietnam applied weighted average tariff of 9.5% (16.3% for agricultural products, and 8.4% for the non-agricultural products). Following the entry into force of this agreement, Vietnam will have to abolish for the EAEU import customs duties for

¹ Free trade zone agreement between the Eurasian Economic Union and its member states, on the one hand, and the Socialist Republic of Vietnam, on the other, see: Eurasian Economic Commission website.

over 58% of tariff positions of the total merchandise classification. Regarding further 30% of tariff positions import customs duty rates will be declining over 12 years and will come to 0% by 2027 whereafter the average customs duty rate in Vietnam for trade with the EAEU member states will fall to 1.0%. At the same time, the simple average customs duty rate for Vietnam will decline from 9.7% to 2.0%.

Import customs duties will continue for the remaining 12% of tariff positions for both Vietnam and the EAEU. In other words, the agreement does not envisage total tariff liberalization. Moreover, there is a possibility to protect domestic market with the help of non-tariff measures (NTMs) – protection of intellectual property, principles and rules of competition, mechanisms for disputes resolution, veterinary and phytosanitary measures and many other provisions of the agreement were developed and coordinated by the parties on the basis of the WTO rules, which ensure the best interests of all parties of the agreement. Thus, the agreement envisages mechanisms for protection of domestic market of member states for sensitive goods, as well as protects from low quality goods without turning non-tariff measures into trade barriers. It is expected that owing to the agreement, mutual trade turnover between the EAEU and Vietnam will be worth USD 10bn by 2020.

4.8. Russia's application of WTO dispute settlement mechanisms¹

On August 22, 2012, the Russian Federation joined the World Trade Organization (WTO), as well as dispute settlement mechanisms designed to resolve WTO trade disputes and governed by the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU)². Hence Russia has since August 2012 been entitled to apply this instrument to uphold its commercial interests.

The WTO dispute settlement may be characterized as a five-stage process:

- 1) *bilateral consultations* (within 60 days of the request for consultations);
- 2) *establishment and composition of a panel*, if requested by any of the parties, to consider the subject matter at issue (45 days of the request for panel composition);
- 3) *panel stage* (6–9 months from date when the panel kicks off), and the Dispute Settlement Body (DSB) adopts the panel report and issues recommendations (about 60 days of the panel report);
- 4) *Appellate Body proceedings*, if a party to the dispute has filed an appeal (60–90 days of the appeal submittal date), the DSB adopts the Appellate Body report and circulates DSB's recommendations to the parties (30 days of the Appellate Body report);
- 5) *surveillance of the implementation* of DSB's recommendations (not more than 15–18 months of DSB's adoption of the panel report or the Appellate Body report).

In 2016, Russia filed no complaints to the DSB; Ukraine initiated one dispute against Russia; Russia participated in three trade disputes as third participant. By and large, according to the data as at 2016 year end, Russia participated in 42 disputes within the WTO framework, of which 4 disputes (as complainant), 7 disputes (as respondent), and 31 (as third participant).

The proceedings regarding almost all the disputes to which Russia is a principal party (complainant or respondent) are pending, except the dispute initiated by the European Union

¹ Authors of chapter: M. Baeva – RANEPА, VAVT under Economy Ministry of Russia; A. Knobel – RANEPА, VAVT under Ministry of Economy of Russia.

² https://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm

against Russia regarding customs tariffs on certain agricultural and manufacturing goods, on which the panel report was issued, recommending Russia to bring its measures into compliance. Additionally, there are two protracted disputes between the European Union/Japan against Russia regarding the so-called recycling fee, of which the former is pending at the panel composition stage and the latter at the stage of consultations (see the *Appendix* hereto).

Some of the disputes to which Russia was a third party were settled, and in some cases Russia derived indirect benefit from participating in the WTO dispute settlement mechanism. For example, on April 10, 2015, China abolished its countervailing and anti-dumping duties on grain oriented flat-rolled electrical steel from the United States and Russia (DS414).¹

4.8.1. Updates on the situation in 2016 regarding WTO trade disputes to which Russia is acting as complainant

DS476: European Union and its Member States – Certain Measures Relating to the Energy Sector

On April 30, 2014, the Russian Federation requested consultations with the European Union and its member States regarding measures relating to the so-called “Third Energy Package” under which gas production companies may not own trunk pipelines located on the EU territory. Russia claims that these and other provisions of the “Third Energy Package” are inconsistent with the European Union's and WTO's obligations regarding the general principles of non-discrimination and market access.²

Since this dispute failed to be settled through consultations, the Russian Federation requested on May 11, 2015 the establishment of a panel. At its meeting on July 20, 2015, the DSB established a panel.

The dispute between the Russian Federation and the European Union regarding the “Third Energy Package” is pending before the Panel. On August 18, 2016, the Chairperson of the Panel informed the DSB that it expected to issue its final report to the parties in May 2017, in accordance with the timetable adopted after consultation with the parties.

DS493: Ukraine – Anti-Dumping Measures on Ammonium Nitrate from Russia

On 7 May 2015, the Russian Federation requested consultations with Ukraine regarding anti-dumping measures imposed by Ukraine on imports of ammonium nitrate originating from the Russian Federation.³

Russia challenges that Ukraine, while conducting anti-dumping investigations regarding ammonium nitrate, rejected electric power prices offered by Russian producers and used instead prices of third countries, that is, it used the so-called “cost adjustment”. Moreover, Russia claims that Ukraine acted inconsistently with some other terms and provisions of the Anti-Dumping Agreement.

Since the dispute between Russia and Ukraine failed to be settled through consultations, the Russian Federation requested on February 29, 2016 the establishment of a panel. The dispute is pending currently at the panel composition stage.

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds414_e.htm

² https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds476_e.htm

³ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds493_e.htm

4.8.2. Updates on the situation in 2016 regarding WTO trade disputes to which Russia is acting as respondent

DS462, DS463: Recycling Fee on Motor Vehicles (DS462 (complaint by the European Union), DS463 (complaint by Japan))

The European Union¹ and Japan² requested, on July 9, 2013 and on July 24, 2013 respectively, consultations with the Russian Federation regarding the Russian Federation's measures relating to a charge, the so called "recycling fee", imposed on imported motor vehicles. The dispute failed to be settled through consultations, whereby the European Union requested on October 11, 2013 the establishment of a panel. At its meeting on November 25, 2013, the DSB established a panel.

However, no progress has been achieved regarding these disputes over the past three years: no panelists have been appointed yet for the former while the latter still remains at the consultations stage, although all the time periods recommended within the dispute settlement mechanism have elapsed. This can be explained by the fact that on January 1, 2014 the Russian government obliged Russian producers to pay a recycling fee on a common basis whereby Russia brought the measures into compliance with the WTO rules and regulations, and the measures ceased to be discriminatory against imported motor vehicles.

DS475: Measures on the Importation of Live Pigs, Pork and Other Pig Products from the European Union (complaint by the European Union)

On April 8, 2014, the European Union requested consultations with the Russian Federation concerning certain measures adopted by the Russian Federation affecting the importation of live pigs and their genetic material, pork, pork products and certain other commodities from the European Union, purportedly because of concerns related to cases of African swine fever, and concerning the imposition of a ban on the importation of all types of finished pig products originating from Poland and Lithuania.³

Since the dispute failed to be settled through consultations, the European Union requested on June 27, 2014 the establishment of a panel. At its meeting on July 22, 2014, the DSB established a panel. On April 22, 2015, the Chairperson of the Panel informed the DSB that the Panel expected to issue its final report to the parties by February 2016.

On August 19, 2016, the panel report was circulated to Members. The Panel found that the bans on imports of the products at issue do not "conform to" the relevant OIE (Office International des Epizooties) standards and thus are inconsistent with the Agreement on the Application of Sanitary and Phytosanitary Measures (SPM). In particular, the Panel also found that Russia failed to duly perform a risk assessment based on scientific data for the application of the principle of regionalization whereby trade may be conducted with certain areas of a country that are claimed pest- or disease free or of low pest or disease prevalence, provided that the rest of the country's territory is facing an unfavorable situation. Russia instead imposed a EU-wide ban on the importation of pork and live pigs. The Panel also resolved that the measures at issue were applied in a discriminatory manner and constitute a hidden ban on trade.

On September 23, 2016, the Russian Federation notified the DSB of its decision to appeal to the Appellate Body certain issues of law and legal interpretations in the panel report. On

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds462_e.htm

² https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds463_e.htm

³ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds475_e.htm

September 28, 2016, the European Union notified the DSB of its decision to cross-appeal. This dispute is currently pending before the Appellate Body.

DS485: Tariff Treatment of Certain Agricultural and Manufacturing Products (complaint by the European Union)

On October 31, 2014, the European Union requested consultations with the Russian Federation regarding the tariff treatment that it accords to certain goods in both agricultural and manufacturing sectors, which are inconsistent with Russia's obligations as a WTO member.¹ In particular, duty rates on goods such as paper and paperboard, equal to 15% or 10%, were applied in excess of the bound rate, which is 5%. Furthermore, when the customs value was below the set value, customs duties on certain goods were charged in excess of the bound rate, thus violating the WTO agreement on customs valuation.²

This dispute failed to be settled at the stage of consultations, whereby the European Union requested on February 26, 2015 the establishment of a panel. At its meeting on March 25, 2015, the DSB established a panel. On August 12, 2016 the panel report on the trade dispute between the European Union and the Russian Federation regarding Russia's import duties on certain agricultural and manufacturing products was circulated to Members.

The Panel upheld in general the EU claims against Russia regarding import duties on palm oil, refrigerators and paper, which were lifted in excess of the bound rate established when Russia acceded to the WTO in 2012. At the same time, the Panel rejected the EU charges of the systemic nature of Russia's violations of its WTO commitments regarding import tariff on paper, palm oil and refrigerators. Additionally, Russia's Ministry of Economic Development noted that all except two import duty rates on the lines at issue were brought into compliance with Russia's obligations as a WTO member, while the rest of them (regarding paper and refrigerators) will be brought into compliance in the short term.

According to the WTO rules, Russia was given about two months (till mid-October 2016) to appeal the Panel's ruling. Russia filed no appeals, whereby the panel report was accepted by the DSB with recommendations to bring the measures into compliance. Such a decision was predictable.

DS512: Measures Concerning Traffic in Transit (complaint by Ukraine)

On September 14, 2016, Ukraine requested consultations with the Russian Federation regarding alleged multiple restrictions on traffic in transit from Ukraine through the Russian Federation to third countries (in Central/Eastern Asia and Caucasus).³ In early July 2016, Russia introduced a requirement for Ukraine to ensure that international railway and motor cargo traffic in transit from Ukraine to the Republic of Kazakhstan and the Republic of Kyrgyzstan through the Russian Federation go strictly from the Republic of Belarus, provided that cargo spaces of motor and railway vehicles, spaces and containers and other places in which goods are or may be contained are equipped with means of identification (stamps), including means of identification that are operated using the technology of Global Navigation Satellite System (GLONASS), as well as drivers of cargo motor vehicles are required to obtain certain registration cards when entering the territory of the Russian Federation, which must be kept during the trip and returned when leaving the territory of the country. Additionally, a ban was

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds485_e.htm

² The Board of the Eurasian Economic Commission, Decision No. 52 of July 16, 2014 "Concerning the establishment of import duty rates of the unified customs tariff of the Customs Union on certain types of goods pursuant to the obligations of the Russian Federation within the WTO framework"

³ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds512_e.htm

imposed on goods in transit with other than zero tariff rates in conformity with the EEU unified customs tariff, as well as a ban was imposed on the goods in transit covered by sanctions introduced by the Russian government's Executive Order dated 07.08.2014, No. 778.¹

Ukraine claims that Russia imposed the measures in response to the taking effect (on 01.01.2016) of the Free-Trade Agreement between Ukraine and the European Union, and the measures are inconsistent with the WTO's provisions concerning free transit, because they violate free transit across the territory of the Russian Federation via the easiest routes for international traffic in transit from Ukraine, and also because Russia's treatment of traffic in transit is based on the national flag on vehicles and the origin of goods. The Russian party is treating traffic in transit from Ukraine less favorably than other goods in transit into/from third countries. Ukraine also claims that the publishing of Russia's respective rules and regulations was deliberately ill-timed so that the Ukrainian government and business community had no opportunity to review them.

Additionally, Ukraine claims that the Russian measures at issue are inconsistent with the WTO provisions concerning the overall abolishment of quantitative restrictions, as well as the Protocol of Russia's Accession to the WTO. Therefore, goods in transit from Ukraine are subject to unnecessary restrictions and delays. According to Ukraine's request for consultations, after Russia imposed the measures restricting goods in transit, the trade between Ukraine and countries in Central/Eastern Asia and Caucasus in January-June 2016 dropped by 35.1% compared to the values seen in the same period of 2015.

This dispute is pending at the stage of consultations.

4.8.3. Updates on the situation in 2016 regarding WTO trade disputes to which Russia appears as third participant

Since its accession to the WTO in August 2012, Russia has made 31 appearances as third participant to disputes within the WTO framework, of which 12 disputes were settled. Russia's appearances as third participant is often governed not only by a substantial trade interest, but mostly by the practice of participating in disputes concerning specific issues, as well as the interest in the application of various WTO rules and regulations. Russia tends to participate in disputes against the European Union, China and the United States.

All the WTO disputes to which Russia was a third participant can be conventionally divided into the following subgroups according to their subject matter²:

- 1) bans on imports (on environmental or other grounds) (DS400, DS401, DS469, DS484, DS495);
- 2) anti-dumping, countervailing and special safeguard investigations and respective measures imposed (DS414, DS437, DS449, DS454, DS468, DS471, DS473, DS480, DS488, DS490, DS496);
- 3) bans on exports (DS431, DS432, DS433, DS508, DS509);
- 4) intellectual property rights (DS441, DS458, DS467);

¹ Executive Order of the President of the Russian Federation of 01.07.2016 No. 319, an amendment to the Executive Order of the President dated 01.01.2016 No. 1 "Concerning measures to ensure economic security and national interests of the Russian Federation in international cargo transit from the territory of Ukraine to the territory of Kazakhstan through the territory of the Russian Federation".

² See Bayeva M. Trade disputes within the WTO framework, to which Russia is a party, and the settlement mechanism // Russian Foreign Economic Bulletin. 2014, No. 3. PP. 75–90.

- 5) subsidies (including tax and other allowances (D502)) (DS456, DS472, DS487, DS497, DS489);
- 6) tariffs (DS492).

Note that from time to time some technically different disputes are linked by the same alleged restriction/violation by the respondent. An example is disputes on Export Duties on Certain Raw Materials initiated against China by the United States (DS508) and the European Union (DS509), which Russia joined in 2016.

DS484: Indonesia – Measures Concerning the Importation of Chicken Meat and Chicken Products (complaint by Brazil)

On October 16, 2014, Brazil requested consultations with Indonesia concerning certain measures imposed by Indonesia on the importation of meat from fowls of the species *Gallus domesticus* and products from fowls of the species *Gallus domesticus*¹. In particular, this refers to the nonrecognition of the Brasil sanitary certificate, the imposition of non-automatic import licensing regime, the need for pre-approval of the importation of goods at issue by the Indonesian Ministry of Agriculture, as well as measures regarding the pricing policy and administration of imports. Russia's participation in this dispute is governed by its interest in how to apply sanitary and phytosanitary measures and technical regulation measures in conformity with the WTO rules and regulations, because the European Union filed a complaint against Russia on measures on the importation of live pigs, pork and other pig products from the European Union (DS475). This dispute is pending before the Appellate Body to which both parties filed an appeal. Additionally, note that Russia do not export chicken meat and chicken products to Indonesia, which may be related to the foregoing Indonesia's restrictions on imports, and if the restrictions are lifted or amended, it may result in signing respective contracts.²

On October 15, 2015, Brazil requested the establishment of a panel. On its meeting on December 3, 2015, the DSB established a panel. On February 22, 2016, Brazil requested the Director-General to compose the panel. On March 3, 2016, the Director-General composed the panel. This dispute is pending at the panel stage, the final report is expected to be issued early in April 2017.

DS495: Korea – Import Bans, and Testing and Certification Requirements for Radionuclides (complaint by Japan)

On May 21, 2015, Japan requested consultations with Korea regarding measures adopted subsequent to the accident at the Fukushima Daiichi nuclear power plant in March 2011.³ Korea's measures include import bans on certain food products, additional testing and certification requirements regarding the presence of certain radionuclides, a number of alleged omissions concerning transparency obligations under the Agreement on the Application of Sanitary and Phytosanitary Measures.

Russia reserved its third-party rights because Russia imposed a ban on fish imports from Japan subsequent to the accident at the Fukushima Daiichi nuclear power plant. Russia's Federal Service for Veterinary and Phytosanitary Surveillance lifted the ban only in the summer of 2015. This dispute is of interest to Russia from the procedural perspective, and the practice of participating therein is useful to the extent that Russia can better understand the rules of the application of sanitary and phytosanitary measures pursuant to the WTO regulations.

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds484_e.htm

² UN COMTRADE database // <http://comtrade.un.org/>

³ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds495_e.htm

Since this dispute failed to be settled through consultations, Japan requested on August 20, 2015 the establishment of a panel. At its meeting on September 28, 2015, the DSB established a panel. On January 27, 2016, Japan requested the Director-General to compose the panel. On February 8, 2016, the Director-General composed a panel. The dispute between Japan and Korea is pending at the panel stage, and the final report is expected to be issued in June 2017.

DS437: United States – Countervailing Duty Measures on Certain Products from China (complaint by China)

On May 25, 2012, China requested consultations with the United States concerning the imposition of countervailing duty measures by the United States on certain products from China.¹ China challenges various aspects of certain identified countervailing duty investigations and final determinations that led to the imposition of countervailing duties. China also challenges, the US Department of Commerce incorrectly determined, or did not have a sufficient basis to determine, that certain State-owned enterprises (SOEs) are “public bodies” which confer equivalent subsidies through their sales of inputs to downstream producers, and conduct countervailing duty investigations in violation of the WTO rules.

Russia’s interest in participating in this dispute is governed not only by its substantial trade interest in industries at issue (iron and steel industry), but also the practice of participating in disputes concerning countervailing measures in pursuit of better understanding the application of the respective provisions of the Agreement on Subsidies and Countervailing Measures.

On August 20, 2012, China requested the establishment of a panel. At its meeting on September 28, 2012, the DSB established a panel. On July 14, 2014, the panel report was circulated to Members. In late August both parties filed an appeal to the Appellate Body. At its meeting on 16 January 2015, the DSB adopted the Appellate Body report and the panel report, with recommendations to bring the measures into compliance. On October 9, 2015, the Award of the Arbitrator was circulated to Members. The Arbitrator determined the reasonable period of time as 14 months, 16 days. The reasonable period of time will thus expire on April 1, 2016.

On April 15, 2016, China and the United States informed the DSB of Agreed Procedures under Article 21 (Surveillance of Implementation of Recommendations and Rulings) and Article 22 (Compensation and the Suspension of Concessions) of the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU).

On May 13, 2016, China requested consultations pursuant to Article 21.5 of the DSU (Surveillance of Implementation of Recommendations and Rulings), in connection with the United States’ alleged failure to implement the recommendations and rulings of the DSB in this dispute. On July 8, 2016, China requested, pursuant to Article 21.5 of the DSU, the establishment of a compliance panel. At its meeting on July 21, 2016, the DSB agreed to refer to the original Panel. On October 5, 2016, the Director-General composed the panel. Australia, Canada, the European Union, India, Japan, Korea, Vietnam and the Russian Federation reserved their third party rights in the implementation assessment proceedings.

Russia’s interest in participating in this dispute is governed not only by its substantial trade interest in industries at issue (iron and steel industry), but also the practice of participating in disputes concerning countervailing measures in pursuit of better understanding the application of the respective articles and terms of the Agreement on Subsidies and Countervailing

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds437_e.htm

Measures, including the assessment of respondent's implementation of the DSB recommendations in accordance with the findings of the proceedings on the situation at issue.

DS454: China – Measures Imposing Anti-Dumping Duties on High-Performance Stainless Steel Seamless Tubes (“HP-SSST”) from Japan (complaint by Japan)

On December 20, 2012, Japan requested consultations with China concerning measures imposing anti-dumping duties on high-performance stainless steel seamless tubes (“HP-SSST”) from Japan.¹ Japan challenges that China has violated the WTO rules and regulations while determining the injury, providing the evidence, commencing and carrying out the investigations, issuing a public notice and justifying the decisions made.

This dispute is important for Russia because China imposed anti-dumping measures on certain Russian products (predominantly chemical products). Additionally, Russia is interested in anti-dumping disputes from the procedural perspective (“energy pricing” practices at issue in the European Union (DS474 and DS494) and Ukraine (DS493), “zeroing” practice in the United States (DS471)).

On April 11, 2013, Japan requested the establishment of a panel. At its meeting on May 24, 2013, the DSB established a panel. On February 13, 2015, the panel report was circulated to Members. On 20 May 2015, Japan notified the DSB of its decision to appeal to the Appellate Body certain issues of law and legal interpretation in the panel report. On May 26, 2015, China also notified the DSB of its decision to appeal to the Appellate Body certain issues of law and legal interpretation in the panel report. On October 14, 2015, the Appellate Body report was circulated to Members. At its meeting on October 28, 2015, the DSB adopted the Appellate Body and panel reports, as modified by the Appellate Body, recommending China to bring its measures into compliance with the WTO rules and regulations.

On February 19, 2016, Japan and China informed the DSB that they had agreed that the reasonable period of time for China to implement the DSB recommendations and rulings shall be 9 months and 25 days from the date of adoption of the Appellate Body and panel reports. Accordingly, the reasonable period of time is set to expire on August 22, 2016.

Should China fail to report on the implementation of the DSB recommendations, then Japan may request for implementation assessment proceedings. Note, however, that China seems to be very much inclined to implement the DSB rulings, except one of the 13 disputes that reached this stage, to which China is acting as respondent, when the complainant initiated implementation assessment proceedings.

DS471: United States – Certain Methodologies and their Application to Anti-Dumping Proceedings Involving China (complaint by China)

On December 3, 2013, China requested consultations with the United States regarding the use of zeroing methodology at issue in anti-dumping investigations involving Chinese products. While using the methodology, the weighted average-to-transaction, which is higher or equal to the normal value, is zeroed, as a result of which such transactions are excluded from the determination of the margin of dumping, thus making its value higher than normal. China claims that the zeroing methodology is inconsistent with the articles of the Anti-Dumping Agreement, in particular Determination of Dumping, Evidence, Imposition and Collection of Anti-Dumping Duties.

On February 13, 2014, China requested the establishment of a panel. At its meeting on March 26, 2014, the DSB established a panel. On October 19, 2016, the panel report was

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds454_e.htm

circulated to Members. Note that overall the Panel upheld China's complaints despite the fact that some of the Chinese claims were rejected. In particular, the Panel upheld China's claims that the United States Department of Commerce (USDOC) acted inconsistently with Article 2.4.2 (Determination of Dumping) of the Anti-Dumping Agreement by using the zeroing methodology.

Till late 2016, both parties may appeal the Panel's ruling. Presumably, it is highly likely that the parties will appeal the panel report.

DS473: European Union – Anti-Dumping Measures on Biodiesel from Argentina (complaint by Argentina)

On December 19, 2013, Argentina requested consultations with the European Union regarding Basic Regulation No. 1225/2009 of November 30, 2009 and anti-dumping investigations, as well as the investigation underlying anti-dumping measures of the European Union against biodiesel, including biodiesel from Argentina.¹ Argentina claims that the anti-dumping investigations and the temporal and final anti-dumping measures of the European Union on biodiesel from Argentina were carried out and imposed in an inconsistent manner; in particular, the determination of dumping and of injury, the introduction and collection of anti-dumping duties, etc. were subject to violation. Argentina challenges, among other things, the method of "adjustment of costs" that the European Union used while carrying out the anti-dumping investigations.

On March 13, 2014, Argentina requested the establishment of a panel. At its meeting on April 25, 2014, the DSB established a panel. On February 15, 2015, the panel was composed. On March 29, 2016, the panel report was circulated to Members.

Acting as third participant to the dispute, Russia presented arguments that are similar to Russia's complaints with regard to the method of adjustment of costs that the European Union used while conducting anti-dumping investigations and establishing anti-dumping duties (see disputes DS474 and DS494 to which Russia is acting as complainant against the European Union on similar issues). Russia noted, among other things, that the amendments to Article 2(3) and 2(5) of the Basic Regulation were made at the time when Russia gained the 'market economy status' within the WTO in 2002. According to Russia, the amendments were made to allow the European Union to use data on other markets, rather than on the country of origin, to establish the normal value. In particular, the amendments to Article 2(5) of the Basic Regulation entitled the European Union to adjust the costs recognized in the documents of producers/exporters and to apply such costs in accordance with "the information on other representative markets". Russia claims that the practice of adjustment of costs is inconsistent with the terms of WTO. The data, under Article 2.2.1.1 (Determination of Dumping) of the Anti-Dumping Agreement, must show the costs associated with the production and sale of products under investigation. Russia also claims that the concept of dumping, as defined in the Anti-Dumping Agreement, cannot be applied to prices of manufacturing resources.

On May 20, 2016, the European Union notified the DSB of its decision to appeal to the Appellate Body certain issues of law and legal interpretation in the panel report. On May 25, 2016, Argentina notified the DSB of its decision to cross-appeal. On October 6, 2016, the Appellate Body report was circulated to Members. The Appellate Body upheld the Panel's finding that the European Union acted inconsistently with Article 2.2.1.1 (Determination of

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds473_e.htm

Dumping) of the Anti-Dumping Agreement by failing to establish the cost biodiesel production according to the data stored by Argentinean producers.

The Appellate Body upheld the Panel's finding that the European Union acted inconsistently with Article 2.2 (Determination of Dumping) of the Anti-Dumping Agreement and Article VI:1(b)(ii) (Anti-Dumping and Countervailing Duties) of the GATT 1994, because the European Union failed to use the cost of production in Argentina while constructing the normal value of biodiesel.

The Appellate Body upheld the Panel's finding that the European Union acted inconsistently with Article 9.3 (Imposition and Collection of Anti-Dumping Duties) of the Anti-Dumping Agreement and Article VI: 2 (Anti-Dumping and Countervailing Duties) of the GATT 1994 by imposing anti-dumping duties in excess of the margin of dumping, which was proved by Argentina's hard evidence.

The Appellate Body upheld the Panel's rejection of Argentina's claims with regard to four factors other than dumped imported allegedly causing injury to the domestic industry, namely the domestic industry's overcapacity, the imports of the investigated product made by the domestic industry, the double-counting regimes of certain EU member States, and the lack of vertical integration of and access to raw material of the EU domestic industry. Argentina claims that the European Union failed to appropriately assess the injury caused by these factors other than dumped imports and to separate and distinguish that injury from the injury caused by the allegedly dumped imports. The Panel rejected Argentina's claim as it concerned each of the four "other factors".

The Appellate Body upheld the Panel's finding that Argentina had not established that the second subparagraph of Article 2(5) of the Basic Regulation is inconsistent "as such" with Article 2.2.1.1 and Article 2.2. (Determination of Dumping) of the Anti-Dumping Agreement. Argentina claims that the European Union allows its member states to reject or adjust the cost data of the producers/exporters as included in their records when those costs reflect prices which are "abnormally or artificially low" because they are affected by an alleged distortion. The Panel and the Appellate Body rejected this.

At its meeting on October 26, 2016, the DSB adopted the Appellate Body report and the panel report, recommending to bring the measures into compliance. Interestingly, the practice of "adjustment" of costs in the European Union under Article 2(5) of the Basic Regulation was not recognized inconsistent with the WTO rules and regulations, although violations thereof were detected in the EU anti-dumping investigations and measures on biodiesel from Argentina. A similar ruling should be expected in the disputes initiated by Russia against the European Union (DS474 and DS494), as well as Ukraine (DS493).

DS441, DS458, DS467: Australia – Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging (DS441 (complaint by the Dominican Republic), (DS458 (complaint by Cuba), DS467 (complaint by Indonesia))

On July 18, 2012, the Dominican Republic¹, on May 3, 2013, Cuba², and on September 20, 2013, Indonesia³ requested consultations with Australia regarding Australia's Tobacco Plain Packaging Regulations, which, according to the complainants, is inconsistent with the WTO rules and regulations concerning intellectual property rights.

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds441_e.htm

² https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds458_e.htm

³ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds467_e.htm

The panel for this dispute was established as early as in late April 2014, however, the panel proceedings have been underway for more than two years. On June 29, 2016, the Chairperson of the Panel informed the DSB that due to the complexity of the dispute, the Panel expected to issue its final report to the parties not before the end of 2016.

This dispute is of interest to Russia because it concerns complex system-wide issues regarding the protection of intellectual property rights pursuant to the WTO rules and regulations, because many of the third participants thereto believe that the Australian regulations should be disputed, otherwise a negative precedent may be created and then followed by other countries. Russia may support Australia in the dispute because Russia has adopted antismoking laws, and a respective antismoking policy is in effect in the country.

DS456: India – Certain Measures Relating to Solar Cells and Solar Modules (complaint by the United States)

In February 2013, the United States requested consultations with India concerning certain measures of India relating to domestic content requirements (DCR) under the Jawaharlal Nehru National Solar Mission (“NSM”) for solar cells and solar modules.¹ In fact, Indian state-owned energy companies are not allowed (since 2011) to employ foreign-made components, including solar cells. The United States claims that these measures are inconsistent with the national treatment principle because they accord “less favorable treatment” to imported products than to domestic ones, as well as constitute prohibited subsidies in the case of using domestic rather than imported products.

On April 14, 2014, the United States requested the establishment of a panel. At its meeting on May 23, 2014, the DSB established a panel. The panel was composed within 4 months of the panel establishment date. On February 24, 2016, the panel report was circulated to Members.

By and large, the Panel upheld the US claims by finding that the DCR measures do accord “less favorable treatment” within the meaning of that provision, which is inconsistent with Article III:4 (National Treatment on Internal Taxation and Regulation) of the GATT 1994. With reference to the Appellate Body’s report concerning the dispute initiated by the European Union against Canada regarding the Measures Relating to the Feed-in Tariff Program (DS426)², the Panel found that the DCR measures for solar cells and solar modules are not justified as the procurement by governmental agencies of products purchased for governmental purposes under Article III:8(a) (National Treatment on Internal Taxation and Regulation) of the GATT 1994. In particular, the Panel found that the electricity purchased by the government is not in a “competitive relationship” with the solar cells and modules subject to discrimination under the DCR measures. The Panel therefore found that India failed to demonstrate that the challenged measures are justified under Article XX of the GATT 1994.

On April 20, 2016, India notified the DSB of its decision to appeal to the Appellate Body certain issues of law and legal interpretation in the panel report. On September 16, 2016, the Appellate Body report was circulated to Members. By and large, The Appellate Body upheld each of the Panel conclusions, with minor corrections, appealed by India. At its meeting on 14 October 2016, the DSB adopted the Appellate Body report and the panel report and recommended to bring the measures into compliance.

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds456_e.htm

² https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds426_e.htm

The DSB therefore ruled that India acted inconsistently with the world trade rules by imposing the measures relating to domestic content requirements for solar cells and solar modules.

This dispute is of importance for Russia not only from the perspective of having the opportunity to ramp up Russia's exports of the products at issue to India as soon as the restrictions are lifted, given that exports of these products to India account for about 5% of total Russia's exports of these goods.¹ Additionally, considering high importance of developing alternative types of energy in Russia, one should consider the domestic content of products in manufacturing, as well as subsidies that may be treated as inconsistent with the WTO rules and regulations.

DS487: United States – Conditional Tax Incentives for Large Civil Aircraft (complaint by the European Union)

On December 19, 2014, the European Union requested consultations with the United States with respect to conditional tax incentives established by the State of Washington in relation to the development, manufacture, and sale of large civil aircraft.²

In November 2013, the United States broadened largely the scope of aerospace tax allowances in order to encourage the Boeing Company to manufacture new models of large civil aircraft 777X in the State of Washington. The company was granted extra subsidies to the tune of USD 1bn, including while using components manufactured in the State of Washington. The European Union alleges that these measures constitute a type of the subsidies prohibited in the WTO.

On February 12, 2015, the European Union requested the establishment of a panel. At its meeting on February 23, 2015, the DSB established a panel. The panel was composed within 2 months of the panel establishment date. On November 28, 2016, the panel report was circulated to Members.

The Panel concluded that all the aerospace tax measures at issue constitute *de facto* subsidies under Article 1 (Definition of a Subsidy) of the Agreement on Subsidies and Countervailing Measures.

The Panel concluded that the European Union had not demonstrated that, acting together, the First Siting Provision and the Second Siting Provision make the challenged aerospace tax measures *de jure* contingent upon the use of domestic over imported goods. However, the Panel upheld the European Union that there are *de facto* amendments to aerospace taxation contingent upon the use of domestic over imported goods. The Panel found that the reduced business and occupation tax rate for the manufacturing or sale of commercial airplanes under the 777X program) is inconsistent with Article 3 (Prohibition) of the Agreement on Subsidies and Countervailing Measures.

The United States and the European Union may within about 2 months appeal the Panel's ruling, which is very likely to happen.

This dispute is of interest to Russia from the perspective of domestic content in manufacturing, as well as tax allowances that may lead to specific subsidies and may be treated as inconsistent with the WTO rules and regulations.

DS489: China – Measures Related to Demonstration Bases and Common Service Platforms Programs (complaint by the United States)

¹ UN COMTRADE database // <http://comtrade.un.org/>

² https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds487_e.htm

On February 11, 2015, the United States requested consultations with China with regard to certain measures providing subsidies contingent upon export performance to enterprises in several industries in China.¹ This dispute concerned China's programs – Transformation of International Trade and Modernization of Demonstration Bases (hereinafter – the Demonstration Bases) and Common Service Platforms – which, according to the US allegations, resulted in export subsidies by the use of the Common Service Platforms for free or at a discount, or through grants in cash.

On April 14, 2016, China and the United States informed the DSB that they had reached an agreement in relation to this dispute in the form of a Memorandum of Understanding.

The dispute is of interest to Russia to the extent that it was settled in an amicable manner, because the way it was settled may have a certain effect on manufacturers, exporters and consumers in Russia. In this context, there are industries that may be most sensitive to Russia, namely manufacture of textiles, agricultural industry, manufacture of medical products, consumer industry, special-purpose chemical engineering, manufacture of metal products and construction materials.

DS502: Columbia – Measures Concerning Imported Spirits (complaint by the European Union)

On January 13, 2016, the European Union requested consultations with Colombia regarding certain measures in relation to the treatment that Colombia accords at national and departmental level to imported alcoholic beverages. These measures allegedly adversely affect exports of spirits classified under HS 22.08 from the European Union to Colombia.² The dispute concerns discriminatory, according to the EU allegations, taxation on imports of alcoholic beverages. Columbia is divided into 32 departments whose regional governments often own producers of rum and vodka located on their territory, as well as they control sales of hard liquids on their territory. Under the Columbian fiscal treatment, the consumption of alcoholic beverages are subject to the national excise duty, except the application of the so-called “fiscal monopoly” on alcoholic beverages at departments or other regional and local areas. In return, the departments collect duties associated with their fiscal monopoly. The size of both taxes and duties is contingent upon the strength of alcoholic beverages, with a higher tax rate on alcoholic beverages of more than 35% ABV. Furthermore, there are departments where domestically produced alcoholic beverages that aim to stimulate sales are subject to tax exemption, whereas imported alcoholic beverages are not subject to a similar tax exemption.

Additionally, the departments impose certain requirements for products at issue, which Columbia applies in a manner, according to the EU allegations, inconsistent with the terms provided for by the GATT 1994, namely the requirement for imports of alcoholic beverages to a department, which they normally receive upon investigation of economic and financial feasibility, the requirement for the insurance policy to an contract, minimum quotas and minimum prices, etc. For example, departments that import, produce or distribute alcoholic beverages are required to affix excise tax stamps on imported alcoholic beverages, thus ensuring that internal taxes and duties have been paid. The requirement is not applied to alcoholic beverages of similar type that are produced in the department.

Therefore, Columbia's internal taxes and duties on imported alcoholic beverages are higher than on domestically produced alcoholic beverages. While protecting domestic manufacturers, Columbia acts inconsistently with the principles of National Treatment on Internal Taxation

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds489_e.htm

² https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds502_e.htm

and Regulation (Article III of the GATT 1994). The European Union also claims that Columbia acted inconsistently with the rule of administering in a uniform, impartial and reasonable manner all its laws, regulations, decisions and rulings of the kind described in Article X:3(a) (Publication and Administration of Trade Regulations) of the GATT 1994.

Additionally, the foregoing measures prevent EU exporters enjoy the benefits offered by the free-trade zone established between the European Union and Columbia in 2013, because Columbia fails to meet the requirement for taking such reasonable measures as may be available to it to ensure observance of the provisions of the GATT 1994 (Article XXIV:12 (Territorial Application – Frontier Traffic – Customs Unions and Free-trade Areas)) by the regional and local governments and authorities within its territories.

Since the dispute between the European Union and Columbia failed to be settled through consultations, the European Union requested on August 22, 2016 the establishment of a panel. At its meeting on September 26, 2016, the DSB established a panel. The dispute is currently at the panel composition stage.

Note that in 2012 the European Union (DS396)¹ and the United States (DS403)² initiated similar disputes against Philippines. The DSB ruled that Philippines' excise duties on imported strong alcoholic beverages are discriminatory and Philippines must bring its measures into compliance with the WTO rules and regulations.

As regard to Russia's participation in the dispute, note that Russia's exports of alcoholic beverages to Columbia were extremely small in terms of volume in 2013 and 2014, as well as they were zero in 2015. This dispute is supposedly of interest to Russia from the perspective of entering new markets, because Russia is listed among the major exporters of the products at issue (under HS 22.08). Additionally, this dispute may be useful to Russia from the perspective of gaining experience in the settlement of disputes regarding taxation, because in 2013 the European Union (DS462)³ and Japan (DS463)⁴ initiated disputes against Russia on taxation (the so-called "recycling fee"), which are still pending despite the discriminatory component have been eliminated by Russia.

DS508: China – Export Duties on Certain Raw Materials (complaint by the United States), DS509: China – Duties and other Measures concerning the Exportation of Certain Raw Materials (complaint by the European Union)

On July 13, 2016, the United States requested consultations with China regarding China's export duties on various forms of antimony, cobalt, copper, graphite, lead, magnesia, talc, tantalum, and tin.⁵ Additionally, on July 19, 2016, the European Union requested consultations with China regarding China's duties and other alleged restrictions on the export of various forms of antimony, chromium, cobalt, copper, graphite, indium, lead, magnesia, talc, tantalum and tin.

On July 19, 2016, the European Union requested consultations with China regarding China's duties and other alleged restrictions on the export of various forms of antimony, chromium, cobalt, copper, graphite, indium, lead, magnesia, talc, tantalum and tin.⁶ China also imposes

¹ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds396_e.htm

² https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds403_e.htm

³ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds462_e.htm

⁴ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds463_e.htm

⁵ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds508_e.htm

⁶ https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds509_e.htm

restrictions on the trade-related rights of producers seeking to export such products, thereby treating foreign equity companies in a less favorable manner than domestic companies.

The complainants claim, as with disputes against China regarding rare earth metals (DS431, DS432, DS433), that China acts inconsistently with the terms and provisions of the WTO (Article XI:1 (General Elimination of Quantitative Restrictions) of the GATT 1994), and China's measures are not uniform, impartial and reasonable (Article X:3(a) of the GATT 1994). Additionally, the complainants claim that China has failed to justify that the measures can be treated as "General Exceptions" (Article XX of the GATT 1994) and constitute an excuse for failing to honor China's commitments to eliminate export duties pursuant to the China's Protocol on the Accession to the WTO.

Since the dispute failed to be settled through consultations, on 13 October 2016, the United States requested the establishment of a panel. At its meeting on November 8, 2016, the DSB established a panel. On October 26, 2016, the European Union requested the establishment of a panel. However, at its meeting on November 8, 2016, the DSB deferred the establishment of a panel. These disputes concerning the same China's measures on the exportation of raw materials may expectedly be considered by a common panel.

Russia participated in the foregoing disputes as third participant because they are of substantial trade interest to Russia. Imports of these China's raw materials that are used by the Russian industry account for about 10% of total Russia imports and about 2% of total China exports of such raw materials. This is not the first time that Russia participated in disputes initiated against China regarding restricted exports of raw materials (see above disputes regarding rare earth metals).

* * *

Russia continues applying the WTO dispute settlement mechanism. In 2016, Russia was involved in four new WTO disputes as respondent (one dispute) and as third participant (three disputes).

Only one of the disputes initiated against Russia in the period between 2012 and 2016 is pending at the panel stage. The panel report on the dispute against the European Union regarding the "Third Energy Package" (DS476) is expected to be issued in May 2017.

As regard trade disputes to which Russia is respondent, panel reports were issued for two of the seven disputes in 2016. In the dispute regarding tariffs on the importation of certain products that are lifted in excess of the bound rate Russia was predictably recommended to bring its tariffs into compliance with the WTO treaty commitments, and Russia has almost complied with the recommendations. As to the dispute regarding the measures on the importation of live pigs, pork, pork products, Russia and the European Union appealed the Panel's ruling in 2016. The dispute initiated by the European Union against Russia regarding anti-dumping measures on light commercial vehicles is pending before the Panel. The two disputes initiated in 2013 by the European Union/European Union and Japan against Russia regarding the "recycling fee" are still pending at the stage of panel composition and consultations. The two disputes initiated by Ukraine in 2015–2016 against Russia are pending at the stage of consultations.

In 2016, panel reports and, in some instances, Appellate Body's reports were issued in four disputes to which Russia reserved its rights as third party. Of most importance for Russia is the dispute initiated by Argentina against the European Union regarding anti-dumping measures on biodiesel, because Russia's complaints against the European Union are similar Argentina's

complaints (DS474, DS494). Note that the Panel rejected Argentina's allegations that the provisions at issue of the relevant Basic Regulation regarding the method of “adjustment of costs” that the European Union used while carrying out anti-dumping investigations are inconsistent “as such” with the WTO rules and regulations.

Most of the WTO disputes to which Russia is complainant or respondent involve claims against/by the European Union and Ukraine. Russia, as complainant, is, above all, interested in anti-dumping investigations and anti-dumping measures, especially in iron and steel and chemical industries. Most of WTO members’ complaints against Russia cover the following issues: technical barriers to trade, sanitary and phytosanitary measures, anti-dumping measures, trade-related investment measures, tariffs, measures on transit.

Russia, as third participant, tends to participate in disputes regarding goods manufactured by such industries as iron and steel, agriculture, automobile and aircraft. Russia’s participation as third party are often associated with not only substantial trade interests, but also the practice of participating in disputes, as well as Russia is interested in the application of the WTO rules and regulations.

It is of outmost importance for Russia to maintain the appropriate position and tactics in WTO disputes to develop mutual trade relations with other WTO members in concordance with the WTO rules and regulations while upholding its interests.

Appendix

WTO trade disputes to which Russia is the party (complainant or respondent)

Dispute	Particulars of the claim	Current stage
1	2	3
As complainant		
DS474: European Union – Cost Adjustment Methodologies and Certain Anti-Dumping Measures on Imports from Russia (23.12.2013 ¹)	Regarding “cost adjustment” methodologies used by the EU for the calculation of dumping margins in anti-dumping investigations and reviews (European Union rejected cost and price information of producers and exporters in the country of origin (Russia)). The effect of such rejection of cost and price data on the determination of dumping margins and injury caused by dumped imports.	Panel composition stage (22.07.2014)
DS476: European Union and its Member States – Certain Measures Relating to the Energy Sector (30.04.2014)	Regarding the EU “Third Energy Package” under which gas producers may not own trunk pipelines located on the EU territory. If operating companies are foreign owned/controlled, they must be subject to a special certification procedure: they must meet extra requirements.	Panel stage (07.03.2016)
DS493: Ukraine – Anti-Dumping Measures on Ammonium Nitrate from Russia (07.05.2015)	Ukraine, while conducting anti-dumping investigations regarding ammonium nitrate, rejected electric power prices offered by Russian producers and used instead prices of third countries, that is, it used the so-called “cost adjustment”.	Panel composition stage (22.04.2016)
DS494: European Union – Cost Adjustment Methodologies and Certain Anti-Dumping Measures on Imports from Russia – (Second complaint) (07.05.2015)	The European Union, while conducting anti-dumping investigations regarding welded pipes and ammonium nitrate from Russia, used prices of third countries (cost adjustment) to determine dumping margins and rejected cost and price information of producers and exporters in the country of origin (Russia).	Consultations (07.05.2015)

¹ Parenthesized is the date of request for consultations.

1	2	3
As respondent		
DS462: Russian Federation – Recycling Fee on Motor Vehicles (complaint by the European Union, 09.07.2013)	The Russian Federation imposes measures relating to a charge, the so called “recycling fee”, imposed on motor vehicles, whereas domestically manufactured motor vehicles are, under specific conditions, are exempted from the foregoing fee. The structure of Russia’s methodology for determining the fee amount has a detrimental impact on imported vehicles as compared with relevant domestic vehicles, because the fee is progressive and differentiates between brand new and secondhand motor vehicles.	Panel composition stage (25.11.2013)
DS463: Russian Federation – Recycling Fee on Motor Vehicles (complaint by Japan, 24.07.2013)	Russian Federation imposes extra charges on imported motor vehicles (recycling fee), whereas domestically manufactured motor vehicles are, under specific conditions, are exempted from extra charges.	Consultations (24.07.2013)
DS475: Russian Federation – Measures on the Importation of Live Pigs, Pork and Other Pig Products from the European Union (complaint by the European Union, 08.04.2014)	Russia’s EU-wide ban on the importation of pork and other pig products from Poland and Lithuania constitutes a disproportional measure, because only a few insignificant cases of African swine fever (ASF) were confirmed with wild boars near the border with Belarus and promptly contained. The European Union challenges Russia’s ASF regionalization of the EU territory.	Both parties have appealed the panel report. Ра́бора Appellate Body (23.09.2016)
DS479: Russian Federation – Anti-Dumping Duties on Light Commercial Vehicles from Germany and Italy (complaint by the European Union, 21.05.2014)	Russia’s anti-dumping investigations and determination of dumping margins on light commercial vehicle inconsistent with the WTO rules; in particular Determination of Dumping, Determination of Injury, Evidence, Definition of Domestic Industry, Public Notice and Explanation of Determinations.	Panel stage (18.12.2014)
DS485: Russian Federation – Tariff Treatment of Certain Agricultural and Manufacturing Products (complaint by the European Union, 31.10.2014)	Russia’s duty rates on goods such as paper and paperboard, equal to 15% or 10%, were applied in excess of the bound rate, which is 5%. When the customs value was below the set value, customs duties on certain goods were charged in excess of the bound rate.	DSB adopted the panel report and recommended to bring the measures into compliance (26.09.2016)
DS499: Russian Federation – Measures affecting the importation of railway equipment and parts thereof (complaint by Ukraine, 21.10.2015)	The Russian Federation has suspended conformance certificates issued to manufactures railway equipment and railway rolling stock until new technical regulations are introduced. The Russian Federation has rejected applications for new certificates.	Consultations (21.10.2015)
DS512: Russian Federation – Measures Concerning Traffic in Transit (complaint by Ukraine, 14.09.2016)	The Russian Federation imposes multiple restrictions on traffic in transit from Ukraine through the Russian Federation to third countries (in Central/Eastern Asia and Caucasus). The Russian Federation introduced a requirement for Ukraine to ensure that international railway and motor cargo traffic in transit from Ukraine to the Republic of Kazakhstan and the Republic of Kyrgyzstan through the Russian Federation go strictly from the Republic of Belarus, provided that certain conditions are met. Additionally, a ban was imposed on goods in transit with other than zero tariff rates in conformity with the EEU unified customs tariff, as well as a ban was imposed on the goods in transit covered by Russia’s sanctions.	Consultations (14.09.2016)

Source: own compilation based on the data posted on the official WTO website: https://www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm

Section 5. Social sphere

5.1. Household sector: income, consumer and labor markets¹

5.1.1. Household income and poverty level of the population

Household real disposable income and real pensions decelerated by 6.1% and 2.5% in December 2016 in comparison with the same period of 2015 (*Fig. 1*). In contrast, real wage went up by 2.4% in December 2016 compared to the same period of the previous year.

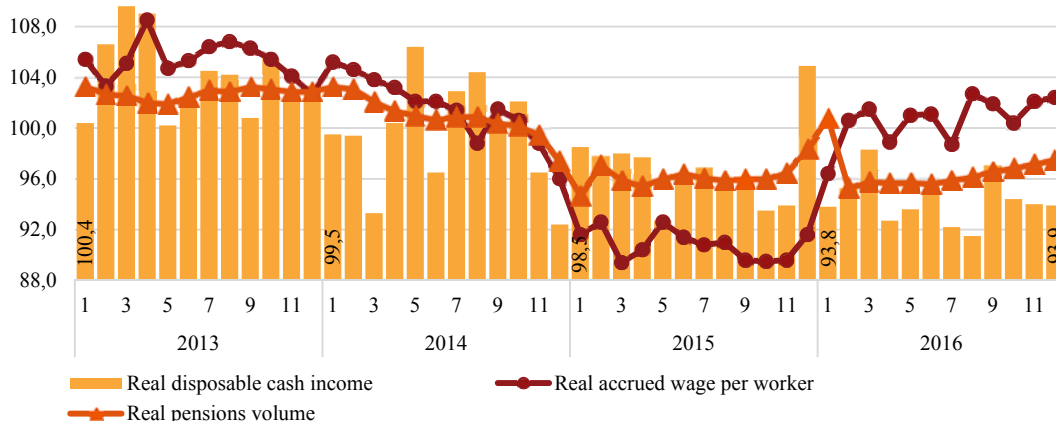


Fig. 1. Dynamics of household real disposable cash income, real accrued wage and real pensions in 2013–2016, in % to corresponding period of previous year

Source: Russian State Statistics Service (Rosstat).

Household real disposable cash income decelerated 5.9% and real pensions decelerated 3.4% in 2016 compared to the previous year. In contrast, the real wage stayed flat in 2016 against last year and amount to 100%.

In 2016, household real disposable cash income came to 90.5%, real accrued wage – 92.6%, and real pensions – 93.8% against the 2013 level.

¹ Authors of chapters 5.1–5.4 researchers of ISAF RANEPА E. Avraamova, A. Burdyak, E. Grishina, D. Loginov, V. Lyashok, T. Maleva, N. Mkrtychyan, A. Poliakov, Yu. Florinskaya.

The share of savings fell from 14.3% to 11.3% in the structure of household cash income in 2016 compared to the previous year. However, it remains above the level of this indicator seen during the corresponding periods of 2011–2014 (*Fig. 2*).

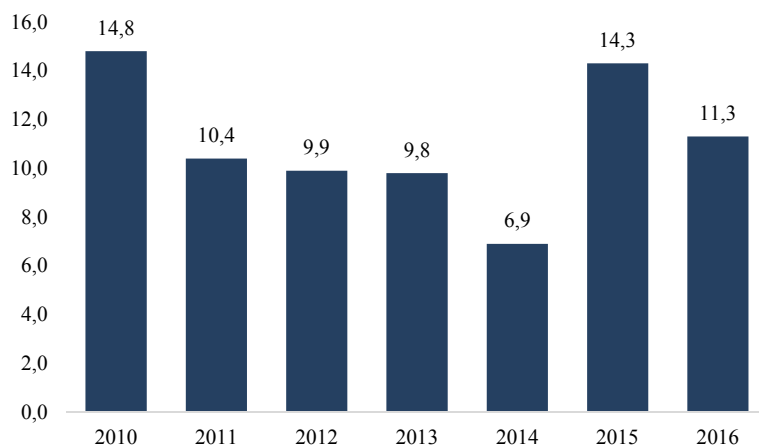


Fig. 2. Share of household cash income allocated for savings 2010–2016, %

Source: Rosstat.

In contrast, in 2016, the share of cash income spent on purchases of goods and services increased from 71.0% to 72.5% against the previous year. However, it stays below the level of this indicator as of 2011-2014 (*Fig. 3*).

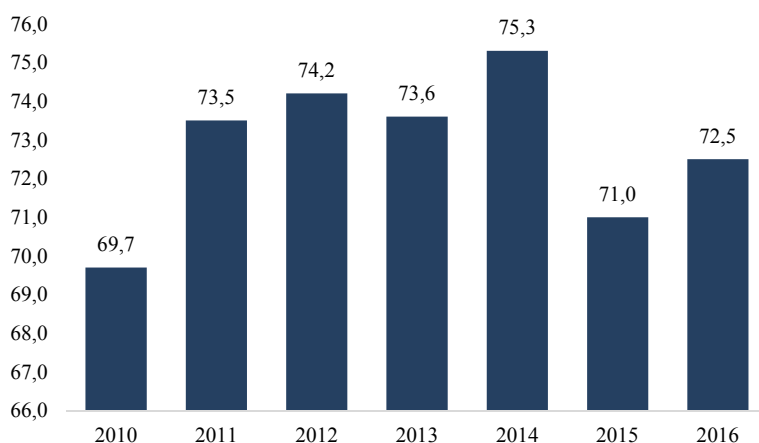


Fig. 3. Share of household cash income spent on purchases of goods and services in 2010–2016, %

Source: Rosstat.

Draft Resolution of the Russian Government “On Determination of Per-Capita Subsistence Level and Across Main Social and Demographic Groups of Population as a Whole in the Russian Federation for 4th Quarter of 2016”¹ notes that per-capita subsistence level as a whole

¹ Federal portal for draft normative and legal acts--<http://regulation.gov.ru/projects#npa=61752>

across the Russian Federation amounts to RUB 9,691, for working population – RUB 10,466, for pensioners – RUB 8,000, and children – RUB 9,434.

The ratio of the average per-capita cash income to the subsistence level for the entire population amounted to 371.7%, which is below the level seen during the same periods of 2009–2015 (Fig. 4). The ratio of the average pension to the subsistence level totaled to 155.5% in Q4 2016, which corresponds to the same period of the previous year but is below the level that it was during the same periods in 2010–2014.

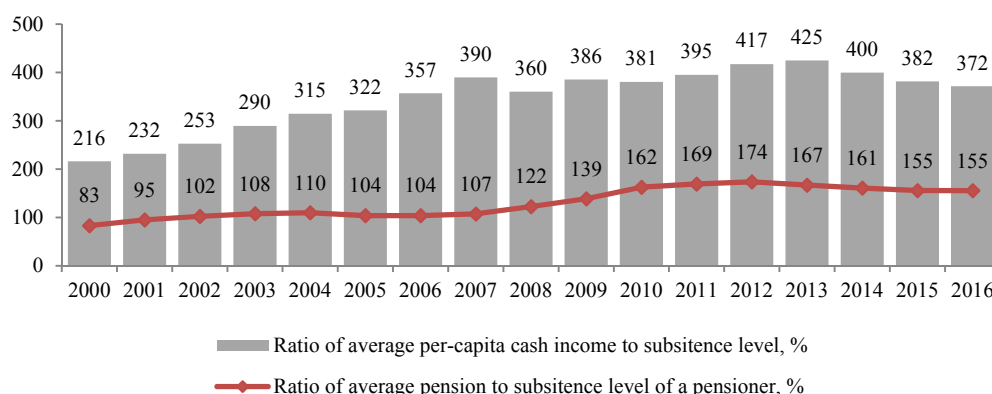


Fig. 4. Ratio of average per-capita cash income and average pensions to subsistence level, Q4 2000–2016, %

Source: Rosstat.

The poverty level in Q3 2016 amounted to 12.8% below the level seen during the same period of the previous year (12.4%).¹ On the whole, the poverty level in January-September 2016 came to 13.9% slightly below poverty level seen in January-September of 2015 (14.1%), however, above the level observed during the same periods of 2012–2014 (Fig. 5).

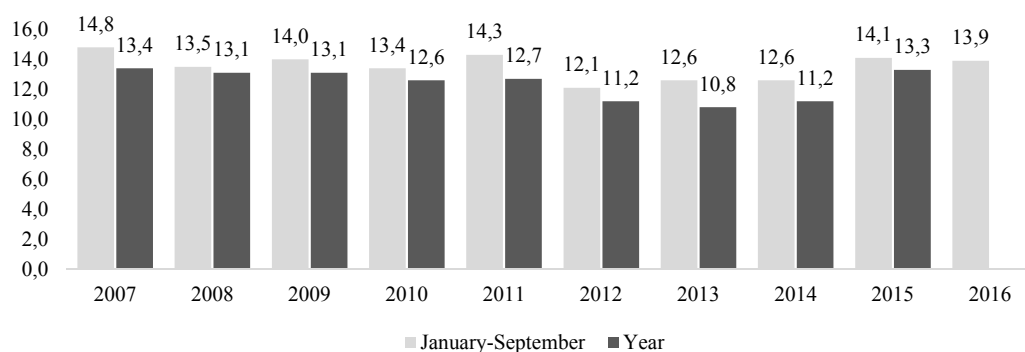


Fig. 5. Share of population with cash income below subsistence level across Russia as a whole, 2007–2016, %

Source: Rosstat.

¹ On ratio of household cash income to the subsistence level in the Russian Federation as a whole in Q3 2016; Rosstat, Socio-economic situation in Russia, 2007–2016.

According to the data released by Rosstat, in Q3 2016, on average across the Russian Federation, according to household self-evaluation 20.6% of households were poor and reported sufficient cash only for foodstuffs or even shortage of cash for foodstuffs (*Fig. 6*).

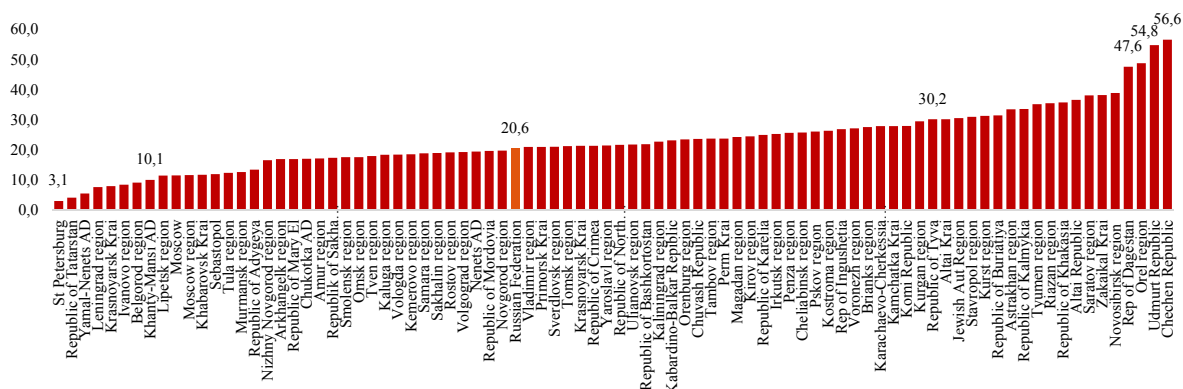


Fig. 6. Share of households with sufficient cash for food or short of cash for food, Q3 2016, %

Source: Rosstat.

However, the level of subjective poverty was higher in more than half of Russian regions. The highest levels of subjective poverty (1.5 times above the all-Russia level) were observed in 16 regions: Stavropol (31.0%) and Zabaikal (38.2%) Krai; Kursk (31.2%), Astrakhan (33.5%), Tyumen (35.2%), Ryazan (35.5%) Saratov (38.1%), Novosibirsk (38.9%) and Orel (48.8%) regions; Republics of Buriatia (31.5%), Kalmykia (33.6%), Khakasia (35.8%), Altai (36.6%), Dagestan (47.6%), as well as in Udmurt (54.8%) and Chechen Republics (56.6%).

In 44% of regions (37 regions) more than 10% of households were strapped for cash and could not pay for housing and utilities services. In 41% of regions (35 regions) over 10% of households struggled financially and could not pay for drugs prescribed for urgent treatment (*Fig. 7*).

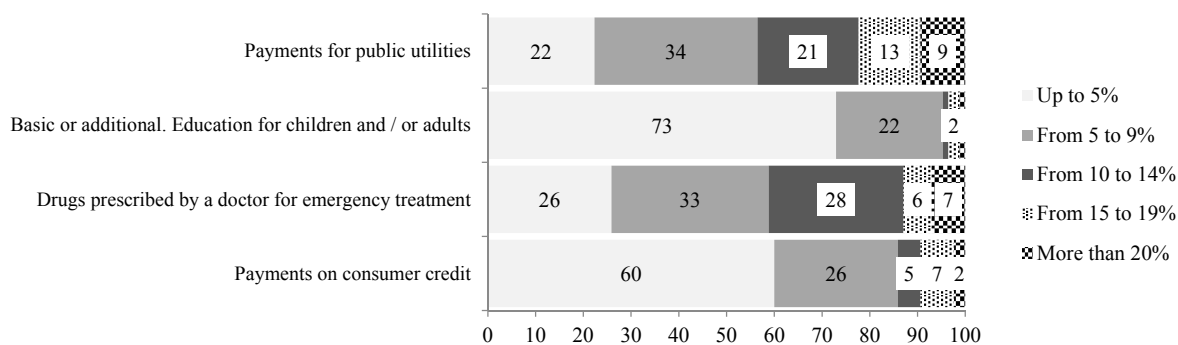


Fig. 7. Breakdown of regions across share of households struggling financially which prevented them to pay for various types of expenses, Q3 2016, %

Source: Rosstat.

In Q3 2016, the most complicated situation regarding payments for housing and utilities services was observed in Karachaevo-Cherkassia and Chuvash Republics, Primorsk Krai, Republics of Khakasia and Tyva, Astrakhan, Saratov and Ryazan regions, which reported over 20% of households, which struggled financially and could not pay for housing and utilities services.

Major problems with payment for prescribed medicine were observed in Republic of Khakasia, Stavropol and Primorsk Krai, Astrakhan, Saratov and Ryazan regions where the share of households struggling financially came to over 20%.

The situation with payment for core and extended education is better: in 73% of regions, less than 5% of the households struggled financially to an extent, which prevented them to pay for core or extended education of children or grownups.

As far as payments for consumer credits are concerned, 14% of regions (12 regions) number over 10% of households, which struggled financially to an extent that they could not pay for consumer credits, and two regions (Republics of Altai and Tyva) number over 20% of those households, which struggled financially to an extent that prevented them from paying for consumer credits.

According to the Bank of Russia in 2016, growth of retail lending was observed; annual growth amounted to 1.1% (excluding currency revaluation effect: +1.4%).¹ In contrast, in 2015, retail lending declined by 5.7% (-6.3%).²

Thus, the prolonged decline of the household real cash income and of real pensions resulted in the deterioration of the material well-being of the population and raised risks of subjective poverty and social exclusiveness concerns. In certain regions, those risks are getting strength manifold. Despite weak wage growth observed in 2016 against last year (by 0.6%), the real wage level did not rebound against the one seen in 2013.

5.1.2. Retail trade turnover and dynamics of consumer prices

In nominal terms, the volume of retail trade totaled to RUB 28,137.1bn, and its changes were minimal against last year (in 2015 – RUB 27,538.4) and they practically were offset by inflation. Total volume of retail trade in constant prices in 2016 came to 94.8% to that of January-December of 2015. Decrease of retail trade volumes by 5.2% on the previous year to a greater extent was observed in the food sector (-5.3% to 2015), trade in non-food products fell by 5.1% (*Fig. 8*). During last two years, retail trade contracted by 14.7% including the sale volume of food products, beverages and tobacco went down by 13.8% and that of non-food products – by 15.4%.

During last year, the pattern of retail trade turnover reduplicated 2015 entirely. Food-products, beverages and tobacco accounted for 48.7%, and non-food goods accounted for 51.3%. In 2013–2014, food products accounted for 47.7% of retail trade turnover. However, during last two years, their share increased and retail trade structure was similar to that of 2009–2010 (then, food products accounted for 48.6%).

While analyzing monthly dynamics, in December 2016, the retail trade turnover in constant prices decreased by 5.9% against December 2015 reflecting the contraction by 6.5% of trade in

¹ Bank of Russia. On dynamics of Russia's banking sector development in December and of the outcomes of 2016 – [Electronic resource]. URL: http://cbr.ru/analytics/bank_system/din_razv_16_12.pdf

² Bank of Russia. On dynamics of Russia's banking sector development in December 2015 – [Electronic resource]. URL: https://www.cbr.ru/analytics/print.aspx?file=bank_system/din_razv_15_12.htm&pid=bnksyst&sid=ITM_1155

food products and by 5.3% – in non-food products. Trade turnover reduction by 19.2% during two years from December 2014 through December 2016 in constant prices, including that in non-food products – by 22.0% and in non-food products – by 15.9% was record high. Partly it was due to panic buying and upsurge in purchases of manufactured goods at the onset of the crisis in November-December 2014. Prior to this peak, from October 2014 through October 2016, the volume of retail trade contracted by 15.3% in constant prices, sales on non-food products declined by 15.3% and in February-May 2016 this segment of trade demonstrated just as large contraction (up to 16.6% over two years).

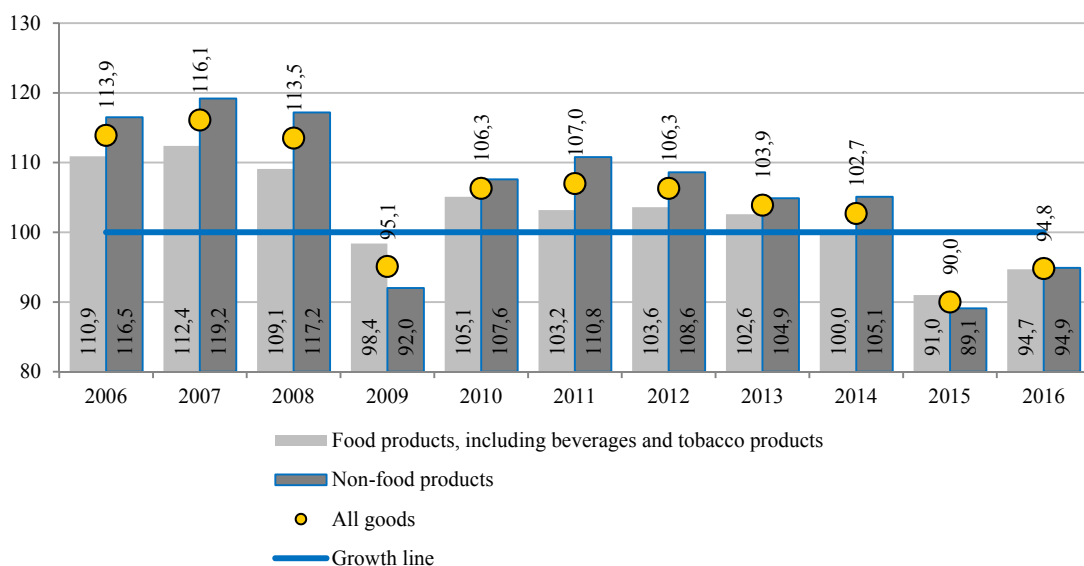


Fig. 8. Dynamics of retail trade turnover in food products, including beverages and tobacco products, and non-food products, in % to previous year in constant prices

Headline inflation amounted to 5.4% at 2016-end. Of which prices on foodstuffs went up by 4.6%, prices on non-food products increased by 6.5% and the prices on services moved up by 4.9% against 2015. What do consumer prices dynamics look like in 2016 against the backdrop of past years? In early 2000s, prices grew at a pace above 10% per annum and there is no sense in comparing them with the prices of that period. Ten percent threshold was briefly broken in 2006 (9%) and later annual consumer price index stayed in the range of 6.5% to 8.8% in 2009–2013. Consequently, against the backdrop of *all* previous years, 2016 emerges as a year with low consumer inflation.

If we analyze price dynamics in terms of quarter-on-quarter chronology against year-on-year one (*Fig. 9*), lower than in 2016 price growth was observed in Q1 and Q2 2012 (3.7% – 4.4% against the same period of the previous year). Then, it was due to record low food inflation (0.2–2.9%) but in H2 price growth accelerated and the year-end inflation was higher against the previous year.

The reviewed years also demonstrated a faster pace of service prices growth compared to 2016 (4.9%). Lower inflation rates (3.7–4%) was observed in Q1 and Q2 2012. Against the backdrop of the previous years, 2016, in contrast, was not indicative because for a long time in 2010–2014 price on this group of goods grew at a slower pace than last year.

In terms of monthly indexes at year-end, from December 2016 against December 2015, prices peaked on the following foodstuffs: butter (+20.5%), milk and dairy products (9.5%), fish and seafood (8.6%), cereals and beans (6.4%). In the course of the year, prices decelerated on eggs (-0.7%), sugar (-6.0%), and fruit and vegetable products (-6.8%). Alcoholic beverages went up in price by 6.4%, tobacco products – by 17.8%.

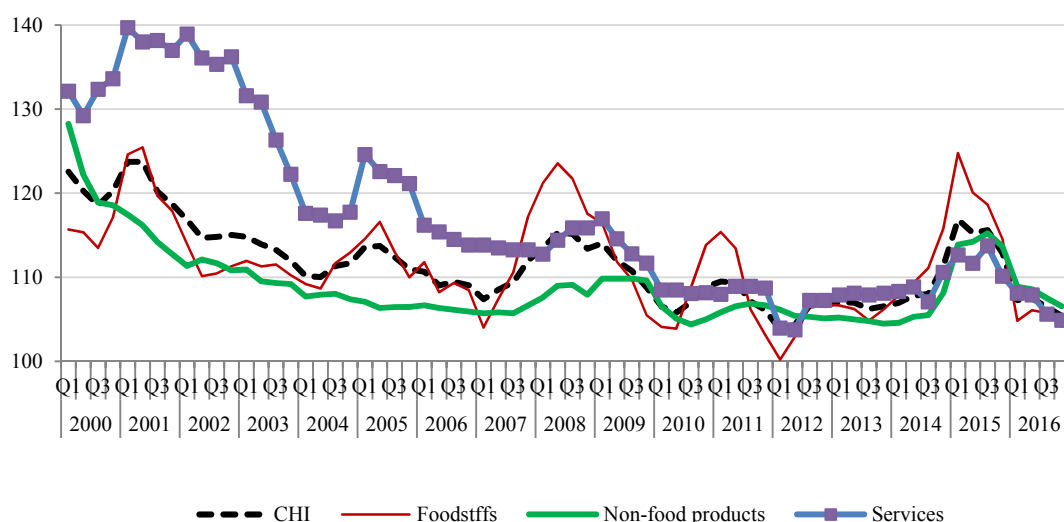


Fig. 9. Total Consumer Price Index (CPI), foodstuffs price indexes, non–food products and services at quarter-end, in % to the same quarter of previous year

At December-end 2016, the minimum consumption basket averaged RUB 3,701.9 across Russia and increased since the turn of the year by 3.5%. Total growth rates on foodstuffs outpaced those of the minimum consumption basket for 2016.

In the group of non-food products footwear price increased by 9%, clothes – by 6.9%, textile products and glassware, cutlery and housewares – by 7.7-8.3% (December 2016 on December 2015). Price on furniture, carpets grew by 3.8% and household appliances – by 5.2%. Drugs, treatment tools and equipment went up in price by 5.3%, prices on outpatient services went up by 7.8%, and those on hospital services – by 9.6%. On the whole, health care services were more expensive by 6.5% to the consumer (a year earlier +16.4%).

In December 2015 against December 2015, education and hotel services went up in price by 6.9%, personal services – by 7.9%, social security – by 9.3%, transportation services – by 6.6%, services on recreation organization and cultural events – by 6%, and communication – by 2.5%. Prices on housing services accelerated 5.2%, including those on electricity, gas, and fuel - up 4.8%, water supply and other public utilities – up by 6.3%. Financial services declined in price by 6.3%.

In terms of value of fixed basket of consumer goods and services designed for interregional comparison, purchasing power of the average income¹ across the Russian Federation as a whole decreased below the same index for 2010 (Fig. 10).

¹ Calculated on data from «Information for monitoring of socio-economic situation of the subjects of the Russian Federation» for December 2016, Rosstat. February 7, 2017. URL: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1246601078438

Regional differentiation of purchasing power of income declined mainly due to the fact that well-off regions became less well-off. Maximum number of fixed baskets of consumer goods and services are affordable to inhabitants of the Central Federal District (2.5). Purchasing power is at its lowest point in the Siberian Federal District – 1.7 of those baskets of goods and services.

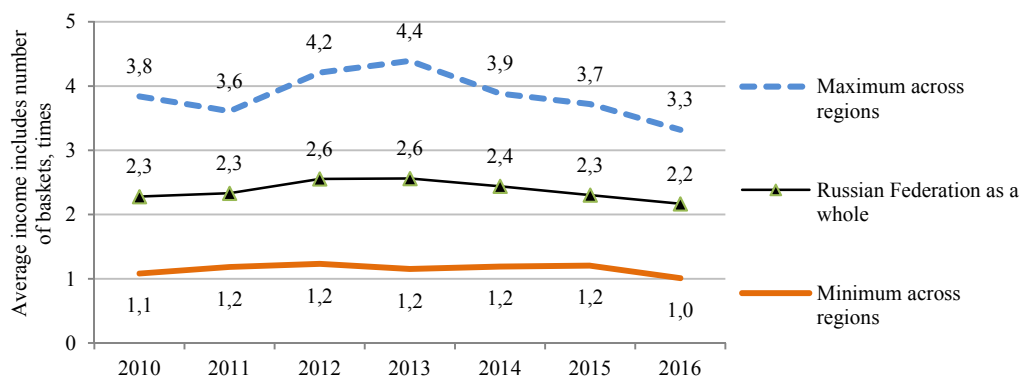


Fig. 10. Ratio of average income of Russian regions and cost of fixed basket of consumer goods and services designed for interregional comparison of purchasing power of population in November 2010–2016

The lowest purchasing power (from 1.0 to 1.4 of the cost of fixed basket of goods and services in November 2016) of cash income was registered in the following subjects of the Federation, including many national Republics: Altai, Tyva, Karachaevo-Cherkassia, Kalmykia, Ingushetia, Jewish autonomous region, Chuvashia, Mordovia, Kurgan region, Crimea, and Sebastopol.

Traditional leaders in this sphere are well-off regions. In ascending order of purchasing power of income: Republic of Bashkortostan, Magadan region, St. Petersburg, Moscow region, Republic of Tatarstan, Chukotka district, Sakhalin region, Moscow, Republic of Dagestan, Nenets and Yamal-Nenets autonomous districts. In those regions average cash income in November 2016 included between 2.5 and 3.3 fixed baskets of consumer goods and services.

5.2. Labor market dynamics

In terms of participation rate in labor force, employment and unemployment, implications of economic crisis remain practically invisible. Labor force and employment participation rate growth rates accelerated in 2016. According to the WLO methodology, the average unemployment level in 2016 down 0.1 percentage points to 5.5% against 5.6% in 2015 (*Fig. 11*). This being said, Rosstat data demonstrates seasonally adjusted unemployment declines since 2016. Dynamics of registered unemployment on the whole coincides with unemployment calculated on the WLO methodology. In absolute terms, the number of employed and economically active population remained unchanged in 2016.

Wages represented main damper on unemployment growth in 2015. In 2016, wages following a prolonged deceleration observed from Q4 2014 through Q1 2016, demonstrated moderate but gradually accelerating growth in Q2-Q4. Nevertheless, it is premature to talk about turnaround of wages to the level observed prior to the crisis: in December 2016 wages were 6.2% below the December 2014 level and by 10% below the December 2013 level (*Fig. 12*). Wage arrears in 2016 stayed at the lowest point.

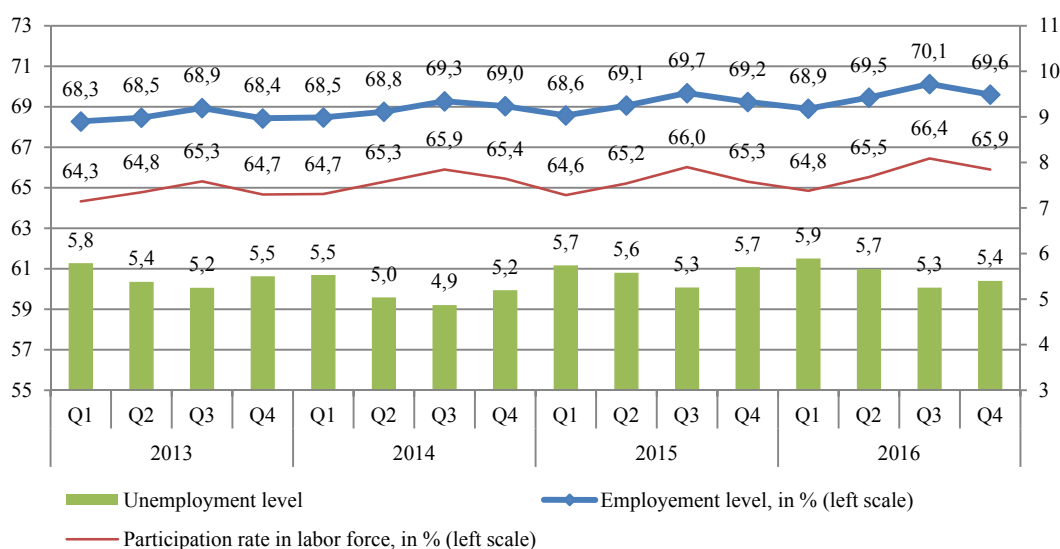


Fig. 11. Participation rates in labor force, employment, and unemployment in 2013–2016, in %

High sectoral differentiation in terms of wage dynamics is retained (data available only for 11 months of 2016). For the second consecutive year wages in agriculture, fisheries and fish farming, extraction of natural resources, manufacturing industry (specially in leather production, leather products; production of paper, paper pulp and their products; woodworking and timber products, chemical production, production of electrical, electronic and optical equipment), wholesale trade have been growing above the average rate.

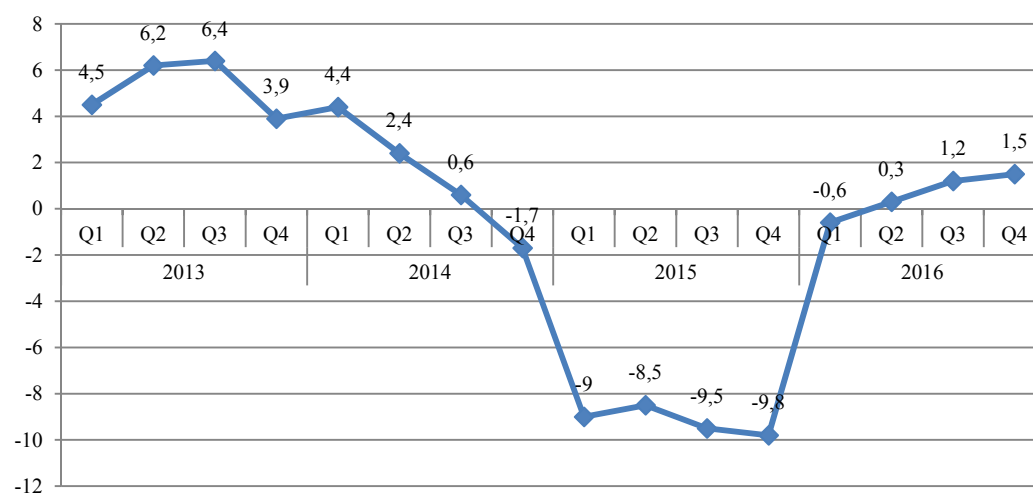


Fig. 12. Rates of real wage growth against corresponding index of last year, in %

Financial activity demonstrates significant growth, which partly offsets sharp reduction of wages seen in this sector in 2015. On the other hand, for the second consecutive year a reduction of wages is more significant, than in the economy as a whole, in public administration, defense and social insurance, education and, to a lesser degree, in health care. Thus, public employees

suffer most following a two-year recession, and, to a lesser degree, employees of other service sectors. Wages in agriculture and certain industrial sectors stayed most sustainable during the crisis period.

Other labor market data is available solely for three quarters of 2016. Data on hiring workers and on workers quitting their jobs happening at large and medium-size enterprises demonstrates positive dynamics for the first three quarters of 2016. Job quitting coefficient has been falling for the second consecutive year. Meanwhile, hiring coefficient has been increasing (*Fig. 13*). Thus, outflow of workers from large and medium-size enterprises slowed down by half compared to 2015.

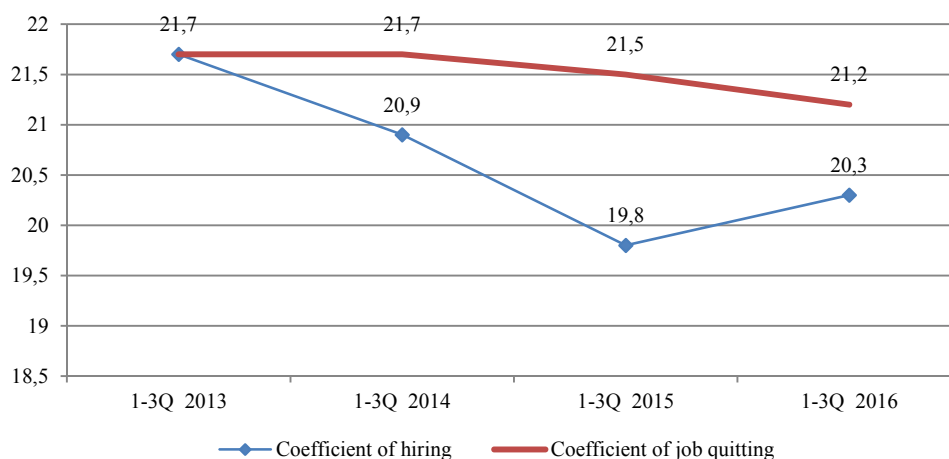


Fig. 13. Hiring and job quitting coefficients, %

Outflow of workers from large and medium-size enterprises (under stable employment level) inevitably leads to job growth in the informal sector ongoing throughout 2016 (*Fig. 14*). Having said that, the outflow of workers and unemployment growth reported in 2015 with sustainable growth of the informal sector demonstrates that the latter is unable to comprise everyone interested.

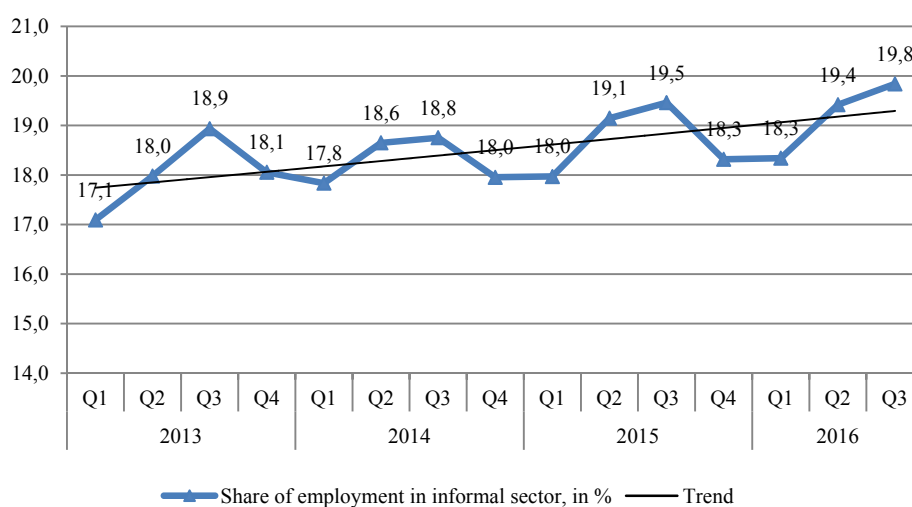


Fig. 14. Employment in the informal sector, % from total employment

Retaining workers by way of part-time employment was another damper on unemployment growth in 2016-2016. Rosstat data related to workers of large and medium-size enterprises, which covered three quarters of 2016, demonstrated that a growing number of businesses resorted to this type of policy in 2016 (Fig. 15). This being said, the last quarter usually posts this index above the average level. That is why, we can expect final total will be still higher.

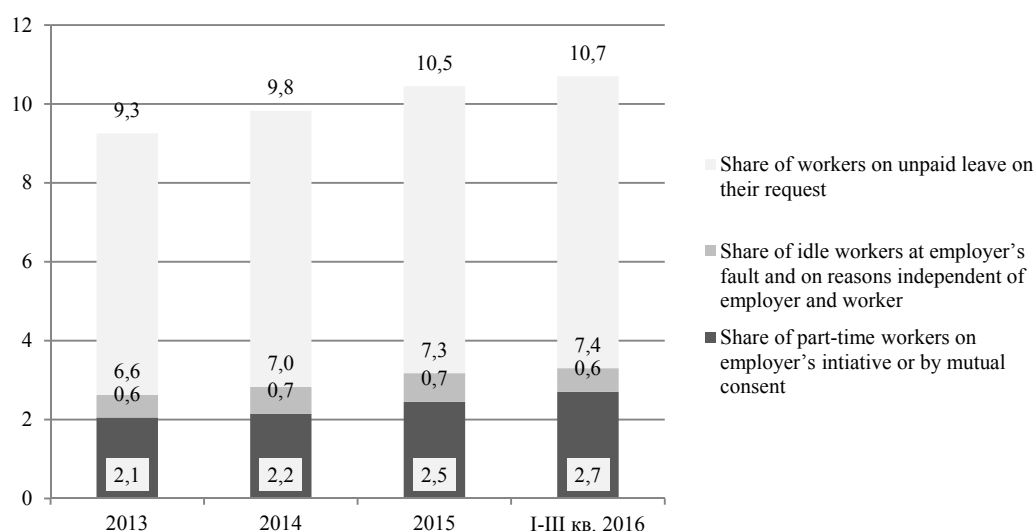


Fig. 15. Share of part-time workers in total headcount at large and medium-size enterprises, %

Rosstat data related to the labor market key indexes for 2016 demonstrates that the economy picked up out of the recession. Wages and unemployment stabilized at the 2015 level and the outflow of workers from large and medium-size enterprises declines to 2014 indicators. In contrast, employment in the informal sector and part-time employment growth is accelerating. In this context, it is useless to expect improvement amid lack of a rebound.

5.3. Social sentiment¹

5.3.1. Vision of the scale of the crisis by the population

During 2016, estimates of economic situation stabilized. At the turn of the year (February 2016), 24% of respondents pointed to the situation being stable against 40% in autumn 2016 (Table 1). The respondents who consider the situation to deteriorate (insignificantly or largely) constitute 22.3% and 24.7%, respectively totaling to 47.0% of the population against 53% who view the situation as a full-scale crisis. This is down 17% against the turn of 2016. In this context, we can say that vision of economic stabilization is attributable to wider population strata.

¹ This section provides assessments based on special survey of the population conducted by Institute of Social Analysis under RANEP. Monitoring of social sentiment of the population is implemented in several stages regime in 2015-2016. Every year, there are 8 surveys based on comparative and representative sampling encompassing urban and rural population of Russia. Each survey includes 1,600 respondents. Statistical error does not exceed 3.4%.

Table 1

**Breakdown of responses to the question:
“How economic situation changed recently?” in %**

Changes	Share of given responses				
	February 2015	November 2015	February 2016	October 2016	November 2016
Improved	2.7	4.8	2.9	5.0	3.4
Unchanged	17.3	35.3	24.8	38.7	40.7
Deteriorated insignificantly	32.6	20.5	21.2	23.4	22.3
Deteriorated noticeably	37.1	26.0	38.5	24.7	24.7
Full scale crisis	7.9	9.3	9.9	4.7	6.1
No answer	2.4	4.1	2.7	3.5	2.8
Total	100	100	100	100	100

Prospects for bottoming out is less unanimous among respondent. The majority of respondents (31.8%) consider crisis to continue for 1-2 years to come - down 6% since the turn of the year. Fewer respondents (27.4%) view situation to be stable. The number of optimists considering the situation to improve remains unchanged during the year (around 10%) down 1% against the turn of the year. The number of pessimists considering negative outcome beyond 2 years stays at 15%. In the course of monitoring in 2016, the share of respondents without an answer varies around 15% (Fig. 16).

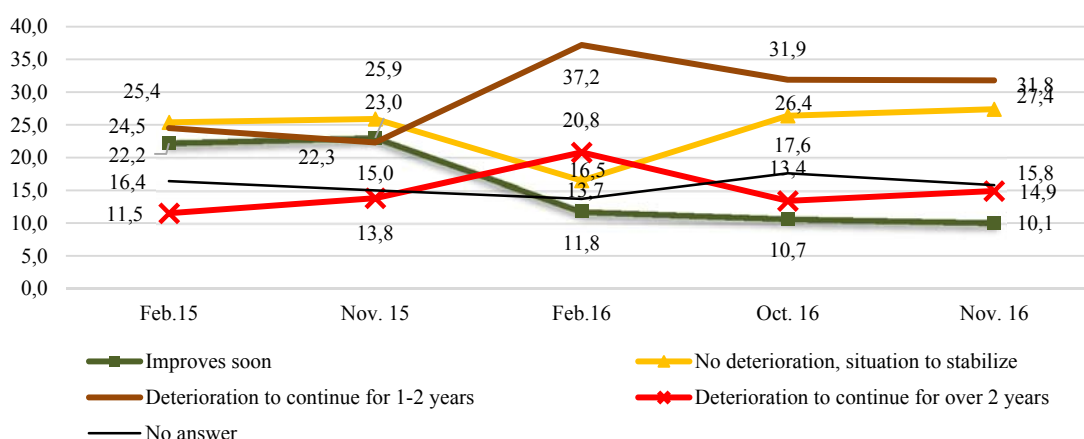


Fig. 16. Estimate of negative effects duration in economy, %

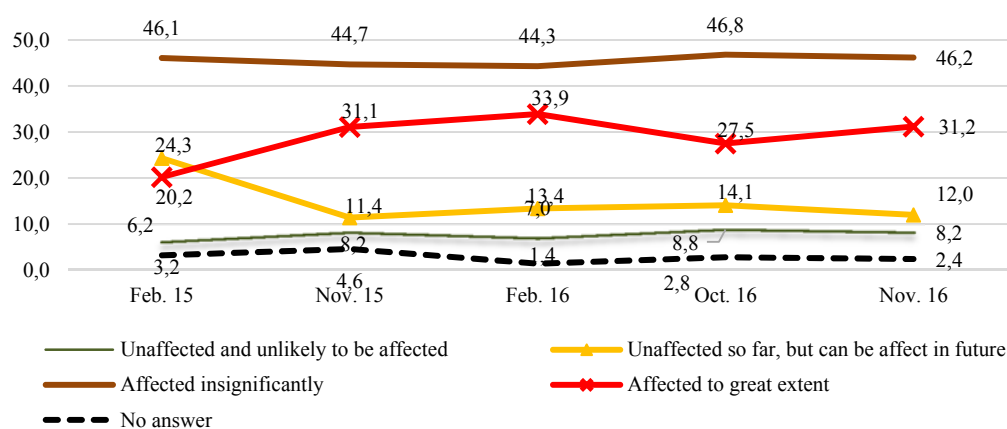


Fig. 17. Estimate of crisis developments impact, %

The number of respondents who in no way felt economic crisis did not exceed 7–8% during the year. Meanwhile, the number of respondents who suffered from the crisis varies around 75%, meanwhile 31%, according to the latest surveying, suffered to a great extent. In contrast, during entire 2016, 12–14% of respondents fear the crisis to find them in the years to come (Fig. 17).

5.3.2. Socio-economic implications of the crisis

According to the latest surveying (November 2016), around 30% of the working people feel threatened to loose job. In this regard, 56% of employed feel safe – up 6% against last month (Fig. 18).

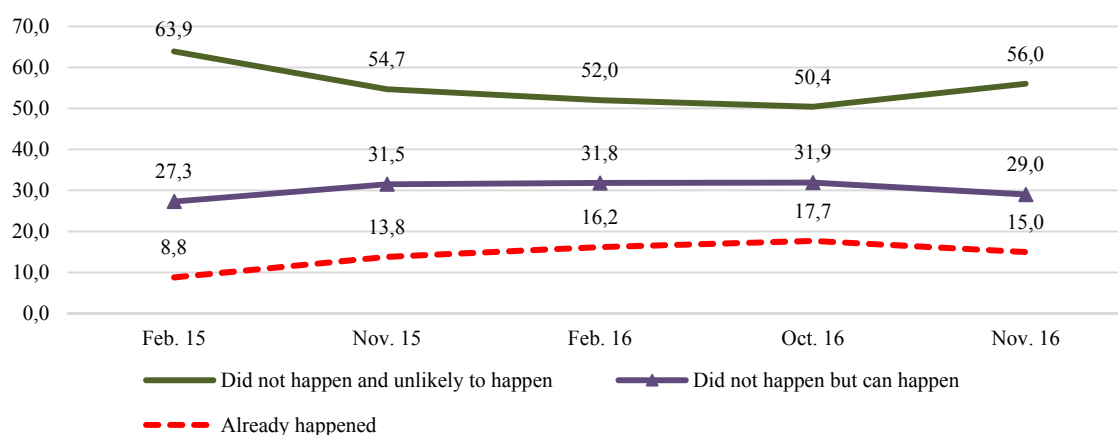


Fig. 18. Danger of job loss, in % to those who had job

Job loss (including with potential further employment) reported 15% of employed against 23.5% reported about real wage cut. Overhang of negative expectations in this regard is also high and throughout 2016 extended to 50% of employed (Fig. 19).

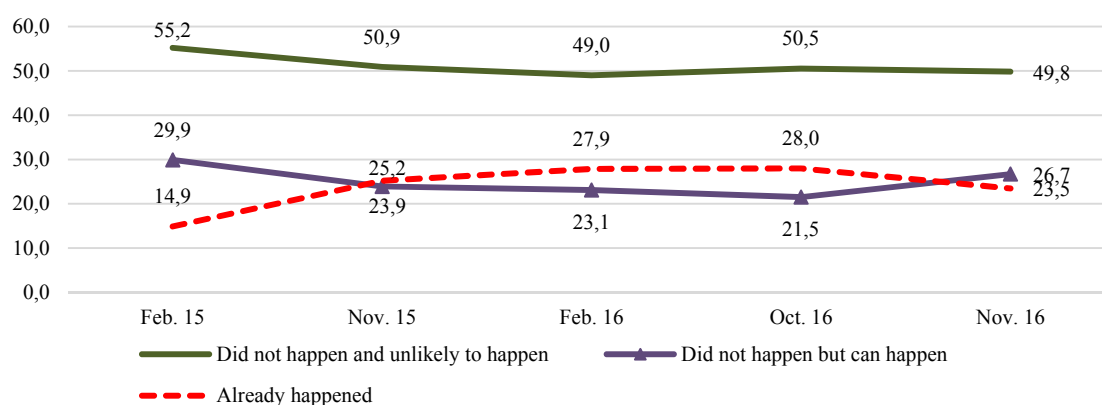


Fig. 19. The possibility of reducing wages,% of the number of employees

According to November 2016 data, there are other negative effects in the sphere of employment and the most widespread is wage arrears reported by 19.6% of respondents. At the same time, half of respondents against last month reported forced unpaid leave.

Table 2

**Share of working respondents who reported negative effects
in the sphere in employment, %**

Negative implications	February 2015	November 2015	February 2016	October 2016	November 2016
Transition to part-time working week	4.8	4.6	7.4	6.7	6.0
Unpaid leave	2.9	2.3	6.1	10.0	4.7
Wage arrears	-	-	21.5	22.5	19.6
Informal types of labor remuneration	7.0	7.1	10.3	12.6	12.0

Latest surveying attested to a sustainable trend, which demonstrated contraction of goods and services consumption. Expenses on education, entertainment, trips abroad contracted against the previous month (*Table 3*). This being said, there was no growth of expenses on either of the examined lines.

Table 3

**Share of respondents who reported contraction of expenses on goods and services,
in % of those who prior to crisis consumed them**

Refused / cut spending on:	February 2015	November 2015	February 2016	October 2016	November 2016
Purchase of certain products	53.3	49.2	54.1	49.0	51.9
Purchase of clothes and footwear	-	-	42.5	33.4	36.4
Purchase of certain drugs	25.6	19.4	26.5	24.2	25.9
Expenses on paid medical services	29.7	25.3	32.8	30.1	33.3
Expenses on paid educational services	30.3	24.3	28.4	28.5	36.2
Expenses on entertainment	52.6	51.0	58.2	50.0	57.5
Expenses on holidays abroad	60.3	59.1	64.0	55.0	61.5
Expenses on holidays in the country	47.8	42.6	44.4	41.2	49.5

5.3.3. Adaptive behavior of the population

Contraction of consumer activity was prevailing adaptive practice throughout 2016. All strata including well-off citizens resorted to this practice. According to November 2016 data, contraction of expenses on goods and services to a greater extent against a month earlier characterized consumer behavior of households with income above average one (*Table 4*). To what extent this trend is sustainable will be demonstrated by next surveys.

Table 4

**Adaptive strategies in consumption depending on material well-being,
in % in number of respondents**

Level of material well-being (according self-assessment)	February 2015	November 2015	February 2016	October 2016	November 2016
Cut expenses on goods and services					
Low	84.1	86.6	88.4	85.0	91.9
Middle	68.5	74.0	75.4	76.2	78.2
Above middle	53.1	57.9	47.7	47.8	61.4
In total	70.0	75.3	75.9	72.6	78.8
Store foodstuffs					
Low	43.4	39.6	41.4	44.6	40.5
Middle	31.4	31.6	29.4	30.2	32.6
Above middle	17.4	27.6	22.5	21.7	27.2
In total	32.2	33.4	32.8	33.0	33.9

Cultivation of vegetables and fruits on private plots of land was second after cutting expenses prevailing adaptive practice (*Table 5*). At the same time, the number of people implementing labor adaptation remained unchanged compared to the turn of 2016.

Table 5

Adaptive behavior in employment, in % of number of respondents

Types of activity	February 2016	May 2016	October 2016	November 2016
Got second job	4.6	6.2	5.5	5.6
Got onetime side job	11.1	14.0	14.2	14.9
Got constant side jobs	6.7	9.5	8.0	7.0
Cultivated more vegetables and fruits	23.8	29.0	31.3	34.6

Those who suffered most from the crisis resort to a greater extent to labor and agricultural adaptive practices. However, they opt for private subsidiary farming even in this group (Table 6).

Vision of economic stability embraces wider stratum. Vision of bottoming out prospects is less unanimous. Around one third of the population think that the crisis will continue to 1-2 years to come. Over one third think there will be no deterioration.

Throughout 2016, the number of people who were unaffected by the crisis developments did not exceed 7-8%, meanwhile the number of those who suffered to any extent varied around 75%. This being said, 31% according to the latest surveying identified themselves as greatly affected by the crisis.

Table 6

Adaptation depending on impact of crisis developments, % of number of respondents

The impact of crisis developments	February 2016	May 2016	November 2016
Got second job			
To date unaffected	4.0	7.8	6.5
Affected insignificantly	5.4	4.5	4.2
Affected significantly	4.2	7.8	7.4
In total	4.6	6.2	5.6
Got onetime and/or constant side jobs			
To date unaffected	11.0	17.5	14.2
Affected insignificantly	13.8	16.8	13.7
Affected significantly	15.8	20.2	25.8
In total	13.9	17.9	17.5
Cultivated more vegetables and fruits			
To date unaffected	17.1	18.9	20.7
Affected insignificantly	24.2	28.2	33.4
Affected significantly	28.2	38.6	46.6
In total	23.8	29.0	34.6

* * *

Economic crisis, which continues its run since 2014, has lost its strongly marked negative dynamics. The growing number of population point to increasingly stable situation. However, their opinion on recovery prospects is not so unanimous: one third of the population tends to consider the crisis to continue during 1–2 years to come, and one-fourth thinks that there will be no more degradation of the situation.

Thus, the new menace in the form of stagnation or the so-called negative stabilization, which means “tolerance for a negative” is about to replace the crisis. Stagnation entails consumer demand contraction, which becomes a wide pattern for the adaptive behavior of the population. It shapes new traits of consumer behavior characteristic not only of disadvantaged population but of the middle class as well. For example, following a two-year deceleration, the retail trade

volumes shrank by 14.7% by the outcomes of 2016 against 2014 in constant prices. During last year, households bought less non-food products by 15.4%.

The above consumer behavior pattern has both negative expectations for deterioration and continuation of the crisis and objective concerns linked to the labor market changes. Despite a natural rate of unemployment, businesses enforce policy of wage reduction and introduce part-time working hours aimed at retaining qualified and skilled personnel. Despite the fact that 2016 saw acceleration of gross payroll and inflation deceleration, real household income only moves towards the pre-crisis levels.

Specified factors have also affected the level of population's well-being. In the course of monitoring period of prolonged depression of household real income, the per-capita income component in the subsistence level decreased. The number of "working poor" accelerated significantly. For example, prolonged deceleration both of household real cash income and of real pensions have led to the deterioration of material well-being of the population and have raised risks for subjective poverty and social exclusion concerns. Throughout 2016, the number of population who did not notice the crisis stayed within 7–8%. In contrast, the number of those who were affected by the crisis ranged around 75%, meanwhile 31% of them according to the latest surveying considered themselves to be hardly hit by the crisis.

5.4. Migration

5.4.1. Long-term migration

Global migration in 2016 failed to demonstrate significant changes in the volumes in comparison with volumes posted during recent years. By the period-end results for January–November, migrant inflow fell somewhat – 522,400 against 541,300 for the same period of 2015, and migrant outflow shrank to 281,400 against 326,400, respectively. Net migration grew owing to a reduction in migrant outflow numbers. According to projections, at year-end migrant inflow (immigration) will amount to around 570,000 persons, and migrant outflow (emigration) – to roughly 300,000. Net migration, according to our extrapolation estimate (*Fig. 20*), will number around 270,000 persons, i.e. exceed the level of 2015 (246,000), but on the whole will remain at the level posted during the last decade. The effect in the change of methodology for migrants count, which previously ensured volume growth of statistically registered migrant inflow and outflow of long-term migrants, seems to be exhausted.

In recent years, migration almost completely ensures growth of Russia's population because natural increase is small. However, migration solely partly can offset reduction of population size of productive age offsetting roughly 15% of annual losses in this age group.

Growth of positive migration balance in Russia compared to 2015 took place in the wake of significant reduction of this indicator in 2015 owing to lagged effect of registration growth for a period of 1–3 years in 2012–2013. Growth of indexes of positive migration balance was ensured thanks to recovery of positive migration balance with Uzbekistan (in 2015 it was negative, the number of registered migrant outflow exceeded the number of migrant inflow owing to above mentioned reason) and recovery of customary migration growth registered with Tajikistan. Ukraine became the main contributing country for Russia during last three years. Even in 2016, Ukraine ensured half of positive migration balance in international migration (*Table 7*). Kazakhstan was second contributing country. In January–November 2016 compared to the same period of the previous year, positive migration balance went up with regard to countries of central Asia and Kazakhstan, with Azerbaijan it remained flat at the 2015 level and regarding other CIS countries a reduction of this indicator was posted.

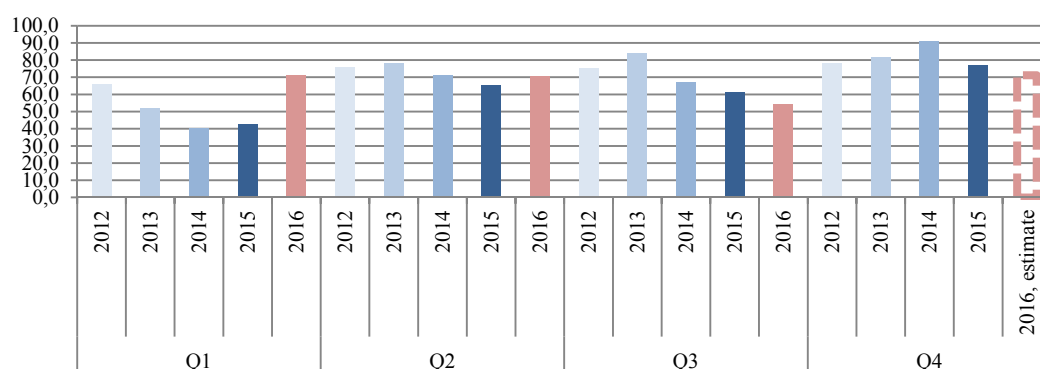


Fig. 20. Net migration in Russia in 2012–2016, quarter data,¹ thousand persons

Note. Data for Q4 2016 are calculated on the basis of distribution of numbers of migrant inflow and outflow in October and November 2015 and 2016.

In January–November 2016, migration gains were registered with non-CIS countries. However, one should be skeptical about the Rosstat data: according to comparable data released by recipient countries, migrant outflow from Russia for permanent residence in non-CIS countries is highly under registered.

As of the turn of 2016, temporary asylum in Russia was granted to 313,700 persons (nearly all arrived from Ukraine), and as of October 1, 2016 – 249,300 persons. In January–September, the number of those who got temporary asylum in Russian totaled to 17,200 persons against 130,300 persons who got temporary asylum during the corresponding period of 2015. In other words, the wave of forced migration to Russia is running its course. However, there are still risks for an upsurge of force migration from eastern Ukraine.

Table 7

Net migration in Russia from foreign countries 2012–2016, thousand persons

	2012	2013	2014	2015	2016, January–November
International migration, total	294.9	295.9	280.3	245.9	241.0
Including CIS countries	268.4	274.9	270.2	237.8	235.3
Azerbaijan	18.1	17.2	12.4	10.7	9.7
Armenia	32.0	32.2	24.0	20.6	10.8
Belorussia	10.2	3.7	6.8	4.9	2.0
Kazakhstan	36.7	40.2	40.8	34.8	33.6
Kirgizia	24.1	19.8	15.3	10.0	10.5
Moldavia	18.6	20.6	17.6	17.4	13.3
Tajikistan	31.4	33.6	19.4	11.4	24.9
Turkmenia	3.9	3.8	2.6	2.3	2.0
Uzbekistan	56.3	67.3	37.1	-20.4	18.4
Ukraine	37.0	36.4	94.4	146.1	110.1
Non-CIS countries	26.5	21.0	10.1	8.2	5.7

Source: Rosstat.

Internal migration in January–November 2016 remained practically flat in comparison with the corresponding period of 2015 growing by barely 6,500 persons or by 0.2%. The volume of internal migration will exceed 4 million persons at year-end. This number reflected changes in the methodology of migrants count. Since 2011, the recorded number of migrants was increased

¹ Sources: Rosstat, own calculations

by the addition of people who had been registered at their location for 9 or more months. This resulted in doubling the number of registered domestic migrants.

In January–November 2016, two metropolitan areas remain centers of attraction for domestic and foreign migrants – Moscow with the Moscow region, St. Petersburg with the Leningrad region), and Krasnodarsky Krai. Significant migration gains are attributed to the Republic of Crimea and Sebastopol, Tyumen, Novosibirsk, Kaliningrad, Voronezh, and Kaluga regions. Even such insignificant overall increase in migration gains resulted in a reduction of the number of regions who are shedding population due to population relocation. Migration gains resulting from the global migration compensate population decline due to domestic population relocation. In January–November 2016 compared to the corresponding period of the previous year, Moscow migration gains significantly declined from 99,600 to 19,500, which positively affected migration balance in the central regions of Russia, which to a great degree contribute to Moscow migration gains. Apparently, at year-end Moscow migration gains will not hit annual average values. However, on the whole, the metropolitan area remains the major center of attraction for migrants in Russia.

At the same time, migration leads to population decline in the majority of regions of the Volga, North-Caucasus, and Siberian federal okrugs. Population outflow goes on from all regions of the Far-Eastern federal okrug. At the turn of the year, there were reports regarding the migration loss in the regions of Far East. However, at the period-end of 11 months of 2016 these reports were not confirmed. Migration loss for this period declined from 22,000 in 2015 to 14,500 in 2016, and at year-end, it will be somewhat below the level of recent years. It is premature to talk about the reverse in the trend.

5.4.2. Temporary migration

In late 2016, there were 9.6 m foreign citizens in Russia. Starting from October, autumn reduction of the number of foreigners in Russia was observed, which was characteristic for the previous years (and less pronounced in 2015) following summer growth of the index (*Fig. 21*). On the whole, 2016 demonstrates a noticeable decline in the number of foreign arrivals compared to the 2013–2014 level and even with 2015. The difference came to over a million persons during certain months.

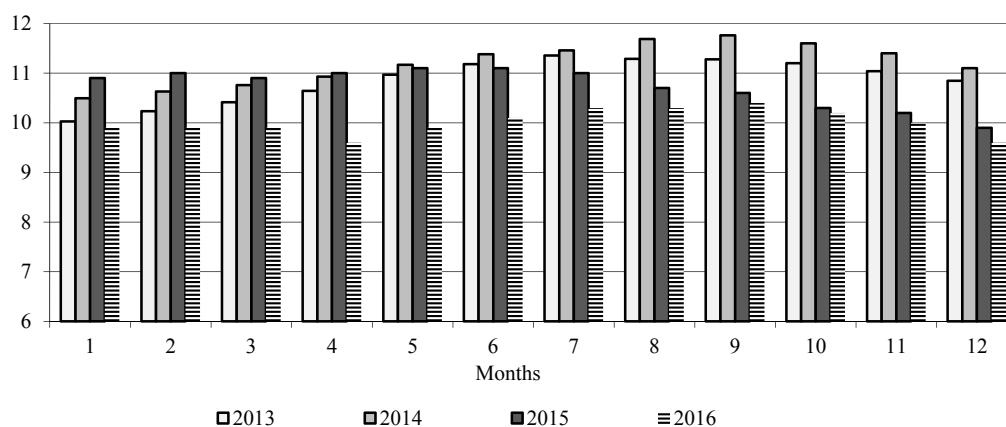


Fig. 21. Number of foreign citizens arriving to Russia at each month-end, 2013–2016, million persons

Sources: data released by Headquarters on migration issues of Russia’s Interior Ministry, refusal of entry office.

The share of CIS citizens in the number of temporary migrants does not fall below 85%. At year-end, they totaled to 8.2 million persons (*Table 8*). Compared to the previous years, this number demonstrates downward trend by 5% compared with 2015 and 8% against 2014. Seasonal peak of foreigners inflow in 2016 (September) exceeded the minimum (April) by 700,000 persons (7%).

Table 8

Migrant inflow from CIS to Russia as of date, persons

	12.31.2015	12.31.2016
Azerbaijan	528,790	531,085
Armenia	474,527	459,878
Belorussia	648,895	713,446
Kazakhstan	642,808	573,572
Kirgizia	552,207	592,063
Moldavia	498,698	489,669
Tajikistan	870,226	872,509
Uzbekistan	1,819,140	1,511,344
Ukraine	2,537,246	2,443,047
CIS, total	8,572,537	8,186,613

Sources: data released by Headquarters on migration issues of Russia’s Interior Ministry, refusal of entry office.

According to three-year statistical data regarding CIS migrants, there is a sustainable trend showing a declining labor migration from major contributing countries – by 30% from Uzbekistan on 2014, and by 13% from Tajikistan. On the contrary, it is growing from EAEU member states, including Kirgizia. Migrant inflow from Azerbaijan and Moldova is contracting. Meanwhile, the inflow of Ukrainian citizens remains high so far.

For the first time since mid-2014, downward trend regarding inflow of foreign citizens from non-CIS countries halted and even small growth was observed but at year-end, it again shrank. Compared to the pre-crisis 2013 level, the difference in the number of arrivals from non-CIS countries remains significant (*Table 9*) - more than twofold and regarding certain countries, such as the U.S.A., Spain, and Great Britain – 4-6-fold. Increase of arrivals from non-CIS countries posted in 2016 mainly reflected increased flow of tourists and to a lesser degree - students, work for hire, commercial and private visits.

Citizens from China hold the first place on the list of those arriving from non-CIS countries including “work for hire.” Tourists contribute most to growth and to a lesser degree – academic exchange and private visits. Despite a change in rhetoric, the number of Turkish citizens is still falling. Regarding those arriving for work for hire Turkey dropped from the second place to the fourth behind labor migrants from North Korea and Vietnam.

Table 9

Stay of citizens from non-CIS countries in Russia as of date, persons

	11.13.2013	12.31.2016
Germany	352,335	109,145
Spain	77,200	14,356
Italy	77,193	26,509
Great Britain	174,061	26,854
Finland	108,312	97,508
France	65,559	27,953
EU total	1,177,829	494,839
USA	220,086	46,793
China	224,859	235,785
Turkey	124,858	52,797

Sources: data released by Headquarters on migration issues of Russia’s Interior Ministry, refusal of entry office.

At the year-end of 2016, Russia hosted 3.55 million labor migrants seeking work for hire (as of December 31, 2015 – 3.78 m). Herewith, the number of those who has authorization documents for work (work permits and patents) for that date totaled to 1.65 million persons. If we take into account all labor migrants who have the right of work without authorization documents from EAEU countries (851,000 labor migrants seeking work for hire) the number will total to 2.5 million labor migrants who received an official right to work in the Russian Federation (which was optional for realization). In other words, at least one million persons are undocumented migrants from the point of view of official employment.

The number of legal labor migrants is below the 2015 level. During 2016, labor migrants received 1.67 million work permits and patents, which constituted 82% on the 2015 level and 45% of the 2014 level (*Table 10*). While analyzing the issues of the current situation, deteriorated economic conditions on Russia’s labor market are inseparable from the high cost of getting and paying for authorization documents – both do not provide incentives to migrants to get out of “grey”.

Table 10

Authorization documents for migrants’ work in Russia, 2014–2016, persons

	2014	2015	2016
Work permits for foreign citizens (FC)*	1,334,899	177,175	133,215
Work permits for qualified specialists (QS)*	158,644	22,099	14,775
Work permits for highly qualified specialists (HQS)	34,225	41,829	25,469
Patents**	2,379,374	1,779,796	1,492,203
Total	3,907,142	2,020,899	1,665,662

* – From January 1, 2015 solely issued for FS from visa entry countries.

** – From January 1, 2015 solely issued for FS from visa-free regime countries for work both at individual and legal entities.

Sources: data released by Headquarters on migration issues of Russia’s Interior Ministry, form 1-RD.

However, despite the smaller number of issued in 2016 patents, administration of this advance payment, apparently, improved significantly: the sum of tax obtained in 2015 constituted RUB 33 billion, and in 2016 – around RUB 45 billion. The share paid by migrants from different countries does not change – labor migrant from Uzbekistan and Tajikistan contribute 82% and migrants from Ukraine – barely 10% (to note, the latter are the largest group on the territory of Russia).

5.5. Education system¹

In 2016, no events happened that would significantly influence the development of the Russian education system. The agenda that had emerged in 2012–2015 was being implemented. The regular monitoring of the effectiveness of higher education institutions was conducted, the average salary of teachers was raised, the principle of normative per capita financing of vocational education continued to be implemented, mergers of higher education institutions were carried out, the core higher education institutions were chosen. Project 5-100 which is designed to help at least five Russian universities make their way to the top-100 lists of the major institutional university rankings – Times Higher Education, QS and ARWU (Shanghai ranking) was also implemented, and 21 leading universities have already been included into this Project since 2015. The change of the minister and the ministerial team has not yet affected

¹ Authors of chapter: T. Kliachko – IAES RANEPА; G. Tokareva – IAES RANEPА.

the education policy, although its vector shift was announced. The only thing that the new minister has done so far is cancelling the merger of several universities that was previously announced. This pause can be broadly explained by the elaboration of a new road map for the Russian Ministry of Education and Science. We can also assume that, first of all, further reform of general education – pre-school and school one – will serve as its basis. It may well be that the school teacher and the nursery teacher will become the leading figures of the reforms. At the same time, most measures that could be offered in this situation have been either already implemented or discussed for several years.

5.5.1. Reforming general education: teachers' salaries and professional growth

Among the measures implemented in the area of general education during the last several years of reforms, there are: increasing the average salary of teaching employees since 2012, changing the procedure for their merit rating, introducing an “effective contract” and switching to advanced training once in three years instead of once in five years.

A system of voucher funding of advanced training for teachers is discussed and has even been tested in several Russian regions. It gives a teacher an opportunity to choose modules within a given program in different educational institutions of additional professional education and higher education institutions, satisfying their professional interests and requirements of their employer.

Additionally, in recent years, the question of changing the approach to teacher training has been studied. The main idea is that a specialist (mathematician, physicist, philologist, historian, etc.) is trained at a university, and then, if he or she wants to become a teacher, they take a one-year course that allows them to become a teacher. This approach is broadly due to the fact that pedagogical higher education institutions are currently among the weakest institutions of higher education, and students are also quite weak there (*Fig. 22*).

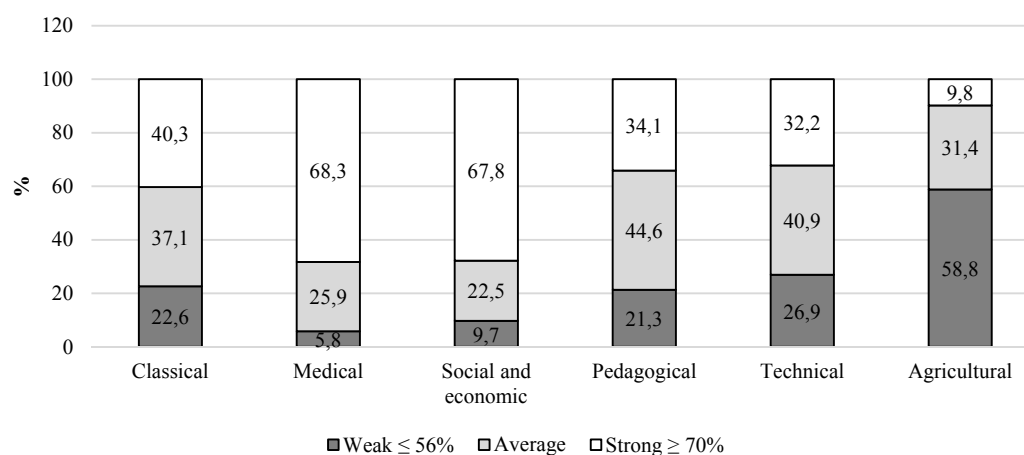


Fig. 22. Distribution of first year students by the average score of the uniform state exam depending on the profile of the higher education institution (%), 2015

Source: Monitoring of the Quality of University Enrolment in 2015. HSE and RIA Novosti.

It is believed that increasing the salary of teaching employees has led to stronger applicants deciding to go to pedagogical higher education institutions in 2016: the uniform state exam average grade of the first year students admitted to state-funded places in the training program “Pedagogical education” increased from 65.7 to 67.2 points.¹

As noted in the Monitoring of the Quality of University Enrolment, “in 2016, out of 68 enlarged programs of higher education, the average quality of state-funded enrolment grew by more than 1.5 points (this is a very significant growth across the country) in 23 programs and fell only in two programs (“International relations” and “Preservation of monuments”). The first group (where the quality increased) consists mostly of engineering and technology programs and computer science. Among them: “Aviation and rocket and space technology”, “Automation and control”, “Computer science and computer technology”, “Metallurgy”, “Technological machines and equipment”, “Quality management”, and “Mathematics”.

The second group of programs in which the quality of enrolment grew consists of virtually all pedagogical programs, as well as “Nursing” and “Physical education”.

The third group is made up of social sciences and economics. The programs where the quality of enrolment grew are: “Economics”, “Management”, “State and municipal management”, “Political science”.

The fourth group is humanities and “communication” disciplines. Those where the quality of enrolment grew are: “Design”, “Linguistics and foreign languages”, “Philology”, “Journalism”.²

At the same time, one should keep in mind that the overall improvement in the uniform state exam results may be due to changed conditions of how it is organized or changed procedure of calculating test scores.

It should also be taken into account that the proposed measure implicating that a teacher-to-be gets education in a classical university and then gains additional pedagogical competences elsewhere will only be effective in case that classical universities are strong. Unfortunately, it is not the case in Russia. As we can see in *Fig. 22*, classical universities are generally slightly stronger than pedagogical higher education institutions, but the proportion of weak students there is even higher. It seems to be due to the fact that in the 1990s, many pedagogical higher education institutions were transformed into classical universities, but this did not lead to improvements in the quality of their education.

If we consider the situation with the state-funded enrolment in the program “Pedagogical education”, in 2016 it was as follows (*Table 11*).

In the first 11 pedagogical higher education institutions, the average score of the uniform state exam in 2016 was over 70 points, i.e. their first-year students were strong enough by the standards of 2015. In the remaining nine higher education institutions, the average score of first-year students admitted to state-funded places was below 70 – they were mostly average performers. At the same time, among all these higher education institutions, it is only in the Russian State Vocational Pedagogical University (Yekaterinburg) that the average score of the weakest student admitted to a state-funded place was higher than 56 points. At three other higher education institutions, this score was 50 or higher, and at the remaining ones, it was 39.3–48.5 points. In other words, even in the top 20 pedagogical higher education institutions by the quality of enrolment, low-performing students will be taught on state-funded places. The

¹ Monitoring of the Quality of University Enrolment in 2016. HSE and RIA Novosti.

² https://www.hse.ru/ege/stata_2016

same students will most likely go to schools to teach children since stronger students will probably choose another career (or they will stop teaching at school after a few years).

Table 11

**State-funded enrolment in the program “Pedagogical education” in 2016
(top 20 pedagogical higher education institutions)**

	Higher education institution	Average uniform state exam score	Average score of the weakest applicant admitted to a state-funded place
1	Moscow City University	76,6	51,0
2	Moscow State University of Education	76,5	48,5
3	Russian State Vocational Pedagogical University, Yekaterinburg	76,3	57,0
4	Kozma Minin Nizhny Novgorod State Pedagogical University	76,0	43,3
5	Herzen State Pedagogical University of Russia, Saint Petersburg	73,6	44,3
6	Pushkin Leningrad State University, Saint Petersburg	73,1	50,0
7	Samara State University of Social Sciences and Education	72,5	44,3
8	Voronezh State Pedagogical University	71,6	39,3
9	Urals State Pedagogical University, Yekaterinburg	71,0	48,0
10	Vladimir Korolenko State Pedagogical University of Glazov	70,1	43,7
11	Ivan Yakovlev State Pedagogical University of Chuvashia, Cheboksary	70,1	45,7
12	Volgograd State University of Social Sciences and Education	69,9	42,0
13	Perm State Humanitarian Pedagogical University	69,9	45,3
14	Nizhni Tagil State Institute of Social Sciences and Education	69,6	40,7
15	Orenburg State Pedagogical University	69,3	44,3
16	Naberezhnye Chelny Institute of Social and Pedagogical Technology and Resources	69,1	55,3
17	Chelyabinsk State Pedagogical University	69,1	44,0
18	Ilya Ulyanov State Pedagogical University of Ulyanovsk	68,9	41,0
19	Novosibirsk State Pedagogical University	68,8	40,3
20	Tula State Lev Tolstoy Pedagogical University	68,8	43,7

It seems that the fact that slightly stronger applicants began to enroll in pedagogical higher education institutions is not only, and maybe not at all, due to the increase in teachers’ salaries but rather due to people wanting to get a profession that will be in high demand even in times of economic difficulties in the country – as it was in the 1990s, when specialists from other branches of the economy started to work at schools. In those years, employment in the public sector increased significantly, which largely determined its “budgetary” inefficiency in the 2000s and 2010s.

It should be borne in mind that the increase in teachers’ salaries observed in recent years, coupled with a certain reduction in the number of teachers, can give way to a reverse process: freezing teachers’ salaries coupled with a growth in the number of teachers. For many Russian regions, especially subsidized ones, this is a standard measure to maintain social stability. The “effective contract” of teaching is replaced by a “social contract” which is much more important in times of economic decline. In the meantime, there has been an increase in teachers’ negative assessment of their socioeconomic status, primarily the size of their salaries (*Fig. 23*).

As the monitoring of school effectiveness that has been prepared since 2013 by the RANEPa Center for Economy of Continuing Education shows, it was already in 2015 that teachers began to feel unsatisfied with their salary. But back then, it was not as pronounced as it was in 2016, when the share of teachers who were “satisfied” and “rather satisfied” with their salary declined while the share of those who were “not satisfied at all” rose sharply. The overall share of positive estimates declined compared to 2015 by 5.9 percentage points – from 40.6% to 34.7%, while the share of negative estimates increased from 59.4% in 2015 to 65.3% in 2016. So the

prevalence of teachers' negative assessments of their salaries over positive ones that had already existed before just increased in 2016.

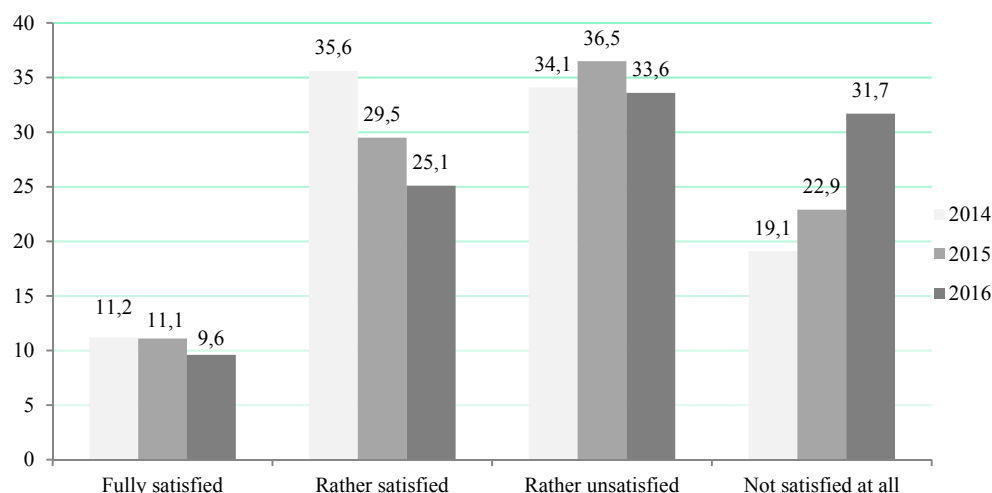


Fig. 23. Teachers' satisfaction with the size of their salaries in 2014–2016. (Distribution of answers to the question: “Are you generally satisfied with your salary?”)

Source: Monitoring of School Effectiveness prepared by RANEP Center for Economy of Continuing Education.

If we look at the situation with teachers' professional development and their assessments of what was happening – according to the monitoring, it was as follows. Teachers actively improved their qualification in the system of additional professional education (*Fig. 24*); only 12.6% of teachers have not done it in the last three years.

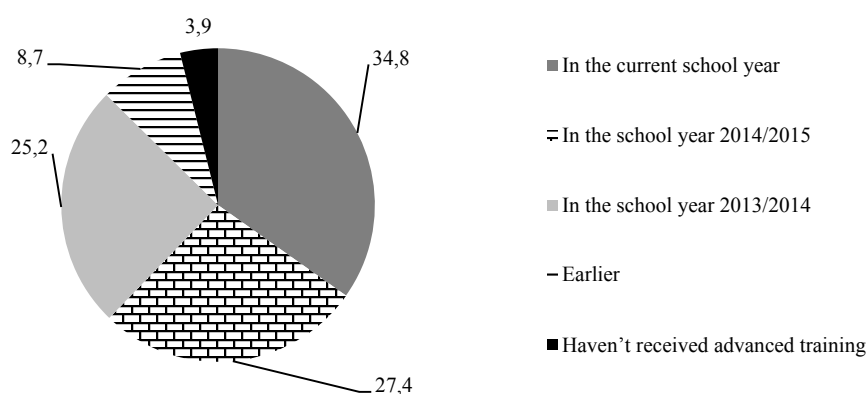


Fig. 24. Teachers' advanced training (%)

The main competences teachers obtained during the programs of additional professional education are presented in *Fig. 25*. During this advanced training, teachers paid most attention to new educational technologies and methods of teaching a subject (75.6%). To a lesser extent, the problems of mentoring and socialization of schoolchildren were discussed (42%), as well as new forms of management activities (21%).

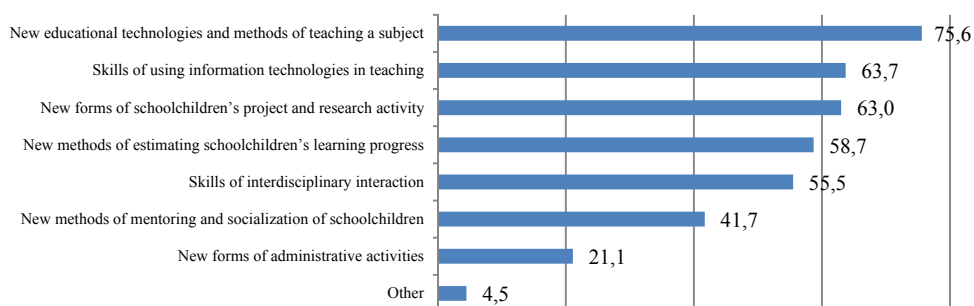


Fig. 25. Teachers' answers about what programs of additional professional education were more important for them (% of those who received advanced training, several answers were allowed)

According to teachers, the most effective advanced training programs are provided by institutions of additional professional education. Secondary to them are pedagogical higher education institutions that implement the relevant programs. Mentoring training at their own schools as well as training at other schools within the framework of school network interaction were not referred by teachers to effective forms of advanced training (they were mentioned by less than 10% of respondents) (Fig. 26).

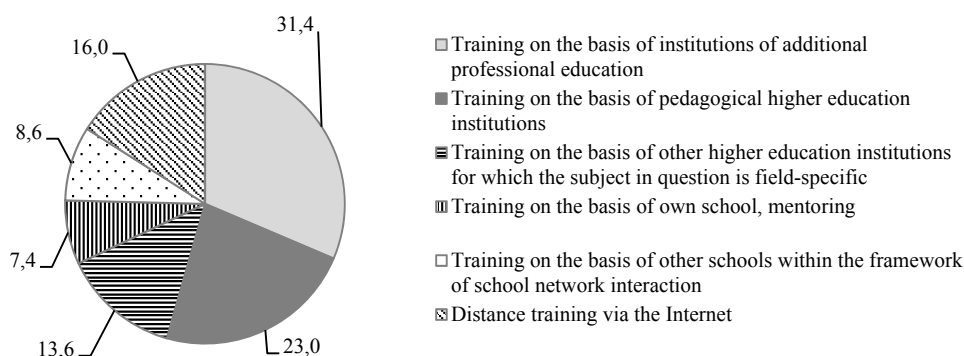


Fig. 26. Teachers' views on the most effective forms of advanced training (%)

On the one hand, these data seem to contradict the notion that pedagogical higher education institutions can not train good teachers and therefore the whole pedagogical education needs to be restructured. On the other hand, advanced training programs at pedagogical higher education institutions are usually attended by "regular" teachers who likely studied at the same institutions before, often more than 5 to 10 years ago. Their assessments are involuntarily shifted to a positive spectrum: in the process of advanced training, they find themselves in the familiar environment and familiar pedagogical culture and perceive the programs positively. At the same time, it is possible that some teachers have quite formal attitude to the process of advanced training in general: they will pass it if necessary, and they have no motivation to evaluate the process negatively.

As for the choice of the training program, the programs that last 72 hours proved to be the most popular ones (they were chosen with a wide margin) (*Fig. 27*).

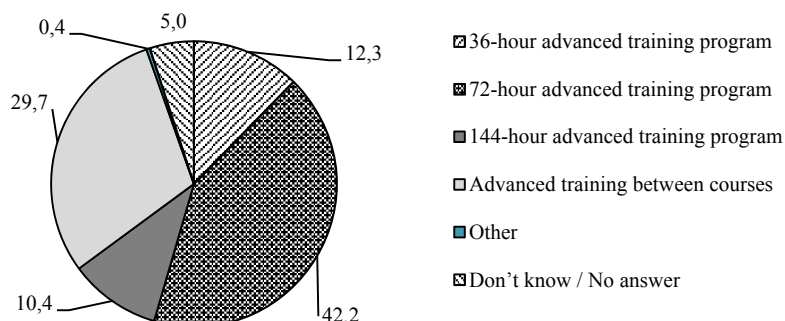


Fig. 27. Teachers' demand for advanced training programs (%)

As the monitoring showed, only 16% (1/6) of teachers considered additional professional education so important that they were ready to pay for it themselves if necessary. Another third of respondents were ready to consider this possibility. At the same time, half of respondents would not agree to pay for advanced training out of their own pocket (*Fig. 28*).

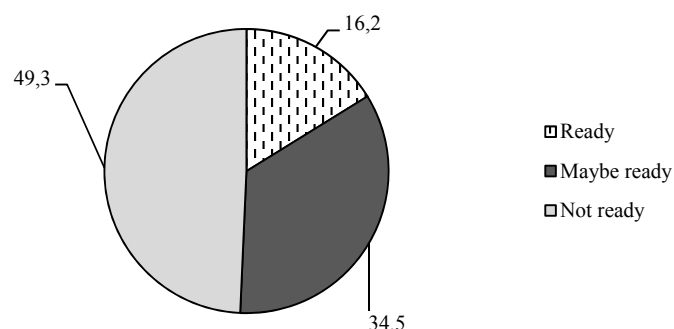


Fig. 28. Teachers' readiness of to pay for advanced training programs themselves, provided they are useful (%)

Headmasters of general education institutions showed a somewhat different, albeit close view of the professional development of a teacher during the monitoring process. In their opinion, the following directions of advanced training are important: the subject content of the discipline, particularly in the context of the introduction of federal state educational standards for general education; psychological training for working with schoolchildren; modern educational technologies and teaching methods; legal aspects of professional activity; the development of a regulatory framework for education; developing ICT skills. It should be noted headmasters mentioned the special importance of developing namely the latter direction of teachers' advanced training. At the same time, when speaking about the duration of additional professional education programs, some headmasters noted that programs requiring 72 hours or more cause problems related to the organization of educational process at school, so they prefer to send employees to short-term advanced trainings (up to 36 hours).

“In-house” education, i.e. advanced training provided within the school itself is also a widespread practice. According to headmasters, this form is the most convenient one for organizing advanced training because it can be carried out without discontinuing work. Some headmasters said they were ready to create “pedagogical workshops” for their teachers and teachers from other educational institutions on the basis of their schools. Headmasters believe that organizing in-service training on the basis of the school is one of the most effective tools for managing the quality of education since it is aimed at solving problems that are relevant for a particular educational institution. Within the “in-house” training of teachers, the practice of mentoring is also widespread. At the same time, as indicated earlier, teachers consider “in-house” training as the least effective.

The issues of reforming school education are trending all over the world since the quality improvement of human capital has recently been seen as one of the leading factors of the growth of countries’ competitive ability, and the school lays foundation of the human capital. A teacher’s advanced training, professional development, creating conditions for the “extension” of his or her career ladder are considered important components in solving the problem of the effectiveness of school education. Russia, as can be seen, goes the same way, focusing on the professionalism of teachers, their motivation and career advancement.

5.5.2. Vocational education

Secondary vocational education. In 2016, no significant changes happened in the system of secondary vocational education. In recent years, the system of secondary vocational education has integrated two types of training programs: those for highly qualified workers and those for mid-level specialists.

The system of primary vocational education was abolished by the Federal Law “On Education in the Russian Federation” due to the fact that it was not in demand by employers, although the need for workforce is constantly being declared as extremely acute. Such a situation developed because employers were satisfied neither with the qualification of the workforce trained (3rd grade) nor with the level of their discipline and work culture. As a result, the following basic models of training new workers for the manufacturing system were formed:

- Large successful enterprises incorporated institutions for training workers, so they trained and continue to train their staff at these in-house training centers (with that, they are dissatisfied with the fact that the state can not provide the necessary level of training). At the same time, students who were trained at these primary vocational education institutions were, as a rule, older than 20 years;
- If an enterprise actually began to control and finance a state (municipal) primary vocational education institution, it set strict requirements for the administration, teachers and masters of vocational training, as well as screened out those students who did not strive to study and work well.

Employers who could not afford to create an in-house training center or control a primary vocational education institution preferred to recruit young people who had appropriate vocational education but served in the Russian Armed Forces, and then teach them directly at the workplace.

State and municipal primary vocational education institutions financed from the budget had, as a rule, outdated facilities and pedagogical staff who were poorly informed about modern production technologies. The situation at institutions that had been transformed into resource centers was somewhat better, because their facilities had been substantially updated, and

teachers and masters of vocational training had attended retraining courses and been introduced to new production technologies.

Due to the low prestige of primary vocational education which provided blue-collar training after the 9th grade of school (at 15–16 years of age), the system of primary vocational education was integrated into the system of secondary vocational education. However, as a result, the prestige of workforce training did not increase while the prestige of the system of secondary vocational education decreased dramatically.

As the sociological surveys that the RANEP Center for Economy of Continuing Education has conducted since 2013 show, employers consider the level of basic training of workers much lower than the basic training of specialists and management personnel.

In the school year 2015/16, those who finished the 9th grade made the following choice:

- 55.0% went to the 10th grade (to high school);
- 33.2% went on to receive secondary vocational education;
- 11.8% gave up their studies due to various reasons.

In the same school year, 17.2% of those who finished the 11th grade went on to study at secondary vocational education institutions, and 83.4% of graduates from the system of secondary vocational education strived to enroll in higher education institutions, while more than 35% of them did not even enter the labor market. Among graduates of secondary vocational education institutions entering the labor market are, as a rule, those who received the professions of waiters, hairdressers, cooks, cabinet makers, etc., and are oriented at working in the service sector, as well as nurses (gaining experience before entering medical higher education institutions), nursery teachers and teachers who graduated from teacher training colleges (3–4 years later, they, too, will try to enter pedagogical higher education institutions).

The network of secondary vocational education institutions changed insignificantly between academic years 2007/08 and 2015/16 (the “dip” in 2014 was caused by transferring statistical records on education from Rosstat to the Ministry of Education and Science) (*Fig. 29*).

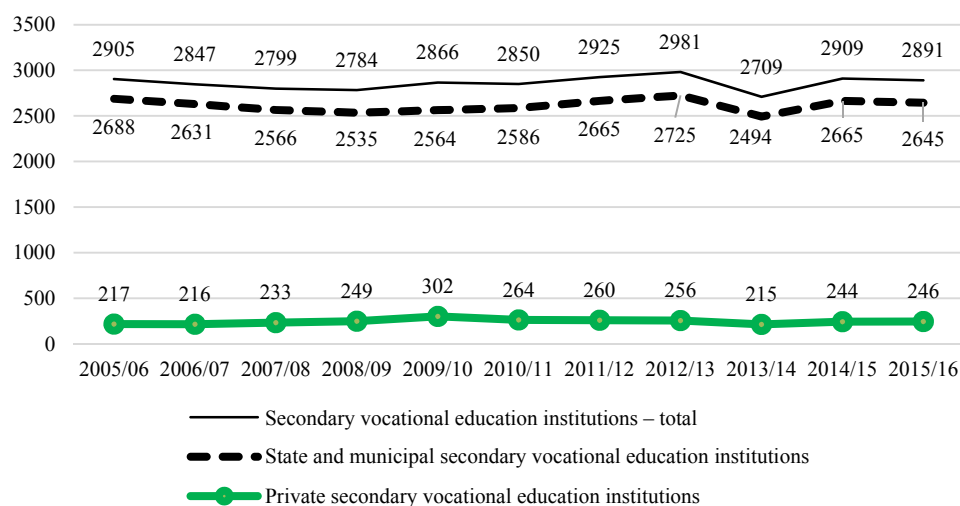


Fig. 29. The number of secondary vocational education institutions in the academic years 2007/08 – 2015/16.

Source: Rosstat.

The number of students in secondary vocational education institutions is presented in Fig. 30.

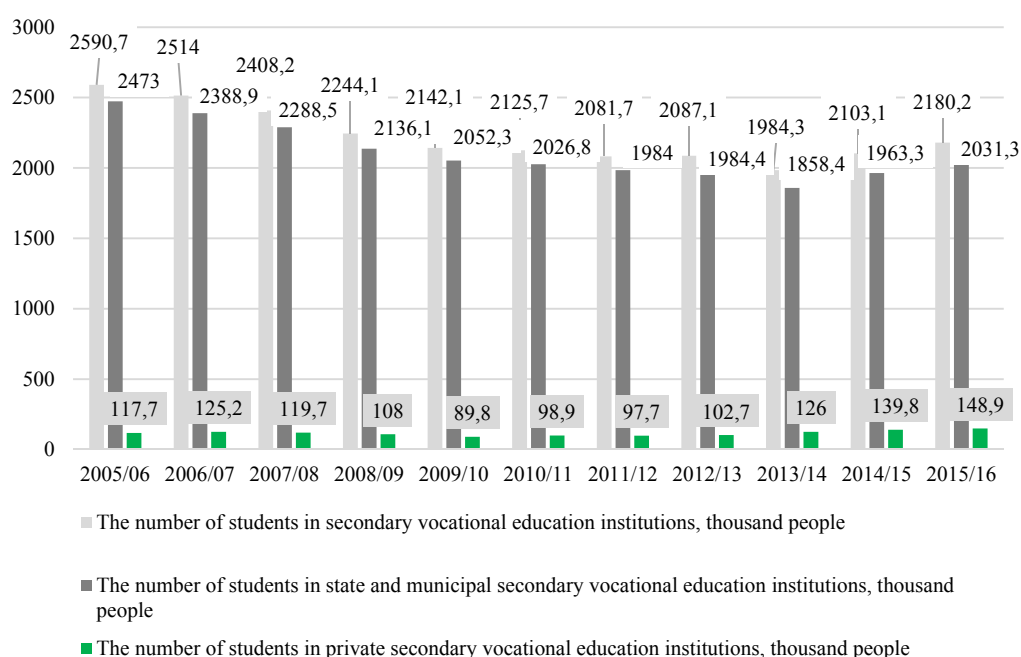


Fig. 30. Number of students in secondary vocational education institutions (training mid-level specialists) in academic years 2005/06 – 2015/16, thousand people.

Source: Rosstat.

In the academic year 2015/16, the share of private educational institutions in the secondary vocational education was 8.3% of their total number, and 6.8% of the total number of students at this level of education were enrolled in them.

A special feature of mid-level specialist training (applied training) in secondary vocational education institutions is that the majority of students there study full-time, the same is the case in private secondary vocational education institutions.

In state and municipal secondary vocational education institutions, the share of full-time education is more than 80%; in private ones it is almost 75%. These figures are much bigger than in higher education institutions: in state and municipal higher education institutions, the share of full-time education in the academic year 2015/16 was 55.9%, in private higher education institutions – only 15.7%.

Since the introduction of the uniform state exam in 2009, the number of graduates from the 9th grade entering secondary vocational education institutions has grown quite noticeably, because heading to a higher education institution through the system of secondary vocational education became a way of “bypassing” the uniform state exam. The orientation towards higher education did not diminish. According to the surveys conducted in the framework of monitoring the school effectiveness, the overwhelming majority of parents (or legal representatives) want their children to enter a higher education institution: in 2016, such desire was expressed by 85.3% of them.

So the system of secondary vocational education remains, as it was, a transit system between the school and the higher education institution.

Higher education. In 2016, conducting a monitoring of the effectiveness of higher education institutions sparked almost no interest among the higher education community. Today, the fact that the monitoring becomes the basis for checking if the higher education institution complies with the requirements of the Federal Service for Supervision in Education and Science does not surprise anyone. At the same time, the accreditation of higher education institutions remains in place, which means that the mentioned educational institutions fall under double pressure. For a while, the monitoring and recognizing some higher education institutions as ineffective were among the mechanisms for the growing prestigious higher education institutions to obtain additional property, as well as an instrument in the struggle for the diminishing contingent of students. But as a result of fighting inefficient higher education institutions, inefficiency of the system of higher education itself began to increase due to the growth of monopoly in it. This does not call off the task of fighting the low quality of educational programs. However, for this purpose, there are mechanisms of licensing and accrediting higher education institutions – the procedures that have been increasingly profaned in recent years. But instead of organizing the work of these mechanisms, someone has been actually replacing them by the effectiveness monitoring that has no legal force, which further emphasizes the problems with the development of all the mentioned institutions in the higher education system.

Equally problematic is the distribution of admission quotas (budget places and budget funds) among higher education institutions. As is known, admission quotas are allegedly distributed on a competitive basis.

Top 10 higher education institutions by the quality of budgetary enrolment in 2016 are presented in *Table 12*.

Table 12

Top 10 higher education institutions by the quality of budgetary enrolment in 2016

		Average uniform state exam score			Enrolled, people	
		2016	2015	Change relative to 2015	2016	2015
1	MGIMO University	95,4	94,7	0,7	460	436
2	Moscow Institute of Physics and Technology	93,8	93,8	0	910	890
3	National Research University Higher School of Economics, Moscow	92,2	89,3	2,9	1963	2448
4	Saint Petersburg University	90	88,1	1,9	2003	2340
5	Lomonosov Moscow State University	87,8	87,1	0,7	3678	3848
6	National Research Nuclear University MEPhI, Moscow	87,8	86,3	1,5	542	475
7	National Research University Higher School of Economics, branch, Saint Petersburg	87,1	84,6	2,5	500	529
8	ITMO University	86,9	82,7	4,2	1174	1122
9	Russian Presidential Academy of National Economy and Public Administration, Moscow	85,8	85,6	0,2	613	611
10	Moscow State Linguistic University	84,7	80,2	4,5	804	763
11	Kutafin Moscow State Law University	83,5	82,6	0,9	692	576

Source: HSE Monitoring of the quality of university enrolment.

For training programs “Economics” and “Law”, the distribution of admission quotas in 2016 is presented in *Tables 13* and *14*.

Table 13

Top 10 higher education institutions by the quality of budgetary enrolment for the training program “Economics”, 2016

	Higher education institution	Quality of enrolment, based on the average uniform state exam score	Change relative to 2015	Number of students admitted to state-funded places
1	National Research University Higher School of Economics, Moscow	93,3	0,6	286
2	MGIMO University	92,5	0,4	94
3	Russian Foreign Trade Academy, Moscow	90,0	0,8	106
4	Lomonosov Moscow State University	89,6	0,7	203
5	Saint Petersburg University	88,7	1,4	100
6	Voronezh State University	88,4	5	10
7	National Research University Higher School of Economics, branch, Saint Petersburg	88,2		110
8	ITMO University	87,9	3,1	33
9	National Mineral and Raw Material University “Gornyi”, Saint Petersburg	87,7	3,8	10
10	Kazan Federal University	86,5	5	25

Source: HSE Monitoring of the Quality of University Enrolment.

Table 14

Top 10 higher education institutions by the quality of budgetary enrolment for the training program “Law”, 2016

	Higher education institution	Quality of enrolment, based on the average uniform state exam score	Change relative to 2015	Number of students admitted to state-funded places
1	MGIMO University	96,1	0,3	94
2	Saint Petersburg University	94,8	0,6	90
3	National Research University Higher School of Economics, Moscow	93,1	0,9	160
4	Russian Foreign Trade Academy, Moscow	92,5	-0,2	52
5	Plekhanov Russian University of Economics, Moscow	90,5	5,3	19
6	Lomonosov Moscow State University	90,2	1,2	322
7	RUDN University, Moscow	88,9	2,4	35
8	Russian Presidential Academy of National Economy and Public Administration, Moscow	88,8	-5,8	26
9	National Research University Higher School of Economics, branch, Saint Petersburg	88,3	2,4	90
10	Samara National Research University	87,4		29

Source: HSE Monitoring of the Quality of University Enrolment.

At the same time, in 2016, both in the training programs “Economics” and “Law”, weaker higher education institutions with weaker contingent also received state-funded places (Table 15).

Table 15

Higher education institutions that admitted applicants with the average uniform state exam score 56–57 to state-funded places in the training programs “Economics” and “Law” in 2016

Enlarged group	Higher education institution	Quality of enrolment, based on the average uniform state exam score	Change relative to 2015	Number of students admitted to state-funded places
1	2	3	4	5
Economics	Dagestan State Institute of National Economy, Makhachkala	56,5	1,5	104
Economics	Siberian State Aerospace University, Krasnoyarsk	55,8		20

Cont'd

1	2	3	4	5
Economics	Chechen State University, Grozny	54,9	5,4	140
Law	Dagestan State Institute of National Economy, Makhachkala	57,4	-0,8	100
Law	Chechen State University, Grozny	50,5	0,7	200

Source: HSE Monitoring of the Quality of University Enrolment.

So *Table 15* shows that the distribution of admission quotas in 2016 was inefficient from the viewpoint of the final result, which stresses the need for changing both the procedure and approaches to the distribution of admission quotas among Russian higher education institution.

5.6. Housing market and housing construction sector¹

5.6.1. Mortgage lending

According to the data released by the Bank of Russia, as of July 1, 2016, the number of credit institutions issuing residential loans (RL) and housing mortgage loans (HML) fell to 680 and constituted 85.3% of their number as of July 1, 2015 (*Table 16*). Herewith, the number of credit institutions issuing RL came to 522 and those extending HML – 499, and those attracting refinancing on the HML secondary market – 34. Moreover, the number of credit institutions extending housing mortgage loans secured by the right of foreclosure on agreements of participation in shared construction came to 212 as of July 1, 2016.

Table 16

Number of credit institutions

	Active	Extending RL	Extending HML	Acquiring rights of foreclosure on HML	Providing on-lending on previously extended HML	Attracting refinancing on secondary mortgage market
As of 07.01.2015, entities	797	606	574	153	24	88
As of 01.01.2016, entities	733	587	559	141	34	110
As of 07.01.2016, entities.	680	522	499	140	34	73
July 16/July 2015, %	85.3	86.1	86.9	91.5	141.7	83.0
July 16/January 2016, %	92.8	88.9	89.3	99.3	100.0	66.4

Source: data released by Bank of Russia.

In 2016, according to the Bank of Russia data, credit institutions originated 856,378 HML totaling to RUB 1,473.227 bn, which in quantitative terms constituted 122.4% of HML and in value terms came to 126.8% of housing mortgages loans originated in 2015. During the same period 863,809 RL were originated to the tune of RUB 1,483.052 bn, which in quantitative terms came to 121.6% and in monetary terms – to 126.2% of loans extended in 2015. Decline posted in 2015 was stronger compared to 2014 than upsurge registered in 2016 against 2015 reflecting a decrease of extended HML in 2015 compared to 2014 by 30.9% and proceeds in cash down 34.1%. The volume of consumer lending in 2016 up by 23.01% against 2015 to RUB 7,210.266bn (*Fig. 31*).

¹ Authors of chapters: 5.6.1 и 5.6.2 G. Zadonsky – RANEPА; chapters 5.6.3–5.6.7 G. Malginov – Gaidar Institute, RANEPА, G. Sternik – JSC ‘Sterniks Consulting’, S. Sternik – Financial Institute under the RF Government, JSC ‘Sterniks Consulting’.

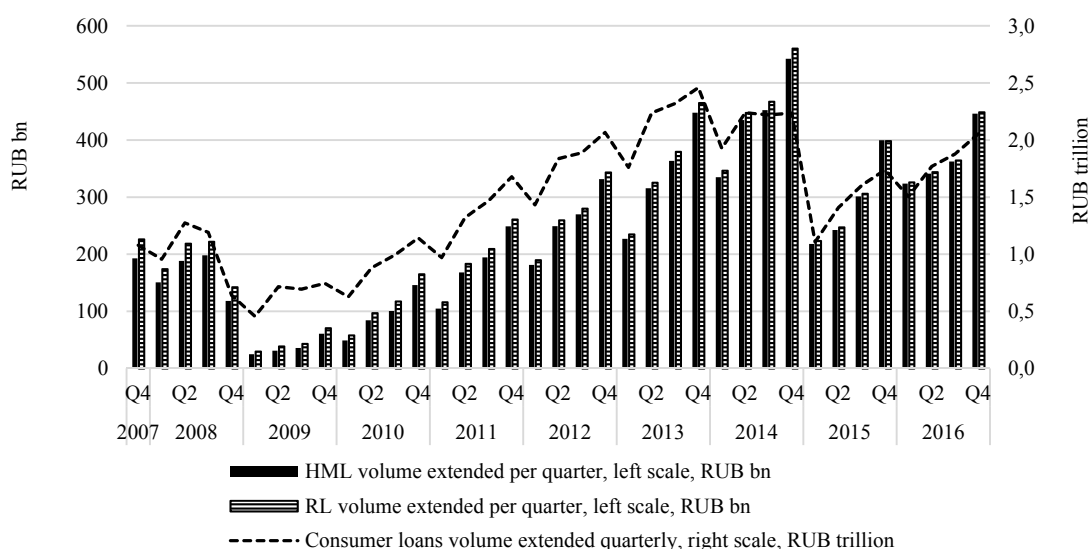


Fig. 31. Dynamics of personal loans origination quarter-on-quarter, 2007–2016

Source: data released by Bank of Russia.

The share of extended in 2016 HML (RUB 1,473.227bn) in the volume of consumer credits increased to 20.43% (by 0.61 percentage point) compared to 2015. Downward trend of the share of unsecured housing mortgage loans in the issuance volume of RL was retained in 2016. The share of unsecured mortgage loans (UML) in the issuance volume of HML (0.67%) down 0.48 percentage point in 2016 compared to 2015. Fig. 32 demonstrates that following a significant contraction of the share of HML in the volume of consumer lending in 2009, it started growing from the next year and reached 21.7% in Q4 2016, followed by a decline in UML issuance volumes in HML to 0.59% during that period.

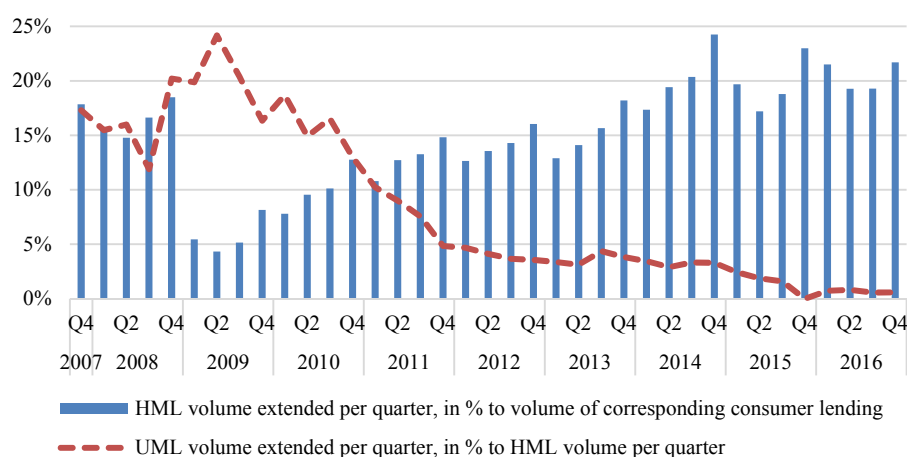


Fig. 32. Dynamics of ratio between volumes of HML, UML and consumer lending, 2007–2016

Source: data released by Bank of Russia.

The volume of originated housing mortgage loans in 2016 went up to 1.72% of GDP against 1.40% of GDP in 2015 and 2.23% in 2014. HML arrears in 2016 moved up to 5.23% of GDP against 4.78% in 2015 and 4.46% of GDP in 2014 (*Fig. 33*).

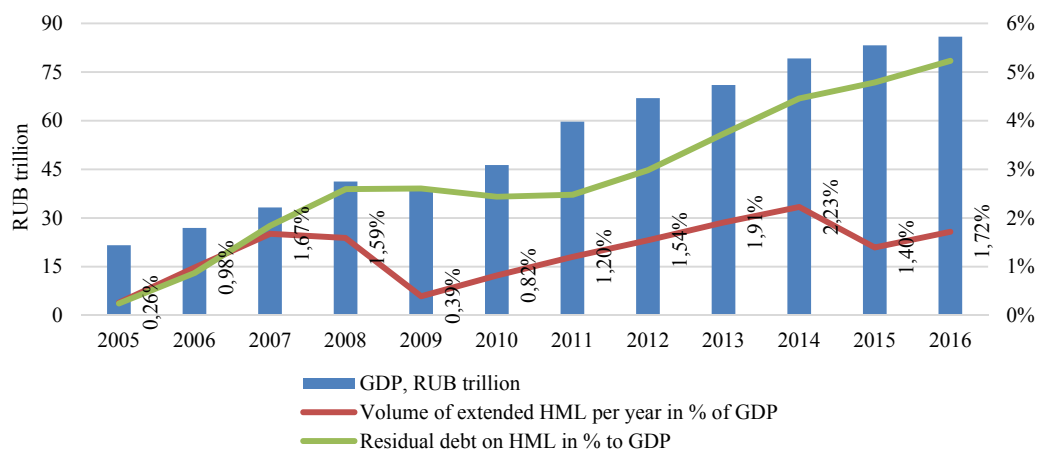


Fig. 33. Dynamics of housing mortgage loans, % of GDP

Source: data released by Bank of Russia.

In 2016, arrears on housing mortgage loans denominated in rubles increased by 14.74% compared to 2015 and amounted to RUB 4,418.892bn. Overdue payment on HML denominated in rubles (RUB 48.04bn) went up by 21.55% against 2015 and in residual debt amounted to 1.09%, up 0.06 percentage point on 2015 (*Fig. 34*).

Arrears on HML denominated in foreign currency (RUB 71.187bn) contracted in 2016 by 45.69% on 2015 with a reduction of the past-due debt by 16.48%. During the same period, the volume of past-due debt in the residual debt volume increased by 10.95 percentage point to 31.31% (*Fig. 34*). Total past-due debt in total residual debt amounted to 1.57% in 2016.

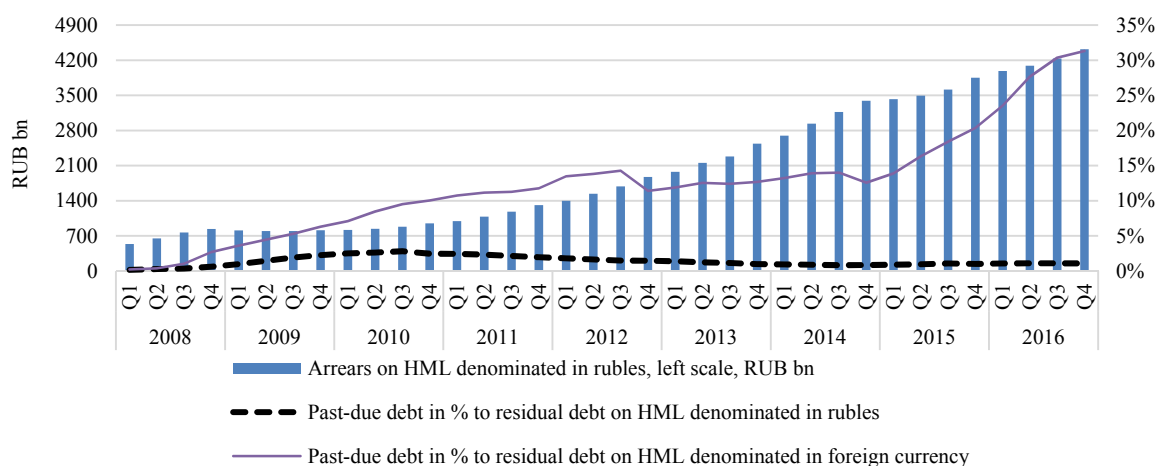


Fig. 34. Dynamics of residual and past-due debt on HML

Source: data released by Bank of Russia.

The share of debt on HML with 1 day and more past due in the overall debt in 2016 constituted 4.44%, down 0.9 percentage point against 2015. At the same time, the share of debt on HML with 180 days past due (debt on default loans) in the overall debt amount declined in 2016 and came to 2.34% down 0.13 percentage point on 2015. Past-due debt on HML in percent of the total debt amount came in 2016 to 1.57%, down 0.09 percentage point against 2015 (Fig. 35).

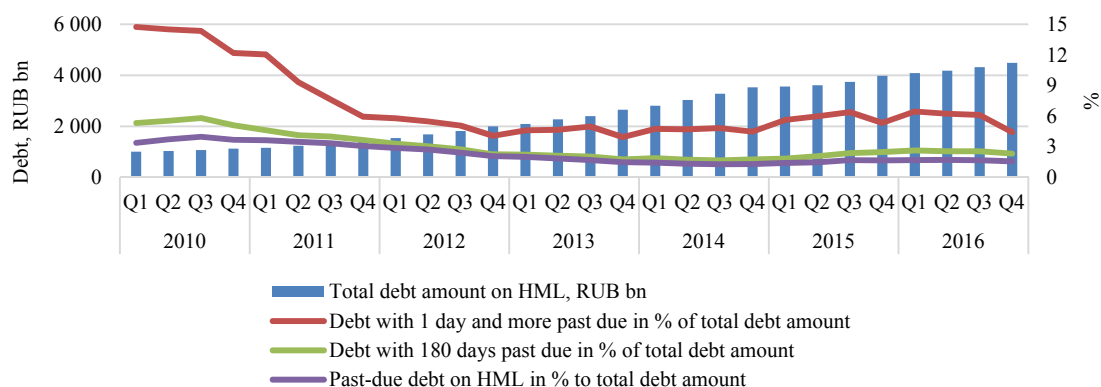


Fig. 35. Dynamics of debt on HML across lead time before payment, % of total debt amount

Source: data released by Bank of Russia

The weighted average rate on extended in December HML denominated in rubles declined to 11.55% against 12.48% throughout the year. The weighted average loan term on extended during the month HML denominated in rubles in 2016 ranged from 15.05 years to 15.38 years (Fig. 36).

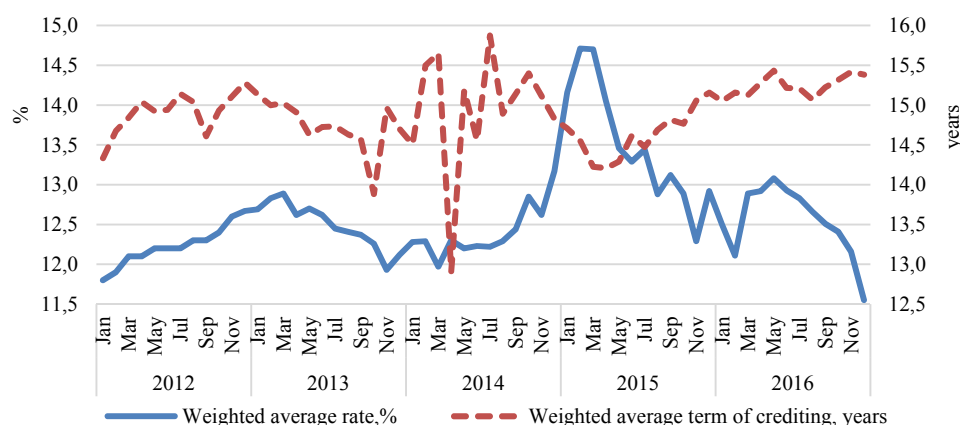


Fig. 36. Weighted average rate and loan term on HML denominated in rubles extended per month

Source: data released by Bank of Russia.

The weighted average rate on extended year-to-date housing mortgage loans (HML) denominated in foreign currency declined from its peak of 11.46% as of January 2016 to 6.87% posted in February 2016 and constituted 8.65% in 2016. The average HML amount

denominated in foreign currency amounted to RUB 31.97m and exceed average HML amount denominated in rubles (RUB 1.72m) by 18.6-fold (Fig. 37). The weighted average loan term on extended year-to-date HML denominated in foreign currency came to 3.34 years in 2016.

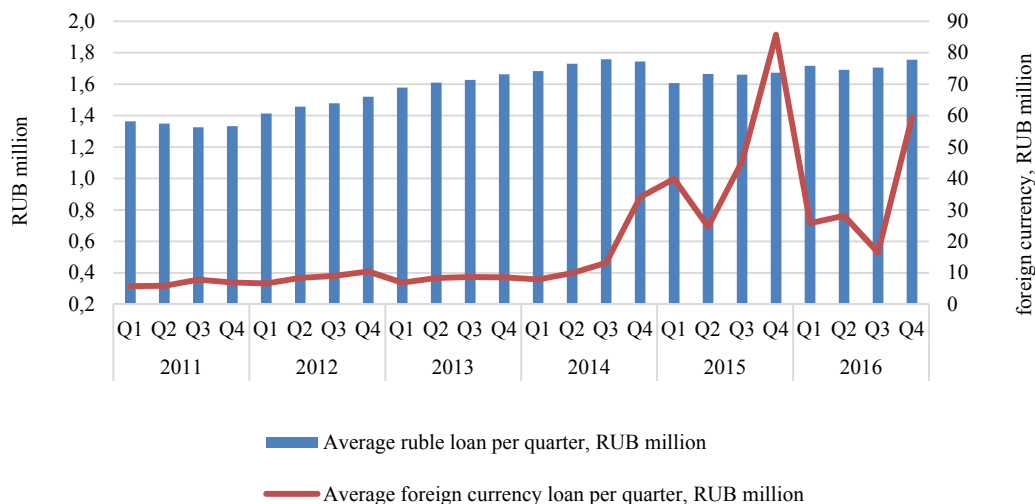


Fig. 37. Average quarterly extended HML denominated in rubles and in foreign currency

Source: data released by Bank of Russia.

The share of the topmost group of five credit institutions with the largest assets in the total volume of extended year-to-date housing mortgage loans came to 77.61% down 2.20 percentage point against 2015. However, coupled with the second group (6-20 entities) they originated 84.12% of HML in 2016 against 86.52% in 2015. Small reduction of mortgage origination was also registered with the third, fourth, and sixth group. Past-due debt of the first, third and seventh groups against residual debt declined in 2016 compared to 2015 (Fig. 38).

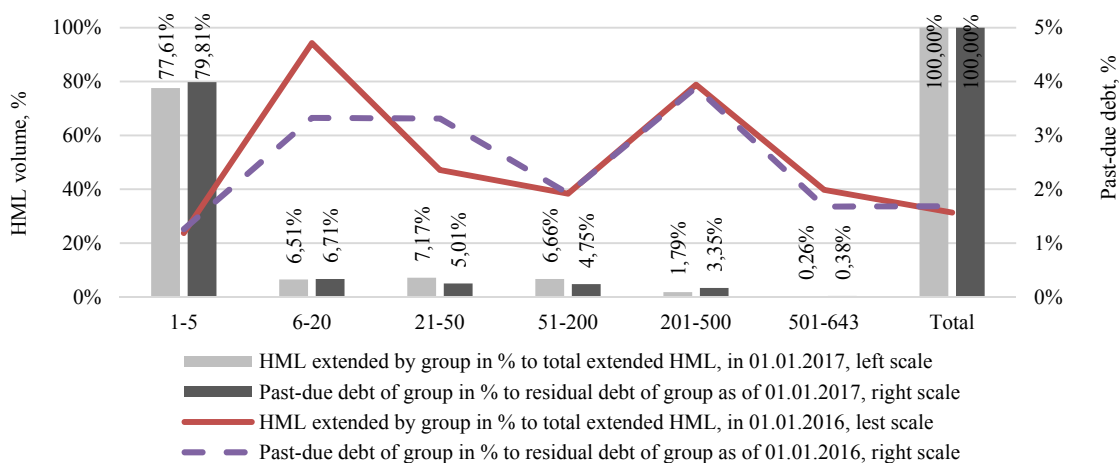


Fig. 38. Dynamics of HML volumes expended to individuals and past-due debt of credit institutions grouped across asset amounts for 2015–2016

Source: data released by Bank of Russia.

As of July 1, 2016, borrowers made early housing mortgage loans repayments to the tune of RUB 223.594bn up 38.0% against July 1, 2015. This amounts to 73.1% of the HML issuance volume originated in H1 2016. Proceeds from disposal of pledged property were directed to early HML repayments to the tune of RUB 1.87bn up 13.0% against H1 2015.

According to the Agency for Housing Mortgage Lending (AHML), as of December 30, 2016, there are 184 mortgage-backed securities (MBS) issues in circulation (non paid-off) totaling to RUB 379.7bn. Lombard List of the Bank of Russia numbers 63 issues totaling to RUB 217bn (57% of the total amount of mortgage-backed securities in circulation). Overall there are in circulation 111 residential mortgage-backed securities issues totaling to RUB 328.5bn (87% of the total residential MBS in circulation), which are traded on stock exchange (on quotation lists).

From late June 2016, the market turned to issuing only single-tranche securities due to the fact that from January 2016, within the framework of Basel III standards implementation the Bank of Russia raised the ratio on risk-based junior mortgage-backed securities tranches 12.5-fold from 100% to 1,250%. In 2016, within the state program on interest rates subsidization for newly constructed building mortgage loans 304,000 HML were originated to the tune of RUB 556bn, which constituted 38% of the total HML issuance volume throughout 2016.

According to AHML experts, the mortgage lending market put behind ramifications of the early 2015 crisis and in 2017 will move to growth. It is projected that at year-end 2017 the HML issuance volumes will peak to RUB 1.8 trillion and mortgage rates will decline to 11% and lower.

5.6.2. Mortgages on plots of land

According to Rosreestr, in 2016, the total number of registered titles on land plots by individuals (5,574,116 titles) down 6.84% compared to 2015. Lease of land plots by individuals (61,827 titles) down 31.80% in 2016 compared to 2015.

The number of registered mortgages on land plots by individuals up 12.25% in 2016 (689,989 titles) compared to 2015 (by contrast, down 11.51% in 2015 against 2014).

The number of registered mortgages on land plots by individuals in proportion to the number of registered rights of shared and joint ownership of land plots came to 32.2 in Q4 2016 against 29.2 in Q4 2015 (*Fig. 39*).

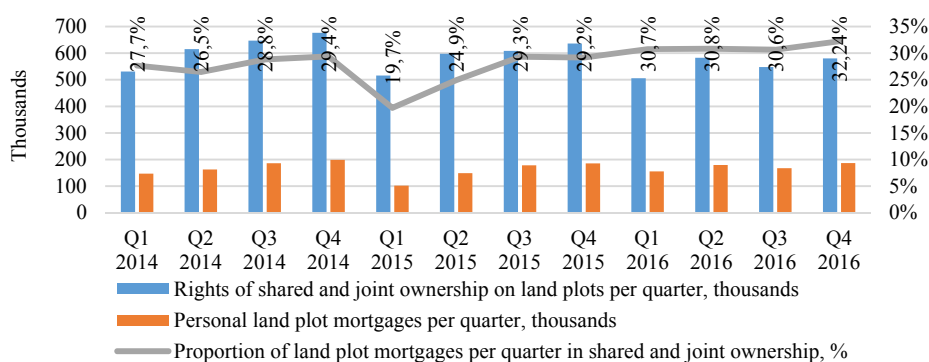


Fig. 39. Dynamics of registration of personal land plot mortgage

Source: data released by Rosreestr.

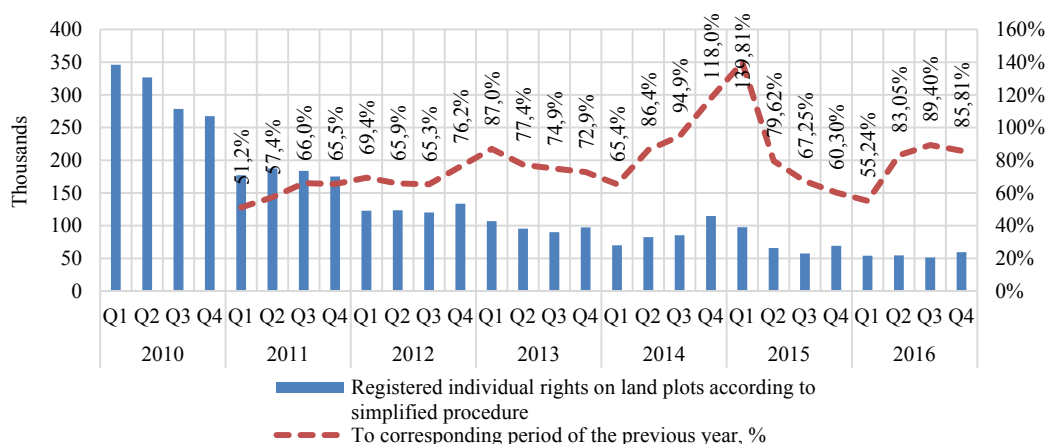


Fig. 40. Dynamics of registration on simplified procedure of individual rights on land plots

Source: data released by Rosreestr.

According to data released by Rosreestr, the process of “summer cottage” amnesty slowed down: the number of registered titles in 2016 on land plots according to the simplified procedure went down 14% against 2015. Declined volume of registered titles in Q4 2016 (“summer cottage” amnesty over 59,400 titles) constituted 14.2 percentage point compared to Q4 2015 (*Fig. 40*).

5.6.3. Dynamics of prices on residential real estate

In 2016, main indicators of the housing market performed inconsistently reflecting the same dynamics performance of major macroeconomic indexes, which determine operating conditions for the real estate market.

In 2015, deferred demand had an impact on Moscow, but in 2016 absorption of residential property by the market¹ improved not only compared with disastrous 2015 but also even against 2014. Other cities outlined upward trend in demand and merger in certain segments of the market. Asking price on housing still demonstrates a downward trend in the majority of Russian cities but at a slower pace. The number of cities with stable prices is growing.

Main indexes of price dynamics on the secondary market of Russian cities are presented in *Table 17*. The data is released by the market experts who collect, verify, and process data according to the unified methodology recommended by the Russian Guild of Realtors.²

The sample includes 30 cities and 1 region (Moscow region with averaged across towns data), including 24 cities, which are centers of RF subjects with the total population of around 44 million.³

¹ Absorption volumes are measured by the number of purchase and sale transactions together with contracts of exchange concluded on the secondary market (taking into account the number of apartments and rooms) as well as by the number co-investment agreements on residential property.

² Data on the secondary market is released by companies indicated in the Public schedule of price dynamics on the secondary market in Russia’s cities (<http://realtymarket.ru/Publi-nii-grafik-cen-vtori-noi-nedvijimosti-gorodo/>), on the primary market – given in the note to *Table 18*.

³ Compared to the sample used for the analysis of price situation on the secondary market carried out in the Russian Economy Outlook for 2015 (see: G. Malginov, G. Sternik. Price Dynamics of Housing Property. Russian Economy

If we take population index as a criterion, the sample will represent:

- Moscow with over 12.3m inhabitants;
- Districts near Moscow (total urban population around 6.0 million inhabitants) and St. Petersburg (over 5.2 million inhabitants) – totaling to around 11.2 million inhabitants;
- 10 cities with over 1 million of inhabitants each (besides two capitals); Novosibirsk, Ekaterinburg, Nizhny Novgorod, Kazan, Chelyabinsk, Omsk, Samara, Krasnoyarsk, Perm, and Voronezh – totaling to around 12.25 million inhabitants;
- 9 cities with 500,000 to 1 million inhabitants each: Tyumen, Togliatti, Barnaul, Irkutsk, Ulyanovsk, Vladivostok, Yaroslavl, Kemerovo, and Ryazan – totaling to over 5.6 million inhabitants;
- 6 cities with 200,000 to 500,000 inhabitants each: Kirov, Stavropol, Vladimir, Surgut, Smolensk, and Shakhty – totaling to around 2.2 million inhabitants;
- 3 cities with less than 200,000 inhabitants each: Syzran, Pervouralsk, and Tobolsk – totaling to around 0.4 million inhabitants.

Table 17

Prices on the secondary housing market in Russian cities in 2014–2016

City (region)	Median unit asking price, RUB thousands per square meter			Price index in December 2015 to December 2014		Price index in December 2016 to December 2015	
	December 2014	December 2015	December 2016	Nominal	Real (IGS)	Nominal	Real (IGS)
Moscow	226.6	218.5	212.0	0.964	0.854	0.970	0.920
Sankt-Petersburg	103.0	103.0	106.0	1.000	0.886	1.029	0.976
Vladivostok	95.0	96.8	93.8	1.019	0.903	0.969	0.919
Moscow region	93.4	90.9	81.9	0.973	0.862	0.900	0.855
Surgut (Tyumen region)	78.5	71.3	69.0	0.908	0.804	0.968	0.918
Ekaterinburg	76.2	70.7	68.1	0.928	0.822	0.963	0.914
Nizhny Novgorod	68.4	66.4	64.9	0.971	0.860	0.977	0.927
Kazan	66.6	65.3	68.4	0.980	0.868	1.047	0.994
Novosibirsk	65.6	60.4	58.4	0.921	0.816	0.967	0.917
Samara	64.6	62.6	62.1	0.969	0.858	0.992	0.941
Tyumen	63.8	58.9	59.3	0.923	0.818	1.007	0.955
Krasnoyarsk	61.4	54.8	51.3	0.893	0.791	0.936	0.888
Irkutsk	60.9	57.9	52.0	0.951	0.842	0.898	0.852
Yaroslavl	57.3	53.6	51.3	0.935	0.829	0.957	0.908
Vladimir	55.1	52.7	51.1	0.956	0.847	0.970	0.920
Kemerovo	53.5	49.1	45.7	0.918	0.813	0.931	0.883
Perm	52.6	52.7	49.8	1.002	0.887	0.945	0.897
Voronezh	52.0	45.8	44.4	0.881	0.780	0.969	0.920
Smolensk	51.3	46.9	43.4	0.914	0.810	0.925	0.878
Kirov	50.9	47.7	44.1	0.937	0.830	0.925	0.878
Barnaul	49.8	46.5	44.0	0.934	0.827	0.946	0.898
Tobolsk (Tyumen region)	49.2	44.3	42.6	0.900	0.797	0.962	0.913
Omsk	48.7	46.7	44.3	0.959	0.849	0.949	0.900
Togliatti (Samara region)	48.3	44.8	41.2	0.928	0.822	0.920	0.873
Ryazan	48.0	45.8	44.2	0.954	0.845	0.965	0.916
Chelyabinsk	47.0	41.6	42.7	0.885	0.784	1.026	0.973
Ulyanovsk	43.5	41.2	39.6	0.947	0.839	0.961	0.912
Pervouralsk (Sverdlovsk region)	42.9	38.6	36.8	0.900	0.797	0.953	0.904
Syzran (Samara region)	40.8	42.4	39.0	1.039	0.920	0.920	0.873
Stavropol	39.0	37.6	38.9	0.964	0.854	1.035	0.982
Shakhty (Rostov region)	34.2	34.8	34.6	1.018	0.902	0.994	0.943

in 2015. Trends and Outlooks (Issue 36). Moscow, IEP. 2015, pp. 426–431). This sample includes Nizhny Novgorod and Syzran (Samara region).

The Moscow secondary market posted downward price trend, which commenced in autumn 2015. That was followed by stabilization, which resulted in prices below the December 2015 level by 3.0% by the year-end constituting RUB 212,000 per square meter.

The Moscow region secondary market saw continuation of the price decline commenced since early summer 2015. At year-end, prices as in Moscow nosedived below the December 2015 level - to RUB 81,900 per square meter. However, depth of the fall was much bigger (10%).

Throughout 2016, St. Petersburg saw gradual price increase, which in December amounted to RUB 106,000 per square meter, which exceeded the December 2016 index by 2.9%.

The majority of other cities outlined price stabilization or slowdown of their downward trend in H2 2016 following price decline commenced in H1 2015. Some cities registered an upward trend.

Nevertheless, at year-end the majority of cities registered price decline, notably Vladivostok, Perm, Syzran (Samara region), and Shakhty (Rostov region) where downward price trend replaced an upward trend or price stability of 2015, and in districts near Moscow, Irkutsk, Kirov, Omsk, and Togliatti downward price trend turned out to be deeper than in the previous year.

However, Kazan, Stavropol, St. Petersburg, and Chelyabinsk saw a positive price dynamics (growth by 2.5–5%). In three cities (Tyumen, Samara, and Shakhty), prices varied at the December 2015 level. Districts around Moscow and Irkutsk were at the other end, they registered price decline by 10%.

In the main part of the sample, one can mark 2 large groups of cities depending on the range of the price fall. By 2–5% prices fell in Nizhny Novgorod, Moscow, Vladimir, Voronezh, Vladivostok, Surgut, Novosibirsk, Ryazan, Ekaterinburg, Tobolsk (Tyumen region), Ulyanovsk, and Pervouralsk (Sverdlovsk region). More noticeable price decline (by 5–8%) was registered in Omsk, Barnaul, Perm, Krasnoyarsk, Kemerovo, Smolensk, Kirov, Togliatti, and Syzran.

This being said, all cities registered decline of the real housing cost (Index of IGS).¹ Roughly half of the sample stayed in the range of 5–10%. Smaller decline (to 5%) was registered in Kazan, Stavropol, St. Petersburg, Chelyabinsk, and Tyumen. Decline in the range of 10-15% was posted in Barnaul, Perm, Krasnoyarsk, Kemerovo, Smolensk, Kirov, Togliatti, Syzran, districts around Moscow, and Irkutsk. However, we can note that almost across the board (minus districts near Moscow and Syzran), the decline of real housing cost was less than in 2015.

There is data on price in the primary market across 17 cities and Moscow region (*Table 18*).

Across the sample, the primary housing market registered differently directed change in the dynamics of the median housing asking prices in 2016.

Moderate price growth was observed in Moscow during the first months of the year, which gave way to constant price decline commenced from May. At the period-end for December 2016, despite moderate pre-New Year growth (to RUB 176,700 per square meter), they stayed below last year indicator by 3.2%.

The Moscow region primary housing market saw an obvious price nosedive in Q4 2015, which in 2016 demonstrated an upward trend through May, which later turned to a downward

¹ IGS index is calculated by applying the following formula: $IGS = I_{hp} / I_{cp}$, where I_{hp} is housing price index in rubles, I_{cp} is consumer price index.

trend. In December 2016, housing prices hit RUB 81,900 square meter exceeding the last year level by 2%. Furthermore, the same prices on the primary and the secondary markets was unusual for the districts near Moscow. Meanwhile, in Moscow, the secondary market prices exceeded the primary market prices by 20% and it was in December 2015.

Table 18

Prices on the Primary Housing Market in Russian Cities in 2014–2016

City (region)	Median unit asking price, thousand of rubles per square meter			Price index in December 2015 to December 2014		Price index in December 2016 to December 2015	
				Nominal	Real (IGS)	Nominal	Real (IGS)
	December 2014	December 2015	December 2016				
Moscow	216.0	182.6	176.7	0.845	0.749	0.968	0.918
St. Petersburg	98.0	100.4	101.7	1.024	0.907	1.013	0.961
Moscow region	81.0	80.3	81.9	0.991	0.878	1.020	0.968
Ekaterinburg	65.5	66.4	63.1	1.014	0.898	0.950	0.901
Novosibirsk	65.5	60.4	58.8	0.922	0.817	0.974	0.924
Surgut (Tyumen region)	64.0	60.2	61.0	0.941	0.833	1.013	0.961
Ufa	58.4	57.0	58.3	0.976	0.864	1.023	0.970
Kazan	57.1	62.9	66.7	1.102	0.976	1.060	1.006
Samara	57.0	54.2	53.3	0.951	0.842	0.983	0.933
Tyumen	57.0	55.1	53.4	0.967	0.856	0.969	0.919
Rostov-on-Don	53.1	50.6	51.3	0.953	0.844	1.014	0.962
Yaroslavl	50.6	52.9	49.8	1.045	0.926	0.941	0.893
Tobolsk (Tyumen region)	44.7	46.0	46.3	1.029	0.911	1.007	0.955
Omsk	43.0	42.8	40.5	0.995	0.881	0.946	0.898
Kemerovo	42.5	42.0	40.7	0.988	0.875	0.969	0.919
Ryazan	40.5	38.0	38.5	0.938	0.831	1.013	0.961
Ulyanovsk	38.0	36.4	36.2	0.958	0.848	0.995	0.944
Stavropol	34.5	34.8	35.9	1.009	0.893	1.032	0.979

Sources: Moscow and Moscow region – Moscow Association of Realtors Committee on analysis and consulting (according to MIEL Group, MIEL ‘Novostroiki’, JSC Sterniks Consulting, St Petersburg – Real Estate Bulletin, Ekaterinburg – JSC Realter Information Center, Novosibirsk – RID Analytics, Surgut and Tobolsk – FRK ‘Etazhi’, Rostov-on-Don – EMT Cunsulting, Yaroslavl – JSC ‘Metro-Otsenka’, Omsk – JSC ‘OMEKS’, Kemerovo – JSC ‘Sibgrad-development’, Ryazan – Press and information Agency, Ulyanovsk – JSC ‘Real Estate Center’, Stavropol – JSC ‘Ilekta Center’.

In H1 2016, in St. Petersburg prices varied around 100,000 per square meter and demonstrated moderate sustainable upward trend amounting in December RUB 101,700 per square meter up 1.3% against December 2015.

Capital of the North together with districts near Moscow comprised a group of cities with asking prices on the primary market in December 2016 above those registered in December 2015. Kazan ranked first in the group (growth by 6%). The group also included Stavropol, Ufa, Rostov-on-Don, Surgut, and Ryazan (growth by 1–4%). Kazan and St. Petersburg register an upward price trend for the second consecutive year, but at a slower pace against 2015. Prices in Tobolsk and Ulyanovsk differed little from the level of the previous year.

The other half of the sample (Samara, Novosibirsk, Tyumen, Kemerovo, Moscow, Ekaterinburg, Omsk, and Yaroslavl) demonstrated a downward price trend. Steeper decline was registered in Omsk and Yaroslavl by more than 5%.

Nearly all cities posted a downward trend on real housing price (IGS index) compared to 2015. However, the value of contraction turned out to be less than a year earlier. Yaroslavl made an exception. This city together with Omsk posted a decline of 10% in 2016. To a lesser extent this trend was observed in Stavropol, Ufa, districts near Moscow, Rostov-on-Don,

St. Petersburg, and Ryazan where decline of the real housing price did not exceed 4%, and in Kazan it even remained flat.

On the whole, in 2016, asking prices posted on the primary and secondary housing markets in the Russian cities posted a downward trend. However, there was a trend to their stabilization and in some cities – to growth.

5.6.4. Housing market of the capital region: main factors which determined price dynamics and activity on the market

Falling demand and absorption of housing in 2015 resulted in growth of the amount of “hung” in the price lists supply. Realtors and real estate developers took several months to realize new realities and moved from the policy of high asking prices and individual concessions especially in case of new housing construction to a general reduction of asking prices.

“Hung” supply due to a reduction of absorption pace coupled with lost demand have resulted in a price decline on the market. This was owing to the domination of the comfort class projects on the new housing construction market in 2015–2016, which after the change in the supply structure and correspondingly the reduction of the weighted average asking price across the board in the market (which regarding comfort class was lower against economy class as the total price of economy class apartments is lower due to smaller floor space).

As a result, average asking prices declined by late 2016 compared to peak values of the last two years in Moscow’s primary housing market by 18.5% (against January 2015) on the secondary market – by 13.3% (against March 2015). The Moscow region’s primary market saw price reduction by 2% (against February 2015), and the secondary market – by 14.5% (against May 2015).

During last 4–6 months, Moscow’s secondary housing market saw price stabilization and the primary market registered the price reduction pace showered (the so-called ‘bottom’ was hit). According to various data, in 2015, Moscow’s primary housing market showed a discount rate of 2–15% in the summer and 5–25% in the autumn (on average 10–15%). The share of apartments sold at a discount was estimated at 60–80%. Thus, the coefficient of price negotiation (ratio of average asking prices to average transaction prices) equaled 1.07–1.10. According to the data released by Corporation ‘Incom-Nedvizhimost’, the share of transactions at a discount exceeded 80%. The coefficient of price negotiation is estimated by the experts at 1.10.

The Moscow region’s housing market showed mixed development. The primary market support by the subsidized mortgage interest rates preserved stability and even attempted to grow. However, from the summer of 2016 price posted a downward trend owing to the outflow of buyers to Moscow. The secondary market lost its clients and significantly cut prices. It only stabilized by the autumn of 2016. Meanwhile, prices were practically equal on both markets. In terms of price dynamics on the secondary market, the outcomes of 2016 were determined besides the general supply glut by the change of its structure across belts of remoteness from the capital (the share of supply in the most expensive Moscow vicinity shrank)

Describing the situation on the capital market in 2015–16 in the wake of the macroeconomic crisis, one can speak about the following dynamics of supply of the housing market.

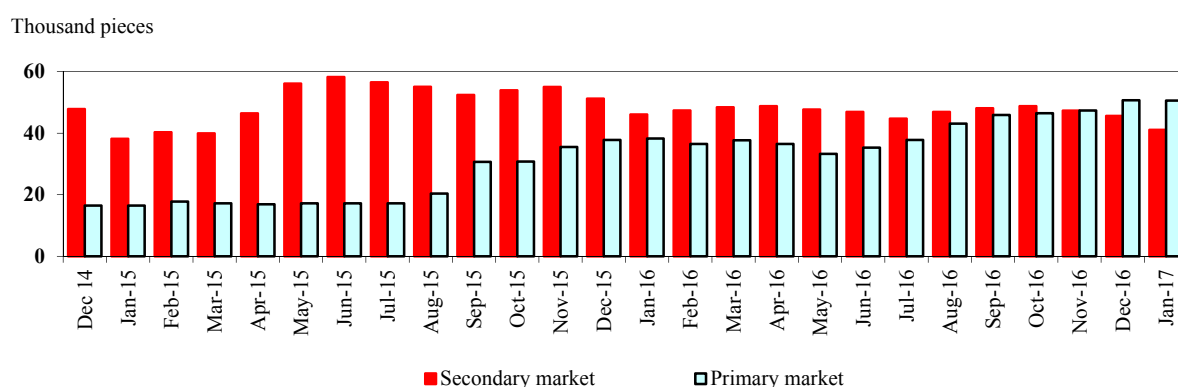


Fig. 41. Apartments supply in Moscow housing market

Sources: GK ‘MIEL’, ‘MIEL-Novostroiki’.

Moscow’s secondary housing market (Fig. 41) saw an upward supply trend commencing from April 2015 and since May through year-end supply steadily exceeded 51,000–52,000 apartments per month and in certain months the supply was over 55,000–56,000 apartments. In January-August 2016, the secondary market supply somewhat contracted (roughly to the level of April 2015). With some upward supply trend in H2, it never exceeded 49,000 apartments per month. As a result, contraction of supply posted in 2016 reflecting the growth of apartment absorption resulted in price stabilization. The primary market saw supply growth, which commenced in August 2015 (from 17–18,000 to 30–38,000 apartments per month). The supply stayed at this level until July 2016. In H2 it increased to 43–47,000 (in December – peak of 50,700) owing to new projects coming to the market despite growth of apartment absorption.

The Moscow region secondary housing market (Fig. 42) saw an upward supply trend from 34,000 in January 2015 to 53–54,000 in May-June and stayed at the level of 51–55,000 apartments per month. In 2016, the supply dropped to 46–48,000 apartments per month. The primary market reflecting the peak supply in 2015 amounting to 82–87,000 apartments per month (minus first and last month), saw in 2016 stable decline of supply from 70–72,000 in January-February to 63–64,000 in Q4.

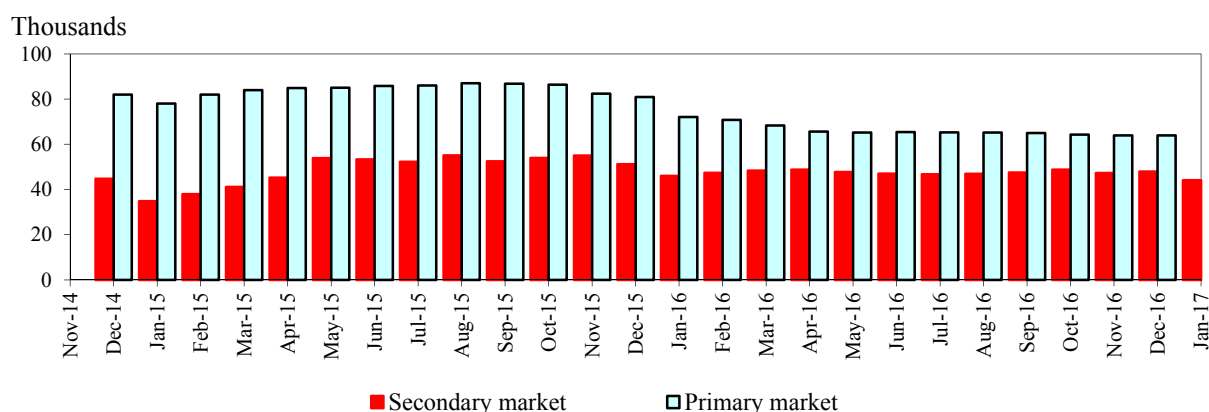


Fig. 42. Supply of apartments in Moscow region housing market

Sources: GK ‘MIEL’, ‘MIEL-Novostroiki’.

Now let us analyze the activity level in the primary and secondary housing markets reflecting on dynamics of main types of deeds.

In the country as a whole in 2016, absorption of residential property in the primary and secondary markets in the aftermath the market meltdown in the previous year roughly remained at the 2015 level in the context of registration of purchase deeds and agreements of participation in shared construction.

The metropolitan area features were the following.

First of all, it should be noted that 2016 was marked in the capital by a sharp (roughly by 82%) growth of registered agreements of participation in shared construction. The number of registered agreements of participation in shared construction hit 35,600 against 19,600 in 2015 exceeding the 2014 level by 1.5 times (23,900 against 21,300 in 2013).

In Q1 2016, reflecting the reduction of residential property absorption in H2 2015 this segment of the market's heated activity was due to a short-term factor – expectation of cancelation of interest rates subsidization for newly constructed building mortgage loans, which led to a sharp growth of absorption volume. Hereafter, stabilization of economic situation emerged. The buyers strategy again changed from saving to consumer one. The deferred demand engulfed the market, which resulted in peak absorption recorded in Q2.

Further on, this factor remained influential. However, according to experts, the migration factor became paramount reflecting increased number of non-residents inflow due to price reduction in Moscow's primary housing market. As a result, agreements of participation in shared construction hit new peaks in Q2 and Q3 coupled with growth rates against the sale periods of 2015.

According to data released by real estate agency 'Bon Ton', the proportion of regional buyers has returned to the pre-crisis level already in Q3. According to estimates of the same agency, the Moscow housing demand structure across the combined housing market is divided between Moscovites (65.5%), non-residents – 34.5% including buyers from the Moscow region with 15.6%, and inhabitants from various regions of Russia with 18.5%. According to data released by 'MIEL-Novostroiki' at year-end 2016, the proportion of Moscovites in the structure of transactions conducted on the primary market amounted to 70%. Non-resident buyers took 30% of which 17% came from districts near Moscow and 13% for buyers from other Russian regions.

At the same time, significant growth of the number of agreements of participation in shared construction in Moscow in 2016 was marked by general factors: transition of housing demand from the secondary market to the new housing development market. This was due to the state program on interest rates subsidization and emergence of a large number of apartment from mass segment attractive in price due to small floor area compared to the secondary market.

The Moscow region demonstrated different from Moscow dynamics of registration of agreements of participation in shared construction.

In the aftermath of a rather solid growth posted in Q1 2016 compared to disastrous Q1 of the previous year (down by 12.6%), the number of registered agreements of participation in shared construction somewhat decreased in Q2 (by 7%) and reversed to growth in Q3 (by 4.5%). Q4 posted further reduction by more than 12% instead of projected growth. The factor of demand transition from districts near Moscow to the city of Moscow recorded in the new housing development market was getting strength. The share of the capital in the total number of registered agreements of participation in shared construction of apartment buildings across metropolitan area (Moscow and districts near Moscow combined) throughout 2015–2016

constantly grew from 16% in Q1 2015 (around 17% in 2015 as a whole) to over 35% in Q4 2016 (over 27% for 2016 as a whole).

In the end, total number of registered agreements of participation in shared construction in the Moscow region decreased by 1.4% to 94,800 against 96,100 in 2015. At the same time, according to the data released by the company 'Est-a-tet', in terms of place of residence, a relative parity was observed between different groups of buyers in the structure of buyers in the primary market: 35% – from Moscow, 34% – from Russian regions, and 31% - from districts near Moscow.

Moscow's secondary housing market in 2010 saw an upward dynamics regarding registered titles for purchase/sale agreements as a whole. Their number went up by 11% to 126,000 compared to 113,500 in 2015.

Year 2016 started with a decline in absorption of apartments in Q1 due to demand transition to the primary housing market in expectation of cancellation of mortgage interest rate subsidization (by analogy with the program launch in Q2 2015). In two quarters that followed the volume of purchase went up significantly reflecting general macroeconomic stabilization and brought about compromises between buyers and sellers on the price.

Moscow's secondary housing market feature in 2016 resided in an unrepresentative demand distribution, which was contrary to seasonal factor. Traditionally the summer period was considered a weak season on the housing market and the autumn, on the contrary, brings revival. However, last year housing demand in June and July was rather strong, meanwhile in September and October buyers took time to conclude transactions. The question is that many potential buyers were waiting for the summer period hoping to purchase residential property with maximum discount. Expectations of a potential housing price growth in the autumn motivated many people some of them to enter the market ahead of time, i.e. in the summer. In Q3 and Q4 2016, the volume of absorption grew not so significantly against last year at a waning pace due to the demand outflow to the primary housing market where prices by that time dropped considerably.

In 2016, the Moscow region absorption volume on the secondary housing market reflecting the number of registered purchase/sale agreements of residential facilities (167,800 units) practically remained at the 2015 level (168,900 units). Per quarter dynamics overall were similar to that of the capital. That was determined by a reduction of transactions number in Q1 due to transition of buyers to the primary housing market in expectation of termination of mortgage interest rates subsidization with somewhat increased activity posted in the last quarter.

Extension of the state program on mortgage interest rates subsidization played a big role in supporting the market. In the framework of the program, mortgages were issued at the rate not more than 12%. Meanwhile non-subsidized mortgages were extended at rates over 14–15% in early 2015.

The Bank of Russia cut the key rate twice over the year (by 0.5 percentage point in June and in September 2016), which put a downward pressure on mortgage rate.

Throughout last year, there was a gradual alignment of mortgage rates on the primary and secondary markets. The secondary housing market offered rates from 11.9% in the market segment, which corresponded the early 2014 level. The primary housing market enjoying the backing of state support program offered rates from 10.9%. Despite the fact that rates on mortgages extended for purchase of residential buildings under construction were below those extended for purchase of the commissioned residential buildings, at year-end 2016 mortgage

lending for purchasing residential buildings under construction against the security of the rights under the co-investment agreements came to around 39% of the total amount of extended mortgage loans denominated in rubles (1/3 in 2015, and 35% in 2014).¹ Practically all these mortgages were originated within the state subsidization program. Mortgage lending was biased towards the secondary market.

Last year, in the aftermath of a sharp drop of mortgage lending in 2015, Moscow boasted of mortgage growth by one third in terms of the number of mortgage loans origination hitting the record 2014 level. Meanwhile, its growth occurred at an accelerating per quarter pace with somewhat slowdown reported in the final Q4. Throughout 2016, Moscow boasted of 43,900 mortgage loans (33,080 in 2015, 43,200 in 2014).

Districts near Moscow also reported growth of mortgage lending at year-end 2016 but solely by 4.3% (206,400 against 197,800 a year earlier). In addition, unlike the capital, from Q2 its pace was decreasing and in Q4 the number of issued mortgages fell by 18% against the same period of 2015.

Thus, absorption volumes recorded on the Moscow primary housing market (registration of co-investment agreements) peaked in 2016 against 2015. The secondary housing market posted a moderate growth (*Fig. 43*). The Moscow region, as the country as a whole, reported dynamics in these segments, which demonstrated similar volumes of absorption of residential property on the primary and secondary housing markets to those of 2015. Data on mortgage loans extension growth in Moscow in Q3-4 2016 and decrease of this indicator in districts near Moscow reflect relation to absorption of housing on the primary and secondary housing markets.

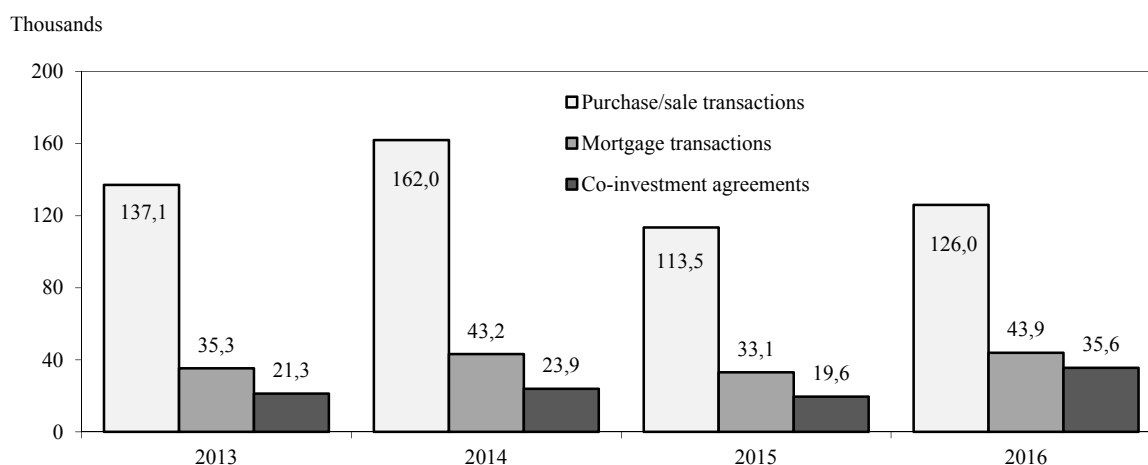


Fig. 43. Number of registered transactions on Moscow housing market in 2013–2016

Source: Rosreestr.

¹ www.cbr.ru, ahml.ru. дом.pdf.

5.6.5. Construction, commissioning and supply of new housing

Crisis developments were observed in the housing construction sector in 2016. According to preliminary data, 1,156,500 apartments with the total floor area of 79.8 m square meters were commissioned down 6.5% than a year earlier (*Table 19*).

Table 19

The Commissioning of Residential Housing in Russia in 1999–2016

Year	Total floor area, in millions of square meters	Growth rates, %	
		on previous year	on 2000
1999	32.0	104.2	105.6
2000	30.3	94.7	100.0
2001	31.7	104.6	104.6
2002	33.8	106.6	111.5
2003	36.4	107.7	120.1
2004	41.0	112.6	135.3
2005	43.6	106.3	143.9
2006	50.6	116.0	167.0
2007	61.2	120.9	202.0
2008	64.1	104.7	211.5
2009	59.9	93.4	197.7
2010	58.4	97.5	192.7
2011	62.3	106.6	205.6
2012	65.7	104.7	216.8
2013	70.5	107.3	232.7
2014	84.2	119.4	277.9
2015	85.3	101.3	281.5
2016	79.8	93.5	263.4

Sources: Rosstat, own calculations.

In 2016, individual builders commissioned 245,100 houses with total floor area of 31.6 m square meters down 10.2% against 2015. For the second consecutive year individual housing construction registered inferior dynamics against housing construction as a whole. As a result, its share in the overall area of completed residential housing units in Russia as a whole amounted to 39.6% (41.2% in 2015), meanwhile in 2010–2014 it steadily exceeded 43%.

The positive dynamics of housing construction was observed in less than half of Russia's regions, including only 2/5 of territories where total volumes of housing commissioning exceeded 1 million square meters.

Table 20

**Dynamics of residential housing commissioning in Russian regions in 2016
(ranked by commissioning rate)**

Region	Housing commissioning rates, as percentage of 2015
1	2
Saratov region	113.5
Chechnya	110.2
Kemerovo region	108.8
Voronezh region	103.3
Krasnoyarsk Krai	103.2
St. Petersburg	102.8
Lipetsk region	102.0
Dagestan	101.9
Nizhniy Novgorod region	101.0
Bashkortostan	100.3
Tatarstan	100.0
Kaliningrad region	99.4
Krasnodar Krai	98.1
Rostov region	95.2

Cont'd

1	2
Leningrad region	93.5
Moscow region	91.7
Perm Krai	90.4
Belgorod region	86.8
Moscow	85.8
Novosibirsk region	85.4
Sverdlovsk region	85.1
Samara region	84.8
Stavropol Krai	81.7
Tyumen region (with autonomous districts)	76.8
Chelyabinsk region	73.6

Source: Rosstat.

As suggested in *Table 20*, a dynamics of housing commissioning considerably above the RF average (more than 3%) was registered in Saratov, Kemerovo, Voronezh regions, Chechnya and Krasnoyarsk Krai. In 5 regions an upward trend of housing commissioning was observed but with lower rates (to 3%). At the same time, decrease in housing commissioning volumes was recorded in 14 regions including Moscow, Belgorod, Novosibirsk, Sverdlovsk, Samara, Tyumen, Chelyabinsk regions, and Stavropol Krai where it constituted more than 13–25%.

Moscow region has retained its first-place position among Russian regions in terms of the absolute volume of housing commissioning (more than 8.8 million square meters) despite a deeper recession than in the country as a whole (8.3%). The city of Moscow with 3.4 m of square meters saw a steeper reduction (14.2%) in the volumes of housing commissioning than districts near Moscow. St. Petersburg boasted increase in housing commissioning by 2.8% to over 3.1 million square meters. The list of five top regions also included Krasnodar Krai (around 4.5 m sq. m.) and Bashkortostan (2.7 m sq. m.). The share of capital region in the overall volume of housing construction in the country amounted to 15.3%, of which the major part accounts for Moscow region (11.1%), and the share of proper Moscow – 4.2%. Total proportion of the capital region declined compared to 2014–2015 (15.8–15.9%), but remained larger than during two pre-crisis years (2012–2013) in the aftermath of Moscow borders shift.

The outcomes of 2016 point to the fact that the housing construction sector failed to avoid recession. Its value not only exceeded small growth recorded at year-end 2015,¹ but resulted in a deeper recession than that in 2014. The depth of the downturn is comparable with indexes recorded in crisis 2009, but absolute commissioning volumes by far exceed then pre-crisis maximum of 2008 and indexes of 2011–013. Quarterly dynamics did not record straightforward values. Housing commissioning volumes recorded during first two quarters of 2016 gave way to 2015 indexes, but surpassed 2014 indexes. In Q3, they, on the contrary, were higher than a year earlier, but lower than in 2014. However, the outcomes of Q4 bear an obvious negative pattern giving way to indexes of 2014 and 2015, which creates corresponding preconditions for the future.

Additional issues make matters worse for the developers. For the second consecutive year, the developers' profitability, which is close to negative values, is falling reflecting the reduction of sales volumes and prices.

¹ In the previous outlook, (see G. Malginov, G. Sternik. Price dynamics on residential property. Russian Economy in 2015. Trends and Outlooks (issue 36) Moscow, IEP. 2016, p. 434) preliminary data released by Rosstat at end-2015 was used, which attested to retention of housing commissioning at the 2014 level (99.5%). However, according to update data 2015 boasted of weak growth (1.3%).

Paramount problem consists in high debt load and growing amounts required for construction by roughly 8–10%.

Prior to crisis, developers were engaged in building kind of pyramid scheme by investing funds obtained from buyers of one residential building into the development of other projects. However, now some developers have to draw up a loan in order to complete construction of those buildings where all apartments have been already sold. Precisely at this stage developers face problems: where loans exceed 50% of the cost of the residential building, the bank issues a loan collateralized with unfinished construction at the rate of 0.5. In other words, the bank has as a collateral all unsold square meters. This raises the risk of default when the price of mortgaged apartments goes down.

According to ‘Metrium Group’, in H1 2016, nearly 60% of launched projects were not commissioned on time. Commissioning of 30 projects consisting of 52 residential buildings and apartment complexes, which were to be commissioned, was deferred to a later date. According to Head of marketing and sales department of ‘Lider Group’, D. Panteleimonov, Moscow saw slowing down of construction pace by 20–25%. That is why, residential building completion extended deadlines will be normal for 2017. He noted that prior to crisis construction of a solid-cast building took two years to complete, at present it takes 2.5 years.

At present, in the aftermath of termination of state program on interest rates subsidization the residential construction is entering a phase of development with lower inflation with limited demand when the market factors to a greater extent will be experiencing the impact of new regulatory mechanisms emerging recently. State support of the sector is evolving from across the board to targeted assistance restricted to financing of infrastructure and participation in certain projects, for example, within announced project of rehousing of residents of obsolete housing (five-storey apartment blocks not subject to rehabbing) in Moscow.

5.6.6. Institutional novations for real estate market

In 2015–2016, the authorities were active in reforming rules of the game on the real estate market. In the context of deteriorating situation on the market, the federal center stopped requiring from the regional authorities and heads of government agencies mandatory growth of reporting indexes, first of all, volume of housing commissioning, allowing their decline.

Principal directions of normative-legislative base reform were:

- reorganization of the housing construction financing system;
- change in the real estate registration system;
- changes in the evaluation system, including strengthening the state role in cadastral appraisal of real estate;
- amendments in taxation of purchase-sale transactions of real estate;
- changes in notarial certification on certain types of transactions.

Establishment of a single institution for the development of the housing sphere via JSC ‘Agency for Housing Mortgage Lending’ (AHML) became the main organizational and managerial novation. It was done on the basis of the Federal law of July 13, 2015 No 225-FZ “On Promoting Development and Raising Effectiveness of Housing Sphere Management and On Introducing Amendments into Certain Legislative Acts of the Russian Federation”. All shares of AHML belong to the Government of Russia and their transfer, pledge, and other administration can be implemented only on the basis of the federal legislation.

Primary target of the single institution for the development of the housing sphere is promotion of housing construction (including construction of economy class housing, rented

houses) with the help of mechanisms envisaged by the Federal Law No 161-FZ of July 24, 2008, "On Promoting Housing Construction." Thus, AHML took over responsibilities of the Federal Fund for Promoting Housing Construction liquidated on September 1, 2016.

However, reorganization of the *financing system of housing construction* was the main aspect of reform.

Regulatory authority first tried to abolish completely shared-equity construction right of developers to attract funds from citizens, which amounted to 70-90% of necessary investment funds and its replacement with bank loans (project-tied lending). However, the building community managed to explain to the Construction Ministry of Russia that this would only destroy the construction sector. The problem is that building contractor practically are unable to get a bank loan: it is unprofitable for banks and developers. Developers are predominantly are high-risk borrowers due to their unstable financial situation. Incomplete construction sites are usually their collateral, which minimize risks. However, these sites have low liquidity rate and consequently have low evaluations. Taking into account these facts, banks have to create large reserves against potential losses on loans, which leads to more expensive borrowing and makes it economically senseless for both parties.

By contrast, regulatory authority chose another way less painful for developers via amendment in the Law on participation in co-investment construction No 214-FZ. It was also subject to the opposition by the construction lobby. However, it was practically implemented. Recently, the Russian government was preoccupied with the issue of hoodwinked investors and as a result strengthened its control over shared-equity construction of residential buildings. A number of important and urgent measures have been taken aimed at strengthening tougher approach towards dishonest developers.

At first, by amendments effected from October 1, 2015, tougher requirements were introduced towards insurance companies providing third-party liability for developers. According to the amendments, these insurance companies must have: (1) licence to perform voluntary property insurance and (2) boast of own funds no less than RUB 1 bn (previously RUB 400m) with charter capital of no less than RUB 120 m. In addition, these insurance companies must be free of a prescriptive order of the Bank of Russia regarding violation of requirements to ensure financial sustainability and capacity to meet its liabilities (previously there was a more general wording about financial sustainability envisaged by law during recent 6 months). By these amendments small insurance companies, which lacked sufficient funds were cut off from potential participation in developers insurance who attract funds from individual co-investors.

Following these requirements towards insurance companies, the Criminal Code of the Russian Federation was extended by article 200.3 "Attraction of Funds from Citizens in Violation of Requirements of the Law of the Russia Federation on Participation in Shared Construction of Apartment Blocks and (or) other Real Property." This article makes it an offence for attraction of funds done in violation of Law No 214-FZ, whereas previously dishonest developers escaped with a warning or fine.

Later Federal Law No 304-FZ of July 3, 2016, was adopted "On Introducing Amendments in the Federal Law 'On Participation in Shared Construction of Blocks of Flats and other Real Estate Property and On Introducing Amendments into Some Legislative Acts of the Russian Federation' and certain legislative acts of the Russian Federation." These amendments entered into force on January 2017 and aimed at finally settle relations between client and developer and cut off all dishonest developers.

In particular, Russia will have unified register of developers attracting funds from citizens on the basis of co-investment contracts in shared-equity construction of blocks of flats and other real estate property. All register information must be open to public and uploaded in internet. The Law also determined additional requirements towards to the minimum size of the charter capital of these developers, which should be in the range of RUB 2.5 to 1.5bn depending on the area of all shared-equity construction belonging to developer and other related to it legal entities.

Updated law is also designed to ensure information transparency of developers attracting funds from citizens. For example, from now on the developers must release on their official web sites all necessary documentation and information related to houses under construction including co-investment contracts and photos from construction sites.

In addition to extended list of required information open to everybody and increased size of developers' charter capital a special compensation fund was established aimed at additional protection of co-investors. It is formed from mandatory contributions (payments) made by developers attracting funds from citizens. The size of contributions can not exceed 1% of planned construction cost of a block of flats and (or) other real estate property indicated in a project declaration of the developer. The state compensation fund of shared-equity construction established under AHML was to receive developers' contributions from January-February 2017. In the event developers fail to perform their obligation, the fund will compensate citizens their incurred losses and complete housing construction. The fund can accumulate RUB 30–35bn.

However, all these novations do not apply to housing facilities of shared-equity construction where co-investment contracts were signed prior to January 1, 2017.

The law is clearly biased towards protection of individual co-investors. Deposit of these funds on escrow accounts¹ will prevent unlawful diversion of these funds. In the event of developers' bankruptcy, funds will return to their owners in full with the interest. However, escrow account is credited solely on condition when developer receives project-ties financing by crediting institution. This practice will become widespread owing to the fact that banks will be interested in extending relatively cheap credits to builders because they themselves will be attracting less expensive funds, which, in their turn, must be allocated somewhere.

Thus, there emerges a real mechanism for more proactive bank crediting of the construction industry. At present, bank crediting is very limited. However, from the developers' point of view, this arrangement has an obvious fault: developers lose a chance for directly at no cost attract funds from co-investors. Control over their attraction according to the law on participation in shared-equity construction has been extended to the attraction of citizens' funds for building societies.

Change in *real estate registration system* is due to effective from January 1, 2017 of the Federal Law No 218-FZ of July 13, 2015 “On State Registration of Real Estate Property.” The former Federal Law No 122-FZ of July 21, 1997 “On State Registration of Real Estate Property and Transactions with It” became invalid from January 1, 2017 (according to Law No 361-FZ of July 3, 2016).

¹ Escrow Account - is a special savings account where funds can be disbursed only on certain liabilities. It is opened for temporary accumulation of funds to be disbursed on target. With respect to shared-equity construction, this instrument envisages transfer of co-investors' funds as work progresses and developer's report is submitted to bank.

Until quite recently, real estate property was registered in Unified state register of the real estate property. A land plot under each construction facility was registered in State cadaster of real estate property. There were two real estate property bases and two documents for real estate property. In 2017, a new unified information base - Unified State Register of the Real Estate Property - will be in operation and will keep all information about construction facilities. According to the new law, the state cadaster account of real estate property and state registration of real estate rights became a unified procedure. However, there was a collision due to the fact that the new registration system is not perfect (completion dates were extended by half year).

New Law envisages reduction of the list of documents required for the state registration of rights. For example, legal entities will not need to submit charter documents. According to an important novation, Certificate of registration of real estate property will be replaced by an extract from Unified State Register of the Real Estate Property. Now the registrar will bear personal responsibility and will have to compensate the applicant all incurred losses in full from the RF budget.

In the field of valuation activities, it is Federal Law No 237-FZ of July 3, 2016 on State Cadastral Valuation which came into effect on January 1, 2017. The state cadastral valuation includes procedures (1) for taking decisions on carrying out thereof for the purposes provided for by the legislation of the Russian Federation, including taxation based on market and other data related to economic parameters of utilization of a real property unit, (2) determining the cadastral value and (3) approving of the results of cadastral valuation.

State cadastral valuation is carried out by decision of the state executive authority of a constituent entity of the Russian Federation (region) (hereinafter, the authorized body of a constituent entity of the Russian Federation), which entrusts a budget-funded entity founded by the region with an authority to carry out cadastral valuation. Such an entity is not in a position to enter into agreements on carrying out evaluation as a performer in compliance with the legislation of the Russian Federation on valuation activities, while its employees who are directly engaged in determining the cadastral value are not allowed to determine the market value for the purpose of contestation of the cadastral value.

The budget-funded entity is responsible for activities related to determination of the cadastral value. Losses which may arise due to violations related to determination of the cadastral value are compensated in full at the expense of the entity proper with a subsidiary responsibility of the subject of the Russian Federation in respect of obligations related to indemnification of such losses providing insufficiency of the entity's property in cases provided for by the civil legislation.

The cadastral value is determined in accordance with the guidelines for state cadastral valuation to be carried out by the budget-funded entity. That entity has no right to engage other persons, but its own employees to carry out jobs and (or) services related directly to determination of the cadastral value. The final document prepared on the basis of valuation outputs is a report. The authorized body of the subject of the Russian Federation approves the outputs of the report by endorsing a relevant document on the results of determination of the cadastral value.

The results can be disputed in court or a commission established by the authorized body of the subject of the Russian Federation by legal entities and individuals should their rights or obligations be concerned and by state and local authorities if a property unit is in a state or municipal ownership. Preliminary application to the commission is not required for legal recourse.

At the same time, Federal Law No 360-FZ of July 3, 2016 on Amendment of Individual Statutory Acts of the Russian Federation was approved to introduce a moratorium on modification of the cadastral value in charging of the land fee (a percentage of the cadastral value) in all its possible forms. However, Federal Law No 401-FZ of November 30, 2016 on Amendment of Part Two and Part Three of the Tax Code of the Russian Federation and Individual Statutory Acts of the Russian Federation permits regions to introduce or cancel the moratorium on modification of the cadastral value until 2020. Introduction of the moratorium will not be obligatory, but the decision on imposition thereof is to be taken by the supreme executive authority of the subject of the Russian Federation.

The Moscow authorities responded promptly to that decision and refused to review applications for revision of the old valuation results and prepared changes to be introduced into the property cadastral valuation as of the end of 2016. Consequently, the total tax amount has increased by 3.6% despite the fact that the real property has been depreciating from 2014.

With respect to valuation activities proper, it was established by amendments approved by Federal Law No 172-FZ of June 2, 2016 to the profile law of 1998 that the appraiser can carry out valuation in lines specified in the certificate of competence. A qualifying exam in valuation to be carried out by the body authorized by the Government of the Russian Federation for certifying the level of qualification of appraisers was introduced.

Requirements as regards mandatory valuation in case of assignment on a free use basis of property owned by the Russian Federation, subjects of the Russian Federation or municipal entities to the authorities of the Russian Federation, subjects of the Russian Federation or municipal entities, state, municipal and unitary enterprises or state and municipal entities are excluded from the legislation.

The rights and obligations of the customer of valuation are determined and provisions concerning the expertise of reports on valuation are specified. In particular, it is established that the expertise of valuation reports is carried out voluntarily on the basis of a contract between the customer of the expertise and the self-regulating entity (SRE) of appraisers.

The authorities of the valuation activity council under the authorized federal body carrying out statutory regulation in that field include approval of valuation guidelines developed for promotion of provisions of the approved federal valuation standards, except for those, which set requirements to determination of cadastral value.

A member of the SRE appraisers can voluntarily suspend the right to carry out valuation activities on the basis of a personal application, on grounds and in accordance with the procedure set by that entity's in-house documents and may not insure his/her responsibility for the period of his/her right to carry out valuation activities. It is to be noted that in determining the compliance of the SRE of appraisers with the requirement that that entity's total number of members is to be at least 300 individuals it is envisaged to account for only those appraisers whose right to carry out valuation activities is not suspended. In addition, it is established that membership of the individual in the SRE of appraisers cannot be suspended if the person in question is under investigation and application of disciplinary measures is being considered.

Important changes took place as ***regards taxation of property when it is bought or sold.***

First, as early as 2014 year-end the Tax Code of the Russian Federation was supplemented with Article 217.1 on the specifics of taxation of individuals' incomes from sale of real property (it is applied to property units which were bought from the beginning of 2016).

The most important norms in that article as the following:

- The minimum period of property ownership needed for a subsequent tax-free sale is 3 years for property units received in ownership through succession by inheritance or on the basis of a gift deed from an individual recognized as a family member and (or) next of kin of that taxpayer in accordance with the Family Code of the Russian Federation as a result of privatization of property and assignment of property under a life estate agreement and 5 years in other cases.
- if the taxpayer's incomes from sale of the real property unit are less than the cadastral value of that unit as of January 1 of the year in which state registration of assignment of ownership rights to the property unit took place multiplied by a decreasing coefficient of 0.7, for taxation purposes the taxpayer's incomes from sale of that property unit are made equal to that value (that is, 70% of the cadastral value).

The above two novelties are aimed at replenishment of the budget, but they increase a burden on individuals who were not earlier limited by deadlines set to sale of real property without implications in terms of taxation of the received incomes and could understate the value of their property.

In addition, as per Article 220.3.1 of the Tax Code of the Russian Federation in buying housing in ownership, individuals have the right to claim a property-related tax deduction in the amount of actual expenditures made on such a purchase, but no more than RUB 2m. The tax authorities published explanations that if such housing is bought by spouses it is considered a joint property. Consequently, each of the spouses has the right to receive a property-related tax deduction (Letter No.BC-3-11/813@ of February 29, 2016 on Property-Related Tax Deduction).

The deduction will be calculated on the basis of the value of expenditures of each spouse. The expenditures need to be certified by payment documents. Also, the expenditures can be determined on the basis of the spouses' statement on distribution of their expenditures on purchasing of the real property unit. It is to be noted that the maximum amount of the deduction may amount to no more than RUB 2m per each spouse who has the right to a property-related tax deduction regardless of the fact in whose name the ownership rights to that property were registered.

The Law No 391-FZ of December 29, 2015 on Amendment of Individual Statutory Acts of the Russian Federation established **mandatory notary certification for some types of deals**. They include deals with shares in the joint ownership rights, including those on land and real property purchase and sale deals where the owner is a minor or partially incapacitated person. The norm in question which is important to the real-estate market is justified by the need to protect the rights of owners of apartments from "apartment raids" in selling of micro shares and step up protection of vulnerable categories of people.

In fact, a mala fide purchaser may buy an insignificant share in an apartment (for example 1/30) to get the right to live there and then creates unbearable living conditions to make other co-owners to sell their shares at prices below the market ones. Another option may consist in making other co-owners of the apartment to buy the share of the mala-fide purchaser at a price, which is above the market one. The notary certifies the deal if the owner of the share has duly notified other co-owners of the future sale of its share. According to Article 250.1 of the Civil Code of the Russian Federation, owners of apartments have the right to preferential purchasing of the share in common property.

In the realtors' community, there is a skeptical approach to this novelty because it duplicates functions of the registration chamber, which is obligated to carry out expertise on compliance

of deals on sale of shares with the requirements of Article 250 of the Civil Code of the Russian Federation. In case of a sale of the share after a month-long period set by the law with proper notification of co-owners of the future sale made as per Article 250.2 of the Civil Code of the Russian Federation, a notary certification of a sale and purchase agreement cannot protect owners from “apartment raids”. Notary certification of a sale of real property owned by a minor is assessed in a similar way.

As in case of deals with shares in common property, notaries are again in the money because deals on sale of apartments where minors are owners are nearly always alternative ones, that is, apart from certification of the deal proper all the deals in the “chain” need to be notary certified. From the beginning of 2017, these norms were included in Law No 218-FZ of July 13, 2015 on State Registration of Real Property. In addition, notaries’ bonus consists in mandatory notary certification of the spouses’ consent to disposal of property, the titles to which are subject to state registration, that is, the real estate and the agreement on division of their common property; the above requirements are provided for by amendments to the Family Code of the Russian Federation.

Large-scale work on reforming of the legislative and regulatory base of the real estate market - those efforts were necessary and feasible during the crisis - will contribute to higher responsibility of market players, including state regulating authorities, prevention of social tensions due to developers’ failure to meet their obligations to equity building participants, promotion of responsibility of real property owners and more fair taxation. However, the possible influence of all these measures on the real property market dynamics is limited by a short-term prospect.

Generally, residential property markets of Russian cities have passed through the critical stage of the crisis and are close to stabilization. However, the sluggish crisis is far from being over.

5.6.7. The forecast of development of the Moscow residential property market till 2020

For modelling and forecasting development of the residential property market, the initial data of the baseline version of the government forecast for three years were used. According to this forecast, from 2017 the Russian economy will start going upwards at moderate, but growing rates (GDP growth will range from less than 1% to 2%) with prices of oil standing at USD 40 a barrel and the ruble/dollar exchange rate, at 60–65 RUB/USD. These parameters correlate with most forecasts of Russian researchers.¹ The same data were used in our model of the Moscow residential property market forecast.

A number of factors which emerged at the turn of 2016–2017 can have an additional positive effect on the financial and economic situation in the country as regards growth in budget revenues, investments and other. The agreement between the OPEC and Russia (and some other countries which are not members of the organization) on reduction of volumes of oil production opens up the prospect of getting rid of excess supply on the energy market and has already contributed to growth in oil prices to USD 50–55 a barrel. Political processes in the US and Europe may facilitate lifting of sanctions against Russia. However, the main problems

¹ For example, the conservative version of the forecast in: V. Averkiev, S. Drobyshevsky M. Turuntseva and M. Khromov. The Beginning of Cyclic Growth. The Macroeconomic Forecast for 2017-2018. Monitoring of Russia’s Economic Outlook. Trends and Challenges of Socio-Economic Development. No. 1(39). January 2017, pp. 5–12.

prevailing in the Russian economy are of domestic and institutional nature and they are far from being resolved.

As regards the main driver of the real estate market, after a 10% drop in households' real incomes in the past few years they have stabilized this year and will start to grow in 2018. However, after the presidential elections a number of unpopular measures aimed at promoting economic growth rates, but having an adverse effect on households' income growth is expected to be introduced. Taking into account this factor, the judgmental forecast of the rates of decline of households' real disposable income by 4.0% and 3.0% in 2017 and 2018 and beyond, respectively, was approved. With the rate of inflation forecasted by the Central Bank of the Russian Federation at 5.0% in 2016 and 4% later on taken into account, growth in households' nominal income will amount to less than 1% in 2017–2020. The above indicators were used as the initial data in calculating the real estate market forecast.

Below is given the forecast of average unit prices of real property on the primary and secondary markets of Moscow and the Moscow Region.

As regards the primary Moscow market, on the basis of the monthly data in the period from December 2013 till December 2016 it can be stated that actual prices at the end of 2015 and 2016 coincided with those of the forecast of June 2014. The calculation showed that in subsequent years the average market price would be going down at a moderate rate of 3–5% a year.

The drivers of the above situation are trends in dynamics of supply and demand formed in 2014–2016. An upsurge in prices late in 2014 caused by a macroeconomic shock was later replaced by a decline thereof due to the effect of such a fundamental factor as falling households' incomes.

Market supply during the 2014 construction boom was growing, but from the beginning of 2015 amid speculative demand, it became exhausted. Simultaneously, due to the crisis, which had just begun developers stopped commissioning new property units in the market and the volume of supply decreased. From summer 2015, by virtue of a decrease in sales the unsold supply volume started to grow and late in 2016 amounted to the record-high values.

In 2014, the volume of demand exceeded that of supply due to changes in the economic and political situation and depreciation of the ruble late in 2014 and early in 2015. Later, during 2015 demand was falling, but in 2016 it started to grow rapidly and by the year-end amounted to the record-high values because amid macroeconomic stabilization in the market the pent-up demand occurred. However, the volume of demand is still lower than that of supply. Market prices which grew much late in 2014 started to decline later on when the supply surpassed the demand and kept falling in 2016.

The calculation has shown that with a forecasted decrease in households' incomes till 2020 the volumes of demand and absorption will fall 3–5% a year. The volume of supply will decrease 10–15% a year, but remains higher than the volume of demand. The volume of supply is formed on the basis of the accrued unsold supply, plus the volume of new supply (which is approximately equal to the volume of new commercial development) and minus the volume of absorption. Volumes of building and commissioning of new housing are expected to decrease because development yields less income amid falling absorption volumes and prices. With the above taken into account, prices will be going down 3–5% a year (*Fig. 44*).

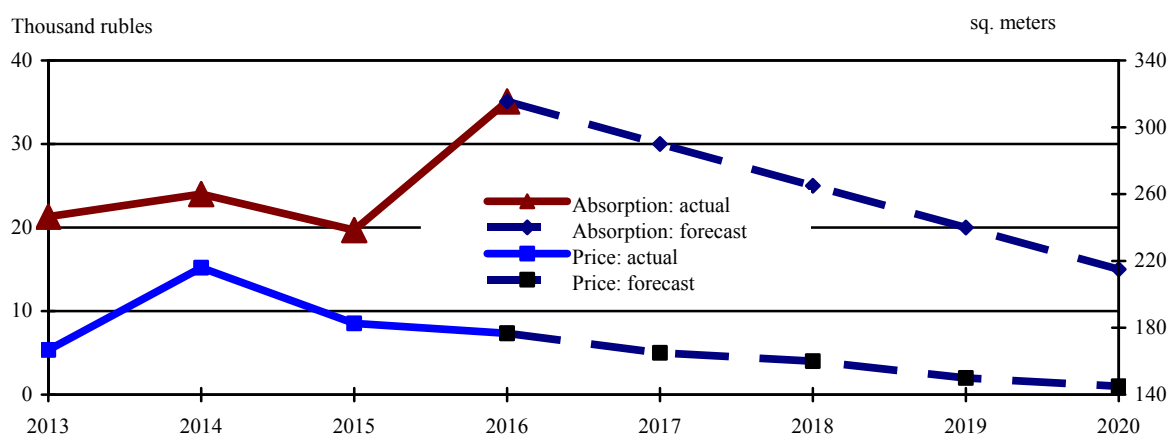


Fig. 44. Forecast of the annual absorption volume and dynamics of prices as of the year-end (December) on the Moscow primary real estate market

Source: the actual data supplied by the Rosreestr and the Analytical Committee of the Moscow Association of Realtors, while the forecast data, by the OOO Sterniks Consulting.

On the secondary market, after an upsurge early in 2015 the price dynamics was affected by such a fundamental factor as households' falling incomes, and the actual data of December 2015 and 2016 were the same as in the forecast of June 2014.

The volume of housing supply which increased in 2014 amid appreciating prices kept growing in 2015–2016 due to a decrease in the volume of absorption. The volume of demand was mainly below the volume of supply. A reversal took place only in December 2016 and so far it is unclear whether this trend is going to change. In general, prices were going down.

The forecasts of the average monthly volume of demand and supply, the total annual volume of absorption and monthly prices in December 2016 on the Moscow secondary housing market show that after the collapse of demand in 2015 it kept falling and remained below the supply. Such a situation will definitely lead both to a decrease in the volume of absorption and falling prices in future. The forecast of June 2016 shows that prices are going down 8–9% a year in future (Fig. 45).

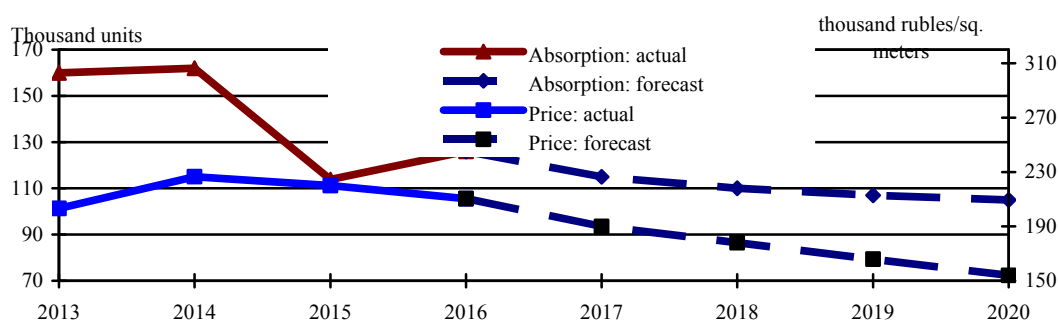


Fig. 45. Forecast of the annual absorption volume and price dynamics as of the year-end (December) on the Moscow secondary real estate market

Source: the actual data supplied by the Rosreestr and the Analytical Committee of the Moscow Association of Realtors, while the forecast data, by the OOO Sterniks Consulting

On the primary residential property market of the Moscow Region, in 2016 the absorption volume turned out to be below the forecast by 9.5% and according to the forecast it is going to decrease at the rate of 4–5% a year in future. In December, the price turned out to be higher than in the forecast (by 5.0%), but in future it is expected to fall 3–4% a year (*Fig. 46*).

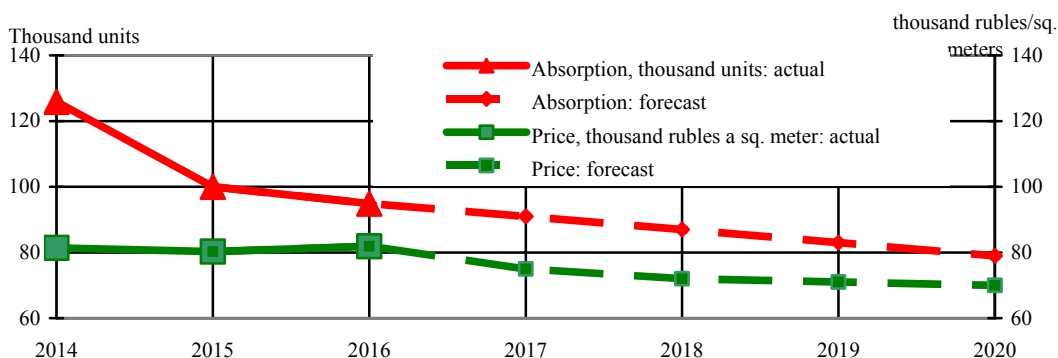


Fig. 46. Forecast of the annual absorption volume and price dynamics as of the year-end (December) on the primary real estate market of the Moscow region

Source: the actual data supplied by the Rosreestr and the Analytical Committee of the Moscow Association of Realtors, while the forecast data, by the OOO Sterniks Consulting

On the secondary residential property market of the Moscow Region, in 2016 the absorption volume turned out to be slightly below the forecast (1.2%) and it is expected to be decreasing at the rate of 4–5% a year according to the forecast. The price in December was below the forecast (2.4%), but it is expected to go down 3–4% a year in future (*Fig. 47*).

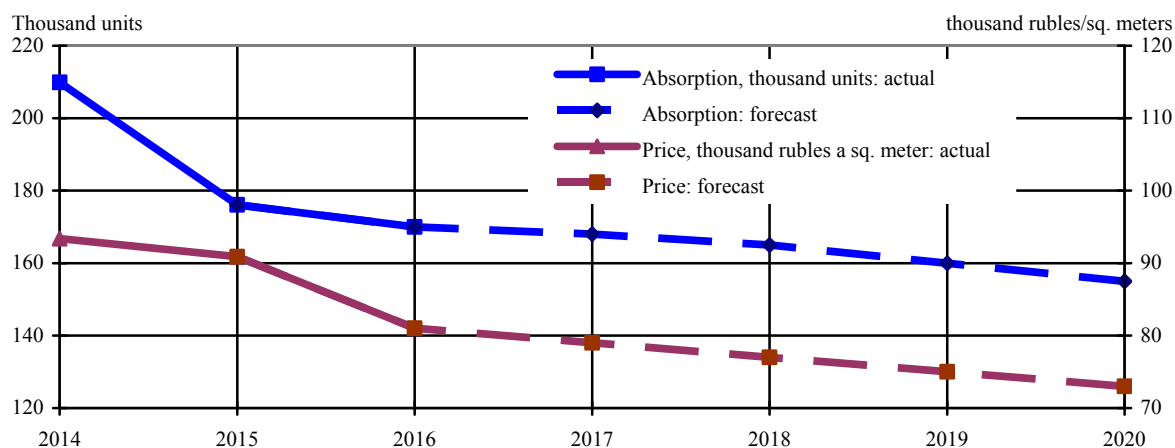


Fig. 47. Forecast of the annual absorption volume and price dynamics as of the year-end (December) on the secondary housing market of the Moscow Region

Source: the actual data supplied by the Rosreestr and the Analytical Committee of the Moscow Association of Realtors, while the forecast data, by the OOO Sterniks Consulting

So, a recession on the residential property market of the Moscow Region with main indicators decreasing, but without a substantial drop is expected until 2020 included. In other

cities, more substantial rates of decrease in absorption volumes, prices, building volumes and commissioning volumes, as well as sustainable development and even small growth of the main indicators of the residential property market can be expected.

Certainly, there are risks of deviation of the market dynamics from the forecast.

Housing prices may increase reflecting the growth of the oil prices, lifting of sanctions, households' higher incomes, abandonment of inflation targeting and substantial easing of the monetary policy. In case of a collapse of oil prices and appreciation of the dollar exchange rate, a new wave of the crisis with depreciation of real estate prices may take place in the market.

Section 6. Institutional changes

6.1. The public sector and privatization policy¹

6.1.1. The scope of public property ownership

In 2016, statistical data began to be published in the framework of the newly introduced System of Public Property Management Efficiency Estimates. It was approved by Decree of the RF Government of 29 January 2015, No 72 and introduced by way of replacing the public sector monitoring data, collected and released by the Federal State Statistics Service (*Rosstat*) since the late 1990s in accordance with the provisions stipulated in Decree of the RF Government of January 4, 1999, No 1 (as amended as of December 30, 2002). Among other things, the System of Public Property Management Efficiency Estimates contains data on the number of federal state unitary enterprises (FSUEs) and joint-stock companies (JSCs) with RF stakes in their capital, which previously were published as part of government privatization programs (from 2011 – for three-year period, and prior to 2011- for one-year period. Some data can also be found in the Federal Property Register and the new *Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2017–2019*, approved in early 2017 (*Table 1*).

Table 1

The societies and organizations in federal ownership, entered in the Federal Property Register and the System of Public Property Management Efficiency Estimates in 2010–2016

Date	Economic societies with federal stakes, units		Other holders of ownership rights to registered federal property entities, units		
	stake (share) in capital / of these, JSCs	special right to participate in company's management ('golden share') without holding any stake ^a	FSUEs	FTEs	FSIs
as of January 1, 2010	3,066/2,950 ^b		3,517 ^b		
as of January 1, 2013	2,356/2,337 ^b		1,800/1,795 ^b	72	20,458
as of January 1, 2016.	1,557/1,704 ^b	88/64 ^c	1,488/1,247 ^b	48	16,194
as of April 7, 2016 ^c		1,683/1,620 ^d	1,236	48	16,726
as of July 1, 2016	1,571	82	1,378	47	16,990

^a – the special right is not entered in the Register as a separate registered unit, however it is mentioned in various materials published by the RF Federal Agency for State Property Management (*Rosimushchestvo*) and in the context of data on state stakes in joint-stock capital;

¹ Authors of chapter: G. Malginov – Gaidar Institute, RANEPА; A. Radygin – Gaidar Institute, RANEPА.

RUSSIAN ECONOMY IN 2016

trends and outlooks

^b – the number of JSCs and FSUEs as stated in the privatization programs for 2010–2013, 2014–2016 and 2017–2019 (in the latter, the data based on OKVED Codes (All-Russia Classifier of Economic Activities) refer to companies with shares (or stakes) in federal ownership);

^c – according to data in the Federal Property Register;

^d – the denominator is the total number of legal entities, including CJSCs and LLCs; the denominator is the number of stakes and shares; it may be supposed that the difference between the two figures equals the number of JSCs with a 'golden share', but there is no direct indication thereof).

Source: Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2011–2013; Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2014–2016; www.economy.gov.ru, 23 April 2013; statistical data from the System of Public Property Management Efficiency Estimates, www.gks.ru, March 20, 2016, September 5, 2016; the RF Federal Agency for State Property Management (*Rosimushchestvo*)'s Annual Report for 2015; Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2017–2019.

As of January 1, 2016, the Russian Federation was owner of 1,247 FSUEs and held stakes in 1,704 JSCs. If we compare these numbers with the corresponding data stated in the previous privatization programs, it can be noted that the total number of FSUEs shrank by more than 30% relative to early 2013, and by nearly 65% relative to early 2010, while that of JSCs shrank by 27% and by more than 42% respectively. As a result of the accelerated rate of decline demonstrated by the number of FSUEs, it became less than the number of JSCs with RF stakes in their capital, the change that was for the first time recorded in the completed privatization program for 2014–2016. Thus, from 2012–2013 onwards, the group of commercial companies with various forms of federal ownership began to be dominated, in terms of total number, by economic societies with one or other form of state participation, their role in the economy being much more significant.

Below we present the changes that have taken place in that group since 2010; these are summary data based on 3-year privatization programs, i.e., as of early 2010, early 2013, and early 2016 (*Table 2*).

Table 2

The movement and structure of the group of economic societies (JSCs and LLCs) relative to the size of state stakes in their capital (less those JSCs where the state holds the special right granted by 'golden share' without holding any stake) in 2010–2016

Date	Economic societies (JSCs and LLCs) where RF is shareholder (or participant)									
	total, units	share, %	of these, with RF stake in charter capital amounting to							
			100%		50–100%		25–50%		less than 25%	
			units	%	units	%	units	%	units	%
as of January 1, 2010 ^a	2,950	100.0	1,757	59.6	138	4.7	358	12.1	697	23.6
as of January 1, 2011	2,957	100.0	1,840	62.2	136	4.6	336	11.4	645	21.8
as of December 31, 2011	2,822	100.0	1,619	57.4	112	4.0	272	9.6	819	29.0
as of January 1, 2013 ^b	2,337/ 2,356	100.0	1,256/1,257	53.7/53.3	100/106	4.3/4.5	227/228	9.7/9.7	754/765	32.3/32.5
as of January 1, 2014	2,113	100.0	1,000	47.3	95	4.5	224	10.6	794	37.6
as of January 1, 2015	1,928	100.0	861	44.7	90	4.7	203	10.5	774	40.1
as of January 1, 2016 ^c	1,704	100.0	765	44.9	93	5.4	172	10.1	674	39.6
as of January 1, 2016 ^e	1,557	100.0	816 ^e		52.4 ^e		174	11.2	567 ^f	36.4 ^f
as of July 1, 2016 ^e	1,571	100.0	711 ^e		45.3 ^e		189	12.0	671 ^f	42.7 ^f

^a – number of JSCs, as stated in the privatization program for 2010–2013;

^b – the numerator is the number of JSCs as stated in the privatization program for 2014–2016, the denominator is the number of JSCs and LLCs, as stated in Rosimushchestvo's Annual Report for 2013;

^c – number of JSCs, as stated in the privatization program for 2017–2019 (the data based on OKVED Codes refer to companies with shares (or stakes) in federal ownership);

^d – number of JSCs with shares in federal ownership, based on data released by Rosstat;

^e – total number of JSCs with shares in federal ownership amounting to more than 50% (the number of JSCs in full state ownership (with 100% federal stakes not being specified), and their relative share);

^f – estimated value, based on data on the total number of JSCs with federal stakes and the number of such JSCs in other categories relative to the size of federal stakes in their charter capital.

Source: Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2011–2013; Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2014–2016; Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2017–2019; *Rosimushchestvo's* Annual Reports for 2010–2015, www.rosim.ru; statistical data based on public property management efficiency estimates, www.gks.ru, March 20, 2016, September 5, 2016; own calculations.

The most notable decline was demonstrated by the number of JSCs in full state ownership (where the state stake amounted to 100% of their charter capital): by 39% relative to 2013, and by 56.5% since 2010. A nearly similar drop relative to early 2010 (by 52%) was observed in the group of JSCs with blocking state stakes (amounting to between 25% and 50% of their charter capital), although it was by far less steep relative to early 2013 (approximately by 24%). The number of JSCs with controlling state stakes (amounting to between 50% and 100% of their charter capital) shrank by 7% relative to 2013 and by 1/3 relative to early 2010. The least decline could be seen in the group of JSCs with minority state stakes (amounting to 25% or less of their charter capital) - by 10.6% relative to early 2013 and by 3.3% relative to early 2010.¹

As a result, the distribution of JSCs depending on the size of federal stake in their charter capital changed significantly. While as of January 1, 2010, and January 1, 2013, the percentage of companies where the State was able to exercise full corporate control² was more than 64% and 58% of all JSCs with RF stakes in their capital, by early 2016 this index had dropped by nearly half of their total number. In 6 years (2010–2015), the share of JSCs with blocking state stakes shrank from approximately 12% to 10% (in early 2013 – 9.7%). The percentage of JSCs with minority state stakes, on the contrary, was constantly on the rise, increasing from 23.6% in 2010 to more than 32% in 2013, and to nearly 40% in early 2016. Incidentally, the most favorable structure of this group of JSCs depending on the size of federal stake was noted in early 2011 - that is, at the moment of a switchover to three-year privatization programs. In this connection, one cannot overlook the differences in the total numbers of JSC with RF stakes in their capital and their by-group distribution depending on the size of their state stakes as stated in the new privatization program and as reported by *Rosstat* on the basis of its the System of Public Property Management Efficiency Estimates as of early 2016.

Some important information concerning the operation of economic societies with state participation could be derived from the year-end reports on the management of federal stakes in OJSC and the use of the Russian Federation's special right to participate in an OJSC's management ('golden share') published by *Rosimushchestvo* since 2012.

According to data provided by the Federal State Information System *FGIAS ESUGI* (Register of Assets Held by the Russian Federation) as of 1 August 2016, the Federal Property Register contained information on 1,593 JSCs with federal stakes, including 72 JSCs where the State held the special right to participate in a company's management granted by 'golden share'³.

¹ By early 2013, the number of JSCs with minority state stakes had by no means dropped in absolute terms relative to early 2010 - instead, it rose by 8%.

² An estimation based on the total number of JSCs with 100% and majority state stakes in their charter capital.

³ Year-end 2015 Report on the Management of Federal Stakes in OJSC and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share').

However, among these 1,593 companies, *Rosimushchestvo* could fully exercise its shareholder rights only in a total of 735 JSCs (or 46.1% of all JSCs vs. 52.6% in the summer 2015; vs. 54.7% in the summer 2014; vs. 57.7% in the summer 2013; and vs. 52.1% in the summer 2012).¹ From 2014 onwards, the percentage of companies where *Rosimushchestvo* was not restricted in exercising its shareholder rights steadily declined, and by the summer 2016, for the first time in 5 years, it had shrunk to less than 50%.

The composition of the remaining group of 858 companies was as follows:

- economic societies with state stakes amounting to less than 2% of their charter capital, where, in accordance with Item 1 of Article 53 of Federal Law, of December 26, 1995, No 208-FZ 'On Joint-stock Companies', no proposals put forth by shareholders can be entered on the agenda of a general shareholder meeting) (349 units, or 21.9% of all JSCs);

- economic societies where the ownership rights to state stakes are delegated to other federal bodies of executive authority (FBEAs) and state corporations (for example, the RF Ministry of Defense, State Corporation *Rostec*, *Rosatom*, or JSCs operated under a trust management agreement) (297 JSCs, or 18.65% of all JSCs);²

- economic societies undergoing bankruptcy procedures (in the phase of a bankruptcy proceeding) (150 JSC, or 9.4% of all JSCs);

- economic societies undergoing a liquidation procedure (48 JSC, or 3.0% of all JSCs);

- economic societies currently with no stakes *de facto* in the ownership by the Russian Federation (for example, if an entity has been privatized, or transferred as a contribution to the charter capital of a vertically integrated structure (hereinafter – VIS)) (14 JSCs, or 0.9% of all JSCs).

Table 3 shows how, in recent years, the relative shares of JSCs where *Rosimushchestvo* is restricted in its shareholder rights have been changing, with the reasons for such restrictions.

First of all, it should be noted that the number of JSCs, with regard to which *Rosimushchestvo* can exercise only a limited shareholder right, has declined on 2012 by almost 1/3 (or by nearly 400 units). The main factor behind this trend was the shrinkage (more than 16-fold) of the group of JSCs with no stakes *de facto* being owned by the Russian Federation, which happened due to the improved procedure of federal property record-keeping and its reliance on a hi-tech methodology, although in 2016 their number was found to be nearly 5 times higher than in 2013 (3 units – a record low in absolute terms).

The number of JSCs where the shareholder rights had been transferred to other subjects shrank by approximately 23%; and that of JSCs where state stakes amounted to less than 2% –

¹ The absence of restrictions on *Rosimushchestvo*'s ability to exercise its shareholder rights does not mean that the Agency indeed has nothing to do with the management of relevant companies run by sectoral FBEAs, the latter getting involved in that process on the basis of general principles and depending on the actual distribution of powers, as determined in the Provision on the Management of Federal Stakes in OJSC and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share') (approved by Decree of the RF Government dated December 3, 2004, No 738).

² It does not seem to be quite correct to place in one and the same group those JSCs where the ownership rights to state stakes are delegated to federal bodies of executive authority other than *Rosimushchestvo*, state corporations, and companies operated under a trust management agreement, because one of the basic features of a state corporation (SC) as a legal entity (defined by RF legislation as a non-profit organization) is the right of ownership to its property, and, generally speaking, that right should also be exercised with regard to those state stakes that have been transferred to other entities as property contributions to their charter capital.

by 20%. At the same time, the number of JSCs undergoing a proceeding in bankruptcy declined by only 4%, while the number of those undergoing a liquidation procedure – by nearly 13%¹.

Table 3

The movement and structure, in 2012–2016, of the group of joint-stock companies with federal stakes in regard to which *Rosimushchestvo* is restricted in exercising its shareholder rights

Why shareholder rights are restricted	as of August 1, 2012		as of August 1, 2013		as of July 7, 2014		as of August 1, 2015		as of August 1, 2016	
	units	% of all JSCs	units	% of all JSCs	units	% of all JSCs	units	% of all JSCs	units	% of all JSCs
Total number of JSCs, of these	1,258	47.9	988	42.3	949	45.3	884	47.4	858	53.85
- state stake is less than 2% ^a	434	16.5	465/134 ^b	19.95	436/78 ^b	20.8	373/75 ^b	20.0	349/61 ^b	21.9
- shareholder rights transferred to other subjects ^c	387	14.75	316	13.55	302	14.4	291	15.6	297	18.65
- proceeding in bankruptcy	156	5.95	145	6.2	146	7.0	151	8.1	150	9.4
- liquidation procedure	55	2.1	59	2.5	57	2.7	60 ^d	3.2	48 ^d	3.0
- no stakes owned by RF ^e	226	8.6	3	0.1	8	0.4	9	0.5	14	0.9

^a – in accordance with Item 1 of Article 53 of Federal Law, of December 26, 1995, No 208-FZ 'On Joint-stock Companies', no proposals put forth by shareholders can be entered on the agenda of a general shareholder meeting);

^b – the denominator is the number of JSCs where the Russian Federation simultaneously exercises the special right to participate in their management ('golden share');

^c – JSCs operated by other bodies of executive authority, by state corporations, or by other companies under a trust management agreement;

^d – including JSCs undergoing a reorganization procedure;

^e – JSCs with state stakes that are *de facto* no longer registered as federal property (previously privatized, transferred to the charter capital of a vertically integrated structure, their issues of shares have not been registered, or they no longer operate due to their liquidation or reorganization), but the entry of information thereof in the Register has not yet been properly formalized.

Source: *Rosimushchestvo's* Year-end Reports on the Management of Federal Stakes in OJSC and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share') for 2011–2015; own calculations.

As a result, the percentage of JSCs with regard to which *Rosimushchestvo* can exercise only a limited shareholder right in the total number of JSCs with stakes in federal ownership increased in every category, the only exception being those JSCs where no stakes were *de facto* owned by the RF. The most numerous group is represented by JSCs where state stakes amount to less than 2%, their percentage increased from 16.5% in 2012 to nearly 22% in 2015, which is above the year-end index for 2011 (20%).

The percentage of companies where the State cannot exercise full corporate control has been shrinking not only due to the increasing percentage of those companies where state stakes amount to less than 2%, but also due to the changing privatization priorities with regard to those JSCs where *Rosimushchestvo* is not restricted in exercising its shareholder rights (*Table 4*).

¹ It should be noted that in the data for 2015–2016, this group also included JSCs undergoing a reorganization procedure.

The data presented in *Table 4* make it possible to identify the factor that has triggered the growth in the percentage of those companies where the State cannot exercise full corporate control due to an inadequate size of its stake.

Table 4

The movement and structure of the group of JSCs relative to the size of state stakes in their capital and their inclusion in the forecast plans of federal property privatization for 2012–2016

Date	Economic societies (JSCs and LLCs) where RF is shareholder (or participant)									
	total, units	share, %	of these, with RF stake in charter capital amounting to							
			100%		50–100%		25–50%		2–25%	
			units	%	units	%	units	%	units	%
as of August 1, 2012										
- JSCs, in regard to which <i>Rosimushchestvo</i> is not restricted in exercising shareholder rights *	1,371/ 2,629**	100.0	886	64.6	76	5.55	211	15.4	198	14.45
as of August 1, 2013										
- JSCs, in regard to which <i>Rosimushchestvo</i> is not restricted in exercising shareholder rights *	1,345/ 2,333**	100.0	874	65.0	83	6.15	185	13.75	203	15.1
- JSC, included in forecast plans of federal property privatization ***	975	100.0	716	73.4	41	4.2	116	11.9	102	10.5
as of July 7, 2014										
- JSCs, in regard to which <i>Rosimushchestvo</i> is not restricted in exercising shareholder rights *	1,147/ 2,096**	100.0	709	61.8	66	5.8	171	14.9	201	17.5
- JSC, included in forecast plans of federal property privatization ***	842	100.0	596	70.8	36	4.3	113	13.4	97	11.5
as of August 1, 2015										
- JSCs, in regard to which <i>Rosimushchestvo</i> is not restricted in exercising shareholder rights *	980/ 1,864**	100.0	589	60.1	55	5.6	142	14.5	194	19.8
- JSC, included in forecast plans of federal property privatization ***	668	100.0	469	70.2	18	2.7	90	13.5	91	13.6
as of August 1, 2016										
- JSCs, in regard to which <i>Rosimushchestvo</i> is not restricted in exercising shareholder rights *	735/ 1,593**	100.0	469	63.8	48	6.5	91	12.4	127	17.3
- JSC, included in forecast plans of federal property privatization ***	478	100.0	336	70.3	14	2.9	56	11.7	72	15.1

* less the following entities: (1) JSCs with state stakes less than 2%; (2) JSCs where the shareholder rights on behalf of the RF are exercised by other subjects (other bodies of executive authority, state corporations, or subjects appointed under trust management agreements); (3) JSC undergoing bankruptcy procedures (in the phase of a bankruptcy proceeding); (4) JSCs undergoing a liquidation procedure, (5) JSCs with state stakes that are de facto

not registered as federal property (previously privatized or transferred to the charter capital of a vertically integrated structure);

** the denominator is the total number of JSCs, as entered in the Federal Property Register;

*** only of those where Rosimushchestvo is not restricted in exercising its shareholder rights.

Source: *Rosimushchestvo's* Year-end Reports on the Management of Federal Stakes in OJSC and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share') for 2011–2015; own calculations.

The case in point is that in the category of economic societies where *Rosimushchestvo* is not restricted in exercising its shareholder rights, the percentage of economic societies with 100%, controlling and blocking stakes held by the State in the group of those included in the privatization programs the periods 2011–2013 and 2014–2016 was higher, as a rule, than the percentage of companies with minority state stakes. No more than half of the latter were included in the forecast plans of federal property privatization, while the inclusion index for those with 100% state stakes was 80% or higher, for those with controlling state stakes – approximately 50% or higher¹, and for those with blocking state stakes – above 60% (*Table 5*).

Table 5

The percentage of JSCs included in the forecast plans of federal property privatization, relative to the total number of economic societies in regard to which *Rosimushchestvo* is not restricted in exercising its shareholder rights, by their state stake size, in 2012–2016, %

Date	Full ownership (100%)	Controlling stake (50–100%)	Blocking stake (25–50%)	Minority stake (2–25%)
as of August 1, 2013	81.9	49.4	62.7	50.2
as of July 7, 2014	84.1	54.5	66.1	48.3
as of August 1, 2015	79.6	32.7	63.4	46.9
as of August 1, 2016	71.6	29.2	61.5	56.7

Source: *Rosimushchestvo's* Year-end Reports on the Management of Federal Stakes in OJSC and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share') for 2011–2015; own calculations.

The year 2016 saw a slight adjustment of that trend: the percentage of companies with minority state stakes included in the privatization program rose above 50% (to approximately 57%), while at the same time being lower than the corresponding index for companies with 100% state stakes (approximately 72%) and blocking state stakes (61.5%); however, the inclusion index for companies with controlling state stakes was less than 30%.

If we take a broader look at the first data yielded by the System of Public Property Management Efficiency Estimates (for 2016), because they encompass other levels, and not only the federal level, and compare them with the public sector monitoring data collected by *Rosstat* until 2015, the following picture will emerge (*Table 6*).

According to data collected within the framework of the new system, by mid-2016 the total number of economic subjects belonging to the public ownership category amounted to approximately 65,200 units, which is by 1,600 units higher than the corresponding index derived two years earlier on the basis of public sector monitoring, but by approximately 1,800 units lower than the index for early 2013.

If we take the comparable categories of economic subjects, it becomes obvious that the number of state institutions had increased by approximately 2,700 units (or by 5%) compared

¹ The year 2015 was an exception, when the proportion of companies with controlling state stakes included in the privatization program did not exceed 1/3.

with the latest previously derived data for mid-2014 based on the public sector monitoring methodology,¹ while the number of unitary enterprises declined by approximately 250 units (or by 6%).

Table 6

The number of organizations operating in the public sector of the economy on the records of *Rosimushchestvo*, its territorial branches, and the bodies responsible for the management of public property held by RF subjects in 2013–2014, and the number of economic subjects fully or in part in public ownership, as of January 1 and July 1, 2016 (as entered in State registration records), by their organizational legal form

Date	Total	FSUEs, including treasury enterprises	State institutions	Economic societies where shares (or stakes) amounting to more than 50% of charter capital are owned by	
				State	economic societies operating in public sector
as of January 1, 2013	67,003*	4,891	56,247	3,501	2,364
as of July 1, 2013	66,131*	4,589	56,100	3,201	2,241
as of January 1, 2014	64,616*	4,408	54,699	3,097	2,412
as of July 1, 2014	63,635*	4,236	54,173	2,988	2,238
as of January 1, 2016	65,587**	4,284	56,693/56,649***	3,888****	...
as of July 1, 2016	65,218**	3,982	56,893/56,856***	3,718****	...

* including those organizations whose charter documents, after their State registration, do not specify property types, but less those joint-stock companies where more than of 50% shares (or stake) are in joint RF and foreign ownership;

** including economic subject with an organizational legal form other than unitary enterprise, state institution, or joint-stock company (production and consumer cooperatives, associations (unions), housing cooperatives, foundations, public companies, etc.);

*** less state academies of sciences and private institutions, which are listed as institutions in the new System, but nevertheless must not be taken in account here in order to ensure a correct analysis;

**** total number of economic societies, the size of their state stake (or share) being irrelevant; data concerning the number of economic societies with controlling state stakes are available only for JSCs with federal stakes.

Source: On the development of the public sector of the economy of the Russian Federation in 2012 (pp. 7–11), in H1 2013 (pp. 7–11), in 2013 (pp. 7–11), in H1 2014 (pp. 7–11), M., *Rosstat*, 2013–2014; Statistical information on public property management efficiency estimates, www.gks.ru, March 20, 2016, September 5, 2016.

At the same time, the number of state institutions by mid-2016 had been found to be even higher than 3 years earlier. It difficult to offer any conclusions concerning joint-stock companies, because the data for this category derived in the old and new record-keeping systems are incomparable. It can only be said that their total number by mid-2016 (approximately 3,700 units) had exceeded the number of those JSCs where the State held a controlling stakes as of early 2013 (3,500 units).

As far as the changes that occurred within a shorter period of time are concerned, over H1 2016 the number of unitary enterprises shrank by more than 7%, and that of JSCs – by 4.4%, while the number of state institutions slightly increased (by less than 0.5%).

6.1.2. Privatization policy

2016 was the final year of the implementation of the Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2014–

¹ The last bulletin of the developments in the public sector of the RF economy covered the period January–September 2014; however, for a medium-term analysis, the data for H1 2014, released as of 1 July 2014, are quite suitable.

2016, approved by Directive of the RF Government of July 1, 2013, No 1111-r. This was the second 3-year privatization program developed with a view towards a longer planning period established for a forecast plan (or program) of federal property privatization (extended from one to three years) on the basis of the alterations introduced into prevailing legislation on privatization in the spring 2010. As it had been the case with the previous privatization program, numerous adjustments and alterations soon began to be introduced into the new document as well. Since the moment of approval of the Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2014–2016, a total of 90 normative legal acts (NLA) pertaining to these issues were adopted, of which 37 were issued in 2015, 22 in 2014, and another 3 in December 2013. So, by the number of legislation adjustments (the introduction of 28 NLAs), last year clearly fell behind the previous one, but was still ahead of the preceding year-and-a-half period (2014 and H2 2013).

The most significant among these adjustments was the entry, in May 2016, of JSC *Bashneft* on the list of biggest companies to be privatized only by special presidential and governmental decisions; the sale of a controlling stake in *Bashneft* in mid-October was one of the three major privatization deals finalized last year.

The main actor in two of those deals was Rosneft, with regard to which in the privatization program for 2014–2016 it had been specified that by 2016, the stake held in the charter capital of OJSC *Oil Company Rosneft* by OJSC *Rosneftegaz* was to be reduced to 50% + 1 share. That deal was completed towards the end of 2016, in the form of a transfer of 19.5% of shares in Rosneft, to the value of € 10.5bn, to an alliance of foreign investors - Glencore (*Swiss-based company*) and the *Qatar sovereign wealth fund*.

However, in contrast to the sale of *Bashneft*, the money generated by the *Rosneft* deal were transferred to the federal budget not directly, but in the form of dividends on shares in OJSC *Rosneftegaz*, the latter being *Rosneft's* parent company, so would be more correct to treat this one as a quasi-privatization deal that belongs rather to the domain of managing the public sector of the economy. By the amendments to the law on federal budget for 2016 introduced in late November, Article 21 was augmented by Part 17, whereby it was envisaged that in the event of alienation by OJSC *Rosneftegaz*, of its shares in OJSC *Oil Company Rosneft*, the entire amount of proceeds of that sale received by OJSC *Rosneftegaz* was to be transferred, in 2016, to the federal budget to offset the dividends payable on shares in 2017 and the year-end dividends for 2016.

The deals of sale of shares in *Rosneft* was to generate federal budget revenue in the amount of RUB 710.8bn. The said sum, by Directive of the RF Government of November 3, 2016, No 2330-r was determined to be the price of the stake in *Rosneft* (RUB 748.26bn), adjusted by the application of the correction factor 0.95, by recommendation of the investment consultant commissioned by OJSC *Rosneftegaz*. By a later by Directive of the RF Government, of December 7, 2016, No 2613-r, new alterations concerning the price of the deal were introduced. The subsequently issued directives to state representatives in the board of directors of OJSC *Rosneftegaz* (as of December 7, 2016, No 93688p-P13) required the alienation of shares in Rosneft at the price that had been set during the trading session on the MICEX as of 6 December, with the application of the same correction factor (0.95), thus further reducing the price of the stake earmarked for sale to RUB 692.39bn.¹

¹ www.rosim.ru, December 12, 2016.

The difference between the said amount and the initially established target of RUB 710.8bn was to be covered by the transfer, to the federal budget, of the interim dividends payable on shares for the three-quarter period of 2016 in the amount in excess of RUB 18.4bn. The relevant decision was adopted in accordance with Directives of the RF Government of December 12, 2016, No 9488p-2016 and *Rosimushchestvo's* Directive No 1000-r, also dated December 12, 2016, 'On the resolutions of the extraordinary general meeting of OJSC *Rosneftegaz*, the latter issued in accordance with the decision of the board of directors of OJSC *Rosneftegaz*¹.

As for the deal involving the sale of a controlling stake in JSC *Bashneft* (50.08% of charter capital), that stake was bought by Rosneft for RUB 329.69bn. The price had been determined on the basis of a report submitted by VTB Capital and evaluated by experts employed by a self-regulatory organization, the latter having been appointed the sole executor (agent) of the government order for the alienation of shares in JSCs. The terms of the deal were approved by Directive of the RF Government of October 10, 2016, No 2130-r, whereby it was stipulated, among other things, that the agent's commission was to be paid by way of an additional budget allocation after the introduction of alterations in last year's federal budget or the approval of the new 3-year federal budget for 2017–2019.²

The afore-said two deals in the oil industry, completed in Q4 2016, were preceded by a sale of shares in JSC *Alrosa* (10.9%) in July 2016. Since February 2014, this was the first privatization deal involving a company listed in the first section of the Forecast Plan (Program) of Federal Property Privatization, for which the issuance of a special privatization decision was required.

On the official level, that deal has been viewed as a successful one, because it took place in a very unfavorable financial and economic situation, had been prepared exclusively by Russian specialists, and the closing price had a minimum discount (less than 4%).³ In the RF Government's Directive of July 11, 2016, No 1479-r both the buyer (VTB Capital Plc) and the price per share (65 RUB/unit) were clearly indicated, with an additional provision that the commission to the agent (CJSC *Sberbank CIB*) was to be paid by way of an additional budget allocation after the introduction of alterations in last year's federal budget or the approval of the new 3-year federal budget for 2017–2019. The government also assumed the obligation to abstain, for a half-year period, from any further sale of shares in federal ownership.

The budgetary effect of that deal may be valued at RUB 52.18bn, which is much more than the amount of revenue generated by the public offer, in autumn 2013, of shares in JSC *Alrosa* to a broad range of potential investors in accordance with international standards (the organizer of that transaction had been *Goldman Sachs, Inc.*). At that time, in the course of trading on the MICEX, the offer included 7% of shares in JSC *Alrosa* (in federal ownership), 7% of shares owned by the Republic of Sakha (Yakutia), and 2% of quasi-treasury shares controlled by the company itself (a total of 16%), to the total value of Rb 41.3bn, including Rb 18bn paid for the alienation of federal right of ownership to the 7%-stake. It is noteworthy that the bidding period was very short (from 6 to 11 July), and the offer was from the very start oriented to entities affiliated with public companies, and this was evidently reflected in the choice of the buyer.

So, the three major deals closed in 2016 generated a total of RUB 1,092.675bn for the budget of the Russian Federation; if we add here two more deals completed in 2014 (the sale of its

¹ 2016 Report on the implementation of the Forecast Plan (Program) of Federal Property Privatization in 2014–2016.

² www.economy.gov.ru, October 10, 2016.

³ www.rosim.ru, July 12, 2016.

stakes in OJSC *Inter RAO EES* (to the value of RUB 18.796bn) and *Arkhangelsk Trawl Fleet* (to the value of RUB 2.2bn), the total yield of the second 3-year privatization program¹ would amount to approximately RUB 1,113.7bn.

It should be noted that the first 3-year privatization program for 2011–2013 had envisaged potential budget revenue to be generated by major privatization deals in the amount of RUB 1 trillion. In this connection, over the period 2011–2013, a total of 13 deals involving shares in biggest joint-stock companies were completed with the aid of investment consultants, which is 2.6 times more than the number of deals completed in 2014–2016. However, their total value was less by nearly half (RUB 585bn). But for the *Rosneft* deal, completed in late 2016, the total yield of the first 3-year privatization program would have been unquestionably higher, because then the total value of biggest deals effectuated over the period 2014–2016 would have been approximately RUB 402,9bn.

The mechanisms of the deals have also demonstrated some radical changes. While 3 of the 13 deals accomplished in the period 2011–2013 had no direct budgetary effect, because they were aimed at reducing the stakes held by the State or state-controlled JSCs in the capital of relevant companies: two of them represented an additional issue of shares (OJSC *United Grain Company* (UGC), in 2012, to the value of RUB 5.951bn; and *VTB Bank*, in 2013, to the value of RUB 102.5bn); the other deal involved the sale, by OJSC *Rosneftegaz*, of 5.66% of its shares in OJSC *Rosneft* to BP to the total value of RUB 148.1bn in the framework of another deal - the purchase by *Rosneft* itself of shares in TNK-BP. The total value of these three deals (RUB 256.6bn) accounts for approximately 44% of the entire yield of biggest privatization deals.

All the biggest deals completed over the period 2014–2016 generated significant budget revenue, including the *Rosneft* deal closed in late 2016. By its formal attributes, the latter resembles the 2013 deal, but the specially issued normative provisions have ensured that it help replenish the federal budget in a very tricky situation in the Russian economy. It also has some similarities with the transfer to the federal budget, by the RF Central Bank in 2012, of part of the proceeds of sale of shares in *Sberbank* (to the value of RUB 159.3bn), in an amount determined as the difference between the proceeds of sale and the balance-sheet value of the sold assets, less the transaction costs; the part of the RF Central Bank's year-end profits for 2012 that was due to be transferred to the federal budget, was reduced by the said amount of proceeds.

The implemented project envisaging the consolidation of airport assets at Sheremetyevo and Vnukovo yielded no budget revenue, either. It should be reminded that the privatization program for 2014–2016, in accordance with the decisions of the RF President and the Government concerning the strategic development of Moscow's airport system, had envisaged the government's withdrawal from the capital of OJSC *Sheremetyevo International Airport*, OJSC *Vnukovo Airport*, and OJSC *Vnukovo International Airport*.

In February 2016, after the issuance, in August 2015, of RF President's Executive Order, the RF Government adopted the relevant directives and signed shareholder agreements with private shareholders, whereby the government was to retain the right of exercising necessary control over the activities of the united airport system and of participating in key decision-making. With due regard for the value of property contributed by each party, the state stake in the capital of newly established OJSC *Sheremetyevo Airport* was to amount to approximately 31.6%, and that in the capital of OJSC *Vnukovo International Airport* – to 25.1%, that is, slightly above the

¹ In 2015, no such deals were attempted due to the unfavorable financial and economic situation.

preliminarily established government corporate control threshold in the amount of a blocking stake¹.

As far as OJSC *Vnukovo International Airport* is concerned, its charter capital has already been formed by *Rosimushchestvo* and the private shareholders. The state stake represented the transfer of shares in OJSC *Vnukovo Airport* (74.74% of shares), and the stakes of the four private shareholders contributed property specified in Directive of the RF Government of February 13, 2016, No 217-r.² The terms that were stipulated in the shareholder agreement, in accordance with that Directive, included the right of the Russian Federation to appoint 3 representatives to the board of directors; the right to coordinate the procedures for private shareholders to vote at a general shareholder meeting on certain issues stipulated in the shareholder agreement; the rights and obligations of each party in an event of alienation of shares, the procedures for determining the price of shares, and the events that may give rise to the the effectuation of these rights. In accordance with the Bank of Russia's decision as of November 10, 2016, the State registration of the report on the additional issue of ordinary shares in OJSC *Vnukovo International Airport* was effectuated, the state stake in its capital amounting to 25.12%, as planned.³

The Russian Federation and LLC *Sheremetyevo Holding*, while setting up new JSC *Sheremetyevo Airport*, proceeded as follows. LLC *Sheremetyevo Holding* transferred to its charter capital the property entities envisaged in the RF Government's Directive of February 11, 2016, No 201-r⁴, while the government transferred its shares in OJSC *Sheremetyevo International Airport* amounting to 83.038% of the total number of placed shares.

LLC *Sheremetyevo Holding* and the Russian Federation signed a shareholder agreement as of February 15, 2016, whereby additional rights were granted to the government by way of participating in the management of the newly established JSC *Sheremetyevo Airport* and OJSC *Sheremetyevo International Airport*, including the election of representatives in their boards of directors and the coordination of voting procedures for private shareholders on certain issues, as determined in the shareholder agreement, at general shareholder meeting of JSC *Sheremetyevo Airport* and OJSC *Sheremetyevo International Airport*. Among the terms of the agreements determined by the government directive are the rights and obligations of each party arising in an event of alienation of shares, the procedures for determining the price of shares, and the events that may give rise to the effectuation of these rights. During the reorganization of the companies, their shares were valued, and preparations were carried out for the extraordinary general shareholder meeting where the reorganization issues were to be settled.

In this case, in contrast to the situation around OJSC *Vnukovo International Airport*, all the necessary procedures will be completed only in 2017. These procedures will be as follows: the reorganization of OJSC *Sheremetyevo International Airport* in the form of its merger with JSC *Sheremetyevo Airport*; the increase of its charter capital by way of an additional issue of shares as a result of its reorganization; and the introduction of the relevant alterations in the government list of strategic joint-stock companies concerning the size of its stake in the charter

¹ www.rosim.ru, February 15, 2016; February 29, 2016.

² Various assets, including shares amounting to a controlling stake and 100% stake in the charter capital of 2 companies (JSC and LLC) whose activities are related to the functioning of the airport complex; money to the total value of more than RUB 5.6bn; non-residential premises at Vnukovo.

³ www.rosim.ru, 31.12.2016.

⁴ 9 assets, represented in the main by shares amounting to a controlling stake and 100% stake in the charter capital of 2 companies (JSC and LLC) whose activities are related to the functioning of the airport complex at Sheremetyevo.

capital of OJSC *Sheremetyevo International Airport*. Besides, the terms of shareholder agreement stipulated in the said government directive are more difficult to implement, in particular the private shareholder's obligation to create certain immovable property entities.

According to the Report on Federal Budget Execution as of January 1, 2017 (internal sources of deficit financing) posted to the Federal Treasury's website, the total amount of revenues generated by sales of shares and other forms of participation in corporate capital, was RUB 406,795.2m, which resulted in a slight surplus over the budget target (by 0.4%).

This sum represents a total of all the deals involving state stakes, and it is higher than the privatization-generated revenue target for that year stipulated in the explanatory note to the government's draft of the law on federal budget for 2017–2019, where it amounts to RUB 381.6bn (vs. RUB 33.2bn, as referred to in connection with Law No 359-FZ¹). It also incorporates privatization-generated revenues other than the proceeds of major deals. Every year, in the course of implementation of the privatization program for 2014–2016, *Rosimushchestvo* received somewhat overestimated planned targets. While the target for the privatization program's first year was the same as stipulated in the forecast plan itself (RUB 3bn), for the second year it was increased to RUB 5bn. In 2016, this target had already been achieved by mid-year (RUB 5.046bn, the period-end result for H1)², thus making possible a jump over the annual target, which was higher (RUB 8.5bn).

The final year of the second privatization program was also the most successful one in some other respects. In 2016, there was a huge (approximately threefold) growth, on the previous year, in the total number of asset sales. The total number of completed deals increased from 141 to 461, or approximately 3.3 times (in 2014 – 119 deals).

In 2016, 179 stakes (or shares in charter capital) in JSCs to the total value of RUB 9.47bn were sold, while in respect of 60 federal state unitary enterprises (FSUEs) the relevant decisions concerning the terms of their privatization were taken. The number of sold stakes (or shares in charter capital) increased relative to 2015 (103 units) by nearly 3/4, thus rising above the (pre-crisis) year-end result of 2013 (148 units). The growth in deal value (RUB 9,473.3m) was more modest (less than 30%), although this figure was still higher than the year-end result of 2014 (RUB 8,020.12m).

The cases when the final asset price was higher than the initial offer were few. One example is the sale of 100% stake in OJSC *Kuzbass*, when the price rose from RUB 67m to RUB 153m in the course of a bidding with 9 participants. The selling price was higher than the initial offer price for the federal shares in JSC Research Institute of Metallurgical Heat Engineering and for shares in several road maintenance companies. The independent (non-governmental) seller that closed all these deals was *Auction House of the Russian Federation (RAD OJSC)*.³

Thus, the steadily downward trend, observed since 2012, in the number of sold state stakes (or shares in charter capital) was reversed; there was also a surge in the previously relatively stable privatization rate in the sector of unitary enterprises, if we also consider those that were

¹ Meanwhile, in the text of Federal Law on the Federal Budget for 2016, of December 14, 2015, No 359-FZ (as amended on 22 November 2016, No 397 FZ) there is no mention of any specific information concerning the revenue amount to be generated by sales of shares or other forms of participation in corporate capital in federal ownership. The figure of RUB 33.2bn was specified in the explanatory note to the government's draft of the law on federal budget for 2016.

² www.rosim.ru, July 11, 2016.

³ www.economy.gov.ru, November 30, 2016.

subject to special government directives. Their annual number over the period 2013–2015 hovered around 25–35 (*Table 7*).

In the framework of the forecast plan of federal property privatization for 2014–2016, a total of 1,529 state stakes in JSCs and 974 immovable property entities were put up for sale. Over the 3-year period, the completed deals of sale of stakes (or shares) in JSCs other than biggest ones generated revenue in excess of RUB 24.8bn, of which RUB 8,020.12m was received in 2014, RUB 7,342.29m in 2015, and RUB 9,473.3m in 2016.

Table 7

The comparative data on the movement of the number of privatization deals involving federal state unitary enterprises and federal stakes in 2008–2016

Period	Number of privatized enterprises (entities) formerly in federal ownership (data released by <i>Rosimushchestvo</i>)		
	privatized FSUEs ¹ , units	sold stakes in JSCs, units	Sold treasury property entities, units
2008	213	209 ²	...
2009	316+256 ³	52 ²	...
2010	62	134 ²	...
2008–2010	591+256 ³	395 ²	4
2011	143	317 ⁵ /359 ²	3
2012	47 ⁶	265 ⁵	40
2013	26	148 ⁵	22
2011–2013	216	730 ⁵	65
2014	33	107 ⁵	12
2015	35 ⁷	103 ⁵	38
2016	60 ⁷	179 ⁵	282
2014–2016	125 ⁷	389 ⁵	332

¹ all preparatory work is completed, and the relevant decisions concerning the terms of privatization are issued;

² including those stakes which were put up for sale in the previous year;

³ the number of FSUEs in respect of which the decisions concerning their reorganization into JSCs were made by the RF Ministry of Defense, in addition to those cases where a similar decision was made by *Rosimushchestvo*;

⁴ according to available information concerning sales of other property entities over that period, 4 immovable military property entities were sold between October 2008 through January 2009; and there were decisions, in late 2010, concerning some other property entities to be put up for sale and the terms of their privatization, the deals being actually closed in 2011;

⁵ less sales of shares with the participation of investment consultants;

⁶ estimated value based on data on the total number of FSUEs in respect of which directives concerning the terms of their privatization in the form of reorganization into OJSCs (216 units) were issued, taken from *Rosimushchestvo*'s Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2011–2013, and the year-end results of 2011 and 2013;

⁷ for several enterprises, the decisions concerning the terms of their privatization were abolished in 2015–2016 and then readopted, so the number of FSUEs with regard to which privatization decisions were made individually over the three-year period is somewhat higher than in the tabulated period-end data for 2014–2016 (125 units).

Source: *Rosimushchestvo*'s annual report for 2008; Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2009, Moscow, 2010; Report of the RF Ministry of Economic Development on the Results of Federal Property Privatization in 2010; Report of The RF Ministry of Economic Development on the Results of Federal Property Privatization in 2011; Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2011–2013; 2014 Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2014–2016, www.rosim.ru, February 19, 2015; 2015 Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2014–2016, www.rosim.ru, February 8, 2016; 2016 Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2014–2016.

The highest contribution to this financial result was generated by the sale of 88 stakes (out of a total of 213 stakes earmarked for sale¹) to the total value of RUB 12.3bn (49.6% of total proceeds), accomplished by *RAD OJSC*. The year-end result of 2016 (RUB 6.1bn) is somewhat similar to the total result of the two previous years (2014 – RUB 0.9bn; 2015 – RUB 5.3bn), while the number of actually sold stakes (48 units) is much higher (vs. 6 in 2014, and 34 in 2015). Another 3 deals (out of a total of 11 stakes earmarked for privatization to the value of RUB 623.2m (2.5% of total proceeds) were closed by *VEB Capital Plc*.

Thus, independent sellers produced more than half of all revenues (52%), although they actually sold less than 1/4 of all the realized stakes. *Rosimushchestvo's* territorial agencies sold more stakes (118 units), but earned only RUB 1.32bn (or 5.3% of the total). The other deals were closed by *Rosimushchestvo's* central apparatus. However, its role in privatization deals was gradually diminishing. Thus, in H1 2016, out of a total of 75 sold stakes in JSCs to the value of RUB 5.046bn, the central apparatus actually closed only 5 deals to the value of RUB 210.8m (4.2%).²

In effect, an entirely new organizational mechanism for the sale of property earmarked for privatization has emerged, where an ever-increasing revenue inflow is created by independent sellers, while *Rosimushchestvo's* territorial agencies, which in 2014 were granted the powers to sell shares in JSC and other assets, have still been selling a large number of property units.

The privatization program for 2014–2016 was implemented in conditions of plummeting investment demand in response to highly volatile world markets, a slowdown in the economic growth rate followed by a slump in the Russian economy, and rising costs in the lending market, which reduced the resources available for investment. The phenomena typical of the privatization process persisted, including low demand for the assets earmarked for privatization. Thus, for example, in 2016, 9 out of every 10 auctions were canceled due to the absence of any bids.

However, the systemic measures implemented by *Rosimushchestvo* and its territorial agencies in 2014–2016, including the preparation for privatization of new property entities, their marketing among potential buyers, improvement of the sale procedure (the attraction of independent sellers and more active use of regional trading floors by the territorial agencies, the launch of electronic sales), and the provision of a more in-depth information backing in face of dwindling investment activity resulted in a boost of the volume of sales and generate higher revenues, thus exceeding the ever-increasing annual privatization-generated revenue targets.

In spite of the significantly reduced investment demand, the quality, transparency and openness of privatization procedures had increased, which boosted the competition for assets. Over the three-year period (2014–2016), the biddings for the right to buy privatized shares (or stakes in charter capital) were participated by a total of 1,740 individuals and organizations, including 1,021 in 2016. The average number of bidding participants in each completed privatization deal in 2016 nearly doubled relative to 2015, rising to just under 6. This figure (5.7) represents a record high of the entire 3-year privatization program period; the previous record high was seen in 2012 (4.5).

A real breakthrough was observed with regard to privatization of RF treasury property. The number of privatized treasury property entities jumped manifold relative to the privatization

¹ The stakes in 6 JSCs, which had been initially earmarked for sale, were then taken off the privatization program's list. Beside stakes in JSCs, *RAD OJSC* was also commissioned to sell 81 immovable property entities, of which 12 units to the symbolic value of RUB 39.9m were actually sold.

² www.rosim.ru, July 11, 2016.

program's initial version (from 94 to nearly 1,600), peaking in 2015–2016. This marked a change in the entire structure of privatized property and a switchover from the privatization of shares in economic societies that acted as property owners, to the privatization of immovable property entities as separate units.

In 2016, the number of sold treasury property entities (282 units) rose on 2015 (38 units) approximately 7.4 times (vs. 12 units in 2014). For the first time, it exceeded the number of sold stakes (or shares) in economic societies, although the total number of the latter over the entire period 2014–2016 was actually higher. The results of sales of 172 treasury property entities will be summed up in Q1 2017.

The value of the deals to be completed on the basis of biddings for RF treasury property entities put up for sale increased nearly 26-fold (to RUB 1.27bn). Over the two previous years it had never risen even to RUB 50m. Such a result can in part be explained by the sale, at an auction, of the property entity that represented the biggest bid of the past 6 years (a 1.27-hectare land plot in the capital, complete with property entities). The deal value was RUB 602.316m (or more than 47% of the entire value of completed deals), although the starting price increased by less than 1% (or by only RUB 5m)¹.

Over the course of 2016, out of 517 immovable property entities put up for sale, approximately 55% (282 units) were actually sold. As seen by the results of the privatization program for 2014–2016, the sales of treasury property entities were more successful than those of shares in JSCs. While in the latter category, 389 units were sold in the course of 1,529 biddings (i.e., in order to sell one stake, approximately 4 biddings were necessary), the sales of 332 treasury property entities were accomplished through 974 biddings (i.e., one property entity was sold after approximately 3 biddings).

In 2014–2016, in the framework of implementation of 31 Presidential Executive Orders and 10 decisions of the RF Government concerning the creation or expansion of vertically integrated structures (VISs), *Rosimushchestvo* set out to establish or expand 19 VISs, of which 14 were completed. The 3-year privatization program launched in that sector listed a total of 52 FSUEs, shares in 158 JSCs, and 764 treasury property entities. As of late 2016, the relevant decisions concerning the terms of privatization were taken with regard to 30 FSUEs, 141 JSCs, and 702 treasury property entities.

Among the important developments over the course of last year, we may point to the launch of an electronic property sales mechanism.

One important development component of all these innovations is the mechanism of sale of state and municipal property. On the basis of recent amendments to the privatization law, the RF Government drew up, in December 2015, the list of 6 legal entities to be assigned the task of conducting electronic property sales.

This hi-tech innovation, which was envisaged in the privatization law as early as spring 2010, could actually be implemented only 6 years later. In 2012, the Provision on the organization and conduct of electronic sales of state and municipal property was approved; in 2013, the Requirements to technologies, software, linguistic, legal and organizational means to be used in building the website for conducting electronic sales were issued; and in late 2015, the List of electronic bidding floors (6 organizations) was drawn up.

¹ www.rosim.ru, December 1, 2016.

In 2016, *Rosimushchestvo* signed contracts with each of the electronic bidding floors for the provision of gratis services pertaining to the organization and conduct of electronic bidding for the public assets put up for sale.

While carrying on its preparatory and organizational activities prior to the launch of electronic property sales, *Rosimushchestvo* held consultations with the Federal Antimonopoly Service and the RF Ministry of Economic Development in order to elaborate proper solutions that would comply with high standards and best practices of competition and accessibility. The distribution of lots among electronic floors is done at the meetings of industry-specific commissions, which are attended, for the sake of better transparency, of empowered representatives of each electronic floor, as well as representatives of the RF Ministry of Economic Development and the Federal Antimonopoly Service. The lots are distributed openly and randomly between all the listed electronic floors.

From November 2016 onward, *Rosimushchestvo* switched over to online offering of the assets earmarked for privatization, across all electronic floors. Towards the month's end, the bids for 8 treasury property entities (land plots with immovable property entities, non-residential premises situated in the city of Moscow, Moscow Oblast, and Perm Krai) began to be accepted.¹ And in early 2017, the first property sales at online auctions were launched. In that format, 2 land plots in Perm, to the value of RUB 2.579m and RUB 4.992m respectively, and a number of non-residential premises in Moscow were sold, the selling price of the latter having risen 1/3 from RUB 19.841m to RUB 26.441m. *Rosimushchestvo* claims that the first experiences of online sales have demonstrated the expediency of electronic floors in organizing and conducting biddings, and their ease and accessibility for the participants based in different regions across the country².

The online form is applied to the main privatization methods (auction, sale through public offer, and sale without announcement of a price). In early 2017, 97 lots were put up for online bidding, including 42 immovable property entities (of these, the sale of 25 property entities is handled by *RAD OJSC*) and shares in 55 joint-stock companies.³

Nevertheless, the outcome of the second 3-year privatization program (2014–2016) was much more modest, by the majority of its parameters, than the results achieved in the course of implementing the first program (2011–2013).

While over the period 2014–2016, the state stakes (or shares in charter capital) in a total of 389 JSCs and 332 treasury property entities were sold, and 332 treasury property entities, in respect of 125 federal state unitary enterprises (FSUEs) the relevant decisions were made concerning the terms of their privatization, the corresponding indices for the period 2011–2013 were as follows: 730 state stakes (or shares in charter capital) in JSCs (less the stakes put up for sale in 2010), 65 treasury property entities, and 216 FSUEs. The number of stakes or shares actually sold shrank by 47%, that of privatized FSUEs – by 42%. The revenues generated by the sales of stakes (or shares in charter capital) of JSCs other than biggest ones (more than RUB 24.8bn) were lower than in 2011–2013 (approximately RUB 25.7bn), even if we disregard the effect of inflation.

At the same time, the number of sold treasury property entities increased more than 5-fold. Some success was also achieved in involving certain strategic investors operating in a given

¹ www.rosim.ru, November 18, 2016; November 25, 2016.

² www.rosim.ru, January 23, 2017.

³ 2016 Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2014–2016.

sector in the acquisition of privatized companies, with a view towards their further development (*Arkhangelsk Trawl Fleet*, the Moscow airport system), although these can really be treated as true achievements only after the investors' compliance with their assumed obligations and the development of the assets have been properly monitored for some time.

The activities aimed at establishing vertically integrated structures (VISs) were likewise less impressive than expected. The number of VISs that had been fully formed, shrank 2.5 times: only 14 of them were created over the period 2014–2016, while in 2011–2013 there had been 34. An increase (1.5 times) in the number of integrated assets was observed only with regard to treasury property entities (702 units vs. 457 units), alongside a dramatic plunge of number of FSUEs privatized in the framework of VIS (30 units vs. 148 units). The number of JSC whose shares are earmarked as contributions to their charter capital increased from 85 units to 141 units. However, it should be borne in mind that 2011–2013, additional decisions were taken concerning the terms of privatization of shares in another 76 OJSCs, that had previously been the FSUEs listed in the first 3-year privatization program.

Of course, these results can largely be explained by the effects of the new economic and political situation that emerged in 2014. Prior to that, in 2011–2013, no crisis phenomena were manifest in the economy.

It would be more correct to make a comparison with the period that was similar in length, before the launch of 3-year privatization programs (2008–2010), which displayed an economic trajectory resembling the situation in 2014–2016 (the year 2008 saw the start of a crisis, with a dramatic halt of the growth rate, although due to some inertia the year-end index was still indicative of growth; in 2009, the slump began in earnest; and in 2010, there was an onset of post-crisis recovery growth).

The number of stakes sold in 2008–2010 (395 units)¹ and 2014–2016 (389 units) is roughly the same. Interestingly, in 2008–2010, minority stakes accounted for more than 1/4 of all sales (in 2014–2016 – less than 16%), while private sellers took no part at all in the privatization process. The number of privatized FSUEs (125 units) was 4.7 times lower than in 2008–2010 (591 units), even less those enterprises the relevant decisions with regard to which were made by the RF Ministry of Defense in 2009 (256 units). These facts clearly point to the very modest results of the second 3-year privatization program.

This year, a new privatization program for 2017–2019 has been approved. The third program has been elaborated with due regard for the more extended planning period of the forecast plan (program) of federal property privatization (from 1 to 3 years), on the basis of the amendments to the current privatization law introduced in spring 2010. The preparatory work proved to be too time-consuming. By early 2017, there had still been no finished document, in spite of the approval of the federal budget for 2017–2019.

After the approval of the relevant Directive at the RF Government meeting on February 2, 2017, the final version of the *Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2017–2019* was adopted by Directive of the RF Government as of February 8, 2017, No 227-r.

The main parameters of the *privatization program for 2017–2019* are as follows.

Structurally, it consists of two sections, just as the previous one. The first section puts forth the main standpoints of the government, the forecasted effects of privatization on structural changes in the Russian economy and the expected amount of federal budget revenue to be

¹ Including the stakes put up for sale in 2007.

generated by sales of federal assets, the privatization plans for biggest companies that hold leading positions in their industries.

The government privatization policy goals are not stated directly in this document. Instead, there are references to the goals and tasks envisaged in the government program *Federal Property Management*, approved by Decree of the RF Government as of April 15, 2014, No 327, including further withdrawal of the State from participating in the economy, more efficient sale of federal stakes (or shares) in big JSCs in order to create better conditions for attracting investments, promotion of the stock market's development, and modernization and hi-tech upgrading of the economy.

The RF President's Executive Order of May 7, 2012, No 596 *On Long-term Government Economic Policy*, which was mentioned in the previous privatization program, envisaged that the State should completely withdraw, by 2016, from the capital of companies operating in the 'non-mineral' sector that are not natural monopolies or organizations belonging to the defense complex, is relied upon as the basic guideline, alongside the privatization law, for the elaboration of the new program in the context of continuity of the privatization process, in particular with regard to the inclusion, in the property privatization plan, of those federal property entities that were not fully privatized during the previous planning period.

The exceptions from the category of companies that the State plans to withdraw from, as stipulated in the forecast plan of federal property privatization for 2017–2019, are as follows: (1) joint-stock companies and enterprises entered in the list of strategic organizations (2) minority state stakes in JSCs affiliated to the core companies of vertically integrated structures, so that these could later be transferred as contributions to the charter capital of the corresponding core JSCs of vertically integrated structures, and (3) organizations registered outside of the territory of the Russian Federation. While the first two groups are the same as were listed in the privatization program for 2014–2016, the third group is a new one, because previously the list of exception contained also 'singular' shares in federal ownership, the privatization of which would not be cost-effective for the federal budget.

As in the previous privatization program, the forecasted effects of property privatization on structural changes in the economy are outlined in a rather general way.

It described *de facto* the quantitative distribution, by type of economic activity, of the economic subjects in public ownership that are earmarked for privatization; there are no estimates (even in a general way) of the expected changes in the public sector's share, let alone of how privatization is going to influence output, employment, investments, innovations, the burden on the budget associated with public property, tax discipline, etc.

The list of biggest companies to be privatized by special decisions of the RF President and the RF Government, with due regard for the market situation and recommendations of eminent investment consultants, consists of only 4 companies from which the State is planning to withdraw (OJSC *Novorossiysk Commercial Sea Port*, OJSC *United Grain Company*, Oka *Non-ferrous Metals Processing Plant*, *Kristall Production Association*, and 3 companies where the state stakes will be reduced: in one (JSC *Alrosa*) – to 29% + 1 share, and in two (OJSC *Sovkomflot* and *VTB Bank*) – to 25% + 1 share. The previous privatization program for 2014–2016 listed 20 companies in that category, not mentioning *Rosneft*, in whose capital it was planned to reduce the stake held by its parent company, OJSC *Rosneftgaz*, a deal that was finalized in late 2016.

There are only two new assets that were absent from the two previous privatization programs, and these are *Oka Non-ferrous Metals Processing Plant* and *Kristall Production*

Association. In the forecast plan of federal property privatization for 2014–2016, there were OJSC *United Grain Company* (state withdrawal from its capital), JSC *Alrosa* and OJSC *Sovkomflot* (state stake reduction to 25% + 1 share) and VTB Bank (state stake reduction to 50% + 1 share). Nearly all of these property entities had recently been involved in other privatization deals (additional issue of shares in OJSC *United Grain Company* in 2012, and in VTB - in 2013, public offer of shares JSC *Alrosa* in 2013 and 2016). The deal involving shares in OJSC *Sovkomflot* was postponed in 2015 due to the worsening macroeconomic situation, low investment activity, and the introduction of economic sanctions by some foreign states against several Russian companies. OJSC *Novorossiysk Commercial Sea Port* has also been listed in privatization programs several times, and the sole agent appointed by the government, way back in 2012, to organize the alienation of the federal stake in its capital was UBS Bank LLC.

By Directives of the RF Government, No 1223-r of June 15, 2016, and No 1649-r, August 3, 2016, *Renaissance Broker LLC* and *VTB Capital* respectively have been commissioned to alienate the federal stakes in VTB Bank (10.9% minus 1 share) and OJSC *Sovkomflot* (25% minus 1 share). In the case of OJSC *Sovkomflot*, this was the third agent that replaced the previously appointed ones - Morgan Stanley Bank LLC (in 2011) and Deutsche Bank (in 2012).

As far as budget revenues from privatization are concerned (less the value of shares in biggest companies - leaders in their industries), these roughly correspond to the estimated amount of revenues stipulated in the first 3-year privatization program for 2011–2013. Over the period 2017–2019, these are expected to amount to RUB 5.6bn per annum (RUB 16.8bn in total) vs. RUB 6bn in 2011, and RUB 5bn each in 2012 and 2013 (RUB 16bn in total). In the previous privatization program for 2014–2016, the forecasted revenue was RUB 3bn per annum (RUB 9bn in total). As for the expected revenues from the privatization of shares in biggest companies with high investment attractiveness in the event of a special government decision being issued, there are no quantitative indices - just as there were none in the previous privatization program for 2014–2016 (in the privatization program for 2011–2013, the estimated figure was RUB 1 trillion).

The new privatization program, similarly to the previous one, mentions the possibility of the RF President and the RF Government making a decision concerning privatization in the form of reduction of the state stake in the charter capital of a JSC by way of issuing additional shares and using the proceeds to increase the size of corporate capital, with due regard for their long-term development prospects and investments needed for the implementation of their development strategies, as well as their capital adequacy ratio (applicable to banks). With regard to the latter, it is also stipulated that the possible reduction of the state stake in VTB Bank below 50% + 1 share (of the total number of ordinary shares) will be effectuated in coordination with the reduction of state participation in *Sberbank of Russia*. Meanwhile, the Bank of Russia's head voiced her opinion that clients' confidence in a bank depends on the fact of state participation in their capital, and the sale of state stakes in credit institutions is fraught with risks for the banking system due to the possible loss of client trust.¹

The second section of the new privatization program lists the assets earmarked for privatization in an ordinary procedure (298 federal state unitary enterprises (FSUEs), 477 JSCs, 10 LLCs, and 1,041 'other' property entities held by the RF treasury), similarly to what has been happening in that sphere in recent years. Compared with the initial versions of the previous

¹ <https://news.rambler.ru/business/35718619-nabiullina-rasskazala-o-perspektivah-privatizatsii-bankov/>, December 28, 2016.

programs, the number of units earmarked for privatization is somewhere in-between with regard to the number of unitary enterprises (114 units in the forecast plan for 2011–2013, and 514 units in the forecast plan for 2014–2016) and that of JSCs (854 units, including 35 CJSCs and 10 LLCs, in the forecast plan for 2011–2013, and 440 units, including 4 CJSCs, in the forecast plan for 2014–2016), but is much higher with regard to 'other' property entities (73 units in the forecast plan for 2011–2013, and 94 units in the forecast plan for 2014–2016).

It is also stated that some privatized assets are to be transferred to various integrated structures, including the reorganization of a group of unitary enterprises into JSCs, with a subsequent transfer of 100% shares in state corporations *Roscosmos*, *Rosatom*, *Rostec*, and the transfer, as a contribution to the charter capital of *Russian Hippodromes* JSC and *GLONASS SCC*, of several property entities held by the RF treasury. As for the possibility of privatizing other property entities, certain restrictions are imposed on privatization after the transfer of property entities to the RF treasury (including cultural heritage properties), on the timelines for privatization procedures to be coordinated with a federal body of executive authority responsible for the coordination and regulation of such activities (for some JSCs), and on the decision-making concerning the terms for privatization after the restrictions are lifted in an established procedure (for the group of unitary enterprises). The instruction issued by the RF Ministry of Communications and Mass Media after considering the draft of the new privatization program prepared by the government is also in this line - it intends to continue the elaboration of the draft law on the specificities of the reorganization procedure to be applied to FSUE *Russian Post*, although it undoubtedly belongs to the category of biggest assets.

In the comments released by the RF Ministry of Economic Development in connection with the consideration, in early February 2017 by the RF Government, of the draft of the new 3-year privatization program it is noted that at present - in contrast to the situation in 2016 - there is no longer an urgent need to generate budget revenue, and so it is not necessary to speed up events - instead, due consideration should be given to the actual preparedness of companies for privatization, as well as to the general developments in the economy. Besides, according to the RF Ministry of Economic Development, privatization must always be attempted with a view towards improving corporate governance quality or boosting competition in certain market segments¹.

Meanwhile, Law of Federal Budget for 2017–2019 of December 19, 2016, No 415-FZ, similarly to last year's budget law, offers no specific information on the amount of revenues to be generated by privatization neither in the body text, not in the annexes thereto.

At the same time, in the explanatory note attached to the draft law submitted by the government the revenues from privatization of assets in federal ownership were listed alongside government borrowings as a separate source of federal budget deficit financing. Similarly to the draft budget law for the past year 2016 and at variance with the similar draft documents submitted in the previous years, some of the supplementary materials attached to the draft law did provide data pertaining to the forecast plan (program) of federal property privatization, with a substantiated forecast of federal budget revenue to be generated by privatization; this information can also be found in the explanatory note and the calculated by-function targets for each source of federal budget deficit financing.

The amount of federal budget revenue to be generated by federal property privatization is forecasted to be RUB 138.2bn in 2017, RUB 13.6bn in 2018, and RUB 13.9bn in 2019. As a

¹. www.economy.gov.ru, February 2, 2017.

source of federal budget deficit financing, these are going to play a purely subordinate role: in 2017, the expected privatization-generated revenues will amount to 13.6% of the planned government borrowing, and in 2018–2019 – to 1.4%, that is, smaller by one order of magnitude.

The planned structure of privatization-generated revenues in the forecast for 2017 incorporates the proceeds of the deals of alienation of the federal stakes in VTB Bank and OJSC *Sovkomflot*, with regard to which the relevant decisions were issued by the RF Government in summer 2016, as well as proceeds of federal property sales less the value of shares in biggest companies (RUB 18.7bn). While the expected amount of revenue to be generated by the sale of shares in VTB Bank (10.9% - 1 share, RUB 95.5bn) is practically the same as the amount of proceeds of the first sale of a stake of a comparable size completed in 2011, the estimated figure for the stake in OJSC *Sovkomflot* (25% - 1 share, RUB 24bn) is for some reason double the amount that was planned as a revenue target for 2016 (RUB 12bn).

The budget projections for 2018–2019 include only the latter as a revenue source (less the value of shares in biggest companies). This forecast of privatization-generated revenues appears to be too optimistic. The amount of planned privatization-generated revenues in the budget for 2017–2019 (less the proceeds of biggest deals) (RUB 46.2bn) almost doubles the corresponding target set in the previous privatization programs for 2011–2013 (RUB 25.7bn) and for 2014–2016 (RUB 24.8bn), while the annual privatization-generated revenue targets (RUB 18.7bn in 2017, RUB 13.6bn in 2018, and RUB 13.9bn in 2019) are 2–3 times higher than the target set in the new privatization program for 2017–2019 (RUB 5.6bn per annum).

It should also be noted that the rules for the development of a forecast plan (program) of federal property privatization approved by Decree of the RF Government of 26 December 2005, No 806 do not envisage the valuation of federal property entities listed in the draft of a privatization program in the phase of its elaboration. In this connection, no calculations for each property entity to be privatized in 2017–2019 were presented by *Rosimushchestvo*.

In 2016, the activities aimed at improving and upgrading privatization legislation were continued. In June and July 2016, four federal laws were adopted, whereby the current law on privatization (as of 2001) was further amended.

Firstly, the possibility to delegate the powers of selling federal assets to legal entities acting as agents (Article 6, introduced as part of amendments adopted in 2010) was augmented by another norm whereby it was established that the agent's commission should not be included in the selling price, and should instead be paid by the winner in an auction or in a sale by public offer in addition to the selling price of the federal property entity being privatized. Thus, the information concerning the amount of and the procedure for paying the agent's commission to the legal entity acting as a seller of federal property, and (or) to which, by decision of the RF Government, the powers to organize a sale of a federal asset to be privatized on behalf of the Russian Federation have been delegated, has been added to the list of information to be released as part of the property sale announcement.

Secondly, the criteria for applying the procedure of reorganization (introduced in 2011) of unitary enterprises into limited liability companies (LLC) have been altered (Article 13).

Under a general rule, if the size of charter capital of a joint-stock company to be created as a result of privatization is below the charter capital floor established for a JSC by RF legislation, the unitary enterprise is to be reorganized into a LLC; if its is above the said threshold, the unitary enterprise is reorganized into a JSC. However, if one of the parameters of a unitary enterprise's activity does not exceed the margin established for small businesses by Federal Law of July 24 2007, No 209-FZ 'On Developing Small and Medium Scale Entrepreneurship in the

Russian Federation', the property complex held by that unitary enterprise may also be privatized by way of reorganizing it into a LLC.

In the wording of the law that had been in effect until mid-2016, the said parameters for a unitary enterprise were as follows (1) average number of employees, (2) proceeds of sales of goods (or work, or services) less value added tax, summed up for the three calendar years preceding the privatization procedure, (3) the residual value of its fixed assets and intangible assets as of the last reporting date. The last parameter was abolished by the latest amendment, the second was reworded as 'revenues generated by entrepreneurial activity over the three calendar years preceding the privatization procedure, to be determined in the procedure established by RF legislation on taxes and levies'.¹

Thirdly, alterations were introduced with regard to the information backing of the privatization process (Article 15).

The Russian Federation's website designated for posting information concerning the state and municipal property entities put up for sale has acquired an official status. This means that torgi.gov.ru is going to be the only official federal website for online bidding, while all the other related websites will serve as supplementary sources of information on asset privatization. In addition, in the text of the law, the term 'websites' has been replaced by 'official website'; the information posted there, among other things, also includes notifications of forthcoming tenders in the framework of transfer of shares in JSCs operated under a trust management agreement (Article 26).

With regard to sale by public offer (Article 23), there has been an important amendment whereby it is established that the announcement concerning property sales by this method should be published in the procedure stipulated in Article 15 no later than three months since the recognition of an auction to have been cancelled.

Fourthly, the legal norms determining the specific features of the privatization procedure as applied to different types of assets have been further elaborated. After the law has been augmented by special articles concerning property entities belonging to utilities infrastructure (Article 30.1, 2013) and operated under concession agreements (Article 30.2, 2014), a special article regulating the privatization procedure for river ports (Article 30.3) was included therein.

Similarly to Article 30.1, it stipulates the possibility to privatize hydrotechnical structures (including wharfs), ship loading facilities and other federal property entities situated at river ports, with the exception of properties that may not be privatized, on condition that these should be encumbered in satisfaction of the secured obligation to be used for servicing passengers and vessels, loading and unloading, receipt, storage and delivery of cargoes, and interaction with other transport means. The termination of that encumbrance and an alteration of the conditions thereto is allowed in the event and in the procedure established by the RF Government, by decision of the federal body of executive authority empowered to perform functions pertaining to the provision of government services and public property management in the inland water transport sector.

However, in contrast to the property privatization procedures applied to property entities in the sectors of electrical grid networks, heating energy sources, heating networks, centralized hot water supply systems, by analogy with Article 30.2, for property entities situated at river ports the preferential purchase right is established, which may be exercised by an individual or legal entity on condition that as of the moment of filing the application concerning their

¹ The description of the first parameter was also changed to *average staffing number*.

intention to conclude a contract of purchase and sale (1) the relevant property entity situated at a river port as been held by that individual or legal entity by right of lease or by right of uncompensated *use* for two or more years, (2) the individual or legal entity has no lease payments, compensatory payments, penalties or fines in arrears pertaining to their lease or use of property entities situated at a river port, (3) the individual or legal entity has obtained a statement in confirmation of *inalienability* of the port property entities and of the provision of technologies necessary for rendering the river port services as envisaged by legislation on inland water transport of the Russian Federation.

In the event of a property entity situated at a river port being included in a privatization program, the individual or legal entity with a preferential right of purchase files an application with the body empowered to perform the privatization functions concerning their intention to conclude a contract of purchase and sale of that property entity.

On receiving the application, the body empowered to privatize the property entities situated at a river port orders a property valuation report (at market value) within two months since the date of receiving the application, issues a resolution concerning the privatization terms for the relevant property entity within 2 weeks from the date of receiving the property valuation report, and dispatches to the individual or legal entity with a preferential right of purchase of the property entity situated at a river port a draft of the purchase and sale contract and a copy of the resolution concerning the privatization terms for the relevant property entity within 10 days from the date of making the said decision.

If the individual or legal entity with a preferential right of purchase of a property entity situated at a river port agrees to exercise that right, the contract of purchase and sale must be concluded within 30 calendar days from the date of receiving the proposal that such a contract should be concluded. If the individual or legal entity refuse to exercise their rights, or failure to sign the contract of purchase and sale within the said period, the property entity situated at a river port is privatized in the framework of a tender.

In the event of a significant violation, on the part of the individual or legal entity with whom a contract of purchase and sale of a property entity situated at a river port has been concluded, of the privatization terms stipulated in the resolution, the body empowered to privatize the property entities situated at a river port may file a petition with a court of justice requesting the withdrawal, by way of buying out, of the property entity, its price to be determined on the basis of valuation done in compliance with RF legislation on valuation activity. If the right of ownership is transferred to another individual or legal entity, the latter is not relieved of the obligations with regard to the relevant property entity.

The definition of one of the property categories to which the privatization law is not applicable (land plots and other immovable property entities used for promoting residential construction by a federal fund (*Fund for Promoting Housing Construction*)) has been altered; instead, it is defined as the Single Development Institute in the Housing Sphere, performing the functions of agent of the Russian Federation'.¹

The numerous amendments to the privatization law that have been made in recent years have necessitated the adjustment of normative-legal acts regulating the privatization process, by Decree of the RF Government of May 16, 2016, No 423. It addressed the Rules for preparing

¹ There is another very recent amendment, introduced in 2017 to the government program *Federal Property Management* (adopted in 2014), whereby the term *Federal Fund for Promoting Housing Construction* was replaced by *Agency for Housing Mortgage Lending (AHML)*, which has become the single development institution operating in the housing sector.

and issuing resolutions concerning the terms of federal property privatization (adopted in 2002), the Provision on sale of state and municipal property at an auction, specialized auction, by public offer, and sale without announcing a price (adopted in 2002), and the Rules for the development of a forecast plan (program) of federal property privatization (issued in 2005).

6.1.3. The presence of the State in the economy and the issues of management of economic subjects operating in the public sector

In 2016, certain alterations were also introduced in the list of strategic enterprises and joint-stock companies.

As of early December 2016, this list was augmented by only one JSC (*GOZNAK*). Over the same period, 5 FSUEs and 5 JSCs were struck off the list of strategic organizations, including JSC *Bashneft*; the latter, after the bulk of its capital had been transferred back to Russian Federation ownership, it stayed there for a period less than a year. These changes have largely been produced by the creation of vertically integrated structures.

By the RF President's Executive Order of May 12, 2016, No 221, the new scheme of reorganization in the rocket and space industry was outlined. It envisages the transformation into JSCs of 16 FSUEs, including one treasury enterprise, with the subsequent transfer of shares to state corporation *Roscosmos* as public property contributions, and the transfer of state stakes in 46 JSCs of various size (including 9 100% stakes, 6 controlling stakes, 7 blocking stakes, 15 minority stakes, and 9 one-share stakes). Most of these stakes are earmarked for transfer to the charter capital of those 8 integrated structures that are to be transferred to *Roscosmos*. Out of these assets, 3 FSUEs and 3 JSCs are to be struck off the list of strategic organizations.

Rostec Corporation is to receive federal stakes in 11 OJSCs, including full ownership (100% stake) of Production Corporation *UralVagonZavod*, which is to be struck off the list of strategic organizations, and minority stakes in another 10 JSCs operating in related industries. Besides, one FSUE, also to be struck off the list of strategic organizations, will be reorganized into a JSC, with its subsequent transfer in full to *Rostec* as a property contribution, to be followed by the transfer of a controlling stake in another JSC (which has never been on the list of strategic organizations).

Special note should be made of the changes in the list of strategic organizations that resulted from the lowered state corporate control threshold in two public JSCs (*Alrosa* and VTB Bank). While this alteration was not a decisive one for the former (the reduction from 37% to 33% of charter capital), the latter felt it more strongly. The state corporate control threshold in VTB Bank's charter capital was change twice over the course of 2016: in February (from 50% + 1 share to 45%) and in May (from 45% to 42.83%). *Rosimushchestvo*, in its comments released in connection with the February 2016 reduction of the state stake in VTB Bank's charter capital (which was also reflected in the list of strategic organizations), noted the necessity to further reduce it to its current size after the acquisition, by the Deposit Insurance Agency (DIC), of a large package of preference shares in VTB Bank, while the State retained its corporate control by holding voting shares¹. According to the Year-end 2015 Report on the Management of Federal Stakes in OJSC and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share'), as of summer 2016, the State held 60.93% of voting shares, while its stake in capital amounted to 12.13%.²

While moving on to the issues of managing joint-stock companies with state participation, we may note to the strictest executive discipline visible in the organization of annual general

¹ www.rosim.ru, February 8, 2016.

² Year-end 2015 Report on the Management of Federal Stakes in OJSCs and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share'), data for summer 2016.

shareholder meetings in the 2016 corporate year, its index being 90.75%, including 94.34% among the JSCs entered in the special list approved by Directive of the Government of the Russian Federation of 23 January 2003, No 91-r (where the standpoint of the State as a shareholder on a number of the most important issues is to be determined at the government level), 91.97% among the JSCs off the special list (where the RF is the sole shareholder), and 87.85% among those JSC that are not included in the special list and with state stakes amounting to more than 2% but less than 100% of their charter capital.

In accordance with the decisions of the RF Government issued with regard to general shareholder meeting, in the course of the corporate year 2016, a total of 404 candidates to the boards of directors (supervisory boards) of JSCs entered in the Special List were approved,¹ including 189 professional attorneys (out of a total of 191 persons recommended by the special Commission (attached to *Rosimushchestvo*) assigned the task of selection of independent directors, representatives of the shareholder interests of the RF, and independent experts to be elected to the managerial and control bodies of joint-stock companies), 79 independent directors (out of a total of 86 recommended persons), and 136 civil servants (instead of 130 as recommended by the Commission).²

Over recent years, the structure of state participation in the managerial bodies of JSCs entered in the special list has undergone the following changes (*Table 8*).

Table 8

The movement and structure of State representatives in the managerial and control bodies of JSCs entered on the Special List, in 2009–2016

Year	JSC, units	State representatives in boards of directors (supervisory boards)								In audit commissions: independent experts, number
		total		Civil servants		Professional attorneys		Independent directors		
		number	%	number	%	number	%	number	%	
2009	36	342	100.0	163	47.7	120	35.1	59	17.2	...
2010	49/ 59*	386	100.0	193	50.0	117	30.3	76	19.7	...
2011	51	416	100.0	181	43.5	150	36.1	85	20.4	...
2012	57	434	100.0	141	32.5	205	47.2	88	20.3	15
2013**	63	452	100.0	127/ 122***	28.1	228/ 245***	50.4	97/ 102***	21.5	27
2014	51	402	100.0	106/ 104***	26.4	199/ 197***	49.5	97/ 90***	24.1	45
2015**	50	390	100.0	118	30.3	178	45.6	94	24.1	54
2016**	50	404	100.0	136	33.7	189	46.8	79	19.5	65

* data are also available on the election of professional directors to the managerial bodies of 59 JSCs;

** including OJSC Novorossiysk Commercial Sea Port, where only civil servants were elected to the board of directors and the audit commission;

*** other data are also available concerning the by-category distribution of state representatives (presented in the denominator), which probably are preliminary estimates, although the number of professional directors (professional attorneys and independent directors) for 2014 released by *Rosimushchestvo* (287) corresponds to the total number for all the groups (presented in the denominator).

Source: Year-end Reports on the Management of Federal Stakes in OJSC and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share') for 2011–2015; own calculations.

¹ Less OJSC *Roskartografia* (Russian Federal Service of Geodesy and Cartography), OJSC *Rosneftgaz* (the RF Government's decision was delayed), and PJSC *State Transport Leasing Company* (STLC, the sole shareholder is the RF Ministry of Transport).

² The final decisions concerning the appointment of candidates to the managerial and control bodies of JSCs entered on the Special List are approved by the RF Government.

Over the period 2015–2016, the share of civil servants increased. After the record low of 2014 (26.4%), their percentage rose to more than 1/3. Incidentally, while in 2015 this happened due to the shrinking share of professional attorneys (to 45.6%), in 2016 it was the share of independent directors that shrank. The latter turned out to be a record low of the entire 7-year period, plummeting to almost the same level as in 2010 (less than 20%). Over the 5-year period 2012–2016, the group of JSCs included in the special list demonstrated stable growth in the number of civil servants per company - from 2.47 to 2.72, and that of professional directors – from 5.14 to 5.36.¹

As far as the structure of audit commissions is concerned, while civil servants still prevailed in 2016, their number still somewhat shrank to approximately 2/3 from 70% a year earlier (or to 128 vs. 65 independent experts). However, the total number of the latter over the last 4 years increased more than fourfold, and their number per company increased from 0.26 in 2012 to 1.32 in 2016.

As for the structure of the managerial bodies of companies not included in the special list (*Table 9*), it should be said that in 479 JSCs, where the State's ownership of a controlling or blocking stake ensured that state representatives took up a total of 2,636 positions in the boards of directors (or supervisory boards) of JSCs,² more than half of them were professional directors (1,535, or 58.2%), while the share of civil servants (1,101) was 41.8%. In 38 JSCs with the RF stakes in their charter capital amounting to less than 25%, 100% of the representatives of government interests in the boards of directors (or supervisory boards) were civil servants (approximately 56 positions). However, even despite the effects of that factor, the total number of civil servants participating in the boards of directors (or supervisory boards) of the JSCs off the special list dropped relative to 2015, when their number had been 1,571.

As follows from data presented in *Table 9*, over the period 2015–2016, there were some notable changes in the structure of professional directors. While their number shrank by approximately 27%, a much deeper plunge (nearly fourfold) was demonstrated by the number of independent directors which, similarly to their relative share in the total number of state representatives (beside civil servants), hit its record low since 2009–2010 (189, or 12.3%). At the same time, specifically in 2016, alongside the increasing number of professional attorneys (nearing its record highs of 2012 and 2014), the number of independent directors shrank more than twice.

The number of independent experts sitting on audit commissions in 2016 somewhat increased relative to 2015, while still being far below its 2014 level. The per company number of professional directors in boards of directors (or supervisory boards) rose from 3.15 to 3.20, while that of independent experts in audit commissions increased from 0.63 to 0.73 (that is, to its 2014 level).

¹ As can be derived from the body text of Rosimushchestvo's Report, while according to the graphs, it was 5.28 per company.

² Less (1) those JSCs where the State does not hold a blocking stake (38 units) and (2) those JSCs where the State holds a controlling or blocking stake, but the decisions concerning the appointment of professional directors and independent experts have not been passed for various objective reasons (123 units).

Table 9

The movement and structure of State representatives in the managerial and control bodies of JSCs off the Special List, in 2009–2016

Year	JSCs, units	State representatives in boards of directors (supervisory boards) (other than civil servants)						In audit commissions: independent experts, number.
		total		Professional attorneys		Independent directors		
		number	%	number	%	number	%	
2009	233	431	100.0	310	71.9	121	28.1	...
2010	389	707	100.0	493	69.7	214	30.3	...
2011	512	1,109	100.0	830	74.8	279	25.2	...
2012	822	1,860/1,869*	100.0	1,350	72.6	510/519*	27.4	23**
2013	637/ 245***	1715	100.0	1,092	63.7	623	36.3	335
2014	683/ 159***	2094	100.0	1,382	66.0	712	34.0	498
2015	527/ 151***	1660	100.0	1,267	76.3	393	23.7	330
2016	479/ 123***	1535	100.0	1,346	87.7	189	12.3	353

* data are also available on the election of 1,869 professional directors, including 519 independent directors;

** data are also available on the election of 21 of private individuals as representatives in audit commissions;

*** the denominator is the number of those JSCs where the State holds a controlling or blocking stake, but the decisions concerning the appointment of professional directors and independent experts have not been passed for various objective reasons.

Source: Year-end Reports on the Management of Federal Stakes in OJSCs and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share') for 2011–2015; own calculations.

Among the alterations in the normative legal documents regulating the of JSCs with state participation introduced in 2016, we may note the amendments to the Provision on the Management of Federal Stakes in OJSC and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('golden share'), approved by Decree of the RF Government No 738, dated 3 December 2004. The Provision has been augmented by the norms whereby state representatives are required, when faced with circumstances preventing them from exercising their powers, and also when they quit their civil service positions, to notify the relevant federal body of authority thereof within 5 work days. The latter, in its turn, must submit to *Rosimushchestvo* its proposal concerning the termination of powers granted to that individual, or the conclusion with him or her of a contractual agreement as with a professional attorney. Other regulatory norms include those concerning the interaction between state representatives in a JSC with a 'golden share' and bodies of authority when preparing for a meeting of its board of directors, general shareholder meeting, the issuance of voting directives and the subsequent notification of the body of authority thereof.

The active elaboration of the model documents designed to standardize the managerial procedures applied by companies with state participation. In 2016, methodological recommendations (including guidelines and reference materials) addressing a broad range of issues are introduced, including the organization and conduct of mandatory audits of financial (accounting) report, risk management and internal control measures designed to prevent and eliminate corruption in JSCs with state participation, estimations for reducing costs in JSCs where the State holds a stake in excess of 50%, and the elaboration and adjustment of innovative development programs for JSCs with state participation, state corporations and FSUEs. A separate mention should be made of the new Methodological Recommendations for the identification and sale of assets unrelated to the core types of activity of a company, approved by Directive of the Government of the Russian Federation of July 7, 2016, No ISh-P13-4065.

The previously applied Methodology of identifying assets unrelated to core types of activity, approved by *Rosimushchestvo* in 2014, was deemed to be null and void.

With regard to practical the implementation, by companies with state participation, of their internal normative documents, we may say as follows.

By early August 2016, out of 53 companies on the special list, the boards of directors (or supervisory boards) of 46 JSCs approved their long-term development programs (LDP) (the draft LDPs of 2 JSCs were being considered by the RF Government, and the draft LDPs of another 4 JSCs were in the phase of elaboration and coordination); 43 JSCs approved their systems of key performance indices (KPI) (in another 7 JSCs, their KPI systems were undergoing various phases of interdepartmental coordination)¹.

Out of 46 JSCs whose LDPs had been approved, 38 submitted the materials and results of the audits of their LDPs for 2015 (according to available data released by *Rosimushchestvo*); and the corresponding KPI data are available for 39 companies.

This aspect of corporate activity appears to be more problematic for the large group of companies off the special list, where state stakes amount to more than 50% of charter capital, and the sole shareholder is *Rosimushchestvo* (374 units). As of the said date, only 188 of them had approved their LDPs (in another 58 JSCs, the draft programs were still being elaborated), and 204 companies approved their KPI systems (while in another 31 JSCs these were still being elaborated).

In addition to developing the medium-term planning systems (in the form of LDP and KPI), serious attention was focused on the implementation of measures designed to boost labor productivity.

Out of 50 JSCs on the special list, 44 companies developed their sets of measures aimed at improving labor productivity; 42 companies included this parameter and related measures in their LDPs; 45 companies included it in their KPIs; 36 companies introduced relevant amendments in the contractual agreements with their CEOs; and 40 companies filled in the annual federal statistical monitoring form 'Information on labor productivity for enterprises operating in the sector of non-financial corporations with state participation'.²

For the more numerous group of 374 JSCs off the special list, where state stakes amount to more than 50% of charter capital, these measures were introduced on a lower scale. Only 135 among these companies succeeded in developing their sets of measures aimed at improving labor productivity; 149 companies included this parameter and related measures in their LDPs; 142 companies included it in their KPIs; 99 companies introduced relevant amendments in the contractual agreements with their CEOs; and 154 companies filled in the said annual federal statistical monitoring form.

More than 3/4 of the companies on the special list developed and approved their internal normative documents: the regulations for improving their investment activity and performance indices, and reducing their costs, the provisions on their internal audits, their quality management systems, their risk management systems, and their procedures for developing and

¹ PJSC *State Transport Leasing Company (STLC)*, the sole shareholder is the RF Ministry of Transport), OJSC *Novorossiysk Commercial Sea Port*, and OJSC *Sheremetyevo International Airport* (with state stakes in their capital amounting to less than 50%) accomplished these tasks, as did *STLC* with regard to approval of its LDP.

² PJSC *State Transport Leasing Company (STLC)*, the sole shareholder is the RF Ministry of Transport), OJSC *Novorossiysk Commercial Sea Port*, and OJSC *Sheremetyevo International Airport* (with state stakes in their capital amounting to less than 50%) succeeded in implementing these measures.

implementing their innovative development programs. The latter appear to be relatively more problematic issues, as they were accomplished by only 40 companies.

In 2016, substantial efforts were focused on the implementation of the norms stipulated in the new Corporate Governance Code (CGC), introduced in 2014. In order to ensure maximum openness in following the norms and principles of the CGC, the Central Bank of the Russian Federation issued its recommendations, to be complied with by public JSCs when drawing up their reports concerning the implementation of the Code's principles and recommendations. *Rosimushchestvo* in 2016, by way of exercising its shareholder right, analyzed the annual reports for the 2015 corporate year, submitted by 12 biggest state-owned companies and approved by their annual general shareholder meetings, in order to review their compliance with the norms and principles stipulated in the CGC.

The results of that analysis, as well as other information submitted by state-owned companies at *Rosimushchestvo's* request, demonstrate that all the 12 JSCs entered in their annual reports the data on the implementation of the norms and principles stipulated in the CGC, and out of these, 9 companies submitted their reports on the implementation of these norms and principles in the format recommended by the RF the Central Bank.

As shown by the analysis of the reports submitted by JSCs, the overall roadmap implementation index for the provisions stipulated in the CGC as of late summer 2016 was 77 %.

The highest rate of implementation of the Code's provisions has been noted with regard to the following 5 sections:

- shareholder rights and equal opportunities for exercising these rights (86%);
- risk management and internal control systems (85%);
- system of reimbursement of members of board of directors, executive bodies, and other key CEOs (83%);
- disclosure of information of a JCS and its information policy (77%);
- the board of directors of a JCS (76%).

The implementation indices for another two sections of the CGC (corporate secretary and significant corporate acts) are approximately 60% each.

Among the 12 companies, the highest indices of implementing the Code's key sections were reported by PJSC *Sovkomflot* (99%), PJSC *Alrosa* and VTB Bank (90% each), PJSC *Aeroflot* (81%).

The tense budgetary situation prompted the RF Government to adopt a special document on its dividend policy in 2016.¹

By Directive No 705-r of April 18, 2016, when calculating the dividends on the basis of the year-end results of 2015, federal bodies of authority, and first of all *Rosimushchestvo*, were to comply with the following provisions:

- the amount earmarked for the payment of dividends could not be less than the highest of the following two values: 50% of a joint-stock company's net profits (less the incomes and expenditures produced by revaluation of marketable securities of their affiliated companies and the profits tax laid on these), as estimated on the basis of its accounting (or financial) reports, or 50% of a joint-stock company's net profits as estimated on the basis of its consolidated financial report;
- the amount earmarked for the payment of dividends by joint-stock companies belonging to the category of natural monopolies could not be less than the highest of the following two

¹ It should be reminded that previously, these issues were regulated by Directive of the RF Government No 774-r dated May 29, 2006 (as amended as of late 2012).

values: 50% of a joint-stock company's net profits entered into records by the Federal Antimonopoly Service in accordance with the currently established tariffs, or the value determined in accordance with the provisions described earlier;

– the amount of net profits that has not been earmarked to the funding of investment projects and other purposes, should be paid as dividends;

– investment projects should comply with the rate-of-return norm established for a given joint-stock company.

As of August 1, 2016, the total volume of federal budget revenues administered by *Rosimushchestvo*, in the form of dividends on shares held by the State, with due regard for the resolutions passed by the annual general shareholder meetings in 2015, amounted to more than RUB 188.82bn, which is much less than what had been paid a year earlier (RUB 237.73bn), and roughly corresponds to the year-end index for 2012 (RUB 184bn).

In full compliance with the forecast of dividend receipts in the federal budget, the year-end results of 2015 showed that 99% of the total amount of dividends charged on the shares held by the RF was paid by JSC on the special list (vs. 59% a year earlier). The group of biggest payers of dividends to the federal budget (in amounts in excess of Rb 1bn) consists of PJSC *Gazprom*, OJSC *Rosneftegaz*, PJSC *Bashneft*, OJSC *JSC Transneft*, PJSC *Rusgidro*, VTB Bank, PJSC *Rostelecom*, PJSC *Sovkomflot*, PJSC *Alrosa*, JSC *Zarubezhneft*, the Agency for Housing Mortgage Lending (AHML), and *Federal Grid Company of Unified Energy System*.

18 JSCs on the special list earmarked for the payment of dividends no less than 50% of their year-end net profit of 2015. For 15 JSCs on the special list, the RF Government issued decisions that they were not to pay dividends on the basis of their year-end reports for 2015, including 11 JSCs that were allowed not to pay dividends due to their losses. As seen by the year-end results of 2015, for 5 JSCs on the special list (*Bashneft*, *Alrosa*, the AHML, *United Grain Company* (UGC), *Rosneft*) the amount of dividends to be paid to the federal budget was charged on the basis of financial reports drawn up in accordance with the International Financial Reporting Standards (IFRS)¹.

6.1.4. The budgetary effect of government property policy

In 2016, in contrast to the situation in 2015, the movement of budget revenues that had to do, in one or other way, with public property was positive. The formal indicators point to growth of revenues generated both by the use of public property (renewable sources) and by privatization and sale of property (non-renewable sources). For the last time previously, this movement pattern could be observed in 2011–2012. However, in the final analysis, the outcome may be estimated somewhat differently, depending on how the budget revenues generated by the sale of a stake in Rosneft will be treated.

Tables 10 and 11 show data, taken from the laws on federal budget execution for 2000–2014 (with the exception of data for 2015–2016), on the revenues generated by the use and sale of public property belonging only to some specified categories of tangible property entities².

¹ Year-end 2015 Report on the Management of Federal Stakes in OJSCs and the Use of the Russian Federation's Special Right to Participate in an OJSC's Management ('Golden Share').

² Here, we do not consider the federal budget revenues generated by payments for the use of natural resources (including biological water resources, revenues from the use of forest fund, and the extraction of mineral resources), compensation of the losses incurred by the agricultural production sector as a result of confiscation of agricultural land, revenues generated by financial operations (revenues from placement of budget funds (revenues from federal budget residuals and their investment: from 2006 onwards, these include the revenues from the

Table 10

**Federal budget revenues generated by the use of public property
(renewable sources) in 2000–2016, RUB m**

Year	Total	Dividends on shares (2000–2016) and revenues generated by other forms of participation in capital (2005–2016)	Payment for lease of land in state ownership	Revenues generated by lease of property in state ownership	Revenues for transfer of part of net profits of FSUEs after taxes and other mandatory payments	Revenues generated by Joint Venture <i>Vietsovetro</i>
2000	23,244.5	5,676.5	-	5,880.7	-	11,687.3 ^a
2001	29,241.9	6,478.0	3,916.7 ^b	5,015.7 ^c	209.6 ^d	13,621.9
2002	36,362.4	10,402.3	3,588.1	8,073.2	910.0	13,388.8
2003	41,261.1	12,395.8	10,276.8 ^e		2,387.6	16,200.9
2004	50,249.9	17,228.2	908.1 ^f	12,374.5 ^e	2,539.6	17,199.5
2005	56,103.2	19,291.9	1,769.2 ^h	14,521.2 ⁱ	2,445.9	18,075.0
2006	69,173.4	25,181.8	3,508.0 ^h	16,809.9 ⁱ	2,556.0	21,117.7
2007	80,331.85	43,542.7	4,841.4 ^h	18,195.2 ⁱ	3,231.7	10,520.85
2008	76,266.7	53,155.9	6,042.8 ^h	14,587.7 ⁱ	2,480.3	-
2009	31,849.6	10,114.2	6,470.5 ^h	13,507.6 ⁱ	1,757.3	-
2010	69,728.8	45,163.8	7,451.7 ^h	12,349.2 ^j	4,764.1	-
2011	104,304.0	79,441.0	8,210.5 ^h	11,241.25 ^j	4,637.85	773.4
2012	228,964.5	212,571.5	7,660.7 ^k	3,730.3 ^l	5,002.0	-
2013	153,826.25	134,832.0	7,739.7 ^k	4,042.7 ^l +1,015.75 ^m	6,196.1	-
2014	241,170.6	220,204.8	7,838.7 ^k	3,961.6 ^l +1,348.5 ^m	7,817.0	-
2015	285,371.1	259,772.0	9,032.3 ^k	5,593.8 ^l +1,687.8 ^m	9,285.2	-
2016	946,721.95/ 254,326.95 ⁿ	918,968.3/ 226,573.3 ⁿ	9,412.4 ^k	5,843.25 ^l +3,026.1 ^m	9,471.9	-

management of the RF Stabilization Fund, and from 2009 onwards – the Reserve Fund and the National Welfare Fund)); revenues from investment of monies accumulated in the course of trading RF stocks in the auction market); interest on budget-funded domestic loans, covered by the federal budget; interest on government loans (monies received from the governments of foreign countries and foreign legal entities as interest payments on RF government loans); money transfers from legal entities (enterprises and organizations), RF subjects, municipal formations received as interest and guarantee payments on loans received by the RF from foreign governments and international financial organizations; revenues from paid services rendered to the population or monies received by way of compensation of government expenditures; transfers of the RF Central Bank's profits; certain categories of payments from state and municipal enterprises and organizations (patent duties and registration fees for official registration of software, databases, integral microcircuit topologies; and other revenues which until 2004 were part of mandatory payments of state organizations (except revenues generated by the operations of Joint Venture *Vietsovetro* (from 2001) and transfers of part of profits generated by FSUEs (from 2002)); revenues from the implementation of product share agreements (PSA); revenues from the disposal of confiscated and other property earmarked as government revenue (including property transferred to state ownership in the procedure of inheritance or gift, or treasure trove appropriation); revenues generated by lotteries; other revenues from the use of property and rights in federal ownership (revenues from the execution of rights to the results of intellectual activity (R&D and technologies) intended for military, special or dual use; revenues generated by the execution of rights to the results of scientific and technological research held by the RF; revenues generated by the exploitation and use of property relating to motor roads, motor road levies imposed on transport vehicles registered in the territories of other states; execution of the Russian Federation's exclusive right to the results of intellectual activity in the field of geodesy and cartography; and other revenues from the use of property in the ownership of the Russian Federation); revenues generated by organizations from the permitted types of economic activity and earmarked for transfer to the federal budget; revenues from realization of government reserves of precious metals and precious stones.

By contrast with the previous years, the law on federal budget execution for 2015 contains no aggregate data listed under each revenue classification code or sub-code, or listed according to the classifications of transactions in the public administration sector on revenue side (these are listed only by their classification code for each revenue administrator). Therefore, we used data from the Report on Federal Budget Execution as of January 1, 2016 (annual data).

^a—according to data released by the RF Ministry of Property Relations, in the Law on Federal Budget Execution for 2000 this item was not specified separately; instead, the amount of payment received from state-owned enterprises was entered (RUB 9,887.1m) (without any components being specified);

^b— the amount of lease payments (1) for the use of agricultural land and (2) for the use of land plots in the territories of towns and settlements;

^c— the amount of revenues from the lease of property consolidated to (1) scientific research organizations, (2) educational establishments, (3) healthcare institutions, (4) state museums, state cultural and arts institutions, (5) archival institutions, (6) the RF Ministry of Defense, (7) organizations subordinated to the RF Ministry of Railways, (8) organizations providing research-related services to the academies of sciences with the status of a state entity, and (9) other revenues from the lease of property in state ownership;

^d— according to data released by the RF Ministry of Property Relations, in the Law on Federal Budget Execution for 2001 this item was not specified separately, this value turned out to be the same as the amount of other revenues received as part of payments transferred by state and municipal organizations;

^e— total amount of revenues generated by the lease of property entities in public ownership (without specifying the amount of lease payments for land);

^f— the amount of lease payments (1) for the use of land plots in the territories of towns and settlements (2) for the use of land plots in federal ownership after the delineation of titles to land plots between different tiers of government;

^g— the amount of revenues from the lease of property consolidated to (1) scientific research organizations, (2) educational establishments, (3) healthcare institutions, (4) state cultural and arts institutions, (5) state archival institutions, (6) institutions of the federal postal service of the RF Ministry of Communications and Informatization, (7) organizations providing research-related services to the academies of sciences with the status of a state entity, and (8) other revenues generated by the lease of property in federal ownership;

^h— the amount of lease payments after the delineation of titles to land plots between different tiers of government and revenues generated by the sale of right to conclude lease agreements in respect of land plots in federal ownership (with the exception of land plots held by federal autonomous institutions (2008–2011) and budget-funded institutions (2011));

ⁱ— the amount of revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them, and property held by right of economic jurisdiction by FSUEs: properties transferred for operative management to organizations with the status of a state entity: (1) scientific research institutions, (2) organizations providing research-related services to the Russian Academy of Sciences and to sectoral academies of sciences, (3) educational establishments, (4) healthcare institutions, (5) federal postal service institutions of the Federal Communications Agency, (6) state cultural and arts institutions, (7) state archival institutions, and (8) other revenues generated by the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them, and property held by right of economic jurisdiction by FSUEs¹ (for the period 2006–2009 - less revenues from the permitted types of economic activity and revenues from the use of federal properties situated outside of RF territory, which are received abroad, and which were not listed as a separate revenue item in the previous years²);

^j— the amount of revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them ((with the exception of federal autonomous institutions and budget-funded institutions): properties transferred for operative management to organizations with the status of a state entity: (1) scientific research institutions, (2) organizations providing research-related services to the Russian Academy of Sciences and to the ‘branch’ academies of sciences, (3) educational establishments, (4) healthcare institutions, (5) state cultural and arts institutions, (6) state archival institutions, (7) properties held by right of operative management by the RF Ministry of Defense its subordinated institutions (2010), (8) properties in federal ownership disposed of by the Executive Office of the RF President (2010), and (9) other revenues from

¹ For the period 2008–2009, there is no mention of FSUEs as sources of revenues generated by the lease of property consolidated to them by right of economic jurisdiction, while the revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them do not include revenues generated by property held by autonomous institutions.

² According to data released by the RF Ministry of Property Relations, the revenues from the use of federal properties situated abroad (less the revenues received by the generated by the Russian partner in Joint Venture *Vietsovpetro*) amounted to RUB 315m in 1999 and RUB 440m in 2000. Thereafter, the major role in organizing the commercial use of federal immovable property situated abroad was assigned to FSUE *Goszagransobstvennost*.

the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them (less revenues from the permitted types of economic activity and revenues from the use of federal properties situated outside of RF territory, which are received abroad);

^k – the amount of lease payments after the delineation of titles to land plots between different tiers of government and revenues generated by the sale of right to conclude lease agreements in respect of land plots in federal ownership (with the exception of land plots held by federal budget-funded institutions and autonomous institutions), (1) lease payments received for the lease of land plots in federal ownership, situated in public motor road precincts of federal importance (2012–2016), (2) payments for the execution of agreements on the establishment of servitude with regard to land plots situated within public motor road precincts of federal importance for the purposes of building construction (or reconstruction), capital repairs and exploitation of road service entities, installation and exploitation of utility networks, installation and exploitation of elevated advertising structures (2012 and 2014–2016), and (3) payments received in the framework of agreements on the establishment of servitude with regard to land plots in federal ownership (2015–2016);

^l – the amount of revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them (with the exception of budget-funded institutions and autonomous institutions): properties transferred for operative management to organizations with the status of a state entity: (1) scientific research institutions, (2) educational establishments, (3) healthcare institutions, (4) state cultural and arts institutions, (5) state archival institutions, (6) other revenues from the lease of property held by right of operative management by federal treasury institutions, (7) federal bodies of state authority, the Bank of Russia, and the managerial bodies of RF government extrabudgetary funds, (8) federal treasury institutions (2015 only) (less revenues from the use of federal properties situated outside of RF territory, which are received abroad)¹;

^m – the amount of revenues from the lease of RF treasury property (with the exception of land plots);

ⁿ – less the revenues generated by the sale of the stake in *Rosneft* (RUB 692,395bn) (less interim dividend payments).

Source: Laws on federal budget execution for the period 2000–2014; Report on Federal Budget Execution as of 1 January 2016 (annual report), www.roskazna.ru; own calculations.

In 2016, the aggregate revenues generated by renewable sources jumped 3.3 times on the previous year, due in the main to the receipts of dividends, which increased 3.5 times (to RUB 919bn), his evidently being the effect of the sale of shares in *Rosneft*. The scheme of that deal envisaged that the proceeds should be paid to the federal budget in the form of dividends by OJSC *Rosneftegaz*, which acts as a parent company of *Rosneft*. Without that sum (RUB 692.395bn),² the amount of dividends to be paid to the budget would be only RUB 226.6bn, which is nearly 13% below the corresponding index for the previous year, but is still somewhat higher than that for 2014 (RUB 220.2bn).

The receipts of part of profits paid by unitary enterprises increased by only 2%, amounting in absolute terms to approximately RUB 9.5bn, thus representing a record high of the entire period since the early 2000s. For two straight years (2015–2016), budget revenues from that source exceeded those generated by lease of land plots; the latter, while having increased somewhat more (by 4.2%), amounted to approximately RUB 9.4bn.³ Likewise, two years in a

¹ Data for 2016 are presented in a generalized form, without separate by-branch entries for each group of institution. The generalized classification includes only 2 revenue categories depending on the type of recipient of revenues generated by lease of property (federal government bodies, the Bank of Russia and the managerial bodies of RF government extrabudgetary funds, and federal treasury institutions).

² For a correct comparison, specifically the proceeds of sale of shares in *Rosneft* are taken here, without the amount of intermediate dividends (RUB 18.4bn), which are due to be transferred to the budget anyway.

³ The amount of lease payments for land plots, just as a year earlier, includes lease payment received for the lease of land plots in federal ownership situated in public motor road precincts of federal importance, payments for the execution of agreements on the establishment of servitude with regard to land plots covered by the right-of-way for general-use motorways of federal importance for the purposes of building construction (or reconstruction), capital repairs and exploitation of road service entities, installation and exploitation of utility networks, and

row saw an accelerated growth (nearly 22%) of the aggregate revenues generated by lease of federal property (approximately RUB 8.9bn). However, in contrast to the situation in 2015, this figure was produced by the increased (1.8 times) revenues generated by lease of property which is held by the RF treasury (except land plots) (more than RUB 3bn), while the revenues from lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them (with the exception of budget-funded institutions and autonomous institutions) increased by only 4.5% (to more than RUB 5.8bn).

Similarly to the previous year, dividends held a dominant position in the structure of renewable federal budget revenue sources (more than 97% vs. 91% a year earlier). The other three sources accounted approximately for 1% each. However, the overall picture alters dramatically once we disregard the sale of shares in *Rosneft*. Then, the amount of revenues generated by the use of public property in absolute terms (RUB 254.3bn) would plunge 11% below its 2015 value (RUB 285.4bn). And their structure would be likewise close to that in the previous year: dividends – 89%; profits transferred by FSUEs and lease of land plots – 3.7% each; property lease – 3.5%. The relative shares of the last three revenue sources had somewhat increased relative to 2015.

While proceeding to an analysis of federal budget revenues generated by privatization and sale of state property (*Table 11*), it should be noted that, from 1999 onwards, the revenues from sales of such assets (state stakes, and over the period 2003–2007 – also land plots¹) have been treated as a source of funding to cover budget deficit.

Table 11

**Federal budget revenues generated by privatization and sale of property
(non-renewable sources) in 2000–2016, RUB m**

Year	Total	Sale of shares in federal ownership (2000–2014) and other forms of participation in capital (2005–2016) ^a	Sale of land plots	Sale of miscellaneous properties
2000	27,167.8	26,983.5	-	184.3 ^b
2001	10,307.9	9,583.9	119.6 ^c	217.5+386.5+0.4 (ITA) ^d
2002	10,448.9	8,255.9 ^c	1,967.0 ^f	226.0 ^e
2003	94,077.6	89,758.6	3,992.3 ^h	316.2+10.5 ⁱ
2004	70,548.1	65,726.9	3,259.3 ^j	197.3+1,364.6+0.04 (ITA) ^k
2005	41,254.2	34,987.6	5,285.7 ^l	980.9 ^m
2006	24,726.4	17,567.9	5,874.2 ^l	1,284.3 ⁿ
2007	25,429.4	19,274.3	959.6 ^o	5,195.5 ^p
2008	12,395.0	6,665.2+29.6	1,202.0 ^q	4,498.2+0.025 (ITA) ^f
2009	4,544.1	1,952.9	1,152.5 ^q	1,438.7 ^r
2010	18,677.6	14,914.4	1,376.2 ^q	2387.0+0.039 (ITA) ^f
2011	136,660.1	126,207.5	2,425.2 ^q	8027.4 ^r
2012	80,978.7	43,862.9	16,443.8 ^q	20,671.7+0.338 (ITA) ^f
2013	55,288.6	41,633.3	1,212.75 ^q	12,442.2+0.310 (ITA) ^f
2014	41,155.35	29,724.0	1,912.6 ^q	9,517.7+1.048 (ITA) ^f
2015	18,604.1	6,304.0	1,634.55 ^q	10,665.5+0.062 (ITA) ^f
2016	416,470.5	406,795.2	2,112.7 ^q	7,562.6+0.012 (ITA) ^f

^a –treated as an internal source of funding to cover federal budget deficit, amount to RUB 29.6m for 2008 (as stated in the Report on Federal Budget Execution as of 1 January 2009); this is a federal budget revenue item, but it is absent in the Law of Federal Budget Execution in 2008;

^b –revenues generated by privatization of entities in public ownership and treated as an internal source of funding to cover federal budget deficit;

installation and exploitation of elevated advertizing structures, which are not specified as a separate item in the budget reports for 2015.

¹ Data for the period 2003–2004 include revenues generated by sale of leasing rights.

^c –revenues generated by sale of land plots and the right to lease land plots in state ownership (with special entry concerning those land plots in which privatized enterprises are situated), treated as federal budget revenues;

^d –the amount of revenues generated by (1) sale of property in federal ownership, treated as an internal source of funding to cover federal budget deficit, (2) revenues generated by sale of apartments, sale of state production and non-production assets, transport vehicles, other equipment and tangible assets, and (3) revenues generated by sale of intangible assets (ITA), treated as federal budget revenues;

^e – including RUB 6m generated by sale of shares held by RF subjects;

^f – revenues generated by sale of land and intangible assets, their amount not specified as a separate entry, treated as federal budget revenues;

^g –revenues generated by sale of property in public ownership (including RUB 1.5m generated by the sale of properties held by RF subjects), treated as an internal source of funding to cover federal budget deficit;

^h –this figure includes revenues generated by (1) sale of land plots in which immovable property entities are situated, which prior to their alienation were federal property, the proceeds being transferred to the federal budget, (2) sale of other land plots, as well as sale of the right to conclude lease agreements in respect of those land plots, (3) sale of land plots after delineation of titles to land plots, as well as sale of the right to conclude lease agreements in respect of those land plots, the proceeds being transferred to the federal budget; these are treated as an internal source of funding to cover federal budget deficit;

ⁱ –the sum of (1) revenues generated by sale of properties in federal ownership, treated as an internal source of funding to cover federal budget deficit, and (2) revenues generated by sale of intangible assets, treated as federal budget revenues;

^j –this figure includes the revenues generated by: (1) sale of land plots after delineation of public titles to land plots, in which immovable property entities are situated, which prior to their alienation were federal property, the proceeds being transferred to the federal budget, (2) sale of other land plots, as well as sale of the right to conclude lease agreements in respect of those land plots, (3) sale of land plots after delineation of titles to land plots, as well as sale of the right to conclude lease agreements in respect of those land plots, the proceeds being transferred to the federal budget; these are treated as an internal source of funding to cover federal budget deficit;

^k –the sum of (1) revenues generated by sale of properties in federal ownership, treated as an internal source of funding to cover federal budget deficit, (2) revenues generated by (a) sale of apartments, (b) sale of equipment, transport vehicles and other tangible assets, the proceeds being transferred to the federal budget, (c) sale of the products of ships recycling industry, (d) sale of property held by state unitary enterprises and state institutions, as well as sale of military property, (e) sale of the products of recycled armaments, military technologies and ammunition, (3) revenues generated by sale of intangible assets (ITA); these are treated as federal budget revenues;

^l –this figure includes the revenues generated by: (1) sale of land plots after delineation of titles to land plots, in which immovable property entities are situated, which prior to their alienation were federal property, (2) sale of land plots after delineation of titles to land plots, the proceeds being transferred to the federal budget, (3) sale of other land plots, which prior to the delineation of titles to land plots between different tiers of government were public property, and which are not earmarked for housing construction (this subdivision is true only with regard to data for 2006), treated as sources of funding to cover federal budget deficit;

^m –revenues generated by sale of tangible and intangible assets (less federal budget revenues generated by disposal and sale of confiscated property and other property treated as government revenue), this figure includes revenues generated by (a) sale of apartments, (b) sale of property held by FSUEs, (c) sale of property held by right of operative management by federal institutions, (d) sale of military property, (e) sale of the products of recycled armaments, military technologies and ammunition, (f) sale of other properties in federal ownership, (g) sale of intangible assets; these are treated as federal budget revenues;

ⁿ –revenues generated by sale of tangible and intangible assets (less revenues received as profit share in the framework of product share agreements (PSA) and federal budget revenue generated by the disposal and sale of heirless property, confiscated property, or other property earmarked as government revenue), this figure includes revenues generated by (a) sale of apartments, (b) sale of property held by FSUEs, (c) sale of property held by right of operative management by federal institutions, (d) sale of military property, (e) sale of the products of recycled armaments, military equipment and ammunition, (f) sale of other properties in federal ownership; these are treated as federal budget revenues;

^o –revenues generated by sale of land plots after delineation of titles to land plots formerly in federal ownership, treated as sources of funding to cover federal budget deficit;

^p –revenues generated by sale of tangible and intangible assets (less revenues received as profit share in the framework of product share agreements (PSA) and federal budget revenues generated by the disposal and sale of heirless property, confiscated property, or other property earmarked as government revenue, and revenues from

sale of timber confiscated from timber poachers), this figure includes revenues generated by (a) sale of apartments, (b) sale of property held by FSUEs, (c) sale of property held by right of operative management by federal institutions, (d) sale of redundant movable and immovable military properties and other properties held by federal bodies of executive authority that involve military service, and services that are equated to military service, (e) sale of military-purpose products from the stores of federal bodies of executive authority within the framework of cooperation in the field of military technologies, (f) revenues generated by sale of other properties in federal ownership; these are treated as federal budget revenues;

^q – revenues generated by sale of land plots in federal ownership (less land plots held by federal autonomous and budget-funded institutions (data for 2011–2012)), treated as federal budget revenues; prior to 2015, these also include payments for the enlargement of private land plots resulting from their redistribution, as well the redistribution of land plots in federal ownership;

^r –revenues generated by sale of tangible and intangible assets (less revenues received as profit share in the framework of product share agreements (PSA), and federal budget revenue generated by the disposal and sale of heirless property, confiscated property, or other property earmarked as government revenue, and revenues from sale of timber confiscated from timber poachers) (data for 2008–2011), revenues generated by the release of tangible assets from the state reserve of special raw materials and divisible materials (in the part of revenues generated by sale, temporary lending, and other uses); and with regard to data for 2012–2016, also revenues generated by sale of timber produced as a result of measures designed to safeguard, protect, reproduce forests in the framework of government order for the implementation of such measures without sale of forest plantations for timber production, and timber produced as a result of use of forests situated in the lands belonging to the Forest Fund of the Russian Federation, in accordance with Articles 43–46 of the RF Forest Code; revenues generated by commodity intervention from the reserve stocks held in the federal intervention fund of agricultural products, raw materials and foodstuffs, revenues generated by the release of tangible assets from the state reserve, revenues generated by the involvement of convicts in reimbursable labor (in the part of sales of finished product), revenues generated by sale of products requiring special storage conditions); this figure also includes revenues generated by (a) sale of apartments, (b) sale of property held by right of operative management by federal institutions (with the exception of autonomous institutions and budget-funded institutions (data for 2011–2016), less revenues generated by the activities of institutions situated abroad (2015–2016), (c) sale of redundant movable and immovable military properties and other properties held by federal bodies of executive authority that involve military service, and services that are equated to military service, (d) sale of the products of recycled armaments, military equipment and ammunition, (e) sale of products intended for military use and entered on the list of properties held by federal bodies of executive authority in the framework of cooperation in the field of military technologies (data for 2008 and the period 2010–2016), (f) sale of scrapped armaments and other military hardware in the framework of Federal Target Program of Industrial Recycling of Armaments and Military Equipment (2005–2010), (g) revenues generated by sale of immovable property held by budget-funded and autonomous institutions (2014–2016), (h) revenues generated by sale of other properties in federal ownership, and revenues generated by sale of intangible assets (ITA); these are treated as federal budget revenues.

Source: Laws on federal budget execution for the period 2000–2014; Report on Federal Budget Execution as of 1 January 2016 (annual report); www.roskazna.ru, own calculations.

When taken in absolute terms, the amount of property-generated federal budget revenues from non-renewable sources in 2016 increased manifold (more than 22 times).

Even more impressive growth (64.5 times) was demonstrated by the revenues generated by sale of shares (to RUB 406.8bn). This index is more than threefold above the record high previously observed in 2011 (RUB 126.2bn).

The revenues generated by sale of land plots rose 29%, amounting to RUB 2.1bn vs. RUB 1.6bn a year earlier, which is higher than the corresponding indices for 2008–2010 and 2013–2014, but below the year-end index for 2011 - let alone the record high of 2012. Meanwhile, the amount of revenues from sale of miscellaneous properties dropped by the same 29%, hitting their record low in absolute terms (approximately RUB 7.6bn) since 2011.

The revenues generated by sales of shares in 2016 produced the bulk of aggregate revenues from non-renewable sources (97.7%), while a year earlier their share had been less than 34%. As for the share of revenues from sale of miscellaneous properties, these accounted for 1.8%

(vs. more than 57% in 2015), and the revenues from sale of land plots – for only 0.5% (vs. 8.8% in 2015).

The aggregate federal budget revenue generated by privatization (or sale) and use of state property in 2016 (*Table 12*) increased 4.5 times on the previous year. Its amount in absolute terms (RUB 1,363.2bn) nearly triples relative to its previous record high of 2012.

Table 12

**The structure of property-generated federal budget revenues
from miscellaneous sources, 2000–2016**

Year	Aggregate revenue generated by privatization (or sale) and use of state property		Privatization-generated revenues (non-renewable sources)		Revenues generated by use of state property (renewable sources)	
	RUB m	% of total	RUB m	% of total	RUB m	% of total
2000	50,412.3	100.0	27,167.8	53.9	23,244.5	46.1
2001	39,549.8	100.0	10,307.9	26.1	29,241.9	73.9
2002	46,811.3	100.0	10,448.9	22.3	36,362.4	77.7
2003	135,338.7	100.0	94,077.6	69.5	41,261.1	30.5
2004	120,798.0	100.0	70,548.1	58.4	50,249.9	41.6
2005	97,357.4	100.0	41,254.2	42.4	56,103.2	57.6
2006	93,899.8	100.0	24,726.4	26.3	69,173.4	73.7
2007	105,761.25	100.0	25,429.4	24.0	80,331.85	76.0
2008	88,661.7	100.0	12,395.0	14.0	76,266.7	86.0
2009	36,393.7	100.0	4,544.1	12.5	31,849.6	87.5
2010	88,406.4	100.0	18,677.6	21.1	69,728.8	78.9
2011	240,964.1	100.0	136,660.1	56.7	104,304.0	43.3
2012	309,943.2/ 469,243.2*	100.0	80,978.7/ 240,278.7*	26.1/51.2*	228,964.5	73.9/48.8*
2013	209,114.85	100.0	55,288.6	26.4	153,826.25	73.6
2014	282,325.95	100.0	41,155.35	14.6	241,170.6	85.4
2015	303,975.2		18,604.1	6.1	285,371.1	93.9
2016	1,363,192.45/ 670,797.45**		416,470.5	30.6/62.1**	946,721.95/ 254,326.95**	69.4/ 37.9**

* including the proceeds received by the RF Central Bank as a result of sale of a stake in Sberbank (RUB 159.3bn), which is probably an overestimation of the actual aggregate share of non-renewable sources, as the budget received not that sum in full, but that sum less the balance sheet value of that particular asset plus the costs incurred in the deal of sale. Consequently, the share of renewable sources is, on the contrary, somewhat underestimated;

** less the revenues generated by the sale of shares in Rosneft (RUB 692,395bn) (less interim dividend payments).

Source: Laws on federal budget execution for the period 2000–2014; Report on Federal Budget Execution as of January 1, 2016 (annual report); Report on Federal Budget Execution as of January 1, 2017 (monthly report), www.roskazna.ru, own calculations.

In 2016, the ratio of non-renewable to renewable sources in the structure of aggregate revenues generated by privatization (or sale) and use of demonstrated a shift towards the former. Their relative share increased fivefold, to 30.6%. As a result, the share of revenues generated by public property use shrank from approximately 94% to 69.4%. Somewhat similar proportions were observed in 2012 when a stake in *Sberbank* was sold, but then the proceeds were transferred to the federal budget as part of profits received by the RF Central Bank.

If we subtract the revenue generated by the sale of shares in *Rosneft* from the total amount of revenues from renewable sources received in 2016, non-renewable sources will prevail in the structure of aggregate revenues generated by privatization (or sale) and use of public property (62.1%), thus producing a picture resembling that observed in 2004 and 2011. Then the share of revenues from renewable sources will become less than 38%. In absolute terms (RUB 254.3bn), this index will be second only to that for 2015, being far above the corresponding indices for 2012 (RUB 229bn) and 2014 (RUB 241.2bn). The results achieved

in 2016 in the sphere of privatization and sale of public property represent a record high, even less the proceeds of sale of shares in *Rosneft*.

* * *

We would like to conclude with a brief summary. The 3-year privatization program for 2014–2016 has been completed. After a year-long break caused by unfavorable macroeconomic conditions, sales of big assets were launched once again, to the total value (over the entire 3-year period) in excess of RUB 1.1 trillion, the bulk of that amount being provided specifically by the deals completed in 2016, the centerpiece being the *Rosneft* deal. It is only thanks to the sale of shares in *Rosneft* that the total value of privatization deals exceeded the corresponding index of the previously implemented privatization program for 2011–2013; in contrast to that index, all the similar deals completed in 2014–2016 produced revenues on which the federal budget was heavily dependent, with the exception of that involving the assets of Moscow airports with the participation of strategic investors from the private business sector.

By the majority of other parameters, the outcome of the privatization program for 2014–2016 was much more modest, even considering the fact that in 2016, the sales of shares and the number of unitary enterprises being reorganized into joint-stock companies in the framework of standard privatization procedures notably increased relative to 2015. An obvious exception is the sale of property entities held by the RF treasury - in 2016, the scale of such deals gone up manifold.

In terms of its content, the new forecast plan of federal property privatization for 2017–2019 is organized similarly to the two previously implemented 3-year privatization programs. When compared to these programs by the number of property entities privatized in an ordinary procedure (unitary enterprises and joint-stock companies), it holds a somewhat intermediate position, radically differing by its greater number of 'other properties' held by the treasury. The budget revenue target (privatization deals other than major deals) is approximately the same as the estimated revenue for the first 3-year privatization program for 2011–2013. The list of biggest companies to be privatized in the framework of individual schemes is much shorter by comparison with that prepared for the program for 2014–2016, and besides, there is no forecasted revenue target.

The data, provided in the new privatization program, concerning the number of unitary enterprises and joint-stock companies with a state stake in their capital as of early 2016, confirm the existence of a multiyear downward trend displayed by the number of economic subjects in federal ownership. A more detailed analysis has revealed some negative trends in the group of joint-stock companies with state stakes, i.e. the shrinking share of companies where the State in the capacity of a shareholder can exercise full corporate control, which is happening due to the increasing percentage of companies with minority state stakes alongside a declining percentage of those where *Rosimushchestvo* is not restricted in its shareholder rights.

In recent years, the managerial structure of JSCs with state participation has once again demonstrated a trend towards reducing the role of independent directors as their CEOs and promoting the representation of civil servants and professional attorneys. One of the distinctive features of 2016 was the active implementation, by biggest joint-stock companies with state stakes in their capital, of the norms stipulated in the new Corporate Governance Code (CGC), and the toughening of their dividend policies.

The estimated structure of federal budget revenue generated by privatization (or sale) and use of public property depends on how the outcome of the *Rosneft* deal is actually to be treated. If we formally follow the principles of the currently applied budget classification, we will see that, just as it was in 2015, revenues from renewable sources prevailed, although the share of revenues generated by privatization and sale of property increased significantly. However, if we disregard the *Rosneft* deal, we can say that the amount of revenues from non-renewable sources was higher - something that had not been the case since 2011–2012.

6.2. Corporate control market: stages, specific features, regulation¹

6.2.1. Russia's market for mergers and acquisitions: stages of evolution

Russia's market for mergers and acquisitions came into being in the early 1990s when mass privatization of state-owned property gained momentum. More specifically, it was not until after the Russian financial crisis of 1998 that mergers and friendly takeovers took place in Russia. Up until then there were 'acquisitions through privatization' that can be regarded as a primary manifestation of the **initial stage** of building a market for corporate control (from 1992 till the onset of the financial crisis of 1998). Reorganization preceded privatization in 1/3 of cases, was coupled with privatization in 1/3 of cases and followed privatization in 1/3 of cases. Also, the practice of consolidating Russian assets through both M&A and outsider shareholding was adopted in the mid-1990s. In 1998, the equity of about 40% of surveyed enterprises was partially held by outside corporate shareholders, and more than 13% of those enterprises were integrated with suppliers or consumers.²

It was during that particular period that the first biggest Russian financial industrial groups were under formation, expanding aggressively their scope of business. Also, preconditions for highly concentrated corporate property were created at that stage, marking the key features of Russia's corporate market as it is now.

The **second stage** of the M&A market evolution (1999–2002) – 'post-crisis boom' during a period of economic recovery growth – was related to property redistribution in the aftermath of the crisis of 1998. The stage was characterized by both an upturn in the market for hostile takeovers and a considerable share of speculative M&A transactions of the overall market volume.

Assets were consolidated around old and new business groups during that period. Most of integrated private entities were completely formed by about 2003, and the market for mergers and acquisitions saw big companies decelerate substantially their activity. Instead, second/third-level companies accelerated their activity in the market.

The M&A process, originally initiated by Russia's biggest oil producers, took place in ferrous/nonferrous metal industries, chemical industry, coal-mining industry, mechanical engineering industry, forestry, pharmaceutical industry. Oil companies started practicing a special type of merger, also known as the transition to a single share.

¹ Authors of chapter: E. Apevalova – RANEPА, N. Polezhaeva – RANEPА, A. Radygin – Gaidar Institute, RANEPА.

² For more details on conceptual challenges in Russia's corporate control market and on evolutionary specific features of the Russian market for mergers of acquisitions in the 1990s–2000s, see A. D. Radygin, R.M Entov, E.A. Apevalova et al. Modern development trends in the market for mergers of acquisitions. M., Delo, 2010.

It was during that period – many companies were hit hard by the crisis of 1998, and there was an increase in hostile takeovers by initiating bankruptcy cases – that the legal entities law loopholes were exploited, etc. It was exactly during that period that the practice of extremely hostile takeover of corporate property, also known as illegal corporate raiding or asset-grabbing ('reiderstvo' in Russian), was widely employed in Russia. Besides *law infringement*, a key feature of illegal corporate raiding was the use of so-called 'administrative resources' (instruments of formal and informal influence).¹ Obviously, raiders intended to dissipate and sell off target company's most valuable (primarily immovable) assets rather than to enhance its efficiency.

As regards acquisition tactics which are reduced to seven main groups, they haven't changed over more than two decades since the M&A practice was first introduced in Russia:

- interest purchase in the secondary market;
- lobbying state-held interest privatization transactions;
- administrative involvement in vertically integrated entities (holding companies or other groups);
- debt purchase and conversion into shareholding;
- gaining control by initiating bankruptcy cases;
- initiating court rulings (invalidating previously executed transactions; restricting voting or shareholding rights; holding general meetings of shareholders, etc.
- using noneconomic methods for the purpose of involuntary asset ownership transfer.

The early 2000s saw biggest corporate groups decelerate the expansion because the most appealing assets had been allotted and the reorganization process slipped into downturn due to economic and legal reorganization, legalizing and securing ownership rights to these assets.

The **third stage** (2004–2008) was a stage of economic upturn which prior to the global economic crisis was characterized by Russian government's heavy involvement in M&A processes, a mounting share of 'civilized' transactions and transparent mechanisms of property restructuring, including stock market instruments.

A substantial and steady growth in the market for mergers and acquisitions was seen since 2004, with transactions increasing both in number and in volume. The process of capital consolidation during that period differed largely from the practices used in western countries, in particular:

- public regulators' direct control over M&A processes was weak;
- a small number of organized stock market instruments were used in the M&A process;
- minority shareholders had no way of exercising a significant influence on company's business operations;
- most companies' core owners acted in the capacity of CEO;
- a lack of transparent corporate ownership structure (ultimate beneficiaries);
- much higher degree of equity capital concentration.

The practice of acquiring a 100% interest in the target-company and of stakebuilding until a controlling interest is acquired was widely employed in 2004–2008 because there was no other way of having any significant influence on company's business operations.

The share of corporate raiding and asset grabbing of the total volume of transactions was not significant during that period. According to the data of Russia's Ministry of the Interior (MVD),

¹ See A. D. Radygin Mergers and acquisitions in corporate sector: basic approaches and regulatory challenges. – Voprosy Ekonomiki, 2002, No. 12, pp. 85–109.

disputed assets were worth about Rb 200bn in volume in 2005, or about 12% of the total volume of M&A transactions in 2005.

In general, the following specific features prevailed in Russia's market for mergers and acquisitions in 2008:¹

- rapid (seven-fold) acceleration of the volume of transactions in the M&A market in the period of 2003-2007;

- the Russian market was prevailed by transactions worth USD 30–40m involving assets of enterprises qualified as medium-sized, according to the western division standard. According to estimates, this happened because highly liquid and appealing assets were already acquired, and key player groups were established in each sector;

- there was a considerable share of M&A transactions in which foreigners were involved (formally). In 2007, the share stood at about 22% of the total Russian market volume, down from 35% in 2006. At the same time, inward foreign investments were worth more than Russian outward foreign investments;

- in 2005–2007, there was a substantial (more than double) growth in the average net worth of companies acquired in the global M&A market (USD 142m in 2005, USD 167m in 2006, more than USD 300m in 2007) and in the number of transactions involving foreign asset purchases over the period of 2003– 2008 (from 5 in 2003 to 70 in 2007);

- at that period, there was a big number of M&A transactions involving offshore companies established by Russian residents, estimated 3.5–4% (about 100,000) of the world's total number of offshore companies.² The use of offshore companies as elements of Russian holding companies for accumulating the principal corporate income gained a wide practice since the 2000s;

- hostile takeovers, as well as criminal takeovers, were practiced on a mass scale;

- many M&A transactions were not disclosed in an effort to secure confidentiality of the data on beneficiaries and to avoid competitors' undesirable transactions, including hostile takeovers and asset-grabbing. According to some estimates, at least 30–40% of the total volume of public transactions were side deals;

- administrative resources and extra-market methods (including the practice of securing law enforcement support) were used so that assets reverted to state ownership and were acquired by state-owned corporations.

Such factors as highly concentrated ownership, undeveloped market institutions and the judiciary system inefficiency, nontransparent ownership rights and corruption had a systemic impact upon all the aspects pertaining to the Russian market for mergers and acquisitions.

The **fourth stage** ran from the fall of 2008 till 2014. The financial crisis of 2008, including a stock market collapse and liquidity deficit, the onset of industrial downturn, as well as considerable decline in global prices of certain essential commodities, was responsible for considerable reduction in the number of transactions in the global market for mergers and acquisitions.

2008 saw first defaults on bonded corporate loans. Bond defaults totaled about Rb 30bn by the beginning of November 2008. During that period, the number of transactions involving top managers selling their interest to their company was reduced considerably. Instead, there was a

¹ See A. D. Radygin, Russian market for mergers of acquisitions: stages, specific features, outlooks. – Voprosy Ekonomiki, 2009, No. 10, pp. 23–45.

² See B. Heifets. Russian business expansion abroad and Russia's national interests.- Mergers and acquisitions, 2007, No. 9., p.56

reverse trend, that is, top managers (major shareholders in Russia) started buying shares in their own companies. Most companies managed to protect their assets despite a widespread practice of stock-backed lending. By the beginning of 2009, there were some cases of asset transfer to a lending bank (first of all, in construction and retail trade sectors, etc.). The number of cross-border transactions decreased consistently starting from 2010: a 3.4-fold decrease of Russian outward investment transactions (from USD 19.76bn in 2010 to USD 5.85bn in 2013). The volume transactions involving Russian assets and foreign buyers more than halved (from USD 10.14bn in 2010 to USD 4.92bn in 2013).¹

The period of 2014 through to the present day – the **fifth stage** – is characterized by both downturn and stagnation. The market for mergers and acquisitions slipped to an all-time low of more than 60%, from USD 120bn in 2013 to USD 46.8bn in 2014 (see below for details). This was caused by the overlapped global and domestic crises², the external economic shock from Western sanctions against Russia and from falling crude oil prices, etc.

All in all, according to the available data on transactions in the Russian market for mergers and acquisitions in 2001–2017, 16569 closing-stage transactions were registered to a total of USD 1 010 211.36m.³

6.2.2. Dynamics of market for mergers and acquisitions: Russia's reverse trend to that of the rest of the world

Overall market dynamics

In 2010–2016, the total annual volume of transactions in the Russian market was driven by a mixed trend, reaching a peak of Rb 3.82 trillion in 2013 after a Rb 1.55 trillion decline in 2012, more than twice the amount recorded in the previous year (*Fig. 1*).

In dollar terms, a peak (USD 120.70bn) was also reached in 2013 (by contrast, the peak in 2007 was USD 124bn), with a subsequent drastic (nearly 2.6-fold) plunge to USD 46.86bn and a similar level (USD 47.15bn) seen in 2015.

Unlike the M&A market in 2003–2007, which was a fast growing market (6.5-fold growth from USD 19bn to USD 124bn), the market of 2010–2015 was hit by the shock of 2014 stronger than that of 2008–2009 (in 2008, the market lost 36% of its capacity year over year, from USD 120–122bn to USD 75.5bn)⁴ and shrank considerably by more than 60%, from USD 120bn to USD 46.8bn (*Table 13*).

¹M&A market: Russia beats the abysmal low of 2009 in terms of number of transactions-www.akm.ru/rus/ma/stat/2015/12.htm.

² For details, see V. Mau. Global crisis and post-crisis economic agenda discussion.-Russian economy in 2014, M, Gaidar Institute, 2015 – pp. 2–27.

³ See <http://mergers.ru/deals/>

⁴ A. D. Radygin. Russian market for mergers of acquisitions: stages, progress and outlooks. – Voprosy Ekonomiki.- 2009, No. 10.

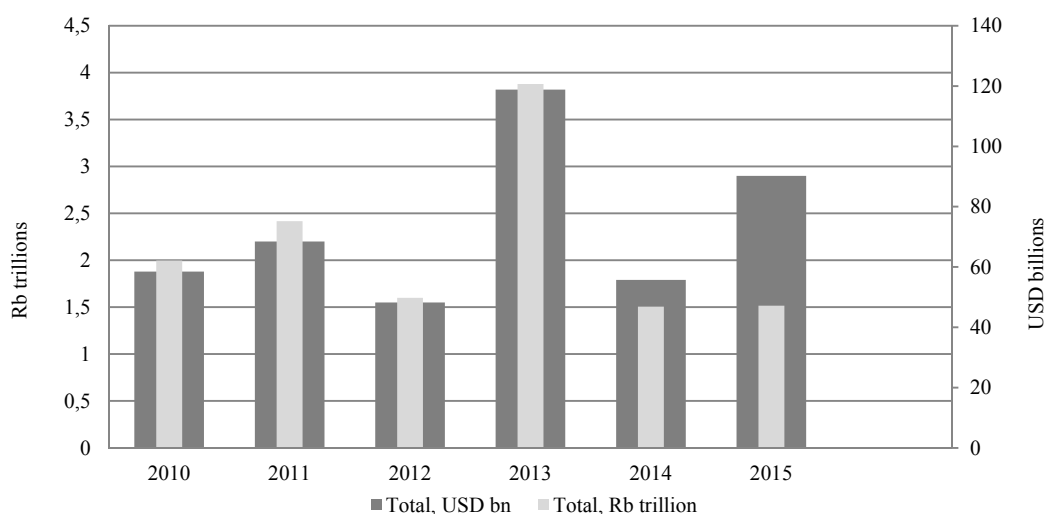


Fig. 1. Dynamics of transactions in Russia's market for mergers and acquisitions, Rb trillion

Source: AK&M Information Agency.¹

Table 13

Russia's M&A market to GDP ratio, 2007–2015

Year	Russia's GDP at 1990 values, USD bn	Russia's M&A market volume, USD bn	M&A market to GDP ratio, %
2007	606	124	20.46
2008	637.8	60	9.4
2009	587.9	41.91	7.14
2010	614.4	61.12	9.9
2011	640.6	75.17	11.73
2012	662.6	49.79	7.5
2013	671.3	120.7	17.98
2014	675.3	46.86	6.94
2015	649.64	47.15	7.26

Sources: Rosstat, AK&M Information Agency, <http://investorschool.ru/vvp-rossii-po-godam>

¹ The following sources of statistics are used hereinafter: PREQVECA information and analytical website (<http://mergers.ru>); M&A market: Russia beats the abysmal low of 2009 in number of transactions – www.akm.ru/rus/ma/stat/2015/12.htm.; Rating: Top-30 M&A transactions in 2016 – <http://mergers.akm.ru/rates/9>; <http://investorschool.ru/vvp-rossii-po-godam>; O.Yu. Kirillova, A.V. Uskov. History and trends in the development of Russia's corporate control market. – University Bulletin (State University of Management), 2015, No. 7; M&A transactions: Outcomes for Russia and worldwide.- http://www.kpi.ru/pressroom/analytics/sdelki_sliyaniya_i_pogloweniya_ma_itogi_2015_g_v_rossii_i_mire.,18.04.16; Market driven up by multiple minor transactions.-www.akm.ru/rus/ma/stat/2016/07. AK&M Information Agency's statistics reflect buy/sell transactions involving at least a 50% interest or consolidation thereof, or acquisition of less than 50% of a major stake (if there is no stake/shareholder of 50% or more) in companies with Russian shareholding or assets worth USD 1m or more located on the territory of Russian that were reported during the year. To be selected for statistics, transactions must meet the following criteria: transactions must be settled; transactions must be approved by company's Board of Directors, by the meeting of shareholders, by competition authorities; an agreement of intent must be signed. The following transactions fail to meet the criteria: transactions involving an interest of less than 50%, unless they involve controlling interest consolidation or majority stake acquisition if there is no controlling party; transactions worth less than USD 1m; transactions settled within a holding company or a single group of persons as ultimate beneficiaries of the companies involved in a given transaction (See www.akm.ru/rus/ma/stat/2015/12.htm).

As shown in *Table 13*, the M&A market to GDP ratio for Russia hit a peak of nearly 20.46% in 2007 and then declined to 7.14% in 2009. Also, the ratio was high enough (almost 18%) in 2013, and then hit a low of 6.94% in 2014, with a tiny hike to 7.26% in 2015. Cross-border capital flows slowed considerably since 2013 (from 18.5% of GDP between G20 countries in 2007 to 4.5% in 2013).¹ The important thing to note is that until 2010 Russia's corporate control market was driven by a trend similar to the global trend. However, the trend reversed beginning with 2011, and in 2010–2011, growth in the aggregate value of M&A transactions in the global market corresponded to decline in the aggregate value of M&A transactions in the Russian corporate control market. Conversely, the global market declined as the Russian market picked up in 2012–2013. The Russian market reached a peak of USD 118.12bn (from 43.61 in 2011, or a 170% growth) in 2013, while the global market declined from USD 3100bn in 2011 to USD 2310bn in 2013 (-25.5%)² (*Fig. 2*).

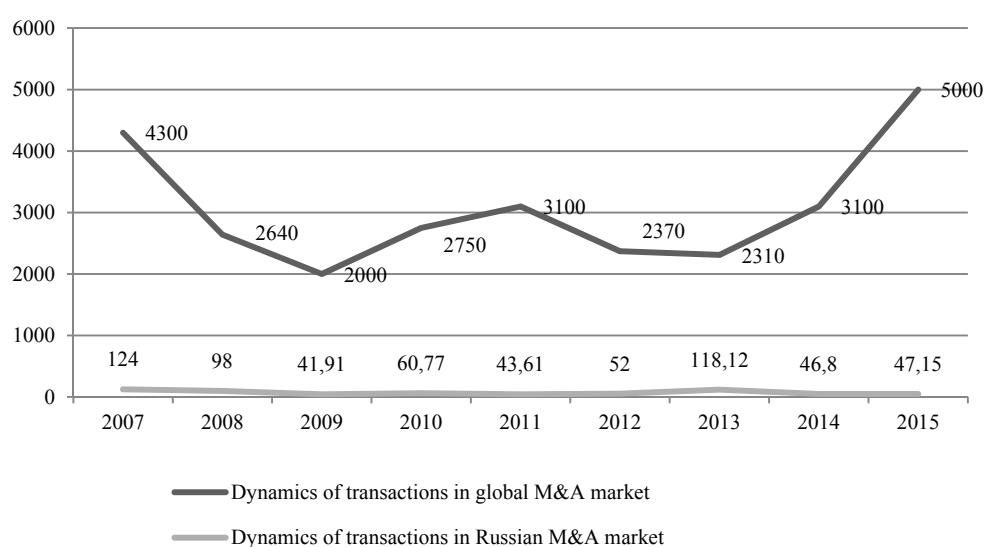


Fig. 2. Dynamics of transactions in global and Russian M&A markets, USD bn

Sources: O.Yu. Kirillova, A.V. Uskov. History and trends in the development of Russia's corporate control market. - University Bulletin (State University of Management, Moscow), 2015, No. 7; M&A transactions: Outcomes in Russia and worldwide;- http://www.kpi.ru/pressroom/analytics/sdelki_sliyaniya_i_pogloweniya_ma_itogi_2015_g_v_rossii_i_mire.,18.04.16.

2015 saw a booming global market for mergers and acquisitions: the total value of transactions was more than USD 5 trillion, higher than the 2007 peak of USD 4.6 trillion. The year saw the biggest number of mega-transactions on record worth more than USD 5bn.³ Conversely, the Russian market was hit by a downturn. As regards the drivers of the global market rally, they include demand for innovative medicines and medical treatment methods. For instance, the biggest deal (Rb 160bn) on record in the industry and the second-biggest deal

¹ For more details, see V. Mau. Russian economy awaits a new growth model: reconstruction or acceleration?- Russian economy in 2013 M. Gaidar Institute, 2014, pp.11–16.

² O.Yu. Kirillova, A.V. Uskov. History and trends in the development of Russia's corporate control market. - University Bulletin (State University of Management, Moscow), 2015, No. 7.

³ The following data are used hereinafter: M&A transactions: Outcomes for Russia and worldwide.- http://www.kpi.ru/pressroom/analytics/sdelki_sliyaniya_i_pogloweniya_ma_itogi_2015_g_v_rossii_i_mire.,18.04.16

ever was US drug giant Pfizer’s takeover of Irish Allergan Plc. Another driver was the technology sector: the volume of transactions involving IT companies exceeded USD 713bn. The biggest transaction on record in the IT market was the acquisition of *EMC by Dell and Silver Lake Partners*. The deal was worth USD 67bn.

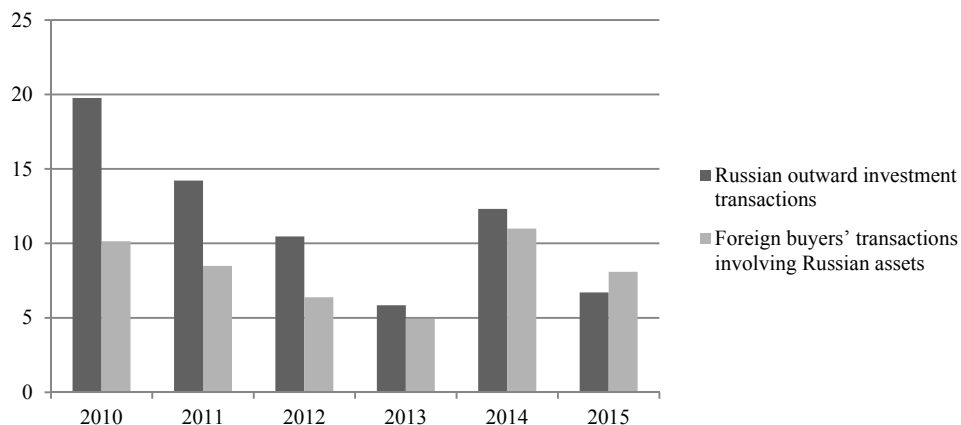


Fig. 3. Dynamics of cross-border transactions in terms of value (USD bn)

Source: AK&M Information Agency.

As regards cross-border transactions, the important thing to note is that most of them are *Russian outward investment transactions* (2010–2014), except 2015 when foreign buyers’ transactions involving Russian assets outnumbered Russian outward investment transactions.

The period between 2010 and 2013 saw a consistent decline in the number of cross-border transactions:

- Russian outward investment transactions dropped 3/4-fold (from USD 19.76bn in 2010 to USD 5.85bn in 2013);
- foreign buyers’ transactions involving Russian assets more than halved (from USD 10.14bn in 2010 to USD 4.92bn in 2013).

In 2014, a more than two-fold upturn was recorded in the market for mergers and acquisitions, including both Russian outward investment transactions (from USD 5.85bn in 2013 to USD 12.32bn in 2014) and foreign buyers’ transactions involving Russian assets (from USD 4.92bn in 2013 to USD 10.99bn in 2014). Conversely, 2015 saw a total decrease in the volume of settled cross-border transactions: Russian outward investment transactions dropped almost 84% and foreign buyers’ transactions involving Russian assets fell nearly 26%.

As regards cross-border transactions, the important thing to note is that the interest in ‘old’ offshore zones, above all, Cyprus, tended to subside. In 2015, one-third (136) out of 500 biggest Russian companies had offshore companies in Cyprus. At the same time, such countries as Bahamas, Bermudas, British Virgin Islands, Cayman Islands increased ‘direct’ investment in Russia. In Q3 2015, they invested more than USD 2bn in Russia, thus contributing to an increase of 40% over the previous year.¹

¹ Businesses redirect capital flows toward other jurisdictions: money doesn’t return to Russia until it goes first to companies registered in Cyprus (because they are official owners of Russian assets) and then is transferred to new entities located in other countries. – E. Markelova. Business flees Cyprus. - life.ru, September 23, 2016.

Mergers and acquisitions in Russia in 2015–2016: sector-specific dynamics

According to the available data, the construction and development sector contributed most (28%) to the Russian market for mergers and acquisitions in 2015, followed by the fuel and energy complex (19%) and mineral extraction (11%). The transport and financial sectors contributed 8% and 7%, respectively. The data on the sector-specific market share in the Russian market for mergers and acquisitions for 2015 are show in Fig. 4.

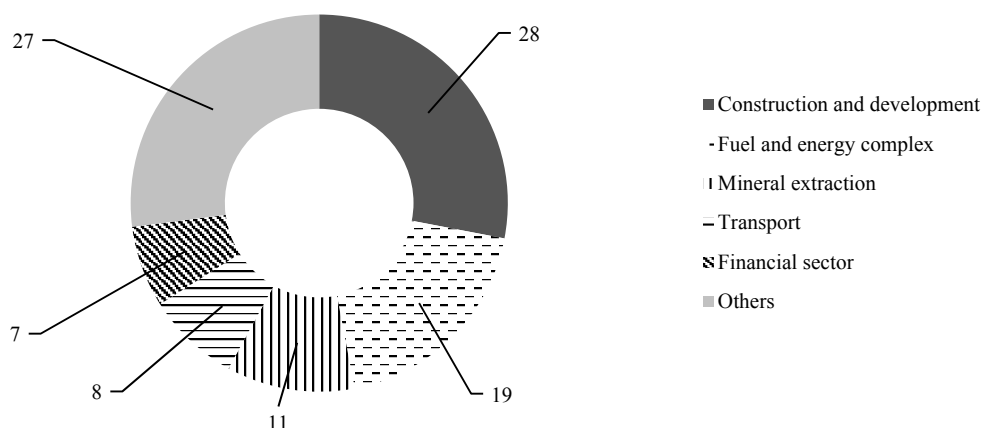


Fig. 4. Sector-specific market share in Russia’s M&A market in 2015, by transaction value

Source: AK&M Information Agency

In 2015, the construction and development sector ranked first in number of transactions (15%), followed by the financial sector (11%) and trade sector (10%). The data on the sector-specific market share in the Russian market for mergers and acquisitions are shown in Fig. 5.

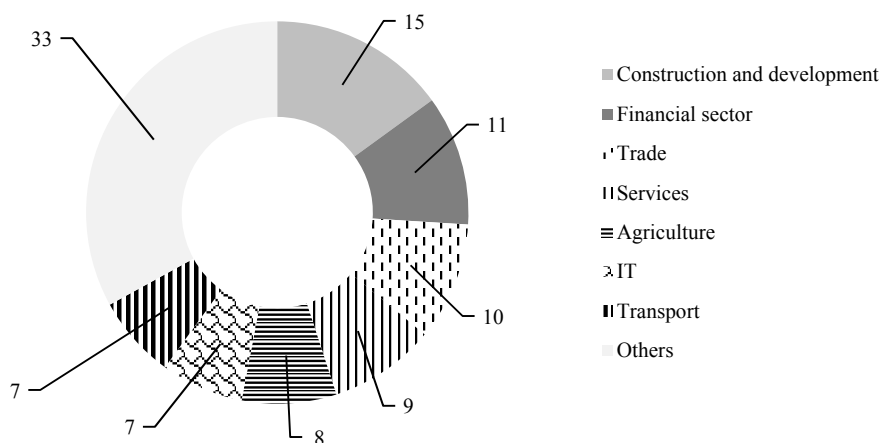


Fig. 5. Sector-specific market share in Russia’s M&A market by number of transactions, 2015

Source: AK&M Information Agency

In *H1 2016*, M&A transactions totaled USD 15.49bn, nearly 10% less than the value seen in *H1 2015*¹, whereas M&A transactions increased 18% in number to 209 transactions compared to 177 in *H1 2015*. The average value of transactions remained the same (USD 45.1m), while biggest transactions increased more than USD 1bn compared to USD 45.6m in *H1 2015*.

The data on the average value of M&A transactions are presented in *Fig. 6*.

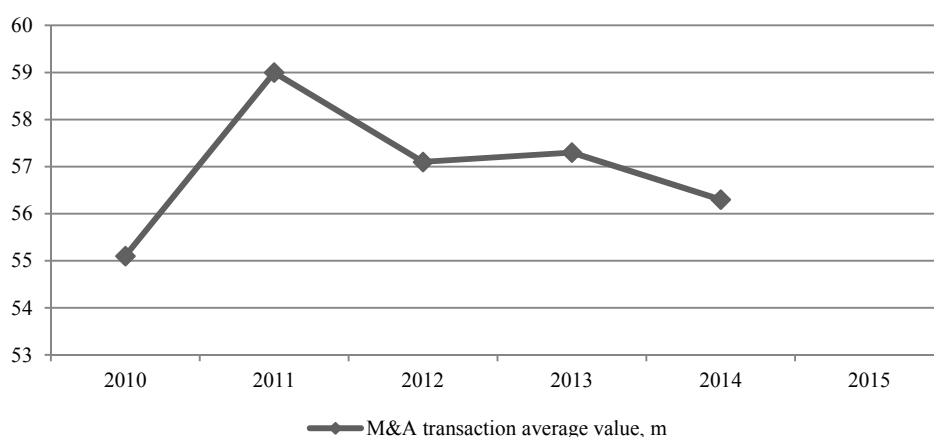


Fig. 6. M&A transaction average value in Russia, USD m

Source: AK&M Information Agency.

In 2015, one-fourth of the M&A market volume was first of all accounted for by the USD 7bn-worth acquisition of Stroygazconsulting by Gazprombank and United Capital Partners (UCP), and by the USD 5.3bn-worth acquisition of gold mining giant Polyus Gold by Sacturino Ltd.

The data on the annual number of M&A transactions are shown in *Fig. 7*.

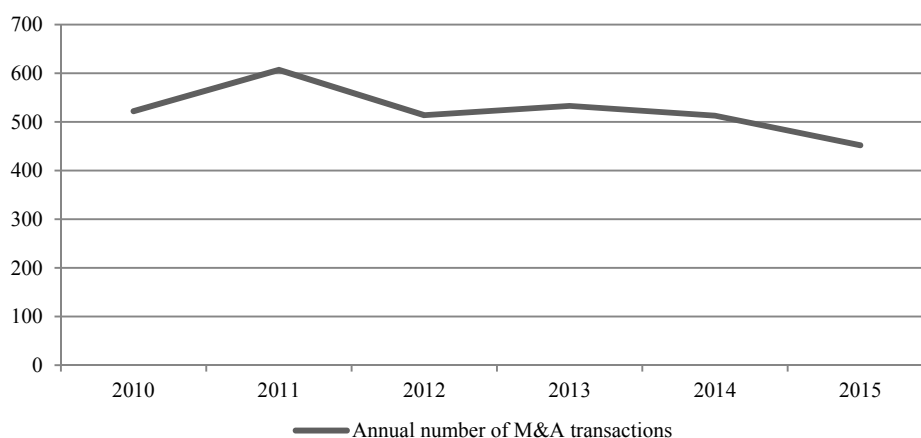


Fig. 7. Annual number of M&A transactions

Source: AK&M Information Agency.

¹ See Market driven up by multiple minor transactions. -www.akm.ru/rus/ma/stat/2016/07

The data on the average value of M&A transactions in Russian industries in 2015 are shown in *Fig. 8*.

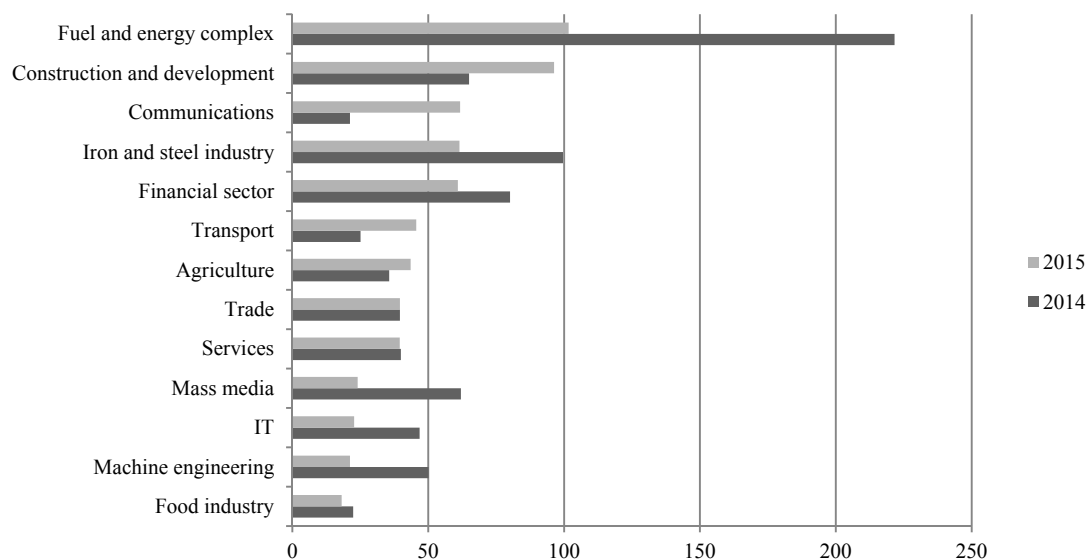


Fig. 8. Average value of M&A transactions (excluding biggest transactions) in Russian sectors in 2015, USD m

Source: AK&M Information Agency.

The average value of M&A transactions changed substantially in 2015:

- the value of transactions in the fuel and energy complex more than halved compared to 2014 (from USD 221.6m to USD 101.7m); the average value of transactions in the iron and steel industry dropped 1/6-fold (from USD 99.6m to USD 61.5m). The value of transactions in the financial, mass media, IT sectors and in the machine engineering industry decreased, too.

- by contrast, the following industries saw the average value of M&A transaction increase in 2015: construction and development sector (148%, from USD 65m to USD 96.3m); communications sector (291%, from USD 21.2m to USD 61.7m); transport sector (181.7%, from USD 25.1m to USD 45.6m); agricultural sector (almost 122.2%, from USD 35.6m to USD 43.5m).

As regards H1 2016, the construction and development sector ranked first like in 2015. Thirty eight transactions worth USD 8.68bn were executed in this sector in H1 2016, accounting for 56% of the market volume. Buying sites allotted for construction and redevelopment contributed most to the number of transactions in the sector (more than one-fourth of transactions in the sector). Taking advantage of the downturn, investors purchased the sites “for future use”. Another most popular investment target was buying business centers and development projects in progress. The trade and financial sectors ranked second and third, accounting for 14% and 7% of the market volume, respectively.

In H1 2016, the construction and development sector ranked first (18%) in the number of transactions, followed by trade (12%), financial (10%) and IT (10%) sectors.

Furthermore, the construction and development sector contributed a lot to the Russian M&A market: triple growth in the number of settled transactions compared to 2014, as well as increase in the average value of transactions. According to experts, investors viewed commercial real

estate as a source of securing assets amid crisis and of capitalizing on the value in the post-crisis period.

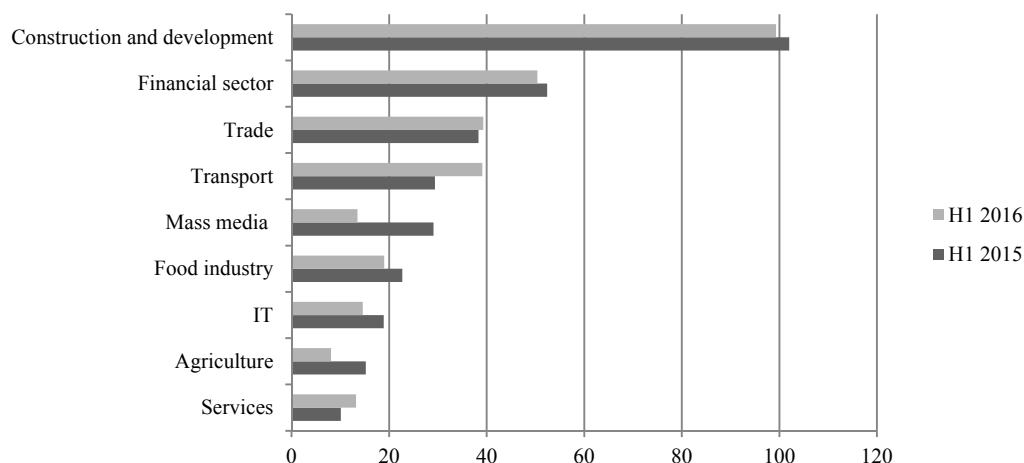


Fig. 9. Average value of M&A transactions (excluding biggest transactions) in Russian sectors, USD m¹

Source: AK&M Information Agency

The average value of M&A transactions in Russian sectors is shown in *Fig. 9*. The construction and development ranked first, a way (almost twice) ahead of other sectors in respect to the average value of M&A transactions (USD 99.3m in H1 2015 and USD 102m in H1 2016), followed by the financial sector (USD 52.4m in H1 2016 vs. USD 50.4m in H1 2015) and the trade sector (USD 38.3m in 2016 compared with USD 39.3m in 2015). The mass media sector saw a more than double increase in the average value of M&A transactions (USD 29.1m compared with USD 13.5m, respectively).

In Q1 2016, the average value of M&A transactions increased for almost all the sectors compared to Q1 2015, except trade, transport and services.

2016 was marked by growth in the number of transactions settled on account of debt repayment. For instance, Rossiysky Capital Bank acted as a ‘bridge bank’ for SU-155 developer (the deal was equal to SU-155’s debt liabilities of about USD 4.9bn). Sberbank took ownership of the President Plaza business center in Moscow as repayment for the debt owed by the previous owner of the center. VTB Group took ownership of the *Eurasia Tower* located in the *Moscow-City* business center as part of a deal covering the debt owed by the former owner. To be able to service the debt, the former owner of Zarechnaya coal company transferred its interest in the company, including its affiliates, to a new owner.²

It shouldn’t go unnoticed that the state played a significant part in the corporate control market. According to estimates, state-owned entities purchased not less than about 40% of the total value of all the M&A transactions settled in H1 2016. According to the Analytical Center for the Government of the Russian Federation (analysis of statistical data on the number of registered organizations, the number of M&A transactions involving Russian assets and on the intensity of bankruptcies of Russian enterprises), it is *the bankruptcy institution*, not mergers

¹ Only sectors with 10 or more transactions, excluding biggest transactions worth USD 1bn or more.

² Rating: Top-30 M&A transactions 2016 - <http://mergers.akm.ru/rates/9>.

and acquisitions, that had the strongest effect on the concentration of companies' market shares in the Russian economy in time of economic crises. For instance, during the crises of 2008–2010 and of 2014–2015 the market for mergers and acquisitions involving Russian assets slowed substantially. This trend suggests that growth in the concentration in Russian markets cannot be attributed to the execution of M&A transactions in time of recession. However, the intensity of bankruptcies of Russian enterprises increased substantially in the course of the above mentioned crises.¹

2017 is anticipated to see an upturn in the global market for mergers and acquisitions. Developed countries are expected to reach a peak of the aggregate value of M&A transactions in 2017, while emerging economies will reach a peak in 2018. The Russian market is most likely to stay at the 2016 level. It was not until 2017–2018 that the Russian market is expected to grow.

6.2.3. Corporate conflicts: corporate raiding (asset grabbing) evolution in 2008–2016

Raiding in Russia emerged in the 1990s. While raiders of the past were mostly part of criminal groups that employed violent tactics, raiders of the late 2000s were increasingly represented by persons educated in business-related disciplines and connected with public officials. In 2008–2016, raids spurred by the financial crisis of 2008 hit the headlines and were studied in research literature. After 2010, the prevalence of white-collar raiders employing more intellectual tactics resulted in less publicly available information on raids which continued increasing in number. Analysis of corporate raiding which was widely practiced during the pre- and post-crisis periods, and its contemporary, albeit less in number, notorious cases reveals types of raiders, targets, stages and tactics of corporate raiding and which one of these is prevailing today, provides an opportunity to see which way the Russian corporate raiding tends to move.²

Raiding is not defined in the Russian legislation. There is no single definition of the phenomenon in the academic literature, too. It often refers to a hostile takeover, and there is a distinction between legal ('white') and illegal ('dark') raiding.³

In Russia, however, corporate raiding, which emerged in the 1990s and, unlike the foreign practice, is closely associated with violent and hence illegal tactics, shouldn't be treated as a legal practice. Accordingly, hostile takeover is not corporate raiding, which in most countries refers to cases in which a minority shareholder or investor buys an interest in a publicly-traded company⁴ sometimes with the intention of changing the management, but always with the goal of increasing the share value. This process is governed by takeover rules and corporate law.⁵

¹ For more details, see the Analytical Center for the Government of the Russian Federation. Concentration in Russian markets: trends amid economic downturn. - Competition Bulletin, December 2015

² This section is written based on analysis of the data published by *printed and online media, including*. Novaya Gazeta, BFM.ru, RIA Novosti, RBC, Prestupnaya Rossiya, The Guardian, Politcom.ru, Rossiyskaya Gazeta, Izvestiya, Business weekly *Ekonomika i Zhizn'*— *Chernozemiye*, Radio Liberty, The Moscow Post, Ruspress, Rossiyskoye Predprinimatelstvo, Pravo.ru, Kommersant.ru, Forbes.

³ See, for example, A. D. Radygin, P.M. Entov, E.A. Apevalova et al. Modern development trends in the market for mergers of acquisitions. M., Delo, 2010; I.A. Sokolov. Reiderstvo as a criminal and legal phenomenon in Russia and abroad // Business in law. Ekonomiko-Yuridichesky Zhurnal. 2014. No. 5. PP. 92-94; A.V. Voevodkin. Understanding reiderstvo in Russia // Rossiyskoye Pravo: Obrazovaniye, Praktika, Nauka. 2016. No. 1 (91). PP. 58–59.

⁴ Reiderstvo is not limited to publicly-traded companies.

⁵ Hereinafter see Shelley L., Deane J. (George Mason University's Terrorism, Transnational Crime and Corruption Center). The rise of reiderstvo: implications for Russia and the West (May 9, 2016) // <http://reiderstvo.org/>

Thus, in Russia, “corporate raiding” refers to a host of illegal tactics ranging from bribery, forgery, corruption, intimidation, and violence employed by raiders to steal companies from their owners, making massive and rapid profits by selling off assets and laundering the proceeds.

Reliable statistics on asset grabbing are difficult to obtain. Investigative authorities had opened nearly 200,000 cases of so-called “economic crimes” in 2014. Fifteen thousand out of 46,000 cases that came to trial were dismissed. Thus, only 15% resulted in a conviction. However, about 80–83% of businessmen charged with a criminal offence still ended up losing control of their businesses, “they were pressurized, ripped off and released”.¹

However, according to expert estimates, corporate raiding cases are increasing in number. One known tactic of corporate raiders is to have business owners arrested on fabricated economic crime charges in order to take control of the company while the owners are tangled in court proceedings. As of April 1, 2012, about 4,000 entrepreneurs were held in custody. In H1 2015, the number of persons placed in custody for economic offences increased 1.5-fold.² According to the business ombudsman, 6,500 persons were held in custody for economic offences as of February 1, 2016.³ However, there is a ban in force since April 9, 2010 on holding in custody persons suspected or accused of having committed the crimes set forth in the Criminal Code (fraud, misappropriation and embezzlement, illegal entrepreneurship, etc.), if the crimes relate to entrepreneurship (Article 108 of the Criminal Procedure Code). Courts dodge this regulation despite Supreme Court’s explanations.⁴

Legal avenues exist for companies to report alleged corporate raiding to authorities, but very few cases are ever investigated, and only a small portion of them ended in criminal courts, there are no official statistics on how many of asset-grabbing cases were resolved in favor of legal owners. Russia's main federal enforcement authority, the Investigative Committee, completed investigations of just 45 raiding claims in H1 2016, 112 in 2015, 96 in 2014, and 104 in 2013.⁵ The Investigative Committee reported 368 raiding claims in 2015, a 27.9% decrease compared to 2014. All and all, 23 criminal cases were initiated in 2015 vs. 42 in 2014. The Committee decided not to initiate criminal proceedings for the rest of the claims.⁶

The economic crisis of 2008 and of 2014 contributed to growth in the number of raiding cases in Russia, because enterprises’ net worth decreased; therefore, raiding attacks became more cost-effective. Raiders began to employ mostly debt and corruption tactics. An example is the CentrObuv Trade House which survived the economic crisis of 2008, was hit by the downturn in the footwear market in 2014 and therefore started racking up debts to banks and suppliers, becoming an easy target for raiders.⁷

¹ The Annual Presidential Address to the Federal Assembly (December 3, 2015) // <http://kremlin.ru/events/president/news/50864>

² See V. Chelischeva. It’s hard to avoid jail (October 19, 2015) // <http://www.novayagazeta.ru/inquests/70380.html>

³ Business FM. May businessmen not be held in custody? (November 3, 2016) // <https://www.bfm.ru/news/337845>

⁴ Resolution of Plenum of Supreme Court of the Russian Federation No. 41 of December 19, 2013 “On the Court Practice of Applying the Legislation on Commitment to Custody, House Arrest and Bail” // ПГ, No. 294, of December 27, 2013; RIA Novosti. Supreme Court proposes a ban on holding businessmen in custody (November 3, 2016) // <https://ria.ru/incidents/20161103/1480597597.html>

⁵ See Statistical information // <http://sledcom.ru/activities/statistic>

⁶ See The Investigative Committee reports on a double decrease in the number raider attacks in Moscow (February 2, 2016) // <http://rbc.ru/rbcfreenews/56bc49b69a79473eb1757746>

⁷ See How CentrObuv managed to survive two crises but failed to oppose raiders (May 20, 2016) // <https://crimerussia.com/raidergrabs/kak-tsentrobuв-perezhila-dva-krizisa-i-ne-spravilas-s-reyderami/>

The low risk of prosecution makes raiding one of the most profitable crimes in modern Russia. It costs around \$120,000- \$170,000 to bankrupt an average company. But the raider can then make \$3-4m profit.¹

The chasm between the number of cases of raiding and the number of investigations has several explanations. Important contributing factors are corruption, legislative loopholes and inefficient law enforcement.² The Russian Criminal Code does not define or punish reiderstvo itself, instead classifying separate raiding acts as fraud (Article 159), official forgery (Article 292), etc.³ Some raiders can protect their illegal activities in the capacity of highly-placed office-holders, thus discouraging their victims to seek help. When a law enforcement agency tries to oppose illegal raiders, it often encounters resistance from other state agencies or even internal departments within the same agency. An important impact has been on public opinion: the majority of the population who felt that all private property had been acquired illegally or, at least, unfairly. As a result, the general public is often apathetic towards individual cases of raiding.

It is difficult and sometimes impossible to attribute a given case to raiding or asset-grabbing because available information is often conflicted. For example, some sources consider the Rudgormash's CEO as raider⁴, while others claim his is a victim to raiding.⁵ One thing that is real, though, is that the company saw its employment and productivity drop as a result of a long-lasting "gunfight". Not less intricate is the cases of, e.g., Hermitage Capital Management (HCM) and Yevroset.

Assets owned by individuals, corporations, public institutions and even state-owned entities have all fallen victim to corporate raids, although small businesses with few resources to protect themselves are the most common target.

Raiders focus on real estate in big cities, while agricultural land is also targeted, especially in the vicinity of the larger cities. For example, Raiders tried to take over the Taneev School of Music, Moscow's best-known music school for children, soon after a 12-year-long renovation of its building in central Moscow was completed. The saga started in 2014, when inspectors from Rospotrebnadzor (Russia's Federal Consumer Protection Agency) closed the building down, allegedly because of the presence of ammonia in the building. The school was subsequently inspected by various agencies including a commission from the EMERCOM (Russia's Emergencies Ministry), none of which found any evidence of ammonia. However,

¹ See Harding L. Raiders of the Russian Billions (June 24, 2008) // <https://www.theguardian.com/world/2008/jun/24/russia.internationalcrime>

² See Center for Political Technologies. Reiderstvo as a socio-economic and political phenomenon in contemporary Russia (2008) // <http://politcom.ru/tables/otchet.doc>. P. 7.

³ In 2015, a draft of the first article of the Criminal Code concerning criminal liability for the appropriation of rights to own and manage a legal entity and/or its assets (or a reiderstvo draft bill) was submitted to the State Duma. The new document didn't receive a unanimous support, including the Supreme Court which is certain that the effective law provides sufficient instruments to combat raiders. The draft bill was rejected on March 16, 2016. See Draft bill No. 816921-6 // <http://asozd2.duma.gov.ru/main.nsf/%28SpravkaNew%29?OpenAgent&RN=816921-6&02>; Yu. Voronina. Laying hands on others' property (July 7, 2015) // <https://rg.ru/2015/07/07/rejderstvo.html>

⁴ A. Voloshin. Actual Rudgormash CEO A. Chekmenev has been pictured as "a tumor" on the Voronezh business community (March 18, 2013) // <http://www.eizh.ru/articles/konflikty/fakticheskiy-rukovoditel-rudgormasha-a-chekmenev-stal-rakovoy-opukholyu-voronezhskogo-biznes-soobshch/>

⁵ S. Nikitina. Rudgormash is seized by raiders (February 8, 2011) // <http://izvestia.ru/news/371047>

the school building remained closed down. Furthermore, Rospotrebnadzor brought a legal action seeking to shutdown the school. The case is still pending.¹

Recently, raiders have turned their attention to intellectual property, with anything from musical, literary and artistic works, to discoveries and inventions targeted. Given that intellectual property rights do not enjoy strong protection in Russia, the risks of raiding in this sector are even higher.

In 1997, the Social Insurance Fund (SIF) decided to develop the Unified Integrated Information System (UIIS) Sotsstrakh. Since the SIF was short of money, NIST (later OIT) Company undertook to provide free-of-charge development and full technical support for the (UIIS) Sotsstrakh. Until 2010, NIST provided technical support and developed the (UIIS) Sotsstrakh coupled with a free-of-charge development of new subsystems thereof. In 2011, SIF's new managers contracted other company to provide technical support for the (UIIS) Sotsstrakh, thus infringing a copyright and increasing dramatically operation costs for the system. Since then there have been an endless series of reciprocal legal claims and court hearings between the companies. Although there are two companies in dispute, the SIF's involvement by using administrative resources is restricting courts from sorting out the problem objectively.²

Raids on companies owned by or partnered with foreigners are rare, but tend to attract the most public attention. Nevertheless, high-profile raids on firms with a foreign shareholding have contributed somewhat to the decline in inward foreign investment.

Russian highest-level officials have proven willing to countenance the destruction of major enterprises for private gain, even in one-factory towns where the majority of the population depends on a single enterprise. As an example, the open joint-stock company Khimvolokno was once a highly successful textile company in the Saratov region, with a profit margin of nearly 25%, and successful market entries in Germany, South Korea, Turkey and Switzerland. Despite its success, the company was unable to ward off attacks from raiders, who within a couple of years were able to seize control of the company and initiate a bankruptcy claim. Khimvolokno, estimated at Rb 87bn, was sold at Rb 100m after being stripped off of its valuable assets.³

Even companies that are strategically important for Russia's defense industry and national security have been raided, too. Some of these were deliberately bankrupted, others had to sell off their most valuable assets, while still others had to dismiss their highly trained staff (e.g., The Moscow M.L. Mil Helicopter Plant, OJSC Barrikady Industrial Group, NPO Geliymash⁴). In the late 2000s, it was reported with reference to the data of Russian security services that allegedly more than 200 enterprises in the Russian defense industry were the subject of raid seizures.⁵

Experts distinguish four different types of corporate raiders.

¹ See L. Palveleva. Taneev School in weal and woe (June 4, 2015) // <http://www.svoboda.org/a/27054012.html>

² See N. Khromov. Do the government employ raiding to grab intellectual products? (08.10.2014) // http://www.moscow-post.com/economics/gosudarstvennoe_rejderstvo_po_zaxvatu_produktov_intellektualnoj_dejatelnosti15586/

³ See Beitman A. Bankruptcy Fraud in Russia (July 22, 2013) // <http://tracc.gmu.edu/2013/07/22/bankruptcy-fraud-in-russia/>

⁴ See A. Lazareva. Vadim Uduta's response to the article entitled "‘Evil Helium’ Vadim Uduta steals for his wife" (February 18, 2015) // <http://www.rospress.com/finance/15467/>

⁵ See Have raiders set their sights on defense industry? (April 10, 2008) // <https://iq.hse.ru/news/177682074.html>

1. *Criminal organizations and gangs* were the original raiders. Beginning in the 1990s, their violent raids involved the armed seizure of assets and often the outright murder of business owners. They were perpetrated not just by criminals but also by former law enforcement and security officers with close ties to state agencies.

2. *Legalized owners* were able to convert assets illegally obtained in the 1990s into legalized businesses in the 2000s. They continue to use illegal methods, but maintain a lower profile than gangs and retain connections with the judiciary, local governments, and with law enforcement. This group can include minority shareholders and businessmen who own shares while pursuing extra-legal means of securing ownership over a company, such as instigating bogus criminal cases against legal owners, launching black PR campaigns, and entering false information in shareholder registers.

3. *Private-sector white-collar criminals* educated in business-related disciplines (law, economics, finance, accounting, psychology) have pioneered the use of quasilegal methods to seize assets in the post-privatization period. Some of these private-sector criminals have founded banks that initially build up relations with borrowers in order to seize their assets later. Others have created entire companies that specialize in grabbing asset.¹

4. *Public-sector white-collar criminals*. It is well-known that public officials were involved in raiding from the very beginning of the asset-grabbing practice in Russia. Today, however, public officials and their family members play an increasingly more important part in initiating in grabbing and further distribution of assets.

The case of the open joint-stock company Agrofirma Engel'skay illustrates this type, the Saratov Military Court convicted the former CEO, the chief accountant, a law enforcement officer, as well as the former deputy chairman of Property Management Commission of the Engel'sk Municipal District, and subsequently the Advisor to the Head of the Regional Control Directorate, of illegal seizure of the big joint-stock company Agrofirma Engel'skaya. The Court held it proved that the ex-CEO was supported by the law enforcement officer in holding in 2008 an illegal meeting of the shareholders to have the former managers ousted. The former CEO was detained by both police and drug control officers, the former discovered a firearm in his car, while the latter found drugs in his office. Eventually, the CEO was held not guilty. Initially, the raiders succeeded in seizing the company's assets worth Rb 47.7m, stealing the Agrofirma Engel'skaya immovable property worth Rb 191m, etc.²

Another example is Agromol. Agromol was a medium-sized factory located in Russia's Northwest (Kostroma), employing 300 workers and producing milk and milk products. In 2008 two former FSB (intelligence) officers approached its owner and threatened to have him arrested unless he sold them the company at below the market price. When he refused, he was charged with theft in connection with a bank loan (Rb 1.8m) the company had taken out two years earlier, and was sentenced to five and a half years in prison despite the fact that the owner disclosed to the court that he had been blackmailed. He was released after two years in prison by the ruling of the Supreme Court, and was held not guilty.³

¹ In 2009, for instance, the Simonovsky District Court (Moscow) convicted the leaders of IK Russia, a Russian major group of raiders. More than 50 enterprises fell victims to the raiders. See O. Mefodiyeva. Reiderstvo comes up roses in Russia (March 18, 2010) // <http://politcom.ru/9787.html>

² See A. Kulikov. FSB lieutenant-colonel convicted of asset-grabbing in Saratov (February 17, 2012) // <https://rg.ru/2012/02/17/reg-pfo/pomanov-anons.html>

³ See A.A. Yakovlev, A.A. Sobolev, A.P. Kazun (Higher School of Economics). *Can Russian business curtail government's "pressure"?* // *Preprint WP1/2014/01, M., 2014. PP. 22–24.*

A raiding attack is basically four-staged. *Preparation* is target selection and collection of information. The overwhelming majority of raiding attacks succeed at the (second) stage of *negotiation* (which includes acquisition of a minority shareholding, dissemination of compromising information, blackmail, etc.) when victims, realizing that it would be futile to resist, sell their assets to raiders. The stage of *execution* begins if the owner has refused to negotiate. The stage of *legalization* follows the seizure of assets and includes swift resell of the assets to various persons and shutdown of the target company.

The standard four-stage sequence to these tactics is addressed after the eight categories.

1. *Forgery and fraud* is a component of almost every raiding case, including the falsification of documents of all kinds, ranging from shareholder registers to leases, deeds, ownership documents, permits, contracts, court decisions and bank documents. The complicity of public officials at all levels is required for these documents to be notarized, registered, and accepted. In small-scale property cases, raiders may simply show up at a property with forged ownership documents and take over the premises by force or threat of force.¹

2. *Malicious prosecutions* take place when the raider fabricates false criminal charges against the owners or managers of the target company. In a “zakaznoye delo”, also known as “telephone justice”, a senior official simply picks up the phone and tells the judge how to rule. Since the calls don't leave a trace, it is difficult to estimate how common they really are.

3. *Tax inspections and other regulatory harassment*. Raiders often bribe regulatory agencies to carry out inspections, file false reports and initiate other administrative harassment so that the owners of a company are spread too thin to effectively counter raiding attacks.

4. *Misuse of shares and shareholder protections*. In the past 15 years, raiders have increasingly used “attacks from within,” misusing basic institutions of corporate governance to gain control. Other tactics include buying a minority stake in order to gain access to confidential information, forging internal documents, spreading false information, disrupting shareholder meetings, etc.²

5. *Misuse of the banking system* plays an important role in facilitating raiding. In some cases, raiders set up banks specifically to give credit to companies they are seeking to take over; in others, banks sell confidential information about clients to prospective raiders. In still other cases, banks are themselves raided by groups seeking to call in the bank's loans and gain control of its clients.

In 2009, many large companies were driven into bankruptcy by raiding banks using the so-called ‘credit raiding’ in the aftermath of the economic crisis of 2008³: a major steel maker in Russia's Far East (Amurmetall), a large textile works in Moscow Oblast (Serpukhovsky

¹ Tax officers were convicted of abuse of office, bribery, a serious fraud attempt. It was found that public officials committed theft of Pushkinskaya Company's registration file and made illegal updates to the records of eight legal entities. See A court in S. Petersburg convicts a group of persons involved in raiding attacks against enterprises and organizations (June 16, 2010) // <http://sledcom.ru/news/item/540987>

² The case of the SMARTS Group, 5th biggest mobile operator in Russia, offers a good example of how raiders misuse a minority share package to take over the company. After the raiders bought a minority share of the company, they repeatedly disrupted shareholder meetings; they had lawyers file legal claims against SMARTS in order to paralyze the company's operations via the court system; they entered into false contracts on behalf of the company in other regions. After several attempts, the raiders succeeded in taking control of SMARTS and then reselling the shares at a huge profit. See N. Studenkin. PR-defense for business in corporate wars: a tutorial for winners. M.: Alpina Publishers. 2011, pp. 332–339.

³ See S.A. Meshkov, A.V. Rumyantseva. Asset-grabbing as a manifestation of shadow economy expansion in the national economy // Rossiyskoye Predprinimatelstvo. 2014. No. 6 (252). pp. 51–58.

Tekstil), an alcohol distributor in Perm (Dobrynya Enterprises), a textile factory in Volgograd (Kamyshynsky KHBK), a meat factory in Omsk (Myasokombinat Omskyy), a waterworks and pipeline company in Dalnegorsk (Dalgrad), and a leading vodka producer (Kristall).¹ In some of these cases the companies' traditional banks had been willing to continue lending them money, but new "raiding" banks had taken over parts of the debt in order to call them in and liquidate the company.

6. *Violence* (including armed raids, arson, physical attacks, etc) is still in use, although its degree has lowered markedly since the 1990s.²

7. *"Dark" PR campaigns* are a common feature of raiding attacks. They trace their roots to the smear wars of the 1990s. The main aims of a dark PR campaign are to destroy the target company's reputation, create uncertainty about its future, and misinform stakeholders about its economic performance. Contemporary dark PR specialists tend to wage information war online, publishing negative information about raided businesses and their owners.

8. *Abuse of international law enforcement mechanisms.* Raiders may engage law enforcement to have Interpol issue a "red notice", or international arrest warrant. Using fabricated criminal charges, the objective is to ensure that the firm's owner or management will be arrested and returned to Russia. As the number of red notices issued has increased rapidly, Interpol staff have estimated that only 3% of red notice requests are reviewed in depth.³

Raiders may either take actions from several different categories or may employ them all: forgery and fraud, malicious prosecutions, tax inspections and other regulatory harassment, misuse of shares and of the banking system, violence, "dark" PR campaigns, abuse of international law enforcement mechanisms.⁴ A remarkable example is the 10-year (2005 till 2015) case of Togliattiazot (ToAZ), a world's largest ammonia producer, as part of which a full-scale information war was waged, criminal cases on privatization violations and on tax evasion through the sale of ammonia at below-market prices were initiated, false representations were submitted to the Federal Tax Service, documents were forged, the data on shareholders were tempered, company's assets were frozen, extradition requests were issued, etc.⁵

Summarizing, the point to notice is that Russian corporate raiding is not new. Post-privatization criminal raids of the 1990s, which were characterized by explicitly criminal tactics and violence, gave way to a systematic taking of assets from legitimate businesses by public officials and businessmen. Raiders capitalize on the weakness of Russian institutions, endemic corruption and abuse rule of law, mass media. Russian corporate raiding gains its distinction

¹ See S. Petrov. Credit Reiderstvo (June 18, 2009) // <http://pravo.ru/review/view/12918/>

² A good example is an attempted asset grabbing against OGAT, Ltd., one of the largest and most established road transport companies in the Russian Far East. See A. Chernyshev. Raiders didn't stop short of killing (July 23, 2013) // <http://kommersant.ru/doc/2238936>

³ See Bowcott O. Interpol Accused of Failing to Scrutinise red notice requests (November 27, 2013) // <https://www.theguardian.com/uk-news/2013/nov/27/interpol-accused-red-notice-requests>

⁴ Examples of employing various combinations of raider instruments are given in, e.g., Shelley L., Deane J. (George Mason University's Terrorism, Transnational Crime and Corruption Center). The rise of reiderstvo: implications for Russia and the West (May 9, 2016) // <http://reiderstvo.org/>

⁵ For more details, see A. Livinsky. The ammonia case: how the Togliattiazot's "red" director has lost control of the company (April 25, 2016) // <http://www.forbes.ru/kompanii/resursy/318561-delo-s-zapakhom-ammiaka-kak-krasnyi-direktor-tolyattiazota-poteryal-kontrol>; OAO Togliattiazot's statement regarding the incorrect information disclosed by the Uralchem Director General in his interview (December 5, 2014) // <http://www.toaz.ru/rus/press/document1715.phtml>; OAO Togliattiazot discovers an illegal attempt to block its operations through minority shareholder's fraudulent acts (December 7, 2015) // <http://www.toaz.ru/rus/press/news/document1959.phtml>

from Western practice of corporate raiding specifically through the use of destructive, corrupt, and violent means, contributing to Russia's current unfriendly business climate and to declining investor confidence in the country. Without addressing this issue, without support and real legal protection for entrepreneurs and companies, asset-grabbing will only become more prevalent.

6.2.4. Corporate legislation as applicable to mergers and acquisitions (2010–2016): civil legislation reforms

The Russian practice of mergers and acquisitions began upon the early 1990s when first Russian OAOs (open joint-stock companies) were formed. The general legislative norms regulating legal entities reorganization, open joint-stock companies, the issuance and floating of shares are set forth in Part 1 of The Civil Code of the Russian Federation effective since January 1, 1995, which laid foundation for the regulation of corporate relations in this field. The scope of the legal regulation for mergers and acquisitions was substantially updated and expanded by the adoption of the Federal Law “On Joint-Stock Companies” effective since January 1, 1996.

Up until 2002–2003, neither did the legislator nor the business community regard M&A procedures – company’s reorganization or acquisition of a controlling interest – as special tools designed for business development and as potential sources of corporate issues that deserve special attention by both the legislator and companies.

In the period of 2002–2003, a substantial growth in the number of well-publicized bad faith takeovers of joint-stock companies (see above) prompted the federal government to pay more attention to various regulatory issues related to the market for mergers and acquisitions. In October 2003, parliamentary hearings – Legal security of ownership rights as a factor of Russia’s economic resilience – were held in the State Duma. It was at that particular time that the need for special approaches to the regulation of mergers and acquisitions of joint-stock companies, primarily for the purpose of limiting illegal seizures of assets (asset grabbing), was for the first time acknowledged at the federal level.

At present, M&A procedures are subject to thorough regulation by the Civil Code and the Federal Law “On Joint-Stock Companies” (hereinafter – FL “On Joint-Stock Companies”). The basic principles of mergers – reorganization by way of mergers and acquisitions of business entities (companies), as defined in the Russian legislation – amount to the following.

1. Business entities (companies) can be merged or acquired by a decision of their founders (members) or by a decision of their governing board authorized to do this by the company’s charter. In some cases, a merger or acquisition requires the clearance of authorized public authority – The Federal Antimonopoly Service of the Russian Federation (hereinafter – FAS Russia). FAS Russia shall approve M&A transactions pursuant to the provisions set forth in the Federal Law “On the Protection of Competition”.

2. The creditor of each of the legal entities involved in reorganization shall be entitled to demand early performance of the obligation to the creditor by the legal entity under reorganization or, if the early performance cannot be possible, termination of the obligation and compensation for losses, with a few exceptions as described below.¹

3. A universal succession arises out of merger and consolidation of legal entities, that is, all the rights and responsibilities of the persons involved in the reorganization shall be transferred

¹ Until the Federal Law No. 315-FZ was adopted on December 30, 2008, the creditor had the right to select between termination and early performance of the obligations with compensation for losses during the reorganization of a legal entity.

to the new legal entity formed as a result of the merger or to the legal entity into which the persons are consolidated.

4. In the case of merger, the legal entity shall be deemed to be reorganized from the date of state registration of the legal entity formed as a result of the merger. In the case of reorganization by consolidation, the legal entity ceasing to exist shall be deemed to be reorganized from the date of entry in the Unified State Register of Legal Entities on the cessation of the consolidated legal entity's business.

5. The shareholders of companies under reorganization shall be entitled to demand the share repurchase by the company (Clause 1 Article 75, FL "On Joint-Stock Companies").¹

Besides general provisions the legislator contemplated a decision-making procedure for merger and consolidation, the wording and a procedure whereby merger and consolidation agreements can be concluded (Articles 16 and 17, FL "On Joint-Stock Companies"), a procedure whereby the charter can be approved and the board of directors elected, as well as some other procedures.

In practice, the institution of reorganization is disfavored by Russian businesses. A reason for this is that merger and consolidation may give rise to extra obligations such as early redemption of debts to creditors, minority shareholding repurchase. In addition, the requirement for a complicated reorganization procedure takes on extra costs, and the transparency of consolidation and reorganization poses additional threats from both competitors and potential raiders.

Russian companies most often use consolidation and merger in the event of so-called transition to a single share.² This may be performed through one of the following options:

- subsidiaries consolidation with the parent company;
- consolidation with the parent company, as well as subsidiaries consolidation with a subsidiary of the parent company;
- merger of the parent company with all its subsidiaries;
- consolidation of the parent company and the subsidiaries with a newly formed company.

In fact, the mechanism of reorganization fails to perform its function in the market for mergers and acquisitions because companies tend to become more vulnerable in time of reorganization and to face a higher risk of competitors' undesired actions and of losing control because of a highly formalized reorganization procedure which makes reorganization economically unviable, especially amid mixed market trends, and because the reorganization is a time-consuming procedure.

In 2001, the legislator attempted for the first time to create a legal framework designed to balance between interests of various groups of persons with regard to acquisitions including hostile takeovers. The ambiguity concerning the possibility of restricting the free-floating of open joint-stock companies' shares was eliminated. As a result, both joint-stock companies and the shareholders were not entitled to preserve the preferential right to purchase shares disposed by other shareholders. This rule allowed for legitimate purchase of shares in the secondary market, including the purchase of shares for taking over a joint-stock company by gaining a full corporate control thereof. As a result, open joint-stock company's additional shares could be placed both by non-public offering, that is, in favor of a single buyer or several buyers known

¹ In practice, such shareholders are often face the issue of undervalued shares.

² Hereinafter A. Molotnikov. Mergers and acquisitions. M., SPb., Vershina, 2007, p.20.

beforehand,¹ and by public offering, thus increasing the number of outstanding shares and eventually simplifying the purchase of the shares in an open market. In addition, every shareholder was entitled to exercise the preferential right to purchase the placed voting shares pro rata to the quantity of shares owned by the shareholder in a given joint-stock company. The mechanism which, according to the legislator, was supposed to become a counterbalance in combating mounting hostile acquisitions was the mechanism whereby the share placement decision only could be adopted by not less than three-fourths of the voting shareholders attending the general meeting of shareholders. If the placement of open joint-stock company's voting shares falls into the category of non-arm's length transaction, the persons having a vested interest in the transaction, including the shareholder or a group of shareholders planning to gain corporate control over the joint-stock company, are not entitled to vote with regard to such share placement decision.

The period of 2001–2006 was marked by an upsurge in the number of high-profile criminal takeovers, and therefore the complaints against the acquisition regulatory norms set forth in the joint-stock companies law with regard to the shareholders' rights protection had reached a critical mass. Too many acquisition issues were left unaddressed, thus discouraging business development. The issue of regulating the relationship between majority and minority shareholders in the corporate legislation was a critical issue because of attempts to drive the latter out of joint-stock companies and to dilute the shares.

In 2006, the law set some new rules concerning takeovers by acquiring a major interest. A distinction was drawn between *voluntary and compulsory share purchase offers*. The mechanism of the proposed regulation was intended to balance between the interests of the buyer, of the "old" shareholders and of the company's managers. If this mechanism proves efficient, any bad-faith takeover will become less cost-efficient, more risky and therefore less lucrative than a good-faith legal acquisition. A federal law² was adopted in January 2006, introducing new mechanisms in the corporate legislation.

Voluntary and compulsory share purchase offers. A person seeking to purchase more than 30% of the total common and preferred voting shares in an open joint-stock company (including the shares owned by the person and by the affiliates therewith) shall be entitled to send to the open joint-stock company a public share purchase offer addressed to the shareholders for the acquisition of the shares owned by the shareholders (Article 84.1, FL "On Joint-Stock Companies"). Upon acquiring more than a 30% interest in the open joint-stock company (including the shares owned by the person and by the affiliates therewith) the shareholder must send a public share purchase offer to the other shareholders for the acquisition of the shares owned by the shareholders (Article 84.2, FL "On Joint-Stock Companies").

Following listed are the terms intended to protect shareholders' rights.

a) a bank guarantee shall be attached to voluntary and compulsory share purchase offers, constituting the guarantor's obligation to pay the price to the former security holders in the case the offerer fails to perform in due time his obligations to pay for the securities. Furthermore, the banking guarantee must expire in no event sooner than six months from the due date set in the securities purchase offer.

¹ Including those that form a group of persons by implication of the Federal Law "On the Protection of Competition".

² No. 7- Federal Law of January 5, 2006 "On Amendments to the Federal Law "On Joint-Stock Companies".

The securities sale offer shall be made to *all* the shareholders on equal terms. With respect to the compulsory offer, the due date for the payment for shares shall be a date not later than 15 days from the date of entry on the offerer's deposit account.

The sender of voluntary/compulsory offer shall present information on the shares purchase procedure and the data on the relevant transaction (in the case of voluntary offer), on the shares he owns and on his managers holding an interest of more than 20% (in the case of voluntary offer), etc.;

b) the sender of voluntary offer may not acquire shares on terms other than the terms set out for the voluntary offer within the effective period thereof;

c) the acceptance period for the voluntary offer shall range between 70 and 90 days from the receipt of the voluntary offer by the joint-stock company; and 70 to 80 days for the compulsory offer;

d) a prior notice shall be sent to the FFMS (Federal Financial Markets Service) if the shares are traded in the securities market.

However, an attempt to protect minority shareholders in such a manner wrong-footed major shareholders (especially amid a liquidity deficit) who, while purchasing an interest, must within a month or so present a long-term bank guarantee equal to the price of the rest of the shares. In this case, if their offer is not accepted, there is no way whatsoever for them to recoup the costs.

The civil legislation reform of 2008–2014 updated the regulation for mergers and acquisitions. Federal Law No. 99-FZ of May 5, 2014, No. 99-FZ (as latest amended on November 28, 2015) “On Amendments to Part 1, Chapter 4 of the Civil Code of the Russian Federation and the Revocation of Certain Provisions of Legislative Acts of the Russian Federation” was adopted in May 2014.

The law introduced a possibility of undertaking a *comprehensive reorganization*, that is, the reorganization of a legal entity combining various forms of reorganization at a time, as well as reorganization involving more than two legal entities, including companies with different organizational and legal forms. Apparently, such a considerable room for reorganization will make it difficult to identify the successor and will encourage entities under reorganization to employ abuse practices.

Today, the principal document for the reorganization of legal entities is the transfer certificate (previously, the transfer certificate and the spin-off balance sheet were required).¹

Regulation of guarantees to creditor's rights in reorganization changed substantially. Previously, the creditor of a legal entity was entitled to demand *early performance of the obligation by the debtor* or, if early performance cannot be possible, termination of the obligation and compensation for losses, if his claim originated prior to the initial notice of legal entity reorganization (except for a few cases specified by the law). At present, all creditors are subject to the terms that were previously applicable to joint-stock companies: the creditor shall be entitled to demand early performance of the obligation strictly through legal proceedings

¹ The transfer certificate must contain, apart from the old requirements, “the succession procedure due to change to the type, composition and value of the assets, the origination, change, termination of legal entity's rights and obligations which may take place *after* the date the transfer certificate is drawn for” (Article 59, Part 1 of the Civil Code of Russia). If the transfer certificate cannot identify the successor or it is implicit therein that in the course of reorganization the legal entities' assets and obligations were split up in bad faith, thus resulting in material infringement of the creditors' rights, the reorganized legal entity and the legal entities formed as a result of the reorganization shall be held jointly and severally liable for the obligation.

within 30 days from the date of the most recent notice of legal entity reorganization, etc., except for secured creditors. In fact, this narrows creditor's rights in cases of reorganization.

In addition, the responsibility for defaulting on obligations to the creditor now rests not only on legal entities formed as a result of the reorganization but also on the "*persons who really can govern the reorganized legal entities' acts, their board members, the person authorized to act on behalf of the reorganized person*", if such acts have led to non-recoverability of losses, early default on the obligations, non-provision of an adequate security.

What the law secures explicitly is that judicial invalidation of the reorganization decision shall not imply the liquidation of the legal entity formed as a result of the reorganization and shall not be cause for invalidation of the transactions settled by this legal entity. It would seem that this regulatory norm must secure an immutable division of the property owned by state-owned companies and by state-owned corporations formed as a result of multiple reorganizations.

The invalidation of reorganization was given a special regulatory attention. Invalidation may take place at the request of a corporation member who voted against the reorganization decision or did not participate in voting on this subject matter, provided that the reorganization decision was not adopted by the members of the reorganized corporation, as well as by the members of corporations formed during the reorganization using designedly false data on reorganization.

Such a court ruling implies:

- reconstitution of legal entities that existed prior to the reorganization;
- that transactions between legal entities formed as a result of the reorganization and persons relying in good faith upon the succession shall remain in force for the reconstituted legal entities as joint and several debtors and creditors on such transactions;
- that the members of the previously existing legal entity shall be deemed to be owners of a interest therein equal to the interest they held prior to the reorganization, and some other persons.

In addition, the reorganization of business partnerships and business entities into not-for-profit organizations, as well as into unitary business organizations, was prohibited. In general, the introduced regulatory norms for reorganization mostly reflected the interests of biggest companies and other entities partly owned or with a controlling interest held by the government, thus restricting somehow creditor's rights.

The mechanism of acquiring a controlling interest in companies is much more in demand and continues to develop at a fast pace. Its development in 1990– 2008 is described in details above.¹ As a follow-up to the civil legislation reform, *the share trading specifics for publicly-traded companies and non-public joint-stock companies* were set out in the law on joint-stock companies in June 2015:²

1. The charter of a non-public joint-stock company may contemplate the *preferential right for the shareholders to acquire shares* in the company, provided that the shares are acquired through transactions for consideration at the third party offer price or at the price set forth in the company's charter or in the manner set forth in the company's charter;
2. Where shares are acquired through other transactions (exchange, satisfaction, etc.), the charter of a non-public joint-stock company may contemplate the preferential right to

¹ A. D. Radygin, R.M. Entov, E.A. Apevalova et al. Modern development trends in the market for mergers of acquisitions. M., Delo, 2010.

² Federal Law of June 29, 2015, No. 210-FZ "On Amendments to Certain Legislative Acts of the Russian Federation and the Revocation of Certain Provisions of Legislative Acts of the Russian Federation".

- acquire such shares only at the price or pursuant to the pricing procedure set forth in the charter thereof;
3. Shareholders shall enjoy the preferential right to acquire the shares being disposed of pro rata to the quantity of shares owned by each of them, except the company's charter contemplates otherwise;
 4. In addition, the charter of a non-public joint-stock company may contemplate the company's preferential right to acquire shares being disposed of in the case the shareholders fail to exercise their preferential right;
 5. The shareholder seeking to sell shares to a third person *must notify accordingly the non-public joint-stock company* whose charter envisages the preferential right to acquire the shares being disposed of;
 6. The shareholder may *sell his shares to a third person*, provided that the company's other shareholders and/or the company itself do not exercise the preferential right to acquire all the shares being disposed of within *two months* of the date of receipt of such notice by the company, except where the company's charter contemplates a shorter term;
 7. When non-public joint-stock company's shares are sold in breach of the preferential right, the preferential right shareholders or the company itself, if the company's charter envisages the company's preferential right to acquire shares, within *three months* following the date on which the shareholder or the company learned or should have learnt about such a breach *may demand in court that they will be granted the buyer's rights and responsibilities* and/or the sold shares will be transferred to them by paying to the buyer the price under a purchase/sale agreement or the price set forth in the company's charter, and, if the shares have been sold through transactions other than purchase/sale agreement, the sold shares will be transferred to them by paying to the buyer the price set forth in the company's charter, to the extent that the buyer has been proven to know or should have known about the preferential right envisaged by the company's charter;
 8. The non-public joint-stock company's charter may contemplate that the shares may be sold to third persons subject to *shareholders' consent*;
 9. The non-public joint-stock company's charter or a decision on placement of additional shares or emissive securities convertible into shares approved by unanimous voting at the general meeting of shareholders of the non-public joint-stock company may contemplate no preferential right for the shareholders to acquire the additional shares or emissive securities convertible into shares.¹

The non-public joint-stock company's charter may contemplate a procedure (including disproportion) whereby certain categories of shares can be *converted into the shares in other joint-stock company* formed as a result of the company's reorganization, and/or a procedure (including disproportion) whereby they can be exchanged for interest in the limited liability company, for an interest or shareholding in the business partnership's charter capital or for units owned by the members of the production cooperative formed as a result of the company's reorganization. Such a decision shall be subject to unanimous voting only.

A public joint-stock company may not place preferred shares at a par value being less than the ordinary share par value. (Clause 2, Article 25, FL "On Joint-Stock Companies").

The charter of non-public joint-stock company or the shareholders' agreement to which all the shareholders of the non-public joint-stock company are parties may set a procedure other

¹ For details, see Article 7, FZ "On Joint-Stock Companies".

than that laid down in this Article whereby the preferential right is exercised to acquire the shares placed by non-public joint-stock company or emissive securities convertible into its shares. Relevant provisions may be contemplated by the charter of non-public joint-stock company while being established or they may be introduced in the charter thereof, updated and/or revoked from the charter thereof by a unanimous resolution voted by all the shareholders at the general meeting of shareholders (Clause 5, Article 41, FL “On Joint-Stock Companies”).

The same law introduced *substantial changes to the procedure whereby shareholders can acquire shares*. The most important updates to mergers and acquisitions amount to the following.

1. The repurchase request for the shares owned by a shareholder registered with the company’s shareholder registry or the repurchase request withdrawal shall be communicated to the *registrar*, not, as was earlier the case, to the company;

2. *The procedure for considering compulsory and voluntary share repurchase offers* was updated, making it impossible for the general meeting of shareholders to accept recommendations on the voluntary/compulsory share offer (Article 84.3, Paragraph 3, Clause 1, FL “On Joint-Stock Companies”) while delegating the relevant authority exclusively to the board of directors.

The *registrar* will now play a distinct role in the share repurchase procedure. The registrar of a publicly-traded company is exclusively entitled to:

- receive the securities sale application from the securities holder registered with the public company’s shareholder registry;

- receive information on the current account or depository account to which securities are credited in payment for the securities being disposed of (if the use of other securities as payment for the securities being disposed of is selected as payment method). The registrar of publicly-traded company must receive this information not later than the deadline for the acceptance of the voluntary or compulsory offer;

- to make entry regarding restrictions on the account¹ on which the securities holder’s rights are asserted, without order of the securities holder. Also, the law stipulates a restriction release procedure.

Furthermore, the registrar shall transfer the securities sale application to the sender of voluntary or compulsory offer and make entries of the ownership transfer of the securities being disposed of to the sender of voluntary or compulsory offer (according to the report and the documents evidencing that the payment obligations have been honored or that the securities have been credited to the account of the seller – securities holder – registered with the company’s shareholder registry, without the order thereof.

The money with respect to sale of securities by their owners not registered with the public company’s shareholder registry shall be paid via bank transfer to the bank account of the nominee share holder registered with the public company’s shareholder registry.

3. A few updates were made to *the forced share repurchase procedure* (Article 84.8, FL “On Joint-Stock Companies”). In particular, the buyer of shares, if such person is not registered with the company’s shareholder registry, must send information identifying him and his affiliates

¹ Account restrictions mean that disposal of the securities, including pledge thereof, any encumbrance thereon through other means, is prohibited. Such restrictions may take effect from the date on which the registrar receives the securities sale application from the securities owner registered with the shareholders register till the date of entry regarding the transfer of ownership of the securities for sale to the sender of voluntary or compulsory offer or till the date of receipt of the application withdrawal (Clause 4.2, Article 84.3, FL “On Joint-Stock Companies”).

(with reference to the quantity of securities on deposit accounts in compliance with the rules provided for by the Russian securities legislation for exercising the securities rights by persons whose rights asserted by the nominee holder) to the registrar of the company.

The registrar shall send to the person subject to forced share repurchase the bank accounts details of the nominee holders registered with the company's shareholder registry and account details in the case such nominee holders are credit institutions.

The person subject to forced share repurchase shall pay with respect to securities repurchase from the holders not registered with the company's shareholder registry to the nominee holders via bank transfer to the bank accounts according to the information received from the registrar of the company.

Nominee holders must pay to their depositors regarding the securities repurchase in compliance with the foregoing provisions. The registrar shall be provided with information about the current accounts (deposit accounts) on which the securities holder's and its affiliates' rights are asserted. And, it is not until such information is presented to the registrar that the registrar shall write off the repurchase securities of the securities owners' current accounts, of the nominee securities holders' current accounts and credit them to the current account of the person performing the forced share repurchase (without order of the persons registered with the public company's shareholder registry).

In July 2009, the scope of regulatory norms regulating *joint and several liability of the joint-stock company and the registrar* was expanded. For instance, the debtor which has performed his joint and several obligation may exercise the right of recourse against other debtor in an amount equal to a half of the recovered loss amount, unless otherwise stipulated below. The terms for exercising this right (including the amount of recourse) may be defined by an agreement between the joint-stock company and the registrar. Insignificant are the terms of an agreement stipulating the liability distribution procedure or the procedure for relieving the joint-stock company and the registrar from liability if loss is inflicted by at least one of the parties. If only one of the joint and several debtors is at fault, the debtor at fault shall have no right of recourse against the debtor not at fault, whereas the debtor not at fault shall have the right of recourse against the debtor at fault in an amount equal to the total recovered loss amount. If both joint and several debtors are at fault, the recourse shall be determined according to the degree of fault of each of the joint and several debtors, and if the degree of fault of each of them cannot be determined, the recourse shall be equal to a half of the recovered loss amount.¹ The foregoing regulatory norms were abolished in June 2015.

Furthermore, *the same law expanded regulatory norms for large transactions*.

For instance, the limitation period for large transaction invalidation claims shall not be subject to restoration if it has been overrun. The court shall dismiss invalidation claims for large transactions settled in violation of the legal requirements thereto if one of the following circumstances has occurred:

- the voting of the shareholder who has filed a large transaction invalidation claim subject to voting at the general meeting of shareholders could not influence the voting results, even if the shareholder participated in the voting on that matter;
- the settlement of the transaction has not been proved to cause any loss to the company or to the claimant shareholder or the occurrence of other adverse consequences thereto;

¹ Federal Law of July 19, 2009, No. 205-FZ "On Amendments to Certain Legislative Acts of the Russian Federation".

- the evidence of subsequent approval of the transaction in compliance with the rules set forth in this federal law are presented by the time of legal proceedings;

- in the course of the legal proceedings it was proved that the other party to the transaction was not aware and was not supposed to be aware of that the transaction had been settled in violation of the requirements thereto stipulated in this federal law.

In other words, the law makes it more difficult to deem a transaction to be a large transaction and hence being subject to a special transaction settlement procedure. This fits into the interests of managers, thereby complicating the control over managers' acts. The transaction settlement mechanisms for large transactions and non-arms' length transactions are the most often violated types of transactions by companies partly owned by the government.¹

Previously, in June 2009, regulatory norms for *shareholders' agreement* were introduced with a view to preventing and settling corporate conflicts. The basic principles of the shareholders' agreement regulation amount to the following.

a) the shareholders' agreement shall be deemed to be an agreement on the exercise of rights asserted by shares and/or on the specifics of exercising the rights to shares:

b) the parties to a shareholders' agreement undertake to exercise in a particular manner the rights asserted by shares and/or the rights to shares and/or to refrain from exercising the said rights;

c) the shareholders' agreement may contemplate the responsibility of the parties thereto to

- vote in a particular manner at the general meeting of shareholders,

- coordinate the voting option with the other shareholders,

- acquire or sell shares at a preset price and/or upon the occurrence of certain circumstances,

- refrain from selling shares until the occurrence of certain circumstances,

- coordinate other corporate governance acts with the operations, the reorganization and the liquidation of the company.

In November 2010, the list of circumstances in which the compulsory offer regulatory norm shall not be applied was expanded by adding the following clauses:

- purchase of shares as a contribution by the Russian Federation, by a subject of the Russian Federation or by a municipality to the charter capital of the open joint-stock company in which more than 50% of ordinary shares are or will be held as a result of such a contribution by the Russian Federation, by the subject of the Russian Federation or by the municipality;

- purchase of shares in payment for the non-public offering of additional shares by a joint-stock company being on the list of strategic enterprises and strategic joint-stock companies approved by the President of the Russian Federation.

In December 2011,² an article of *transfer agents* – other registrars, depositories and brokers that may be engaged by the registrar to perform some of its functions under an agency agreement or a surety agreement and a proxy agreement – was introduced in the Federal Law “On Securities Market”. While performing its functions transfer agents *must* specify that they are acting in the name and on behalf of the registrar, as well as present to all the persons concerned the proxy issued by the registrar.

In the cases envisaged by the agreement and the proxy *transfer agents shall be entitled to:*

1) accept documents required for making entries in the register;

¹ For details, see G.N. Malginov, A. D. Radygin Mixed property in corporate sector, M. Gaidar Institute, 2007, pp. 511,518–521, 536.

² Federal Law No. 415-FZ of December 2, 2011.

2) provide registered persons and other persons with current account statements, notices and other information from the register disclosed by the registrar.

Transfer agents must:

1) take measures to identify persons submitting the documents required for making entries in the register;

2) give the registrar access to its accounting records at the registrar's request;

3) protect the confidentiality of the information received in respect of the functions performed by transfer agent;

4) verify the authority of persons acting on behalf of registered persons;

5) certify natural persons' signatures in accordance with the procedure set forth by the Bank of Russia;

6) meet the other requirements set forth in the Bank of Russia regulatory acts.

Terms for exercising the share repurchase preferential right were introduced in December 2012.¹ In particular, it is clarified that if the placing price or the pricing procedure thereof is not established by a decision to place securities convertible into shares, the preferential right may stay in force not *less than 20 days* from the date of dispatch (delivery) or publishing of the notice. And if the information contained in such a notice is disclosed in compliance with the requirements set forth in the securities legislation of the Russian Federation, the preferential right may stay in force not *less than eight working days* from the date of disclosure. In such a case, the notice must contain information on the securities payment date which may be not be set *less than five working days* from the date of disclosure of the information on the placing price or the pricing procedure.

In June 2015, amendments were made in order to expand the scope of corporate governance opportunities for persons not registered with the company's shareholder registry, whose rights are represented by nominee holders. In particular, they may attend the meeting of shareholders and vote on the issues put to vote.²

In December 2015, amendments were made to defend the shareholders' rights in the "arbitrazh" (arbitration) court (in the circumstances and in the manner set forth in the federal law).³ The amendments are in force since September 1, 2016 and related to the adoption of the Federal Law "On Arbitration (arbitration proceedings) in the Russian Federation" which establishes that "disputes between the parties to civil cases may be arbitrable (subject to arbitration proceedings) upon mutual agreement of the parties, except where the federal law contemplates otherwise".

Summarizing, the point to notice is that the practice of mergers and acquisitions underwent substantial changes in 2010–2016:

- with regard to the reorganization of companies, which is traditionally a challenge, a comprehensive reorganization was made possible, the regulatory norms regulating the provision of guarantees for creditors' rights in case of reorganization (in fact, creditors' rights were restricted) were updated, the scope of liability of owners and other persons who really can

¹ Federal Law of December 29, 2012, No. 282-FZ "On Amendments to Certain Legislative Acts of the Russian Federation and the Revocation of Certain Provisions of Legislative Acts of the Russian Federation"

² Federal Law of June 29, 2015, No. 210-FZ "On Amendments to Certain Legislative Acts of the Russian Federation and the Revocation of Certain Provisions of Legislative Acts of the Russian Federation".

³ Federal Law of December 29, 2012, No. 409-FZ "On Amendments to Certain Legislative Acts of the Russian Federation and the Revocation of Clause 3, Article 6, Part 1 of the Federal Law "On Self-Regulatory Organizations" due to the adoption of the Federal Law "On Arbitration (Arbitration Proceedings) in the Russian Federation".

govern the acts of persons under reorganization, if such acts have led to non-recoverability of losses, early default on obligations, non-provision of an adequate security, were expanded;

- measures were taken to ensure a constant asset division by reorganization (regulatory norms regulating the reorganization decision invalidation and implications thereof, the invalidation of reorganization), which first of all fit into the interests of biggest companies and other entities partly owned or with a controlling interest held by the government;

- the powers of the publicly-traded company' registrar were secured with regard to the share repurchase procedure;

- measures were taken with a view to preventing and settling corporate conflicts, and regulatory norms for shareholders' agreement were introduced;

- the procedure whereby the transaction is deemed to be a large transaction was made more complicated, requiring a special transaction settlement procedure. This is first of all fits into the interests of the companies' managers because of complicated control over their acts. The transaction settlement mechanisms for large transactions and non-arms' length transactions are the most often violated types of transactions by companies partly owned by the government;

- in fact joint-stock company relationship models were made increasingly variable to the extent of converting the non-public joint-stock company into a completely "closed" joint-stock company, and the company's charter became increasingly significant.

6.2.5. Antimonopoly M&A regulation practice in 2010–2016: legislative relaxation and government's heavier involvement in the economy

The Russian practice of antimonopoly regulation of mergers and acquisitions was first introduced in 1991 with the adoption of the Federal Law "On Competition and Restriction of Monopoly Activity in Commodity Markets"¹ which defined the concept of "acquisition" and "group of persons"; contemplated obligatory preliminary clearance on M&A transactions by the antimonopoly authority and subsequent notice of the transactions; as well as contained a few other provisions with regard to government control of mergers and acquisitions.²

In 1995, the regulation of mergers and acquisitions of natural monopolies was separated into a stand-alone category. Besides the Federal Law "On Natural Monopolies",³ mergers and acquisitions for natural monopolies are also governed by a few distinct laws.⁴

Since 1999, the regulation of M&A antimonopoly control procedures in financial markets was governed by the Federal Law "On the Protection of Competition in the Financial Services Market".⁵

¹ Law of the RSFSR of March 22, 1991, No. 948-1 "On Competition and Restriction of Monopoly Activity in Commodity Markets" // Vedomosti SPD and SC RSFSR, April 18, 1991, No. 16, Article 499.

² For more details on evolution of the antimonopoly M&A regulation in 1991–2009, see A. D. Radygin, R.M Entov, E.A. Apevalova et al. Modern development trends in the market for mergers of acquisitions. M., Delo, 2010.

³ Federal Law of August 17, 1995, No. 147-FZ "On Natural Monopolies" // RG, No. 164, August 24, 1995.

⁴ See, for example, Federal Law of March 31, 1999, No. 69-FZ "On Gas Supply in the Russian Federation" // RG, No. 67, April 8, 1999; Federal Law of February 27, 2003, No. 29-FZ «On the Specifics of Management and Disposal of Railway Transport Assets" // RG, No. 42, March 5, 2003; Federal Law of March 26, 2003, No. 36-FZ "Specifics of Electric Power Industry in Transition..." // RG, No. 59, March 29, 2003.

⁵ Federal Law of June 23, 1999, No. 117-FZ "On the Protection of Competition in the Financial Services Market" // RG, No. 120, June 29, 1999.

In 2006, Federal Law “On the Protection of Competition”¹ was adopted to govern the antimonopoly regulation practice in commodity and financial markets and generally contemplated the old conventional approach to identifying circumstances in which mergers or acquisitions are deemed to be acceptable for the government.

The concept of economic concentration was a novelty in terms of implementing M&A procedures; the administrative control was relaxed for real estate transactions. Furthermore, the Federal Law “On the Protection of Competition” provided for the regulation of powers vested with the antimonopoly authority while inspecting business entities; the concept and the mechanisms of exercising “public and municipal preferences” were introduced; vertical agreements between business entities were prohibited if such agreements result in resale pricing.

Thus, a legal framework regulating the forms and the methods of antimonopoly control of mergers and acquisitions, as well as a system of government supervisory agencies, had been established by 2010. However, competition failed to become an integral part of the Russian economy. In terms of capitalization, the antimonopoly control covered the lower and the middle market segments, including mergers and acquisitions. In terms of the biggest companies oversight, the antimonopoly agency’s activity, or, conversely, a lack thereof, it was driven largely by noneconomic motives.²

The development of antimonopoly regulation practice in the period of 2010–2016 was marked by the adoption of “The Third and The Fourth Antimonopoly Packages”.

The major amendments adopted in December 2011 in Federal Law No. 401-FZ, also known as the ‘Third Antimonopoly Package’, were intended to provide more detailed requirements to anticompetitive agreements and concerted practices, as well as to clarify the criteria of a monopolistically high price. Also, the Government of the Russian Federation was granted the right to establish the rules for non-discriminatory access to infrastructural assets in commodity markets in regards to natural monopolies, and the procedure for government control of economic concentration and the procedure for consideration of antimonopoly violations were clarified.³

Below listed are the most important amendments concerning mergers and acquisitions.

1. The threshold for transactions involving mergers and consolidations that require preliminary clearance by the antimonopoly authority was lifted once gain (from Rb 3bn to Rb 7bn for total balance sheet value of assets and from Rb 6bn to Rb 10bn for total revenue from the sale of goods) (Clauses 1, 2, Article 27.1. FZ “On the Protection of Competition”), thus narrowing the segment of transactions monitored by the antimonopoly authority;

2. An article was introduced, stipulating that the economic concentration control will cover, besides Russian transactions and assets, *foreign persons and/or foreign organizations* supplying goods to Russia in an amount of *not more than Rb 1bn* within a year preceding the date of transaction settlement;

3. A new article was adopted to regulate the procedure of *cautions* against antimonopoly violations which the antimonopoly authority shall apply with a view to *preventing* antimonopoly violations (Article 25.7, FZ “On the Protection of Competition”);

¹ Federal Law of July 26, 2006, No. 135-FZ “On the Protection of Competition” // RG No. 162, July 27, 2006.

² See Modern development trends in the market for mergers of acquisitions / science editor A.D. Radygin. – M.: Delo Publishing House, RANEPa, 2010. – PP. 106-117.

³ ‘The Third Antimonopoly Package’ takes force in Russia.- <http://pravo.ru/news/view/66926/>, 10.01.12

4. The scope of the Federal Antimonopoly Service's powers was expanded: FAS Russia was entitled to issue *warnings* to stop illegal acts (omission) that appear to show signs of antimonopoly violations (Article 23, Clause 3.2, Part 1, FZ "On the Protection of Competition").

Warnings are most often issued to companies abusing their dominance, as well as in the event of disputes between business entities when it comes to refusal or reluctance to enter into the agreement or to disadvantageous terms enforcement. According to the estimates of the FAS Russia Legal Division, "1,200 out of 1,500 warnings have been observed on a voluntary basis. This suggests that more than a half of cases have been settled off court, and therefore the infringed rights have been restored in a more rapid manner".¹

"The Third Antimonopoly Package" clarifies the legal components of the criminal liability for antimonopoly violations, as well as a series of procedural norms governing the order of proceedings for administrative offence cases. For instance, Article 178 of the Criminal Code of Russia was amended by abolishing the liability for concerted practices and vertical agreements between business entities. Thus, it is solely the most threatening anti-competitive acts – cartel agreements – that will be subject to criminal prosecution. At the same time, the definition of a cartel was for the first time introduced in the Russian legislation, which means the illegal agreement between market competitors whereby certain adverse implications occur or may occur, namely setting and maintaining of a certain price, division of the commodity market, refusal to enter into an agreement with a certain buyer, etc.²

In October 2015, the following amendments were made to Federal Law No. 275-FZ of October 5, 2015, also known as "The Fourth Antimonopoly Package".

A) The *dominance abuse prohibition was abolished* with respect to business entities in the case their dominance abuse acts impair solely the interests of certain persons not involved in business and do not diminish competition in the market as a whole ("the issue of country home owners" not being able to connect to the power grid);

B) The registry-keeping function was abolished with regard to entities with a commodity market share of more than 35%;

C) transactions of dominant business entities whose assets do not oversize the amounts set forth in the Federal Law were made not subject to the antimonopoly control;

D) *preliminary approval of natural monopolies' transactions was abolished* for transactions settled within a single group of persons pursuant to Article 9 and Article 31, Clause 1, Part 1 of the Federal Law "On the Protection of Competition";³

E) a collegial body – the Presidium of FAS Russia – was established, which is entitled, among other powers vested therein, to revise antimonopoly violation cases in the event they violate the consistency of interpretation and application of the antimonopoly legislation, as well as impair the interests of any number of unspecified persons;

F) the scope of application of the institutions of warnings and cautions was expanded substantially by way of, among other things, applying thereof to federal government agencies and local self-government agencies.

¹ E. Dobrikova. Antimonopoly legislation: trends in 2015, GARANT.RU: <http://www.garant.ru/article/616813/#ixzz4Ub8JcMwH>, April 3, 2015.

² "The Third Antimonopoly Package" takes force in Russia".- <http://pravo.ru/news/view/66926/>, 10.01.12.

³ "The Fourth Antimonopoly Package".- http://fas.gov.ru/netcat_files/557/716/Chetvertyy_antimonopol_nyy_paket.pdf

In July 2016, Federal Law No. 264-FZ contemplated that a legal business entity whose founder (member) is a single individual (including an individual registered as individual entrepreneur) or several individuals may not be deemed to be dominant if such an entity had a revenue from the sale of goods worth not more than *Rb 400m* over the past calendar year, except for financial institutions, business entities partially owned by the Russian Federation, by a subject of the Russian Federation, by a municipality, etc. (Article 5, Parts 2.1, 2.2. FZ “On the Protection of Competition”).

In addition, the law established that random ad-hoc on-site inspections initiated following individuals’, legal entities’, media’s information and reports suggesting signs of antimonopoly violation against a small business entity, as well as the antimonopoly authority’s detection of signs of antimonopoly violation, shall be subject to approval by the prosecutor’s office in the manner set forth in the Prosecutor General’s order, with some exceptions (Article 25.1, Part 5.1, FZ “On the Protection of Competition”).

The work on “The Fifth Antimonopoly Package” continued in 2016. The Package is expected to cover the co-relation of intellectual property rights and the antimonopoly regulation practice, the statutory definition of an antimonopoly complex and the implications of a good-faith application thereof, the introduction of parallel imports, the creation of a class-action and loss-recovery framework, shifts in the tariff regulation strategy. Finally, the outdated Federal Law “On Natural Monopolies” was abolished.¹

The important thing to note is that the adoption of a few regulatory norms such as the introduction of the warnings and cautions practice had long been expected and awaited. On the whole, however, the antimonopoly legislation relaxation was observed as the share of the government and state-owned companies of the economy increased. For instance, according to the FAS Russia’s estimates, the public sector’s contribution (including the budget-funded sector) to GDP was estimated about 70% at the 2015 year-end, while in 2005 it stood at about 35%.² At the same time, the antimonopoly regulation practice is still limited in the segment of major owners.

* * *

In the period of 2007–2010, the Russian market for mergers and acquisitions was driven by the same trend as the global M&A market: 2007–2009 saw a substantial decline in the total annual volume of transactions, while there was growth in 2009–2011. In terms of volume, global market transactions increased to 155%. *Russia showed a reverse trend to that of the global market* since 2011: in 2011–2013, the global corporate control market saw a 74.55% decline, while the Russian corporate control market showed a bull rally to 270%, and, conversely, in 2013–2015, the global market saw a bull rally of 216.4%, while the Russian market for mergers and acquisitions was on the slide, to nearly 39.9%.

The Russian market for mergers and acquisitions still remains basically a *local market*, with 78% of transactions involving Russian assets and Russian buyers, with a total value of 69%. As regards cross-border transactions, the period of 2010–2014 saw domination of Russian

¹ FAS Russia prepare “The Fifth Antimonopoly Package”.- Rossiyskaya Federacia Segondya.-2016, No. 2, <http://www.russia-today.ru/article.php?i=1802>

² See also A.E. Abramov, A. D. Radygin. M.I. Chernova. Companies partially owned by the government in the Russian market: ownership breakdown and contribution to the economy. – Voprosy Ekonomiki, 2016, No. 12, pp. 61–87.

transactions abroad, and it was not until 2015 that foreign buyers with Russian assets took the lead in cross-border transactions. In 2015–2016, the construction and development sector took the lead in the value and in the total number of transactions (28% and 15% respectively).

The M&A market to GDP ratio reached a peak of nearly 20.46% in 2007, followed by decline to 7.14% in 2009. The ratio was high enough (nearly 18%) in 2013, dropped to an all-time low of 6.94% in 2014 and then rose slightly to 7.26% in 2015.

In terms of total volume, 2017 is expected to see further growth of M&A transactions in the global market, with a peak in developed countries, while emerging economies are anticipated to see a peak in 2018. The Russian market will most likely stay at the level as it is now, with growth not expected until 2017–2018.

In the period of 2010–2016, the M&A regulation changed substantially. In particular, a possibility of undertaking a comprehensive reorganization was introduced, regulatory norms regulating guarantees for creditors' rights in case of reorganization (in fact creditors' rights were restricted) were adopted, the scope of liability of owners and other persons who really can govern the acts of persons under reorganization were expanded, regulatory norms regulating the reorganization decision invalidation and implications thereof, the invalidation of the reorganization) were adopted. In addition, the powers of the publicly-traded company' registrar were secured with regard to the share repurchase procedure, and shareholders' agreement regulatory norms were introduced. Control over management was made more complicated, thus fitting the interests of managers, and amendments were made making it more difficult to deem a transaction to be a large transaction and hence being subject to a special transaction settlement procedure. At the same time, joint-stock company relationship models were made increasingly variable.

As regards the antimonopoly legislation, the adoption of some regulatory norms such as the warnings and cautions practice has long been awaited and anticipated. On the whole, relaxation of antimonopoly legislation was observed as, however, the share of the government and state-owned companies of the economy increased. At the same time, the antimonopoly regulation practice is still limited in the segment of major owners.

6.3. Financial market regulation 2013–2016: new subjects and new requirements¹

Russia's modern financial market, which emerged in the early 1990s, is nearing its 30th anniversary. Its development history may be conventionally divided into several phases.

Phase I: 1990–1998.

The 1990s were the period of radical transformation of the entire economy, it began to be destatized and switched over to market economics. While previously there had been no financial sector at all (as understood in accordance with its market definition), now there appeared a foreign currency market and a stock market, and the money market became more sophisticated and developed. The corresponding primary normative base was created. However, the inadequate starting conditions for this grandiose reform coupled with the 1998 economic crisis that was a mighty setback for financial market development, have seriously affected the quality of its subsequent formation.²

Phase II: 1999–2008.

¹ Author of chapter: N. Polezhaeva – RANEPА.

² See Krinichanskii, K.V. The current state and the problems of development of the financial market in Russia. *Journal of economics theory* (in Russian). 2007, No 6, pp. 28-44.

Over the period 1999–2002, the economy was gradually recovering, and output plunge gave way to output growth, largely due to soaring prices of mineral resources. At the same time, the latter phenomenon alongside the effects of several institutional factors conduced to the emergence of a variant of rent capitalism¹ with government expansion as property owner and a slowdown in the implementation of market and institutional reforms. Because of the newly emerged trend towards deprivatization of the national economy, the financial market was developing at an inadequately slow rate. Even now, the comparison of the Russian financial market's indices with the marker parameters in the developed countries points to the low scale of the former.

The lack of proper attention to the needs of the developing market institutions produced many negative consequences: a legal vacuum; delayed implementation of best practices of hi-tech bidding and centralized clearing by stock exchanges; absence of a central depository; serious constraints on the growth of collective investment institutions, etc. As a result, Russia's financial market was very sensitive to the effects of external factor, which became vividly manifest during the unfolding of the global financial crisis in 2008.²

Phase III: 2009–2012.

Over that period, there was no qualitative improvement in the competitive potential of the Russian financial market. Nevertheless, after the financial crisis had exacerbated the issues associated with the existence of systemic risks and the less than perfect systems of financial market regulation and supervision, regulation in that sphere began to be the focus of reform. A plan of measures designed to set up an international financial center in Russia was devised, one of its priority directions being the toughening of control over systemic risks in the financial market sphere through the creation of a megaregulator.

The introduction of a single regulator was necessitated by the weak competitive potential of the Russian financial market, its development having been adversely influenced by the low efficiency of regulating subjects. The numerous regulators (the Federal Financial Markets Service (FFMS), the RF Ministry of Finance, the Russian Federal Financial Monitoring Service, and many other institutions) were responsible each for the control of a separate market sphere, and these frequently overlapped; so, they were unable to get timely, complete and reliable information and promptly make necessary decisions, or properly assess the situation on the market. Some financial market segments, for example the forex market, had for a long time been existing outside of the sphere of regulation.

The pace of development of the financial market, which largely moved ahead of its legal backing, necessitated a unification of financial legislation and elimination of the numerous controversies, underdeveloped fields and legal gaps.

The advantages to be gained by the introduction of the new financial market regulation and supervision system were to be as follows: the creation of a single legal system; qualitative monitoring of the situation in the financial markets; prompt identification of potential systemic risks and elaboration of solutions to a broad range of problems; smooth and well-coordinated implementation of the financial development policy; expansion and perfection of financial services.

In spite of these advantages, megaregulation is also fraught with some risks: low quality of the results of reform due to its sheer scale; a deepening conflict of interests and functions inside the megaregulator, the main candidate for this role being the Bank of Russia; the risks

¹ For further details, see: Abramov, A., Radygin A. Russia's financial market under conditions of state capitalism. *Voprosy ekonomiki* (in Russian). 2007, No 6, pp. 28–44.

² See: Ye. T. Gaidar (ed.). The financial crisis in Russia and the world. Moscow: *Prospekt*, 2009; Igonina L.L. The global financial crisis and its impact on the Russian financial market. *The Economic Herald of Rostov State University* (in Russian). 2008, V. 6, No 4, pp. 62-69.

associated with excessively authoritarian approaches practiced by the regulator (including the loss of their autonomy by self-regulatory organizations) and the unification of regulation of financial institutions of different types on the basis of the approaches practiced by banks in their relations with other banks; disregard of the interests of non-bank financial institutions.¹ The existence of all these adverse features gave rise to many opponents of the reform in the scientific research and professional community.

However, the presence of risks does not mean that they must necessarily be materialized. Foreign experience can offer both best practices of a megaregulator's functioning (in Canada, Germany, Japan, Singapore, Switzerland²) and its failures (in the UK). It is impossible to estimate the feasibility of introducing this regulation system in the Russian financial market before it begins to actually function.

Phase IV: 2013 – present time

As of September 1, 2013 the Bank of Russia was granted the powers to regulate, control and supervise the activities of a variety of non-credit financial institutions, from brokers to pawnbrokers.³ It became the megaregulator of financial markets, which heralded the onset of largest institutional reform of this country's financial sector. The Bank of Russia, while relying on its experience of banking regulation in dealing with the organizations that had been added to its sphere of control, initiated a number of changes that were formalized over the period 2013–2016 as laws addressing the financial market sphere. *The three main directions of changes* may be defined as follows.

1. *Identification and subsequent legal regulation of the activities of all the entities acting as financial market participants, legal consolidation of the new types of market players and infrastructure institutions*

The new securities market participants are *specialized societies* (SO) – the specialized financial societies (SFS) and the specialized project financing societies (SPFS). Previously, Russian legislation envisaged the possibility of creating special-purpose companies of one type only – a housing mortgage agent⁴.

By Federal Law No 379-FZ, dated December 21, 2013 'On the introduction of alterations into some legislative acts of the Russian Federation', Federal Law No 39-FZ, dated April 22, 1996 'On the securities market' was amended, whereby the specific features of the legal status of a SO were established, and special provisions concerning an asset manager and the

¹ See Rozhdestvenskaya, T. E. The creation of a megaregulator in Russia: its goals, tasks, problems and prospects for development. *Banking Law* (in Russian). 2013, No 5, pp. 10-17; Snezhko Yu. N. The formation of a megaregulator and its consequences for the creation of an international financial center in Russia. *Statistics and Economics* (in Russian). 2014, No 5, pp. 90-94; Veselova, A. S., Volodin, S. N. The Central Bank of the Russian Federation as an integrated financial regulator. Stock market: its current state, tools and development trends. *The XII Inter-High Educational Establishments' Conference*, Moscow, April 14, 2015. National Research University Higher School of Economics, Moscow State Institute of International Relations (University), G. V. Plekhanov Russian University of Economics, Financial University under the Government of the Russian Federation; N. I. Berzon, S. N. Volodin (eds). Moscow: *KURS*, 2015, pp. 191-202 (in Russian).

² See Suchkova, E. O., Masterovenko, K. V. The megaregulator of the financial market: an overview of methodologies and their practical implementation in Russia and abroad. *Finance and Credit* (in Russian). 2015, No 38 (662), pp. 20–30.

³ See Federal Law dated July 23, 2013 No 251-FZ 'On the introduction of alterations to some legislative acts of the Russian Federation in connection with the transfer, to the Central Bank of the Russian Federation, the powers of regulation, control and supervision in the sphere of financial markets'. *The Russian Gazette* (in Russian), No 166, July 31, 2013; Article 76.1 Federal Law dated July 10, 2002 No 86-FZ 'On the Central Bank of the Russian Federation (Bank of Russia)'. *The Russian Gazette* (in Russian), No 127, July 13, 2002.

⁴ See Filatova, V. F. The securitization of financial assets in Russia: how will this mechanism work? *Legal Work at a Lending Institution* (in Russian). 2014, No 3, pp. 13–20.

replacement of a SO that has issued bonds secured by a pledge in the event of its bankruptcy (Article 15.1–15.4) introduced. Thus, in an event of the issuance, by an arbitration court, of a ruling that a SO should be deemed to be bankrupt, and a proceeding in bankruptcy be initiated, all its liabilities relative to the issued bonds may be transferred to another SO; this is, undoubtedly, a positive development.

The two types of SOs differ by their goals and subject of activity. For SFSs, these are to be as follows:

- acquisition of property rights whereby it is entitled to demand that the debtors pay their debts owed under credit agreements, lending agreements, and other obligations, including the rights that may arise in the future pending the already existing or future liabilities;
- acquisition of other property in connection with the newly acquired monetary claims, including under leasing contracts and lease agreements;
- issuance of bonds secured by a pledge of monetary claims.

The goals and subject of the activity of a SPFS are to be as follows:

- financing of a long-term investment project by way of acquiring:
 - a) monetary claims against the liabilities that will arise as a result of the sale of property created in the course of implementing such a project, the rendering of services, the manufacturing of goods, and the performance of work associated with the use of property thus created;
 - b) other property needed for or associated with the implementation of such a project;
- issuance of bonds secured by a pledge of monetary claims or other property.

The emergence of SPFSs was necessary because the market needed a mechanism whereby the cash flows could be directed from the financial sector to the real sector in the framework of project implementation. From a practical point of view, the sphere of application for a SPFS is very broad - the funding of major infrastructure projects (for example, road-building and the construction of bridges or other big structures) and projects of local importance. The use of SPFSs as a mechanism for project financing has several unquestionable advantages, including investor base expansion and tax exemptions. A SPFS may be involved only in the project being financed, i.e., there are restrictions on its legal capacity. A SPFS has no right to close deals unrelated to project implementation, including the issuance of additional debt instruments, and so a SPFS cannot have creditors other than those that acquire their creditor status under the project financing agreement¹.

The expert opinion that the professional activities of SFSs and SPFSs overlap, from which it follows that the existence of both types of SOs is not really necessary, is noteworthy. However, it should be added that a SFS enjoys a broader legal capacity, but is restricted in its ability to adjust the regime of its activity on the basis of its charter. A SPFS has narrow specialization, but its charter can most advantageously reflect the interests of its founders. The goals of its activity, as stipulated in the existing norms, enable a SFS to exercise the full scope of activities assigned to a SPFS (with the exception of issuance of bonds secured by a pledge of other property, which does not correspond to the priority goal of securitization)².

¹ See Ushakov, O., Filchukov A. Special-purpose companies. The new possibilities for project financing envisaged by Russian legislation. *The Financial Gazette* (in Russian). 2016. No 11. Pp. 9, 12–13; Nuriev, A. H. Regulation of project financing: on the way to international standards. *International Banking Operations* (in Russian). 2014, No 1, pp. 8–21.

² See Suslov, R. Non-housing mortgage securitization in Russia: does it have any future? *The Banking Review*. The supplement *Bank Supervision* (in Russian). 2015, No 1, pp. 20–24.

In 2016,¹ yet another newly created securities market participant became a *repository*, licensed to collect and store information on certain types of agreements and to keep a register of those agreements (off-floor repo agreements; agreements representing derivative financial instruments, etc.) (Article 15.5–15.9, Article 39.3, 39.4).

Forex dealer is another new professional securities market participant (Article 4.1). Prior to 2015,² their activity had not been subject to legal regulation.³

The new rules for operating in the forex market are designed to make it more transparent and better understandable for its clients, and caution them against rash investment decisions by alerting them to the existing money loss risks. At the same time, the significant limitations and gaps in newly adopted legislation (the requirements that a financial institution's equity should amount to not less than RUB 100bn; the requirements to computer technologies, managerial bodies and nominal accounts of organizations; mandatory membership in a SRO, etc.⁴) resulted in a situation where, as of December 16, 2016, only 6 organizations were licensed as forex dealers,⁵ whereas as of the data of introducing the provisions concerning a forex dealer's status (October 1, 2015) there had been approximately 100 financial institutions operating in Russia's forex market.

The Federal Law 'On the securities market' has also been augmented by articles concerning self-regulatory organizations (SRO) for forex-dealers (Article 50.1, 50.2). A forex dealer must become a member of a SRO and pay an entrance fee to its compensation fund.

The duty to create a compensation fund for covering the losses of individuals who are not individual entrepreneurs, incurred by them through insolvency (bankruptcy) of forex dealers, is the distinctive feature of SROs of forex dealers (the compensation funds of other self-regulatory organizations are generally created in order to secure the responsibilities of their members to the consumers of their services and third parties), and the Federal Law particularly specifies the necessity to separate the monies kept in the compensation fund from the other assets held by the organization, as well as their safekeeping, the procedure of creating the fund, and the procedure of and conditions for compensatory payments.

The Federal Law on SROs operating in the financial market sphere⁶ sets a cap on the entrance membership fee at RUB 100,000 (Article 18). On the one hand, the cap on the entrance fee is designed to prevent a SRO from setting entrance barriers, and thus to protect honest professional market participants, in this particular case – the participants of the forex market. On the other hand, the amount of RUB 2bn – the entrance fee of a forex dealer required to be

¹ See Federal Law No 430-FZ, dated December 30, 2015 'On the introduction of alterations to the Federal Law 'On the securities market' and some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 1, January 11, 2016.

² See Federal Law No 460-FZ, dated December 29, 2014 'On the introduction of alterations to some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 299, December 31, 2014.

³ Forex dealing is understood as a licensed activity involving the conclusion with individuals who are not individual entrepreneurs, by a dealer in its own name and at its own expense, off-floor deals that are not financial derivatives, where the mutual obligations of the parties depend on the fluctuation of a foreign currency or currency pair, and (or) two or more deals involving a foreign currency or a currency pair with the same period of execution, the creditor under one of these agreements being the debtor against a similar obligation under the other agreement. In both cases, the agreement is concluded on condition that the forex dealer provides the said individual with opportunities to assume obligations to the value in excess of the value of security offered by that individual to the forex dealer.

⁴ See Polezhaeva, N. A. Self-regulatory organization of forex dealers. *Banking Law* (in Russian). 2016, No 6, pp. 53–57.

⁵ The securities market and commodity market. See http://www.cbr.ru/finmarkets/?PrId=sv_secur.

⁶ Federal Law No 223-FZ, dated July 13, 2015 'On self-regulatory organizations in the sphere of financial market'. *The Russian Gazette* (in Russian), No 157, July 20, 2015.

paid to the compensation fund of a SRO in accordance with the Federal Law ‘On the securities market’ - appears to be more appropriate from the point of view of investor protection, considering the huge turnover on the forex market and the losses that investors may incur in the event of a forex dealer’s insolvency (bankruptcy), and further considering the fact that the equity of the latter must be not less than RUB 100bn, a sum that makes the RUB 2m entrance fee appear to be adequate.

Organizers of trade in the securities market, including the exchange, were struck off the list of professional market participant categories introduced by the Federal Law ‘On the securities market’ in 2014.¹ Today, their activity is regulated by the Federal Law ‘On organized trade.’²

The new participants in insurance relations³ are *reinsurance organizations* (previously, these were mentioned in the law but were not treated as participants); *insurance agent associations; associations of insurers, related parties, beneficiaries; the specialized depository* (Article 4.1).

In 2014,⁴ the specialized depository became an absolute novelty in the sphere of insurance activities (Article 26.2). The depository, on the basis of depository agreements, holds and safeguards securities placed there by insurers specializing in life insurance, pension insurance, and other forms of insurance (i.e., all big insurance organizations) as their insurance reserves and equity (capital). The specialized depository maintains daily control over the insurers’ compliance with the established rules for their own money, which displeases them and may ultimately result in higher prices of their services.

The establishment of the specialized depository institution for insurance companies should be viewed as one of the consecutive phases in the process of unification of the control procedures implemented in various segments of the collective investment market. The ongoing changes are expected to improve the consumer right protection mechanisms applied to insurance services and to increase the responsibility of subjects operating in that sphere, as well as to make their activity more transparent.⁵

Prior to the enactment, in 2015, of the Federal Law ‘On actuary activity’⁶ (to be understood as professional assessment of financial risk and the resulting financial liabilities), some norms on actuary activities had been stipulated in insurance legislation and the legislative acts regulating pension provision and provision insurance; however, there had been no mechanism for dealing with actuaries. There had been no definition of the subject and object of the actuary activity, no established requirements to such services, or to the control over such services. There had been no precisely delineated system of risk assessment criteria: experts used to rely only on their own judgment. Although actuaries did exercise control over solvency of the

¹ See Federal Law No 327-FZ, dated November 21, 2011 ‘On the introduction of alterations to some legislative acts of the Russian Federation in connection with the adoption of the Federal Law ‘On organized trading.’ *The Russian Gazette* (in Russian), No 266s, November 26, 2011.

² Federal Law No 325-FZ, dated November 21, 2011 ‘On organized trading.’ *The Russian Gazette* (in Russian), No 266c, November 26, 2011.

³ See Federal Law No 4015-1, dated November 27, 1992 ‘On the organization of insurance business in the Russian Federation’. *The Russian Gazette* (in Russian), No 6, January 12, 1993.

⁴ See Federal Law No 234-FZ, dated July 23, 2013 ‘On the introduction of alterations to the Law of the Russian Federation ‘On the organization of insurance business in the Russian Federation.’ *The Russian Gazette* (in Russian), No 163, July 6, 2013.

⁵ See Zakharova, N. A., Bevziuk, E. A., Kabantseva, N. G., Larionova, V. A., Slesarev, S. A. Commentary to RF Law No 4015-1, dated November 27, 1992 ‘On the organization of insurance business in the Russian Federation’ (article-by-article).’ *The Consultant Plus Reference and Legal System* (in Russian), 2014; Petrova, N. F. The interaction between insurers and special depositories. *Insurance Organizations: Accounting and Taxation* (in Russian). 2015, No 4, pp. 10–20.

⁶ Federal Law No 293-FZ, dated November 2, 2013 ‘On actuary activity in the Russian Federation.’ *The Russian Gazette* (in Russian), No 249, November 6, 2013.

organizations involved in socially important activities and risk-taking, there had been no legislative norms whereby an actuary was to be made responsible for the outcome of its work.¹

Thus, the adoption of the Federal Law 'On actuary activity in the Russian Federation' was necessitated by the need for efficient systemic regulation of this activity, and for higher transparency and better performance of the collective investment market.

The new law has several drawbacks. One example of these drawbacks is the duty, imposed on private pension funds, insurance organizations and mutual insurance societies, to order actuarial assessment of their activities and to pay for it with their own money, which may translate into higher prices of their own services.

The adoption, in 2015, of the Federal Law 'On the activities of credit rating agencies',² whereby the legal framework for the implementation and supervision of these activities was for the first time established, was a major hallmark in the development of that sector. The qualitative assessment of the abilities of rated legal entities to meet their financial obligations is beneficial for investors and conduces to capital inflow into this country. In some cases, the necessity for a securities issuer or issue to be assigned a rating category not lower than a certain level may be enforced by the financial regulator as a mandatory requirement, and entail certain preferential rights.³

Self-regulatory organizations are by no means a new phenomenon for the financial market as a whole. Financial institutions were granted the right to unite in SROs in accordance with general rules (see the Federal Law on SROs⁴). This right was also stipulated in a number of specialized laws.⁵ There were only two cases when membership in a SRO was mandatory.⁶ After the entry into force, in 2016, of the Federal Law on SROs in the financial market sphere,⁷ membership in SROs became mandatory for the majority of participants in various financial markets. Thus, the Federal Law 'On self-regulatory organizations in the financial market sphere' not only consolidated new types of SROs, but also altered the market self-regulation system.⁸

It should be noted that the law on financial SROs does not apply to the SROs of actuaries, where membership is also mandatory, and the activity of the latter is regulated by the Federal Law 'On actuary activities' and the Federal Law on SROs.

Thus, the clear delineation of the categories of subjects to be controlled by the Bank of Russia, and the systematization and improvement of legal regulation of their activities, conduce

¹ See Zobova, E. P. The new law on actuaries. *Insurance Organizations: Accounting and Taxation* (in Russian). 2014, No 2, pp. 10-20; Shestakova, E. Actuary activity. *EJ Jurist*, 2013, No 45, p. 2.

² Federal Law No 222-FZ, dated July 13, 2015 'On the activities of credit rating agencies in the Russian Federation. *The Russian Gazette* (in Russian), No 156, July 17, 2015.

³ See E. Khudko. Rating in law. *EJ Jurist*, 2016, No 6-7, pp. 1, 4-5 (in Russian).

⁴ Federal Law No 315-FZ, dated December 1, 2007 'On self-regulatory organizations.' *The Russian Gazette* (in Russian), No 273, December 6, 2007.

⁵ See Federal Law No 39-FZ, dated April 22, 1996 'On the securities market.' *The Russian Gazette* (in Russian), No 79, April 25, 1996; Federal Law No 75-FZ, dated May 7, 1998 'On private pension funds.' *The Russian Gazette* (in Russian), No 90, May 13, 1998; Federal Law No 156-FZ, dated November 29, 2001 'On investment funds.' *The Russian Gazette* (in Russian), No 237-238, December 4, 2001; Federal Law No 215-FZ, dated December 30, 2004 'On accumulative housing cooperatives.' *The Russian Gazette* (in Russian), No 292, December 31, 2004.

⁶ See Federal Law No 193-FZ, dated December 8, 1995 'On agricultural cooperation.' *The Russian Gazette* (in Russian), No 242, December 16, 1995; Federal Law No 190-FZ, dated July 18, 2009 'On credit cooperation.' *The Russian Gazette* (in Russian), No 136, 24 July 2009.

⁷ Federal Law No 223-FZ, dated July 13, 2015 'On self-regulatory organizations in the financial market sphere. *The Russian Gazette* (in Russian), No 157, July 20, 2015.

⁸ For further details, see Polezhaeva, N. A. Self-regulatory organizations related to the financial market. *Russian Economic Development*, 2015, No 12, pp. 116-121.

to sustainable development of the financial market, efficient risk management, including prompt identification and prevention of crisis situations, and the protection of rights and lawful interests of the consumers of financial services.

2. *Toughening of the requirements to financial market participants, endowment of the Bank of Russia with broader powers to exercise control over market participants*

Over three recent years, after the categories of financial market subjects to be controlled by the Bank of Russia were defined, the relevant laws have been amended, so that the requirements to market participants have become tougher and more precisely defined, and the scope of their obligations has been broadened. The functions and powers of the Bank of Russia relative to financial market participants have likewise been broadened, which is reflected in special normative acts.

The Federal Law 'On the securities market', after the introduction of numerous alterations since late 2013,¹ in addition to regulating the activity of new market participants, stipulates as follows:

a) the requirements to the other participants have been broadened. The articles concerning the securities register (Article 8), the nominal securities holder (Article 8.3), the keeping of records of rights of foreign organizations acting in the interests of third parties to hold securities (Article 8.4), of the specificities of the execution of their right to hold securities by the persons whose rights are registered by the nominal holder, a foreign nominal holder, or a foreign organization (Article 8.9), have been significantly altered and augmented by some new provisions. A number of new articles have been introduced, including those stipulating the requirements to representatives of foreign organizations, professional securities market participants; and those regulating the disclosure of information to the central depository (Articles 9.1, 10.1-1, 30.3);

b) the functions of the Bank of Russia (Article 42) have been broadened, and the grounds for and procedure of revoking a license by the Bank of Russia introduced (Article 39.1, 39.2);

c) the norms directly applying to the issuance of securities have been further elaborated. Some new articles have been introduced, including a large chapter concerning representatives of bond holders and their general meeting (Article 29.1–29.11). The articles concerning bonds secured by a pledge (Article 27.3), the specific features of the issuance and circulation of exchange-traded and commercial bonds (Article 27.5-2), and the specific features of the placement and circulation in Russia of foreign securities (Article 51.1) have been revised.

*The Federal Law 'On clearing'*² was augmented, in 2015,³ by a chapter on an asset pool – a separately held portfolio of securities and other assets, created by a clearing institution from the assets contributed by its participants (Article 24.1–24.5). The requirements to clearing rules and the list of information items subject to compulsory disclosure have been broadened (Article 4, 19).

¹ See Federal Law No 379-FZ, dated December 21, 2013 'On the introduction of alterations to some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 291, December 25, 2013; Federal Law No 218-FZ, dated July 21, 2014 'On the introduction of alterations to some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 169, July 30, 2014; Federal Law No 210-FZ, dated June 29, 2015 'On the introduction of alterations to some legislative acts of the Russian Federation and the invalidation of certain provisions of legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 147, July 8, 2015; Federal Law No 292-FZ, dated July 3, 2016 'On the introduction of alterations to some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 151, July 12, 2016, etc.

² Federal Law No 7-FZ, dated February 7, 2011 'On clearing, clearing activity and the central contractor'. *The Russian Gazette* (in Russian), No 29, February 11, 2011.

³ See Federal Law No 210-FZ, dated June 29, 2015; Federal Law No 403-FZ, dated December 29, 2015 'On the introduction of alterations to some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 297, December 31, 2015.

The principal innovation are the norms concerning the central contractor, whereby its status has been made more uniform, and the organizations performing these functions have likewise been endowed with uniform rights and duties. The Bank of Russia has set the goal of ensuring continuity in the central contractor's activity in its capacity of an important financial institution, including centralized distribution of liquidity among all financial market participants. The prudential regime, including the supervision and surveillance of the central contractor, will be comprehensive and constant, thus making it possible to eliminate the precedents necessitating a recovery of its financial sustainability. On the whole, these amendments have resulted in Russia's national legislation being harmonized in compliance with international standards.¹

In accordance with the *Federal Laws 'On organized trade'*² (Article 14) and *'On the central depository'*³ (Article 7),⁴ organizers of trade and the central depository have been obliged, from 2015 onwards, to organize and conduct internal audits.

*The Federal Law 'On the organization of insurance activity in the Russian Federation'*⁵ as last amended in late 2016 is the product of a three-year-long period of adjustments and upgrading,⁶ and so, in the part regulating voluntary insurance rules, the list of grounds for declining insurance compensation should by now be complete. The Bank of Russia is endowed with the right to establish the minimum (standards) requirements to the conditions and procedure for each form of voluntary insurance. The Bank of Russia also establishes the procedure for the creation and running of the information system created in order to serve the purposes of information sharing between the participants in insurance activities and fraud prevention (Article 3). For the timely identification of insolvency risks among the market players operating in the insurance sector, the Bank of Russia monitors their activity on the basis of financial indices (coefficients) (Article 30).

The article concerning insurance agents and brokers has been significantly reworded and augmented by some new provisions (Article 8). The brokers receiving money from insurers under insurance agreements must produce a guarantee of fulfillment of their obligations in the form of a bank guarantee to the value of not less than RUB 3bn, or equity to the value of not less than RUB 3bn, in the form of money deposits. Restrictions are imposed on the appointment of an agent or broker by the beneficiaries of insurance policies in favor of third parties. The commission paid by an insurer to an agent or broker in the framework of mandatory insurance cannot exceed 10% of the amount of insurance premium.

Besides, the notions of an insurance group and a franchise (Article 6 and 10 respectively), and special articles concerning a national reinsurance company have been introduced (Article 13.1–13.3); the provisions concerning insured objects and the requirements to insurance tariffs have been stipulated more precisely (Article 4, 11); the articles concerning reinsurance and

¹ See Tarasenko, O. A. Central contractor: new legal status. *Law and Economics* (in Russian), 2016, No 3, pp. 67–73.

² Federal Law No 325-FZ, dated November 21, 2011 'On organized trading.' *The Russian Gazette* (in Russian), No 266, November 26, 2011.

³ Federal Law No 414-FZ, dated December 7, 2011 'On the central depository.' *The Russian Gazette* (in Russian), No 278, December 9, 2011.

⁴ See Federal Law No 210-FZ, dated June 29, 2015.

⁵ Federal Law No 4015-1, dated November 27, 1992 'On the organization of insurance activity in the Russian Federation.' *The Russian Gazette* (in Russian), No 6, January 12, 1993.

⁶ See Federal Law No 234-FZ, dated July 23, 2013 'On the introduction of alterations to the Federal Law "On the organization of insurance business in the Russian Federation."' *The Russian Gazette* (in Russian), No 163, July 26, 2013; Federal Law No 231-FZ, dated July 13, 2015 'On the introduction of alterations to some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 157, July 20, 2015; Federal Law No 363-FZ, dated July 3, 2016 'On the introduction of alterations into the Federal Law of the Russian Federation 'On the organization of insurance business in the Russian Federation.' *The Russian Gazette* (in Russian), No 151, July 12, 2016, etc.

insurance pools have been significantly augmented by adding special provisions on reinsurance pools (Article 13, 14.1).

In order to ensure the financial sustainability and solvency of insurers, some relevant transformations were introduced, including several new articles, among them the articles on internal control and audit (Article 28.1, 28.2), on compulsory audit and publication of an insurer's annual accounting (financial) documentation (Article 29). The obligations of market players engaged in insurance activities were expanded (Article 30), and the articles regulating the licensing of their activities (Article 32), their qualification and other requirements (Article 32.1) have been further elaborated. All these changes are aimed at preventing insurers from developing serious problems to the detriment of their numerous clients. At the same time, by no means all insurers are capable to comply with such requirements promptly and without effort, which inevitably translates into delays and higher prices of their services.

As far as the non-bank professional lending market is concerned,¹ several important alterations have been introduced in the *Federal Law regulating microfinancial activity and microfinancial institutions*.² These innovations are aimed at removing dishonest creditors from the microlending market.

Microfinancial institutions (MI) are subdivided into microfinancial and microcredit companies. A microfinancial company operates with due regard to the established restrictions (Article 12) and requirements, including the constraints on its equity (capital), and is endowed with the right to attract money placed by individuals, including individuals other than its founders (or participants, or shareholders), and by legal entities. A microcredit company may operate with the monies of individuals who are its founders (or participants, or shareholders).

While previously the cap on the amount of a microloan was set at RUB 1bn, now it must not be higher than the margin for the borrower's obligations to the lender against the outstanding principal amount (RUB 3bn for a legal entity or individual entrepreneur; RUB 500,000 for an individual) (Article 2, 12).

The procedure for granting the status of a MI has been defined more precisely (Article 5). The floor for the equity (capital) of a microfinancial company is set at RUB 70bn. The article on the procedure for striking the information on a legal entity off the State register of MIs has been significantly augmented, with the addition of a longer list of instances when the information on a MI should be struck off by decision of the Bank of Russia; and the instances for a refusal for striking that information off the State register have also been established (Article 7).

The articles concerning enforced liquidation of a MI initiated by the Bank of Russia (Article 7.1) and the specific features of the procedure of charging interest and other payments in an event of delays in the fulfillment of obligations against a loan (Article 12.1) were introduced. The Bank of Russia's functions with regard to a MI were broadened due to the Bank's new prerogative to set economic norms (Article 14). Requirements to the reports and other information that should be submitted by a MI became more definite (Article 15).

¹ See Federal Law No 407-FZ, dated December 29, 2015 'On the introduction of alterations to some legislative acts of the Russian Federation and the invalidation of certain provisions of legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 297, December 31, 2015; Federal Law No 230-FZ, dated July 3, 2016 'On the protection of the rights and lawful interests of individuals relating to activities involving outstanding debt repayment, and on the introduction of alterations to the Federal Law 'On microfinancial activity and microfinancial institutions.' *The Russian Gazette* (in Russian), No 146, July 6, 2016; Federal Law No 231-FZ, dated July 13, 2015.

² Federal Law No 151-FZ, dated July 2, 2010 'On microfinancial activity and microfinancial institutions.' *The Russian Gazette* (in Russian), No 147, July 7, 2010.

Among the amendments to the *Federal Law regulating credit cooperation*,¹ we may point to the introduction of financial norms that a credit cooperative was obliged to comply with from 2016 onwards² (Article 6).

It should be noted that credit cooperatives may carry on their professional activity in the form of issuance of consumer loans in the procedure established by the *Federal Law on consumer credits (loans)*, introduced in 2014.³

The tougher requirements to financial market players and the endowment of the Bank of Russia with broader powers are aimed primarily at preventing the entry on the market of dishonest market participants and at removing them from the market, and protecting the interests of honest financial institutions and the consumers of their services.

3. Commercialization of private pension funds

From 2014 onwards, in accordance with the alterations⁴ introduced in the Federal Law on private pension funds (PPFs),⁵ a private pension fund is defined as an organization involved in a single type of licensed activity, namely the provision of private pension plans, including the possibility of taking benefits early from the offered private pension schemes, and compulsory pension insurance. Previously, a PPF had been understood to be a special organizational-legal form of a non-profit welfare organization (Article 2). The incompatibility of that form with the activities of private pension funds, which were clearly entrepreneurial, had become obvious – the founders of PPFs were denied their legitimate corporate rights to participate in the funds' activities; it was problematic for a fund to attract additional financing.⁶

The Federal Law 'On private pension funds'⁷ no longer stipulates that their activities are not entrepreneurial, and instead directly establishes that a fund of this type may be created in the organizational-legal form of a joint-stock company (Article 4, 25). In this connection, the ban on the issuance of securities by a private pension fund has been lifted (Article 14), the law has been augmented by articles stipulating the specific features of transactions involving such securities (Article 7) and the organization of internal control in the funds (Article 6.3).

The floor for the charter capital of a private pension fund is set at RUB 120bn, and from January 1, 2020 it is to be not less than RUB 150bn. The floor for its equity is RUB 150bn, and from January 1, 2020 it is to be not less than RUB 200bn (Article 6.1).

The chapter concerning the managerial bodies of a private pension fund has been revised (Article 28–31). The new article stipulating the requirements for these bodies (Article 6.2), which have to do in the main with reputation and qualification issues, is not a legislative

¹ Federal Law No 190-FZ, dated July 18, 2009 'On credit cooperation.' *The Russian Gazette* (in Russian), No 136, July 24, 2009.

² See Federal Law No 210-FZ, dated June 29, 2015.

³ Federal Law No 353-FZ, dated December 21, 2013 'On consumer credit (loan).' *The Russian Gazette* (in Russian), No 289, December 23, 2013.

⁴ See Federal Law No 218-FZ, dated July 21 2014, 'On the introduction of alterations to some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 169, July 30, 2014.

⁵ Federal Law No 75-FZ, dated May 7, 1998 'On private pension funds.' *The Russian Gazette* (in Russian), No 90, May 13, 1998.

⁶ See *Commentary to legislation of the Russian Federation on pension savings (article-by-article)*. I. A. Aleeva, D. V. Alekseev, N. A. Degtyaryova et al.; ed. Yu. V. Voronin. Moscow: NORMA, 2015, 848 p.

⁷ See the Federal Law 'On private pension funds' as amended as of July 21, 2014, by Federal Law No 218-FZ; and as amended by Federal Law No 410-FZ, dated December 28, 2013 'On the introduction of alterations to the Federal Law 'On private pension funds' and some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 296, December 31, 2013.

innovation *per se*. Previously, such requirements were stipulated in Article 7. The requirements have been expanded, toughened, and directly linked to specific events. The majority of requirements to business reputation, applied by the Bank of Russia to the candidates to managerial positions in a fund, envisage that their employment history should have no financial violations committed in the course of exercising their duties in their previously held posts. Since the Bank of Russia has begun to assess the activity of private pension funds, it looks primarily on its financial and investment-related aspects, and not on how the fund handles welfare issues, as it used to be previously.

The funds set up as joint-stock companies will be able to become fully-fledged market participants, to switch over to a performance assessment system based on market indices, and to be rated accordingly. The transformation of private pension funds will result in refurbishing of the entire corporate governance system in the private pension provision sector, the funds will be obliged to comply with performance-based corporate governance standards and more specific rules regulating the responsibilities of their CEOs.

The duties of the funds have been expanded. Thus, for example, a private pension fund is obliged to implement its own risk management system (Article 14). A new article concerning a fund's obligations has been introduced (Article 14.1). The need for a precise delineation of the obligations of a fund notwithstanding, these obligations are to be determined on the basis of the data relating to its funded pension saving accounts and private pension plan accounts.

As far as the guarantee of the fulfillment, by a private pension fund, of its obligations, the provisions concerning its reserves for securing mandatory pension insurance have been significantly expanded and formalized as a separate article (Article 20.1). The new article on dividends has been introduced, whereby a fund is not allowed to make a decision (or announcement) concerning the payment of dividends on its shares within five years from the date of its State registration; this provision makes a fund somewhat less attractive for investing in, securing instead the interests of its contributors, participants and insured persons (Article 20.3).

The new feature of the article that regulates the permitted forms of investing pension savings is not its content, but the transfer of the right to regulate that issue to the Bank of Russia (Article 24.1). As a result of its current status of a commercial organization, a private pension fund must now practice a different approach to distributing the income generated by invested pension reserves and accumulated pension savings (not less than 85% of a fund's income must be earmarked as pension reserves and accumulated pension savings; previously, no percentage index was established) (Article 27).

The powers of the Bank of Russia were broadened (Article 34), and in 2015,¹ the article whereby enforced liquidation of a private pension fund on the initiative of the Bank of Russia was to be made possible, was introduced (Article 33.2).

In the framework of the chapter that addresses the specific features of the activities involving the creation and investment of pension savings, the obligations to be assumed by the funds with regard to mandatory pension insurance have been expanded (Article 36.2); the specific features of the procedure of keeping records of funded pension accounts have been defined more precisely (Article 36.19); and several new articles have been introduced (Article 36.2-1, 36.6-1, etc.). A new chapter concerning the requirements to taking benefits early under a private

¹ See Federal Law No 167-FZ, dated June 29, 2015, 'On the introduction of alterations to some legislative acts of the Russian Federation.' *The Russian Gazette* (in Russian), No 144, July 3, 2015.

pension scheme and the specific features of the fund's activities relating to early retirement on a private pension plan (Article 36.29–36.37).

Thus, the commercialization of PPFs has allowed them to operate on a new level in the financial market, and to enjoy a greater degree of freedom. At the same time, the fact that the funds have retained the welfare component of their activity, and the resulting conflict of interests between their shareholders and contributors (participants, insured persons), appear to justify the endowment of the Bank of Russia with broader powers to control PPFs.

* * *

By way of summing up, it can be said that after the transfer, in 2013, to the Bank of Russia of the functions of regulation, control and supervision of the activities of non-credit financial institutions, financial legislation began to be actively modified so as to eliminate the existing flaws in the legal regulation system. The alterations designed to define the categories of financial market players to be controlled by the Bank of Russia, to toughen the requirements to their activities by broadening the powers granted to the Bank of Russia, and the commercialization of private pension funds have all primarily pursued the same goal – that of financial market development and financial market stability, and of protection of the rights and lawful interests of the consumers of financial services. In this connection, the interests of financial market participants are oftentimes overlooked.

Thus, the threats that experts had cautioned against before the megaregulator was created were in part justified. So far, the Bank of Russia has not achieved proper balance of its functions aimed at developing the financial market and thus creating new opportunities for its participants, and the functions that have to do with its regulation and supervision; there is a distortion in favor of the latter, which are aimed at reducing risks for market participants. Besides, the Bank of Russia has acted as a rather authoritarian regulator, which is especially manifest in the restrictions imposed on the activities of SROs. Among other things, this approach was motivated by the necessity to overcome the consequences of the 2008 financial crisis, and then to deal with the 2014 crisis; however, it resulted in tougher requirements to market participants introduced in order to ensure stability in the financial market.

These drawbacks can be gradually minimized. It appears that in order to eliminate the imbalance in market regulation, it will be feasible to act as follows:

(1) to more precisely stipulate in federal laws the functions, rights and duties of the Bank of Russia, as well as the rights of financial market participants and the requirements that they have to comply with, so as to eliminate the possibility of excessive authoritarianism exercised by the megaregulator in the framework of its normative acts;

(2) to consider the possibility of optimizing the Bank of Russia's internal structure, in order to smooth the controversies that may arise from the conflict of interests and functions, and to ensure a more productive interaction of the megaregulator with financial market participants;

(3) to grant more freedom to those market participants that have demonstrated a relatively long honest behavior history (for example, SROs of professional securities market participants).

6.4. Science-industry cooperation in Russia: current status, problems, effects of government support¹

In the modern world, close interaction and productive cooperation between business companies, scientific research centers and universities plays a very important role in ensuring sustainable economic development. According to the evolutionary theory, innovation is produced by the interaction of various components of a national innovative system responsible for the distribution and practical application of new knowledge that can be put to economic use.²

Today, the cooperation and mutually beneficial collaboration of science and businesses represent factors that strongly determine the competitive capacity of each of the parties involved in the process. By collaborating with scientific research centers and universities, business companies strive to get access to new scientific research data, to stay tuned to the latest achievements in the field of science and technology, and to optimize the structure of their own expenditures on R&D.³ In the final analysis, through their cooperation with science, businesses get opportunities for implementing projects that otherwise would have been too costly or too risky.⁴ It is not by chance that the developed industrial countries, for at least two decades already, have been demonstrating an increasingly strong trend towards boosting the role of universities and scientific research centers as sources of commercial technologies for businesses.⁵ For their part, the organizations operating in the scientific research sector like to cooperate with businesses not only (and not primarily) because they expect to attract additional resources, but also because they can thus get opportunities for implementing and developing their scientific potential and rely on that cooperation as a source of new ideas for their future research.⁶ In the process of cooperation, the participants can learn a lot from their partners, while contributing their competence, advantages and opportunities in their own specific fields.

At the same time, when speaking of the development of interaction between business companies and scientific research organizations, it is necessary to bear in mind the existence of profound differences in their values, priorities and motives that inevitably give rise to barriers

¹ This section is authored by M. Kuzyk (IAC, RANEPa); Yu. Simachev (NRU HSE; RANEPa); N. Zudin (CSR).

² Metcalfe, J. S. (1994) Evolutionary economics and public policy. *Economic Journal*, 104(425), pp. 931–944; Edquist, C. (1997) System of Innovation Approaches – Their Emergence and Characteristics. In: C. Edquist (Ed.). *System of Innovation. Technologies, Institutions and Organizations*. L.: Pinter/Cassell, pp. 1–35.

³ Lee, Y. (2000) The sustainability of university-industry research collaboration: an empirical assessment. *Journal of Technology Transfer* 25(2): 111–133; Caloghirou, Y., Tsakanikas, A., Vonortas, N.S. (2001) University–industry cooperation in the context of the European framework programmes. *Journal of Technology Transfer* 26 (1-2): 153–161; Bodas Freitas, I. M., Verspagen, B. (2009) The Motivations, Organization and Outcomes of University-Industry Interaction in the Netherlands. UNU-MERIT Working Papers. No 2009-011.

⁴ Caloghirou, Y., Kastelli, I., Tsakanikas, A. (2004) Internal capabilities and external knowledge sources: complements or substitutes for innovative performance? *Technovation* 24(1): 29–39.

⁵ Henderson, R., Jaffe, A., Trajtenberg, M. (1998) Universities as a source of commercial technology: A detailed analysis of university patenting. *Review of Economic and Statistics* 80(1): 119–127. Caloghirou, Y., Kastelli, I., Tsakanikas, A. (2004) Internal capabilities and external knowledge sources: complements or substitutes for innovative performance? *Technovation* 24(1): 29–39.

⁶ Meyer-Krahmer, F., Schmoch, U. (1998) Science-based Technologies University-Industry Interactions in Four Fields. *Scientific research Policy*, 27 (8), pp. 835–852; Lee, Y. (2000) The sustainability of university-industry scientific research collaboration: an empirical assessment. *Journal of Technology Transfer* 25(2): 111–133; D’Este, P., Perkmann M. (2011) Why do academics engage with industry? The entrepreneurial university and individual motivations. *The Journal of Technology Transfer*, 36(3), pp. 316–339.

that may preclude effective collaboration; to lower those barriers is critically important for the successful functioning of an innovation system.¹ That is why the government policies in the sphere of science, technology and innovation represent a factor of paramount importance, one of its key goals being the promotion of interaction, connections and partnerships between the participants of innovative processes, in view of the existing systemic failure.² In accordance with the Triple Helix model (science-industry-government) that has been gaining in popularity in recent years, the latter is responsible, first of all, for the creation of favorable conditions for and promotion of intensive interaction between science and industry.³ In other words, the important function assigned to the government in the Triple Helix model is to coordinate the scientific research development vectors and their use by industry.⁴

6.4.1. The scale of interaction between Russian business companies, scientific research organizations and higher educational establishments in the innovation sphere

On the basis of available official statistics it is impossible to estimate the percentage of Russian companies operating in industry that cooperate with scientific research organizations and higher educational establishments in the framework of their innovative activity. Meanwhile, the Data Books published annually by NRU HSE have made it possible to estimate the relative share of such companies. Thus, in 2014, approximately half (49%) of all innovatively active companies operating in processing industry outsourced their research and development (R&D) activities pertaining to innovative technologies; at the same time, 15% of these companies implemented their R&D projects in partnership with scientific research organizations, and 9% – in partnership with higher educational establishments (*Fig. 10*). In this connection, we should note the upward trend displayed by the growth rate of the relative share, in Russia, of innovative companies that outsource their innovative activities, and of those that collaborate with higher educational establishments in the framework of their R&D projects.

¹ Siegel, D., Waldman, D., Link, A. (1999) Assessing the Impact of Organizational Practices on the Productivity of University Technology Transfer Offices: An Exploratory Study. NBER Working Papers 7256, National Bureau of Economic Scientific research, Inc.; Kodcharat, Ya., Chaikew, A. (2012) University and Industrial Sector Collaboration: the Key Factors Affecting Knowledge Transfer. *International Journal of Business and Social Science* 3(23): 130–137; Yu. Simachev, M. Kuzyk, V. Feygina. R&D cooperation between Russian firms and research organizations: is there a need for state assistance? *Voprosy ekonomiki* (in Russian), No 7, pp. 4–34.

² Gok, A., Edler J. (2011) The Use of Behavioural Additionality in Innovation Policy-Making. MBS/MIoIR Working Paper, No 627, The University of Manchester.

³ Etzkowitz, H., Leydesdorff, L. (2000). The Dynamic of Innovations: from National System and "Mode 2" to a Triple Helix of University-Industry-Government Relations. *Scientific research Policy*, 29, pp. 109-129; Tether B. S., Tajar A. (2008) Beyond industry-university links: Sourcing knowledge innovation from consultants, private scientific research organisations and the public science-base. *Scientific research Policy*, 37 (6/7), pp. 1079-10954; Yu. Simachev, M. Kuzyk, V. Feygina. R&D cooperation between Russian firms and research organizations: is there a need for state assistance? *Voprosy ekonomiki* (in Russian), No 7, pp. 4–34.

⁴ I. Dezhina, V. Kiseleva. 'Triple Helix' in Russia's innovation system, *Voprosy ekonomiki* (in Russian), No 12.

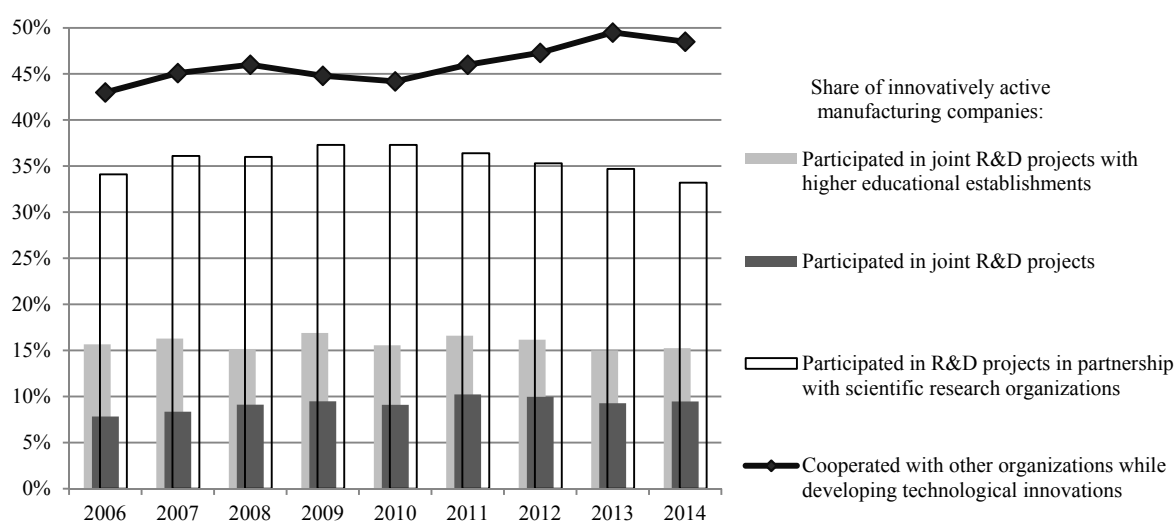


Fig. 10. The cooperation of Russian industrial companies in the framework of their innovative activity

Source: own calculations based on NRU HSE's data.

As demonstrated by the results of a selective survey of more than 650 Russian industrial enterprises conducted by the Interdepartmental Analytical Center (IAC) in H2 2012,¹ 33% of innovatively active companies interacted with scientific research organizations and/or higher educational establishments in the framework of their innovation projects. And finally, according to data released by the OECD, over the period 2009–2011, 23% of Russia's big innovatively active companies cooperated with scientific research organizations and/or universities in the innovation sphere².

The OECD's comparable statistics for more than thirty countries point to the relatively low scale of cooperation between science and industry in Russia (Fig. 11): by its relative share of big innovatively active companies interacting with scientific research organizations and higher educational establishments, this country lags behind not only the developed industrial countries, but also some of the countries that have only recently joined that group (Korea, the Republic of South Africa (RSA), Brazil), and many of the states of the former socialist camp (Hungary, the Czech Republic, Slovakia, Poland, Slovenia).

¹ The survey was organized and conducted in August–September 2012 by the Interdepartmental Analytical Center, the Centre for Business Tendencies Studies of the NRU HSE Institute for Statistical Studies and Economics of Knowledge, and the Information and Publishing Center *Statistics of Russia*. This survey of Russian enterprises and organizations and the other surveys mentioned in this Section were conducted in the form of specialized questionnaires (devised by the Interdepartmental Analytical Center) offered to their CEOs. The final sample consisted of 652 enterprises, of which 608 operated in processing industries.

² OECD (2013) OECD Science, Technology and Industry Scoreboard 2013. OECD Publishing.

RUSSIAN ECONOMY IN 2016

trends and outlooks

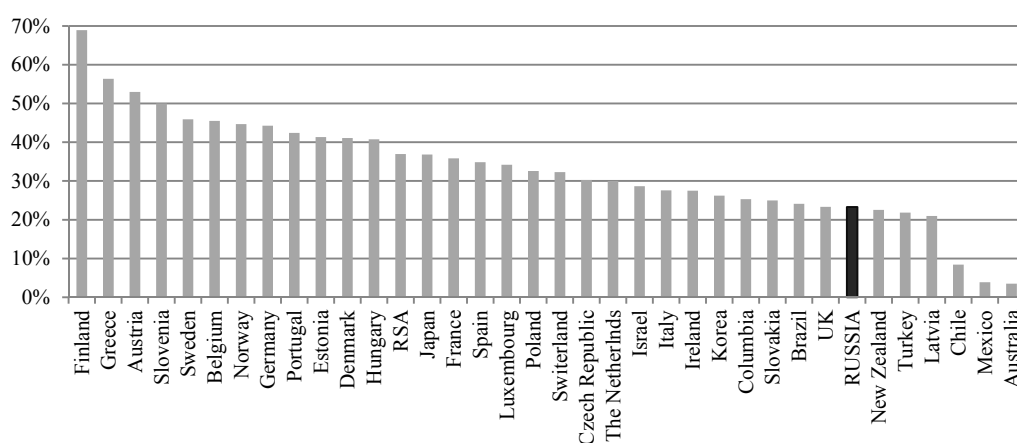


Fig. 11. The relative share of companies interacting with scientific research organizations and higher educational establishments in the innovation sphere, in 2010–2012 (or the nearest period for which comparable data are available), in the total number of big innovatively active companies

Source: OECD.

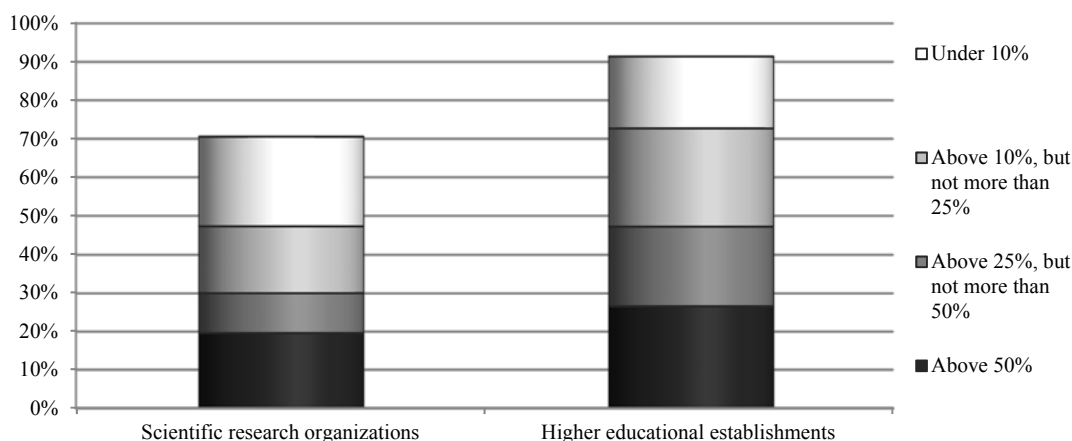


Fig. 12. The relative share of R&D ordered by industry in the total volume of R&D completed by Russian scientific research organizations and higher educational establishments in 2015

Source: IAC.

As for the organizations operating in the R&D sector, available statistical data cannot give even a very approximate idea of the relative share of those of them that actually cooperate with industrial enterprises while elaborating and implementing their innovations. According to data yielded by specialized surveys¹ for 2015, R&D projects in industry were participated in by 70%

¹ The survey of CEOs of Russian scientific research organizations was conducted in September-October 2015 by the Interdepartmental Analytical Center in collaboration with the Information and Publishing Center *Statistics of Russia*; the final sample was represented by 191 scientific research organizations, of which 111 were academic institutes, and the other 80 were sectoral science organizations.

scientific research organizations and 91% of higher educational establishments. Meanwhile, the results of a similar survey of organizations in the R&D sector¹ conducted in 2012 demonstrated that the scale of cooperation between industry and scientific research organizations was roughly the same as in 2015 (67%), while the corresponding index for higher educational establishments was significantly lower (62%).

Nevertheless, although the formal indices of the involvement of scientific research organizations, and especially higher educational establishments, in cooperation with industry in the field of scientific research are impressive, the actual scale of such interaction in terms of total volume of R&D projects is rather modest. Thus, approximately only one of each five scientific research organizations and one of each four higher educational establishments could boast of no less than half of their R&D budget being funded by orders placed by businesses (*Fig. 12*).

6.4.2. The productivity of interaction of Russian industrial enterprises with scientific research organizations and higher educational establishments in the innovation sphere

The key motive that businesses are guided by when interacting with the sphere of science, as noted earlier, is their desire to gain access to the results of state-of-the-art R&D products that can be used as a foundation for their technological innovations. That is why an important sign of success in the science-industry cooperation is the actual use, by businesses in the framework of their innovative activity, of the R&D products offered by scientific research organizations and higher educational establishments. In Russia, as confirmed, among other sources, by official statistics and survey data, scientific research organizations – and especially higher educational establishments – very seldom provide incentives and direct sources of innovation for businesses, in this respect significantly falling behind the other contractors employed by enterprises along their value added chains, their consumers and suppliers, and their rival companies (both foreign and Russian ones), as well as business companies and some publicly available information sources (*Fig. 13 and 14*).

It should be noted that the analytical studies of the comparative significance of various industrial innovation sources in foreign countries have likewise shown that in terms of quantitative indices, the contribution of R&D products of scientific research organizations and higher educational establishments to the innovative activity of business companies is much less than that of their consumers, suppliers, rival companies, as well as from information some internal and external sources. Such findings were obtained, e.g., in the study by *Laursen, Salter*² based on data for more than 2,500 industrial companies in the UK; in the study by *Amara*,

The survey of CEOs of Russian higher educational establishments was conducted by the Interdepartmental Analytical Center in September-October 2015; the surveyed sample consisted of 151 higher educational establishments.

¹ The survey of Russian scientific research organizations and higher educational establishments based on a formalized questionnaire distributed among their CEOs was conducted in August-September 2012 by the Interdepartmental Analytical Center, the Centre for Business Tendencies Studies of the NRU HSE Institute for Statistical Studies and Economics of Knowledge, and the Information and Publishing Center *Statistics of Russia*. The surveyed sample consisted of 361 organizations (251 scientific research organizations and 110 higher educational establishments).

² Laursen, K., Salter, M. (2004) Searching high and low: what types of firms use universities as a source of innovation? *Scientific research Policy*, 33(8), pp. 1201–1215.

*Landry*¹, which reviewed the data yielded by surveys of 5,500 industrial companies in Canada; and in the recent study by *Gómez, Salazar, Vargas*² based on panel data for approximately 1,000 industrial enterprises in Spain.

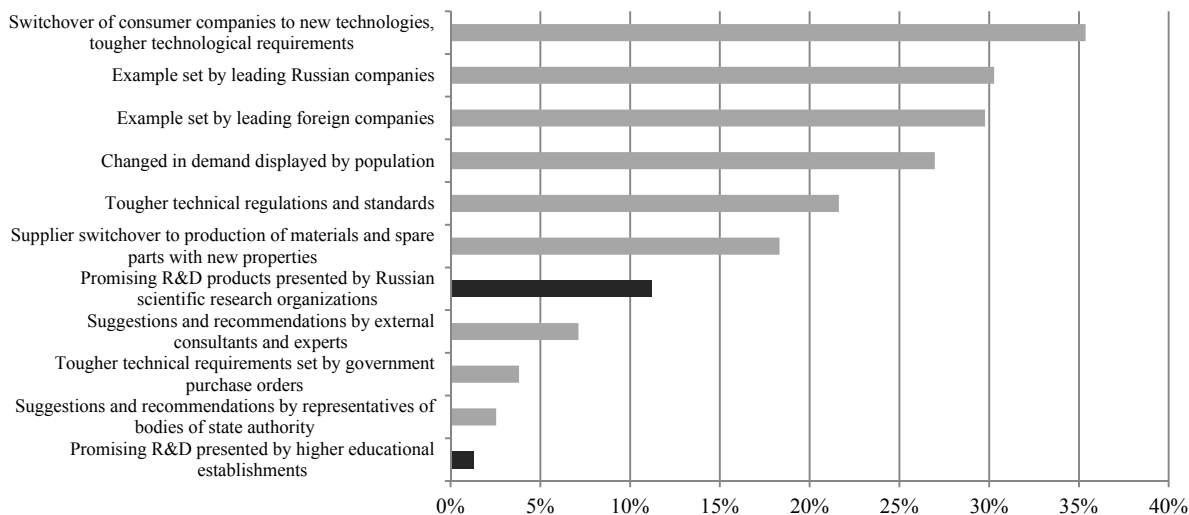


Fig. 13. The main incentives of Russian industrial companies for technological innovations in 2012 (frequency of mention by the CEOs of surveyed innovatively active companies)

Source: IAC.

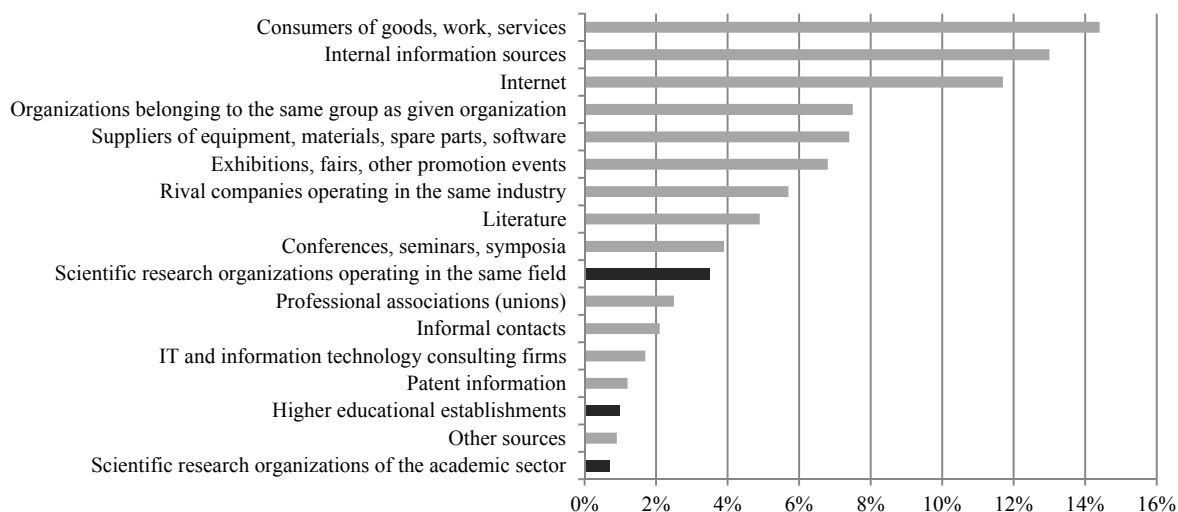


Fig. 14. The main sources of information on technological innovations for companies in 2014 (relative share in the total number of companies operating in industry and in the sector of production and supply of electric energy, gas and water)

Source: NRU HSE.

¹ Amara, N., Landry, R. (2005) Sources of Information as Determinants of Novelty of Innovation in Manufacturing Firms: Evidence from the 1999 Statistics Canada Innovation Survey. *Technovation* 25, pp. 245–259.

² Gómez, J., Salazar, I., Vargas, P. (2016) Sources of Information as Determinants of Product and Process Innovation. *PLoS One*, 11(4).

At the same time, many studies point to the high importance of interaction between business companies, universities and scientific research centers in the framework of their innovative activity, especially when its outcome is successful. Thus, according to the results obtained by *Cohen, Levinthal*¹ on the basis of a survey of more than 1,700 business entities representing more than 300 industrial enterprises in the USA, universities and scientific research centers are more important sources of knowledge for companies' innovative activity than the suppliers of materials and equipment. In the study by *Romijn, Albu*² based on a UK survey of small businesses in the electronics and software sector, it was found that the organizations operating in the R&D sector are an important source employed in the launch and development of innovative hi-tech startups; at the same time, the activity of such organizations does not give rise to many partnerships, resulting instead in the creation of a few successfully competing companies. The study by *Amara, Landry*³ (mentioned earlier) revealed that the specific feature of the innovations based on source like universities and scientific research organizations is their higher degree of novelty. In the study by *Ukrainski, Varblane*⁴ based on a comparative analysis of the main sources of information concerning the innovative activity of companies operating in the timber, timber processing, and pulp-and-paper industry in Estonia and Finland, it was found that for Estonian companies, universities and scientific research centers were the least important source of innovations, whereas for Finnish companies the information generated in the scientific research sector had much higher significance, on a par with the information received from suppliers and rival companies. And finally, in the study by *Tether, Tajar*⁵ based on the results of a survey of CEOs of more than 8,000 companies across the UK, it was concluded that the R&D sector as a source of scientific knowledge and innovations for businesses could not replace other external and internal information sources, and served instead as a supplementary source.

In view of the already mentioned rather modest scale on which Russian businesses have been using the R&D products of scientific research organizations and higher educational establishments as sources for their own innovations, it appears reasonable to assess the contribution of science-industry cooperation to the results achieved by business companies. As shown by the findings in the course of the already discussed survey of CEOs of industrial enterprises (*Table 14*), those of them that collaborate with the organizations operating in the R&D sector demonstrate on the whole a higher yield of their innovative activity. Thus, in particular, these companies much more frequently demonstrate improved material efficiency and energy efficiency, as well as cleaner production. Besides, those industrial enterprises that cooperated with higher educational establishments in the innovation sphere more often

¹ Cohen, W., Levinthal, D. A. (1990) Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35(1), pp. 128–152.

² Romijn, H. A., Albu, M. (2001) Explaining innovativeness in small high-technology firms in the United Kingdom. Eindhoven Centre for Innovation Studies, ECIS working paper series, vol. 200101. URL: <https://pure.tue.nl/ws/files/1746464/545742.pdf>

³ Amara, N., Landry, R. (2005) Sources of Information as Determinants of Novelty of Innovation in Manufacturing Firms: Evidence from the 1999 Statistics Canada Innovation Survey. *Technovation* 25, pp. 245–259.

⁴ Ukrainski, K., Varblane, U. (2005) Sources of Innovation In The Estonian Forest And Wood Cluster. University of Tartu – Faculty of Economics and Business Administration Working Paper Series 36. URL: <http://www.mtk.ut.ee/sites/default/files/mtk/RePEc/mtk/febpdf/febawb36.pdf>

⁵ Tether B. S., Tajar A. (2008) Beyond industry-university links: Sourcing knowledge for innovation from consultants, private scientific research organizations and the public science-base. *Scientific research Policy*, 37 (6/7), pp. 1079–1095.

demonstrated higher labor productivity, and those that interacted with scientific research organizations demonstrated a higher innovation input in their improved competitive capacity. And finally, both the interaction with organizations operating in the science sector and the cooperation with higher educational establishments positively correlate with the degree of novelty of their products, a finding that is close to the results observed in the previously cited study by *Amara, Landry*¹.

For a more accurate and methodologically better-verified assessment of the input of science-industry cooperation in the activity of companies and its comparison with the inputs of other external sources of innovations, we relied on the propensity score matching (*PSM*) procedure. Thus method makes it possible to set each of the companies that have interacted with organizations operating in the science sector against another, highly matching innovative company that has practiced none of such interaction². The control group is matched by a set of control indices like the length of a company's stay in the market, industry,³ scope of activity (measured by payroll number), form of ownership, and financial status. The effect of cooperation was assessed for each of the performance indices presented in *Table 14* as an average between the indices achieved by the companies that did interact with organizations operating in the science sector, and the companies in the control group.

Table 14

The results of companies' innovative activity depending on their interaction with scientific research organizations and/or higher educational establishments, as of 2012 (frequency of mention by CEOs of innovatively active companies in each category)

		Interaction in innovation sphere								
		with scientific research organizations and/or higher educational establishments			with scientific research organizations			with higher educational establishments		
		yes, %	no, %	chi-square	yes, %	no, %	chi-square	yes, %	no, %	chi-square
1		2	3	4	5	6	7	8	9	10
Improved performance indices due to innovations	proceeds of sales of products	46.2	41.4	0.787	44.8	42.2	0.242	50.0	42.3	0.792
	output of new (or upgraded) products	48.5	43.3	0.920	49.6	42.9	1.541	52.8	44.3	0.959
	volume of exports	13.1	8.0	2.583	12.8	8.2	2.057	13.9	9.2	0.808
	production profitability	29.2	25.5	0.627	29.6	25.4	0.778	36.1	25.8	1.786
	labor productivity	36.2	31.6	0.830	36.0	31.7	0.707	47.2	31.7	3.581*
	material efficiency	18.5	10.6	4.628**	18.4	10.8	4.265**	22.2	12.3	2.790**
	energy efficiency	21.5	12.9	4.855**	22.4	12.7	6.053**	33.3	14.0	0.194***
	clean production	17.7	9.5	5.438**	18.4	9.3	6.543**	16.7	11.8	0.733
none of indices is improved	1.5	6.8	5.070**	1.6	6.7	4.620**	0.0	5.6	2.125	

¹ Amara, N., Landry, R. (2005) Sources of Information as Determinants of Novelty of Innovation in Manufacturing Firms: Evidence from the 1999 Statistics Canada Innovation Survey. *Technovation* 25, pp. 245–259.

² It should be noted that the PSM method is most often applied for revealing the effects, on companies, of various incentives created by the government (see, i.e., Fier et al., 2006; Baghana, 2010; Marzucchi, Montresor, 2013; Cantner, Kösters, 2015; Simachev et al., 2017). The procedure is described in detail in (Newey, 2009).

³ For the purpose of ensuring the correctness of estimates, the industries were aggregated by their technological development level.

Cont'd

1		2	3	4	5	6	7	8	9	10
Innovation input in companies' competitive capacity	none or negligible	18.9	28.9	4.472	18.0	29.1	5.409*	16.7	26.5	2.598
	moderate	65.4	57.0		66.4	56.7		72.2	58.5	
	strong – innovations almost entirely account for competitive capacity	15.7	14.1		15.6	14.2		11.1	15.0	
degree of novelty of innovative (new and upgraded) products	no innovative products	17.1	27.0	30.647***	17.7	26.5	29.260***	19.4	24.2	11.225**
	product is new for enterprise	44.2	57.8		43.5	57.8		44.4	54.2	
	product is new for Russia	34.1	14.8		33.9	15.3		27.8	20.5	
	product is new on global scale	4.7	0.4		4.8	0.4		8.3	1.1	

Chi-squared test, significant difference:

* at 10%;

** at 5%;

*** at 1%.

Source: IAC; own calculations.

The PSM procedure was applied to four types of partnerships in the innovation sphere¹:

- interaction with scientific research organizations (over the three years prior to the survey, 32% of innovatively active companies had demonstrated the relevant experience);
- interaction with higher educational establishments (demonstrated by 9% of innovative companies);
- implementation of joint innovative projects with partner enterprises along the value added chain (19% of innovative companies);
- implementation of joint innovative projects with companies with similar or related specialization (i.e., with real or potential rivals – 9% of innovative companies demonstrated this experience).

The results of our calculations have confirmed the existence of a significant input of the interaction of business companies with scientific research organizations in achieving higher resource efficiency and cleaner production, and the input of cooperation with higher educational establishments in productivity growth and energy intensity reduction (*Fig. 15*). Besides, partnering with higher educational establishments in the innovation sphere had a positive effect on the overall growth of proceeds, correlated negatively with the output of new and upgraded products.

Judging by the results of our comparison of the effects of different types of innovation-oriented partnerships on companies' performance, there are no grounds for believing that the interaction of business companies with scientific research organizations and higher educational establishments has produced any notable benefits. Rather, the opposite is true: by the majority of performance indices, both subtypes of science-industry cooperation fall behind either their interaction with partner enterprises along the value added chain, or their partnership with companies of similar specialization, or both. The only obvious exception is that the cooperation with higher educational establishments is significantly more frequently than the other types of partnership matches labor productivity growth.

¹ It should be specifically emphasized that these are forms of partnership, and not sources of information on innovations.

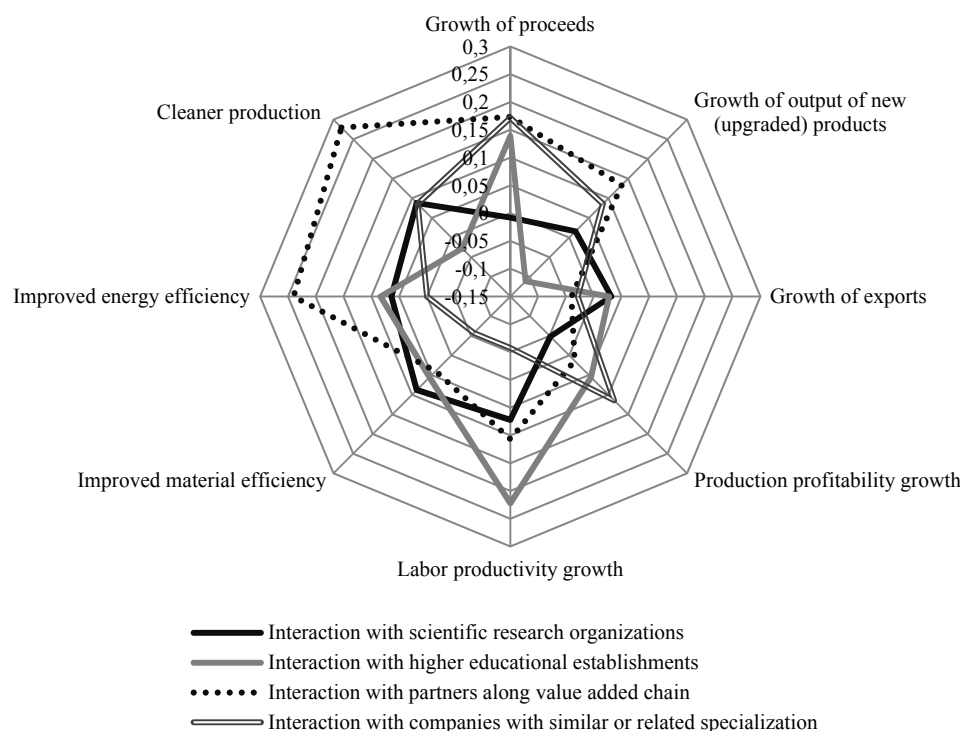


Fig. 15. The estimated effects of different areas of cooperation on the results of companies' innovative activity, as of 2012

Note. The potential significance of the estimated effect of cooperation on each index varies from (-1) to 1, where 1 corresponds to the case when an improved index was demonstrated by all of the companies participating in cooperation of a given type, and it was never improved for any of the companies that had not participated in that type of cooperation; (-1) corresponds to the opposite case, when positive effect was absent for all of the companies with an experience of cooperation of a certain type, and was observed in all the companies that lacked that experience; 0 corresponds to equal frequency of positive effects demonstrated by companies both with and without the experience of a given type of cooperation.

Source: IAC, own calculations.

A similar picture is yielded by an assessment of the aggregate input of innovations in the competitive capacity of companies interacting with different categories of partners (Fig. 16): a significant input is less typical of the companies that interacted with scientific research organizations and higher educational establishments, and is more typical of the companies that implemented joint projects with their partners along the value added chains and rival companies.

Thus, in Russia, similarly to many foreign countries, scientific research organizations and higher educational establishments are relatively seldom relied upon as sources of innovations for industry. However, for Russian companies, by contrast with their counterparts in a number of developed industrial countries, their interaction with organizations operating in the R&D sector is on the whole less important, and produces less notable results than their cooperation with partners along the value added chain and rival companies.

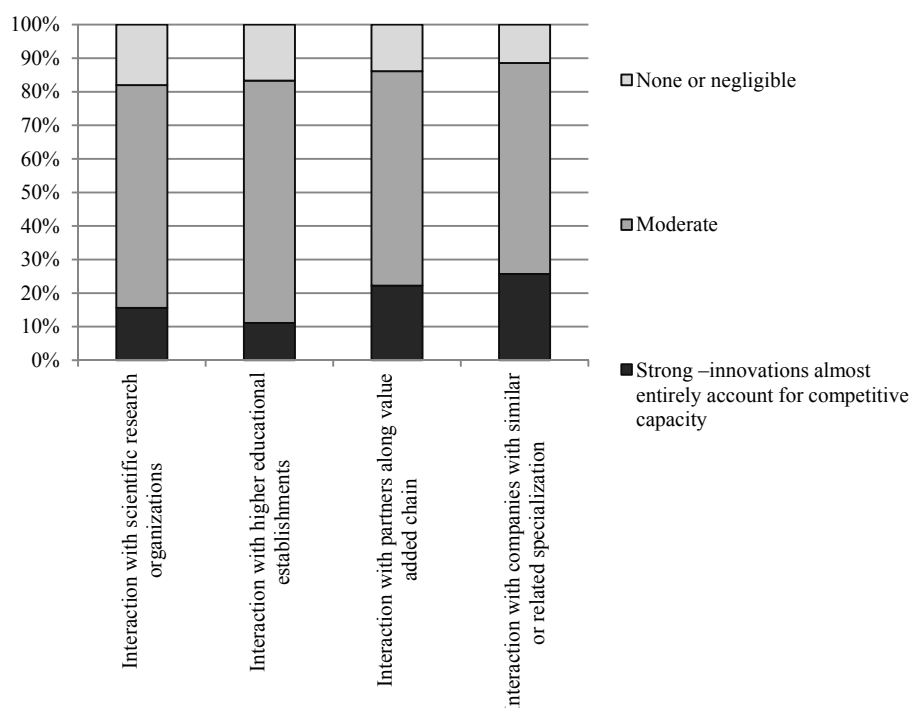


Fig. 16. The input of innovations in the competitive capacity of companies, relative to the type of innovative partnership, as of 2012 (frequency of mention by CEOs of companies in each category)

Source: IAC.

6.4.3. Problems and obstacles to the development of science-industry cooperation in Russia

When discussing the fundamental issues of interaction between the organizations operating in the R&D sector and industrial companies, researchers most often point out the significant differences in their goals, approaches, organizational culture, behaviors, etc. - that is, factors that are traditionally explained by the fundamental differences in the motives and mentalities of scientists and businessmen.¹ The upshot is that, even in the presence of strong mutual incentives to collaborate, serious problems may arise during the phase of adjusting the R&D products of universities and scientific research organizations to the standards that companies need to comply with in order to successfully implement these products, which in its turn sometimes results in dissolution of a potentially mutually beneficial partnership.² Among the

¹ Siegel, D., Waldman, D., Link, A. (1999) Assessing the Impact of Organizational Practices on the Productivity of University Technology Transfer Offices: An Exploratory Study. NBER Working Papers 7256, National Bureau of Economic Scientific research, Inc.; Bodas Freitas, I. M., Verspagen, B. (2009) The Motivations, Organization and Outcomes of University-Industry Interaction in the Netherlands. UNU-MERIT Working Papers. No 2009-011; Kodcharat, Ya., Chaikaw, A. (2012) University and Industrial Sector Collaboration: the Key Factors Affecting Knowledge Transfer. International Journal of Business and Social Science 3(23): 130–137; Yu. Simachev, M. Kuzyk, V. Feygina. R&D cooperation between Russian firms and research organizations: is there a need for state assistance? *Voprosy ekonomiki* (in Russian), No 7, pp. 4–34.

² Bodas Freitas, I. M., Verspagen, B. (2009) The Motivations, Organization and Outcomes of University-Industry Interaction in the Netherlands. UNU-MERIT Working Papers. No 2009-011.

significant obstacles to productive interaction between the science sector and businesses, unfavorable market conditions, inefficient management, and lack of proper knowledge, by one party, of the real needs and opportunities of the other party, are often noted.¹ The latter is especially significant in Russia, as demonstrated by the results of some empirical studies.²

Official statistics does not reflect the most urgent issues of science-industry cooperation, and so, in order to identify those issues, we are going to rely on the results of a survey of representatives of the cooperating parties – industrial companies, scientific research organizations, and higher educational establishments, conducted in autumn 2015.³ All respondents were offered a list of 10 issues, of which they were asked to tick off the most important ones. In this connection, the CEOs of industrial enterprises were required to note separately the cooperation issues relative to each of the three subsectors of the Russian science sector: academic institutes; sectoral science organizations; and higher educational establishments.

As demonstrated by the survey's results, representatives of businesses were most concerned about the high costs and inadequate quality of the work and services provided by the Russian scientific research sector (*Fig. 17*). Besides, these data once again underlined the urgency of the issues of insufficient information transparency in Russian science, or at least as it was viewed by businesses.

As for the problems typical of the interaction with representatives of some specific subsectors in the science sector (as described by the surveyed CEOs), these were found to have similar profiles. It must only be pointed out that the high cost of supplied products was mentioned rather seldom with regard to higher educational establishments, while they more frequently than the other types of organizations experienced difficulties with providing the entire set of necessary services; the interaction with scientific research institutions in the academic sector is more frequently characterized by lack of proper customization of their products compared with the other subsectors; and the cooperation with sectoral science organizations is slightly less dependent on government support (compared with the other areas of cooperation).

¹ Ghani, N. (1991) European collaborative scientific research projects. *Engineering Management Journal*, 1, (2), pp. 63-70; Schibany, A., Jörg, L., Polt, W. (1999) *Towards Realistic Expectations. The Science System as a Contributor to Industrial Innovation*. Seibersdorf: Österreichisches Institut für Wirtschaftsforschung; Bodas Freitas, I. M., Verspagen, B. (2009). *The Motivations, Organization and Outcomes of University-Industry Interaction in the Netherlands*. UNU-MERIT Working Papers. No 2009-011.

² Zashimova L., Kuznetsov B., Kuzyk M., Simachev Yu., Chulok A. (2008) *The issues of industry's transition to innovative development: microeconomic analysis of the specificity of behavior of companies, the movement and structure of demand for technological innovations*. Series Scientific Reports: Independent Economic Analysis, No 201. M.: Moscow Public Science Foundation; Yu. Simachev, M. Kuzyk, V. Feygina. *R&D cooperation between Russian firms and research organizations: is there a need for state assistance?* *Voprosy ekonomiki* (in Russian), No 7, pp. 4–34.

³ The survey of CEOs of enterprises and organizations based on a formalized questionnaire was conducted in September–October 2015. The survey of CEOs of higher educational establishments was organized and conducted by the Interdepartmental Analytical Center, the surveyed sample consisted of 151 organizations. The surveys of CEOs of industrial enterprises and scientific research organizations were conducted by the Interdepartmental Analytical Center in collaboration with the Information and Publishing Center *Statistics of Russia*; the surveyed sample consisted of 658 enterprises operating in processing industries and 191 scientific research organizations.

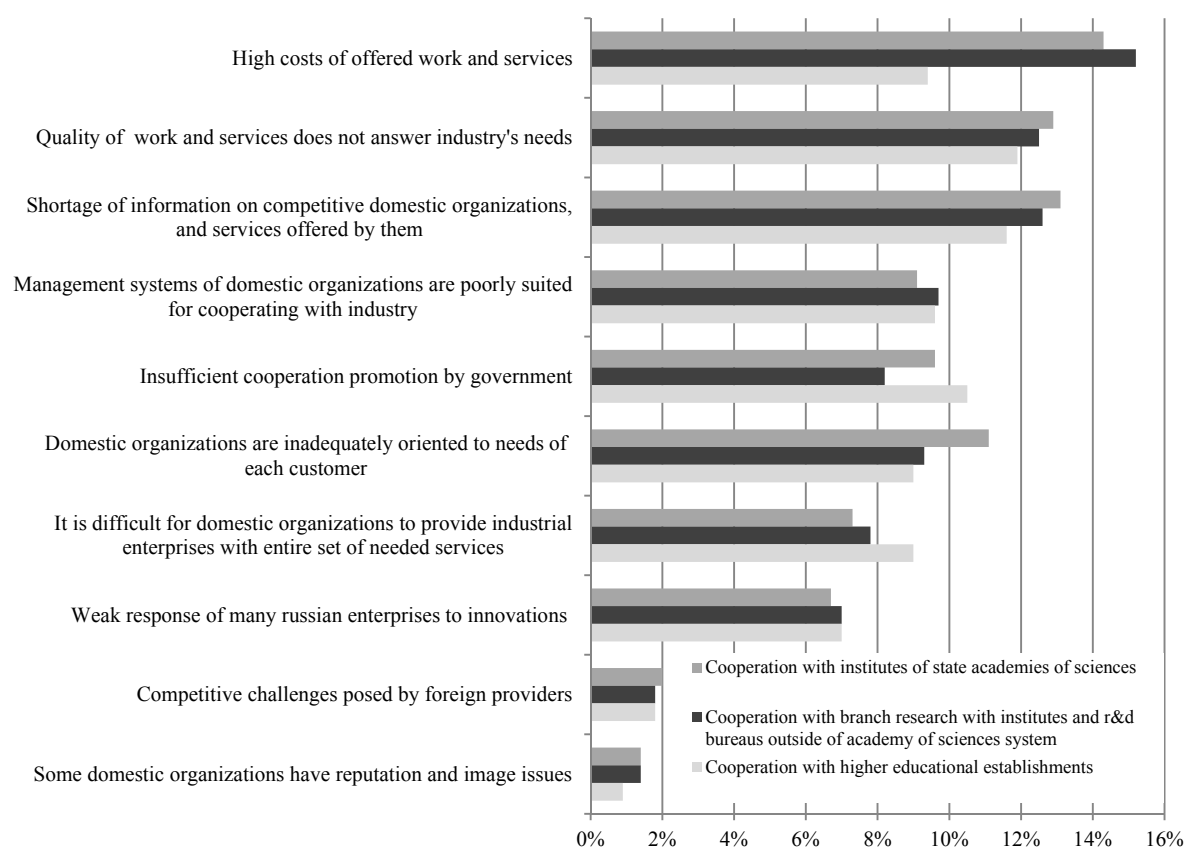


Fig. 17. The issues of and obstacles to the interaction of industrial companies with organizations operating in various subsectors of the science sector, as of 2015 (frequency of mention by CEOs of companies)

Source: IAC.

From the point of view of organizations operating in the R&D sector, the key issues in their interaction with businesses are the weak response of the latter to innovations and the inadequacy of government promotion of science-industry cooperation (Fig. 18). At the same time, the problems identified as the most serious ones by the CEOs of industrial companies (high costs and inadequate quality of the work and services offered by the domestic science sector) were among the least frequently mentioned factors by representatives of the science sector. Another important distinction is that on the whole, the estimates offered by businesses are much more optimistic: thus, almost half of the CEOs of industrial enterprises (48%) said that they had experienced no problems associated with science-industry cooperation, while this opinion was shared by only 9% of surveyed representatives of scientific research organizations, and by 5% of representatives of higher educational establishments.

By contrast with the CEOs of business companies who saw no significant differences between the scientific research institutions in the academic sector, sectoral science organizations, and higher educational establishments from the point of view of interaction issues, the representatives of each of the latter significantly differed in their estimates of the problems of and obstacles to science-industry cooperation. Thus, the institutes and R&D bureaus in the category of sectoral science organizations, compared with the other types of

organizations, were the least frequent to point out the weak responsiveness of Russian companies to innovations; at the same time, they more frequently than the other respondents pointed to the acute competitive challenges posed by foreign organizations and the high costs of domestic supply. Higher educational establishments stand out because they experienced the strongest need for government support of their cooperation with businesses; besides, representatives of higher educational establishments were more attentive to the problem posed by lack of information on the products offered by the R&D sector.

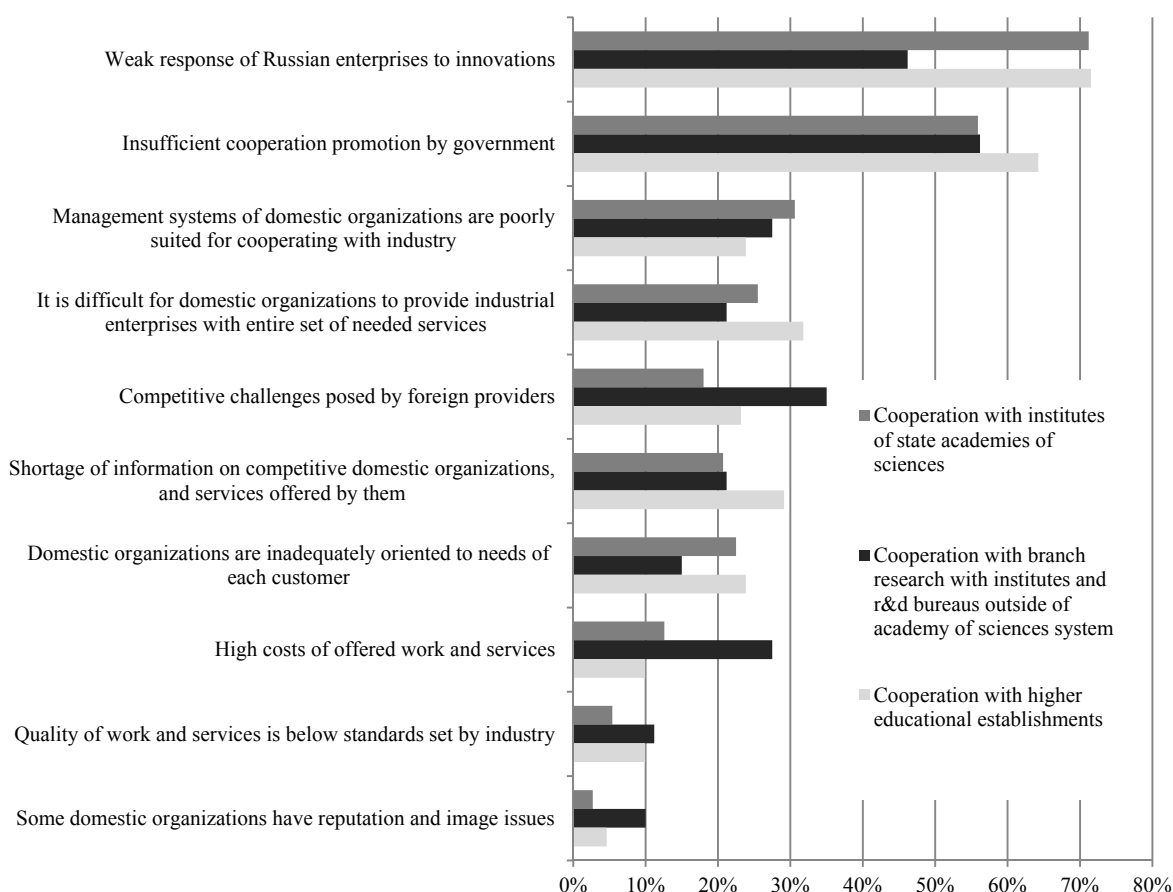


Fig. 18. The problems of and obstacles to the interaction of organizations in the academic sector, branch sciences and higher educational establishments with businesses, as of 2015 (frequency of mention by CEOs of organizations)

Source: IAC.

By way of summing up our discussion of issues typical of science-industry cooperation, we will briefly outline the specific types of work and services needed by businesses, and explain how the existing needs are satisfied by domestic scientific research organizations and higher educational establishments (*Fig. 19*).

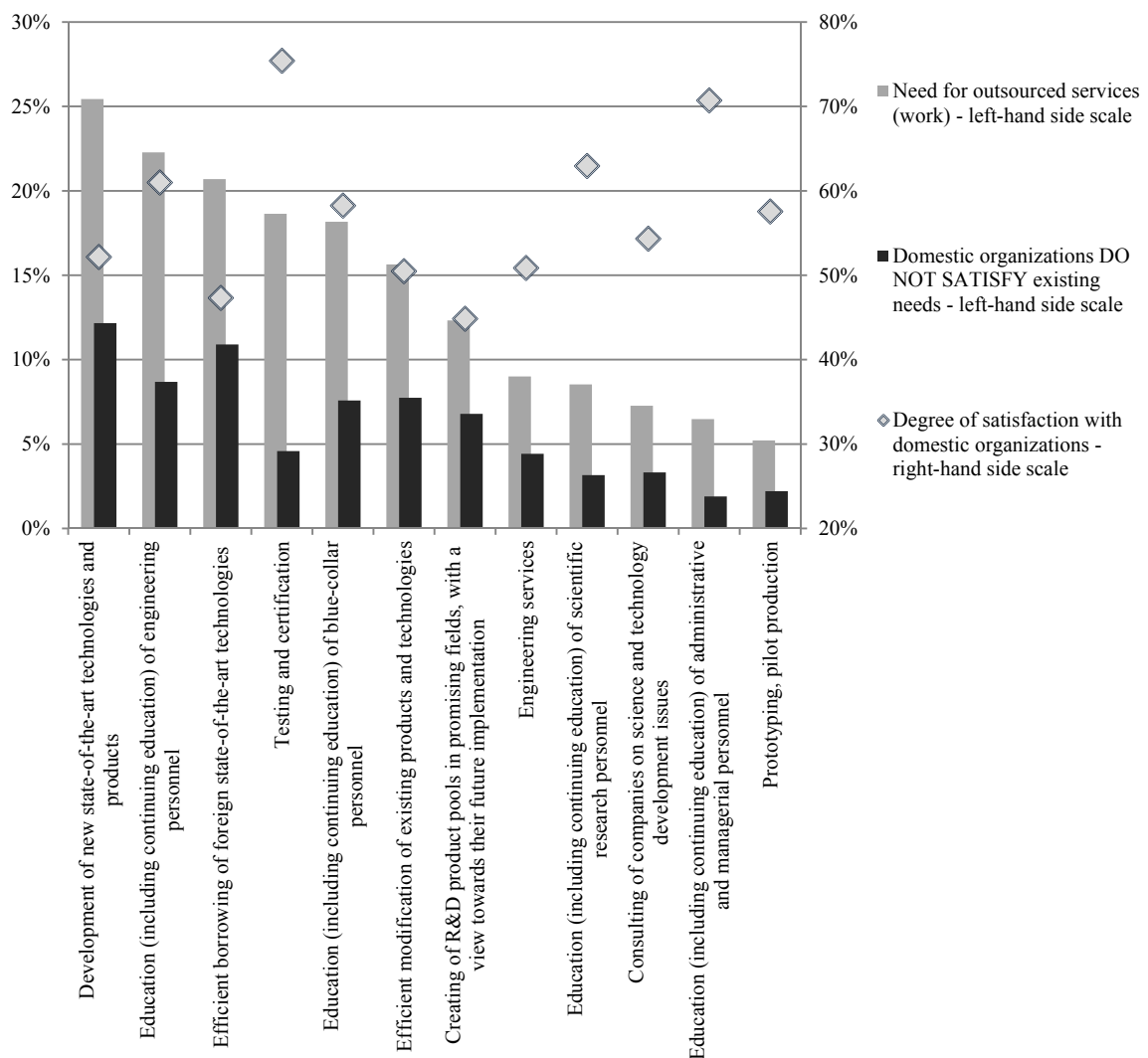


Fig. 19. The specific needs of Russian industrial companies in outsourced work and services, and how these are satisfied by domestic organizations, as of 2015

Source: IAC, own calculations.

Industrial enterprises most frequently display demand for projects involving the elaboration of new products and technologies, productive borrowing of foreign state-of-the-art technologies, and education and continuing education of engineering personnel. It is noteworthy that approximately only half of the total demand for the first two types of services can be satisfied by Russian organizations. The other areas where the existing demand is much higher than the domestic supply, are the creation of R&D product pools needed by businesses, modification of existing products and technologies, and engineering services. The areas where the needs of Russian business companies are most fully satisfied are product testing and certification, and education and continuing education of administrative and managerial personnel.

6.4.4. Government promotion of science-industry cooperation and its results

Traditionally, the lack of proper cooperation and coordination of the entities involved in innovative activity is considered to be one of the key systemic failures.¹ It is specifically for this reason that the government must exercise the important function of promoting cooperation and partnership, and ensuring the movement of knowledge flows between science and businesses, even if this function does not fully correspond to the perfect market principles.² It should be added that while at present it is universally recognized that government support of cooperation between the science sector and businesses is indeed feasible, some doubts are still being expressed as to the actual positive effects of the practical steps undertaken by the government in that sphere.³ However, in an overwhelming majority of empirical studies that analyzed the effects on the development of cooperation of the various instruments and measures applied in the framework of government policy, it was found that government support indeed produced some positive (albeit sometimes very weak) influence on the interaction between science and businesses.⁴ At the same time, the new science-industry links and partnerships created thanks to government support are by no means always sustainable; often it happens so that once the support is discontinued, the interaction also ceases⁵.

In Russia, in view of the very modest scale of science-industry cooperation and the serious problems observed in that sphere, the government has, over recent years, invested some

¹ Smith, K. (2000) Innovation as a Systemic Phenomenon: Rethinking the Role of Policy. *Enterprise and Innovation Management Studies*, 1 (1), pp. 73–102; Gok, A., Edler J. (2011) The Use of Behavioural Additionality in Innovation Policy-Making. MBS/MIoIR Working Paper, No 627, The University of Manchester.

² Smith, K. (2000) Innovation as a Systemic Phenomenon: Rethinking the Role of Policy. *Enterprise and Innovation Management Studies*, 1 (1), pp. 73–102; Yu. Simachev, M. Kuzyk, V. Feygina. R&D cooperation between Russian firms and research organizations: is there a need for state assistance? *Voprosy ekonomiki* (in Russian), No 7, pp. 4–34.

³ Caloffi, A., Mariani, M., Rossi, F., Russo, M. (2016) R&D collaboration policies: are they really able to promote networking? Open Evaluation 2016, Vienna, 24-25 November 2016.

⁴ Georghiou, L., Malik, K., Cameron H. (2005) DTI Exploratory study on behavioural additionality. PREST, Manchester Business School and University of Manchester; Pegler, B. (2005) Behavioural Additionality in Australian Business R&D Grant Programs: A Pilot Study. Department of Industry, Tourism and Resources; Falk, R. (2007) Measuring the effects of public support schemes on Firms innovation activities. *Scientific research Policy*, 36(5), pp. 665–679; Hægeland, T., Møen, J. (2007) Input additionality in the Norwegian R&D tax credit scheme. *Statistics Norway Reports*, 2007/47. URL: http://www.ssb.no/a/publikasjoner/pdf/rapp_200747/rapp_200747.pdf; Busom, I., Fernandez Ribas, A. (2008) The impact of firm participation in R&D programmes on R&D partnerships. *Scientific research Policy*, 37(2), pp. 240–257; Idea Consult. (2009) Does Europe change R&D-behaviour? Assessing the behavioural additionality of the Sixth Framework Programme. Final Report. Prepared for: European Commission Scientific research Directorate-General Directorate A – Inter institutional and legal matters – Framework Programme. URL: https://ec.europa.eu/scientific_research/evaluations/pdf/archive/fp6-evidence-base/evaluation_studies_and_reports/evaluation_studies_and_reports_2009/assessing_the_behavioural_additionality_of_the_sixth_framework_programme.pdf; Marzucchi, A., Montresor, S. (2013) The Multi-Dimensional Additionality of Innovation Policies: A Multi-Level Application to Italy and Spain. SPRU Working Paper Series, 2013-04; Wanzenbock I., Scherngell, T., Fischer, M. (2013). How do firm characteristics affect behavioural additionalities of public R&D subsidies? *Technovation*, 33 (2-3), pp. 66–77; Lohmann, F. 2014. The Additionality Effects of Government Subsidies on R&D and Innovation Activities in the Aviation Industry. A Project Level Analysis. Master's Thesis. URL: http://essay.utwente.nl/64836/1/Lohmann_MA_MB.pdf

⁵ Fier, A., Aschhoff, B., Löhlein, H. (2006) Detecting Behavioural Additionality: An Empirical Study on the Impact of Public R&D Funding on Firms' Cooperative Behaviour in Germany. ZEW Discussion Papers, No 06-037. URL: <https://www.econstor.eu/bitstream/10419/24229/1/dp06037.pdf>

significant effort in its promotion. Elsewhere, we have already presented a detailed overview of the government's acts and measures,¹ and so here we are offering only a brief description of the main instruments applied for that purpose.

Special procedure for exempting from profits tax certain types of R&D costs.² This instrument, introduced in 2009, envisages that the costs charged by an organization to scientific research and development in compliance with the established list³ (in coordination with the Priority directions for the development of science, technologies and technical equipment in the Russian Federation and the List of critical technologies of the Russian Federation) should be estimated, when calculating the amount of taxable profits, with a multiplier of 1.5. This tax exemption is directly linked to the goal of promoting science-industry cooperation, as it is applied to the R&D projects being implemented by the taxpayer organization both with and without outsourcing certain work to external providers. Over recent years, the annual cap on R&D costs to be exempt from tax has been RUB 6–9bn, or 12–18% of the total amount of R&D costs.

Subsidies designed to cover part of R&D costs incurred by companies implementing innovative projects ordered by Russian higher educational establishments and state scientific research institutions. This instrument of financial support, better known by the number of the RF Government's decree whereby it was introduced (218),⁴ is oriented to promoting the development of partnerships of companies with higher educational establishments and state scientific research institutions in the framework of industrial projects. Its key specific feature is that, although the final recipient of a government subsidy is the higher educational establishment or the state scientific research institution responsible for the implementation of a given R&D project, the main link in the government support chain (at least formally) is the company actually implementing the project: it acts as the entity that receives government funding, pays for and approves the results of R&D, and implements these results in the production process. Importantly, in addition to launching the production of new products and upgrading the existing ones, the projects thus supported should envisage the creation of jobs and the involvement in R&D of young scientists and specialists, undergraduate and postgraduate students, as well as publication and patenting of the achieved results. Since 2010, in the framework of this mechanism, the government has selected more than 300 projects for providing this type of support, the annual volume of budget funding amounting to RUB 5–7bn.

Promotion of the project-implementation companies set up by state scientific research institutions and educational establishments. This activity de facto had two components. The

¹ Yu. Simachev, M. Kuzyk (2015) Public policy for stimulating scientific and industrial cooperation. Section 6.4. In: Russian Economy in 2014. Trends and Outlooks. (Issue 36). Ed. S.G. Sinelnikov-Murylev (editor-in-chief), A.D. Radygin. Ye. T. Gaidar Institute for Economic Policy. Moscow, Gaidar Institute Press, p. 465–511.

² Federal Law No 158-FZ dated July 22, 2008 *On Introducing Alterations to Chapters 21, 23, 24, 25 and 26 of Part Two of the Tax Code of the Russian Federation and Some Other Acts of Legislation of the Russian Federation on Taxes and Levies.*

³ Decree of the RF Government No 988, dated December 24, 2008 *On Approving the List of R&D Types, the Costs of Which Are Incurred by a Taxpayer, in Accordance with Item 2 of Article 262 of Part Two of the Tax Code of the Russian Federation, Are to Be Added to Other Costs in the Amount of Actual Costs Upwardly Adjusted by Factor of 1.5.*

⁴ Decree of the RF Government No 218, dated April 9, 2010 *On Measures of Government Support of the Development of Cooperation of Russian Higher Educational Establishments, State Research Institution and Organizations Implementing Comprehensive Projects Aimed at Launching Hi-tech Production, in the Framework of Subprogram 'Institutional Development of the Scientific Research Sector' of the State Program of the Russian Federation for the Development of Science and Technology in 2013–2020'.*

first one was the easing of the legislative norms regulating the creation of educational establishments and scientific research institutions, the scientific research conducted by economic societies,¹ and the management of their property by budget-funded institutions.² The upshot was the ability of scientific research organizations and higher educational establishments to actively create project-implementation companies and endow them with property. As a result, over the period 2009-2016, approximately 3,000 such companies were set up. The second important instrument, oriented to the project-implementation companies created by scientific research institutions and educational establishment, was the reduction of rates for the payment of their contributions to government extrabudgetary funds over the period until 2019.³ It appears to be obvious that this type of support is oriented to the development of science-industry cooperation, because the newly established project-implementation companies operate as businesses rather than scientific research entities, and besides, they should serve as links through which the state-of-the-art R&D products created in the science sector can be transferred to big businesses.

Technological platforms. The evolvement of this instrument in Russia represented an attempt to borrow the successful experience of the European Union, where technological platforms had become an efficient mechanism for prioritizing those R&D products that were in high demand in the business sector, and thus consolidating the efforts of businesses, scientific research institutions and government bodies in their framework. Initially, Russia's technological platforms had been employed as a means of developing communication pathways between the government, science, and businesses that were necessary for long-term joint planning and coordination of scientific research activities in the framework of preparation and subsequent implementation of strategic scientific research programs.⁴ However, soon these technological platforms were incorporated into the existing system for distributing financial support: first, the Russian Technology Development Foundation began to issue loans for the implementation of projects supported by technological platforms,⁵ and then the support of technological platform projects began to be channeled in the framework of the basic Federal Target Program in the

¹ Federal Laws: No 217-FZ dated August 2, 2009, *On Introducing Alterations to Some Legislative Acts of the Russian Federation with Regard to the Issues of Budget-funded Research Institutions and Educational Establishments Creating Economic Societies for Purposes of Practical Application (or Implementation) of the Results of Intellectual Activity*; No 273-FZ dated December 29, 2012, *On Education in the Russian Federation*; No 185-FZ dated July 2, 2013, *On Introducing Alterations to Some Legislative Acts of the Russian Federation, and Deeming Some Legislative Acts (or Some Provisions of Legislative Acts) to be Null and Void in Connection with the Adoption of the Federal Law 'On Education in the Russian Federation'*.

² Federal Law No 83-FZ dated May 8, 2010 *On Introducing Alterations to Some Legislative Acts of the Russian Federation in Connection with the Improvement of the Legal Status of State (Municipal) Institutions*.

³ Federal Laws: No 272-FZ dated October 16, 2010 *On Introducing Alterations to the Federal Law 'On Insurance Contributions to the Pension Fund of the Russian Federation, the Social Insurance Fund of the Russian Federation, the Federal Compulsory Medical Insurance Fund and the Territorial Compulsory Medical Insurance Fund, and Article 33 of Federal Law 'On Compulsory Pension Insurance in the Russian Federation'*; No 185-FZ dated July 2, 2013, *On Introducing Alterations to Some Legislative Acts of the Russian Federation, and Deeming Some Legislative Acts (or Some Provisions of Legislative Acts) to be Null and Void in Connection with the Adoption of the Federal Law 'On Education in the Russian Federation'*.

⁴ The procedure of drawing-up the list of technological platforms (approved by decision of the Government Commission on High Technology and Innovation as of August 3, 2010, Protocol No 4).

⁵ Now the Industrial Development Fund. After its 'reformatting' in 2014, the support of technological platform projects is no longer one of the Fund's priorities.

field of science and technology *Research and Development ...*¹ As present, Russia has 35 technological platforms, participated by more than 3,500 enterprises and organizations.

Subsidies to the innovative territorial cluster development programs. By contrast with technological platforms, where all the participants must operate in one and the same field, however broadly defined, or at least be interested in that field's development, innovative territorial clusters are based on the principle of one and the same territory. At the same time, however, the key requirement to a cluster, alongside the territorial proximity of its participants, is the existence of a science-industry chain in one or several sectors of the economy that should unite them all, as well as a mechanism for coordinating the activities of and cooperation between the cluster participants. Since clusters are viewed primarily as a regional development instrument, their support takes the form of targeted allocations to the regions, while the latter also participate in funding the clusters from their own sources. An important distinctive feature of the cluster development programs is their strong emphasis on infrastructure development, and not only in the field of innovation, science and technology, but also the in the engineering, transport, and sometimes also social infrastructure sectors. Today, Russia has 25 innovative territorial clusters in 20 RF subjects, which unite a total of about 1,000 enterprises, organizations, regional and local bodies of authority. The annual volume of funding allocated to the cluster development programs from the federal budget varies between RUB 1.25bn and RUB 2.5bn.

Programs of innovative development of biggest companies with state participation. The elaboration, approval and implementation, by biggest state-controlled companies, of their innovative development programs is expected to ensure the creation and implementation of new technologies, innovative products and services in compliance with world standards, thus conducing to the achievement, by these companies, of a broad range of goals, including the reduction of per unit costs and improvement of product quality, higher labor productivity, efficient energy use, and clean production. One of the important directions in the implementation of these programs is the interaction with higher educational establishments and scientific research organizations, primarily in determining the priority fields for collaborating, planning, and implementing joint projects and R&D programs.² At present, innovative development programs are being implemented by 60 biggest companies operating in the public sector.

*Subsidies to the projects involving the creation and development of engineering centers on the basis of higher educational establishments.*³ This instrument is oriented to the use, in the interests of businesses, of the state-of-the-art know-how generated by higher educational establishments, the commercialization of their R&D products, and the involvement of undergraduate students in real engineering projects and broadening their opportunities for finding their future jobs. The bulk of government allocations must be spent on purchasing

¹ Federal Targeted Program *Research and Development in the Priority Areas of Development of the Russian Scientific and Technological Complex for 2007–2013* (approved by Decree of the RF Government No 613, dated October 17, 2006); Federal Targeted Program *Research and Development in the Priority Areas of Development of the Russian Scientific and Technological Complex for 2014–2020* (approved by Decree of the RF Government No 426, dated May 21, 2013).

² Recommendations for elaborating programs of innovative development of joint-stock companies with state participation, state corporations and federal state unitary enterprises (approved by decision of the Government Commission on High Technology and Innovation as of August 3, 2010, Protocol No 4).

³ Plan of measures (roadmap) in the field of engineering and industrial design (approved by the RF Government's Directive No 1300-r dated July 23, 2013).

equipment, software and intangible assets; however, it is also planned that the engineering centers should also take advantage, while pursuing their activities, of the already existing scientific-research and experimental base in possession of the higher educational establishments hosting them. On the whole, engineering centers must serve as the much-needed interface between higher educational establishments and businesses, enabling the latter to productively draw upon the knowledge, competence and material base of the former in order to successfully achieve their goals. Currently, a total of 30 engineering centers function on the basis of higher educational establishments, and another 11 centers are being set up (the relevant projects were selected and approved in 2016).

On the whole, in spite of the strong focus on the support of science-industry cooperation in the framework of the currently implemented government innovative policy, we cannot say on the basis of available data that any radical progress has already been achieved with regard to increasing the scale of interaction between the science sector and businesses, or to boosting the productivity of that process. Thus, as noted earlier, the data presented in *Fig. 10* point to only a very slight increase in the scale of cooperation involving businesses over the past decade, and this happened in the main due to the more widespread practice of launching joint scientific research projects with higher educational establishments. Besides, we should note growth in the number of joint R&D projects of industrial companies and higher educational establishments and their increased relative share in the total number of joint projects; however, this was offset by a notable decline in the joint scientific research activity of companies with scientific research organizations (*Fig. 20*).

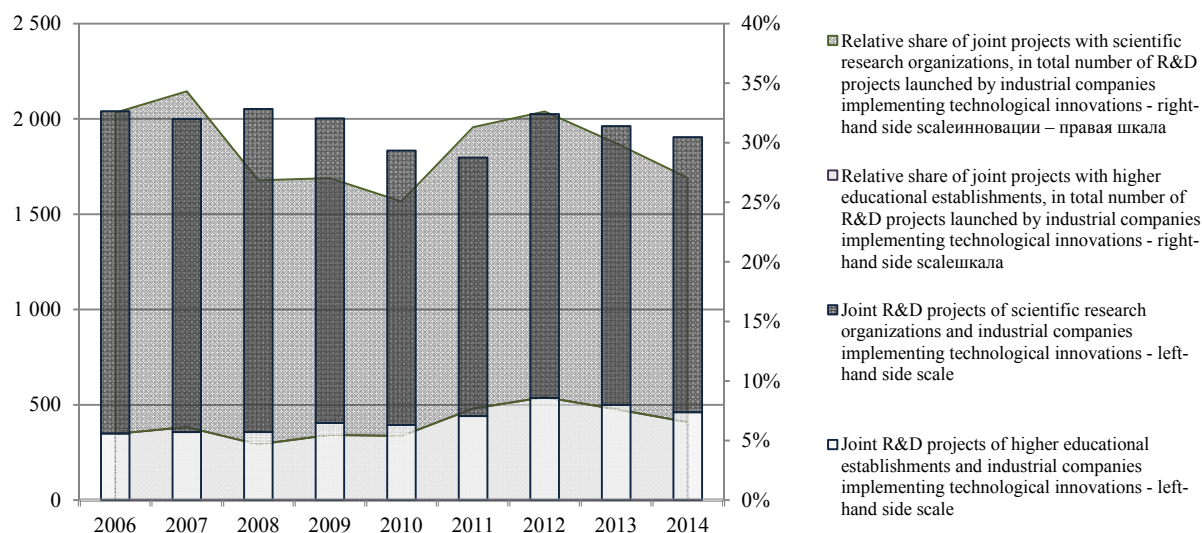


Fig. 20. Joint R&D projects with scientific research organizations and higher educational establishments, launched by industrial companies implementing technological innovations

Source: own calculations based on NRU HSE's data.

In our opinion, it is still too early to speak of any cardinal changes taking place in the interaction between businesses and higher educational establishments in the field of R&D; suffice it to say that the share of the business sector in the internal R&D costs of higher

educational establishments has not been demonstrating a sustainable growth over the past decade - rather, it displays a downward trend (*Table 15*).

Table 15

**Internal R&D costs in the higher education sector covered
by the business sector**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Higher education sector's internal R&D costs covered by business sector											
in actual prices for each year, RUB bn	3.91	5.17	7.27	8.24	7.77	10.72	13.22	17.71	18.66	22.59	24.03
in constant 1989 prices, RUB thousand	76.94	88.43	109.09	105.00	96.92	117.20	124.57	155.37	155.07	175.15	172.86
Business sector's relative share in higher education sector's internal R&D costs, %	29.3	29.3	31.0	28.6	22.4	24.5	24.0	27.2	27.5	27.3	27.4

Source: own calculations based on NRU HSE's data.

As for the role of organizations operating in the R&D sector in supplying information to be applied in innovation development, we may note certain growth in the significance of sectoral science organizations (alongside the stably low levels of significance of scientific research institutions belonging to the academic sector and higher educational establishments – *Fig. 21*). However, this change notwithstanding, all categories of scientific research organizations continue to be among the least usable sources of innovation in industry (*Fig. 14*).

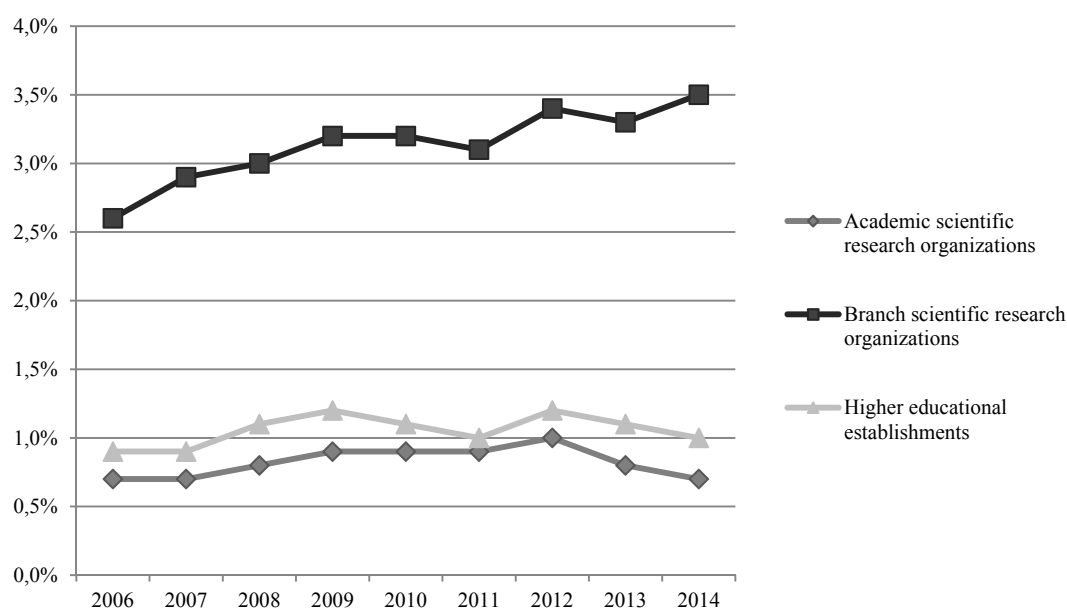


Fig. 21. The relative share of companies operating in industry and the sector of production and supply of electric energy, gas and water, which relied on organizations operating in the R&D sector as the main source of information on technological innovations

Source: own calculations based on NRU HSE's data.

Thus, the government's efforts to promote science-industry cooperation have not so far yielded any results that could be felt on the macro level. However, it should be borne in mind that the majority of instruments applied by the government were introduced not earlier than 2011. Meanwhile, it is a well-known fact that government promotion measures, even when they are very successful and constructive, quite often bring results with a significant lag – up to several years,¹ and the lag becomes more visible when we apply macro data. Therefore it is necessary to assess the input of implemented policy in the development of science-industry cooperation at the micro level.

The findings of the 2015 survey of Russian companies demonstrate that the creation of new science-industry cooperation links or strengthening of the already existing ones represents one of the most rarely observed consequences of government support, its incidence being nearly four times lower than that of the most commonly seen effect - the replacement of private investment by government funding and growth of investment in new equipment (*Fig. 22*). At the same time, 'sector-oriented' government support measures designed to promote science-industry cooperation much more frequently result in its strengthening (23% of cases vs. 8% for innovative policy in general). This index is even higher for certain specific measures and instruments: thus, in particular, progress in the development of science-industry cooperation was demonstrated by 31% of enterprises applying the profits tax exemption mentioned earlier, and by 33% of companies participating in the joint projects with higher educational establishments or scientific research institutions supported by the government in the framework of measures outlined in Decree No 218. Besides, when set against innovative policy at large, the cooperation promotion measures rather more frequently give rise to many other positive effects, among which growth of the aggregate expenditure allocated to innovation, expenditures on R&D, investments in new equipment, and a higher scale and rate of project implement are the most notable ones. Interestingly, all these effects, including cooperation development, have to do with inputs or behaviors, while the 'output effects' of the science-industry cooperation promotion mechanisms like proceeds, output of new and upgraded products, profitability and overall competitive capacity of a business company, look less impressive against the backdrop of the entire scope of government innovative policy.

This, while the input of the science-industry cooperation promotion policy implemented by the government cannot be traced very graphically on the macro level, at the level of each individual company we may speak of some sufficiently significant results being produced by these measures, at least they appear to be so when set against the other government instruments employed in the support of innovations.

¹ Shin T. (2006) Behavioural additionality of public R&D funding in Korea. In: Government R&D Funding and Company Behaviour. Ch. 9. OECD Publishing, pp. 167–180; Lopez-Acevedo, G., Tan, H. (2010) Impact Evaluation of SME Programs in LAC. The World Bank. URL: http://siteresources.worldbank.org/INTLACREGTOPPOVANA/Resources/Impact_Evaluation_SME_Programs_ENG_Final.pdf; Crespi G., Maffioly A., Melendez M. (2011) Public Support to Innovation: the Colombian COLCIENCIAS' Experience. Technical Notes IDB-TN-264. Inter-American Development Bank. URL: <http://www.iadb.org/wmsfiles/products/publications/documents/35940030.pdf>.

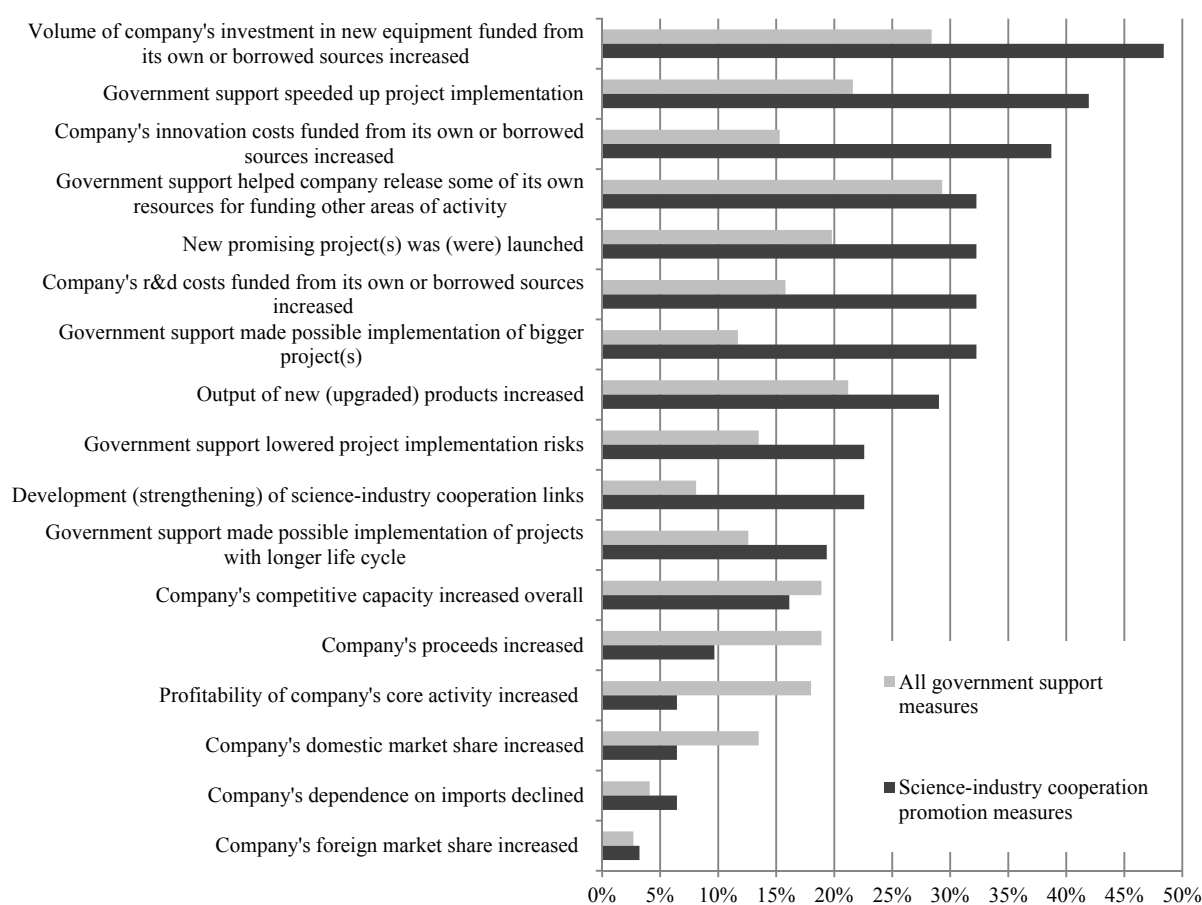


Fig. 22. The influence of government support measures on the activity of companies, as of 2015 (frequency of mention by CEOs of companies - recipients of measures in each category)

Source: IAC, own calculations.

6.4.5. The reasons for the low level of interaction between the science sector and businesses: some conclusions and generalizations

In our view, today we may identify two main reasons why, in spite of the comprehensive measures being implemented in the framework of Russia's innovative policy and designed to boost science-industry cooperation, the scale and productivity of interaction between science and businesses are still very low, and demonstrate no obvious signs of growth.

The first reason is that each of the measures designed to promote cooperation links and partnerships between the science sector and industry is being influenced by factors that impose significant constraints on the scale of their implementation and their input in cooperation development. Some of these factors were taken into account by the government in the phase of planning these measures, and some of them emerged spontaneously.

The profits tax exemption based on a 1.5 times increase in the actual R&D costs, similarly to any other tax instrument, is potentially oriented to the broadest possible range of 'consumers.' The first and most obvious constraint on its application is that only specifically defined R&D

themes entered on the special list are entitled to that exemption. The list presently consists of approximately 450 items, which very closely follow (as noted earlier) the Priority directions for the development of science, technologies and technical equipment in the Russian Federation and the List of critical technologies of the Russian Federation. Nevertheless, in spite of this limitation, in the third year after its introduction, the exemption was already applied to nearly 1/4 of all R&D costs reported for the purposes of taxation (*Fig. 23*).

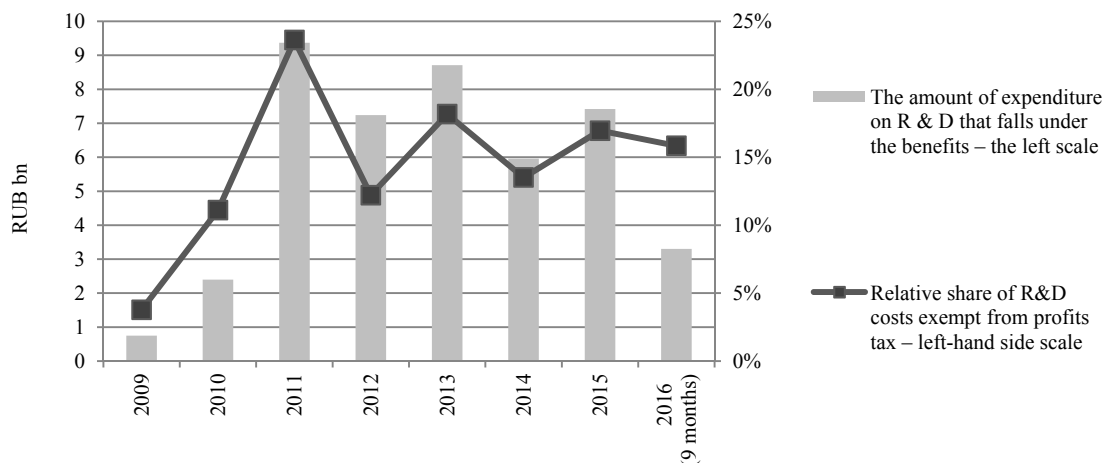


Fig. 23. Taxpayers' R&D costs subject to profits tax exemption in accordance with the special list

Source: Federal Tax Service; own calculations.

The second constraint introduced in response to the too widespread use of tax exemptions (probably 'too widespread' only from the point of view of the controlling bodies) is that a taxpayer must submit to the tax inspectorate a R&D report. The upshot was that the exemption began to be applied on a much lower scale. However, even now it is still significant – about 15% of the total amount of R&D costs reported for the purposes of taxation are exempt from the tax. The more important circumstance is that the exemption is relied upon by a constant and very limited group of subjects – both in 2014 and in 2015 its 'consumers' were 64 companies,¹ which amounts to only 5% of its potential 'targets' – the taxpayers reporting R&D costs.

The most evident limitation of the financial support mechanism applied to joint innovative projects of business companies with scientific research organizations is that its recipients on 'science side' may only be higher educational establishments and state scientific research institutions (and initially - higher educational establishments only). Meanwhile, these entities comprise only slightly more than half of all legal entities involved in R&D.²

Another limitation of the subsidizing mechanism is that, although the number of projects receiving support is rather large (more than 300), the range of actual participants is relatively narrow because they are always roughly the same ones. And while this approach may be justified when applied to higher educational establishments, because by far not all of them are

¹ For reference: another exemption from profits tax – amortization premium – was applied in 2015 by more than 11,000 enterprises and organizations.

² Voinilov Yu., Gorodnikova N., Gokhberg L. et al. (2017). Science and technology indicators in the Russian Federation: HSE Data Books 2017. M.: NRU HSE.

competent enough in the field of science and technology to produce R&D products truly needed by businesses, the feasibility of repeated allocation of government support to the same big business structures may well be questioned, to say the least.

And finally, yet another important point is that, while rather strong effects and behavior changes can be displayed by the higher educational establishments and business companies participating in a government-supported project,¹ the fact of their collaboration *per se* often has nothing to do with government support, being the upshot of long-standing connections and relationships. If that is the case, the true result of that support is not the initiation of new science-business partnerships, but only some additional 'capitalization' on the already ongoing cooperation.

The rather significant limitation of the mechanism of government promotion of the creation of project-implementing companies by scientific research organizations and higher educational establishments is that the relevant set of instruments is targeted only at the organizations operating as budget-funded and autonomous institutions, and thus only at the economic societies created by such institutions. For this reason, the reduced rates of mandatory payments to government extrabudgetary funds are not applicable to the absolutely similar companies that have been set up by joint-stock companies, and so on.

A sort of constraint on this form of government support - at least, with regard to its influence on the economy - is that probably a majority of established project-implementing companies exist only formally,² and their creation was prompted not so much by the desire of their founders to commercialize their R&D products, as by the externally imposed directives and targets. It is not by chance that most of these companies were set up by higher educational establishments, which are required to comply with the relevant targets assigned to them in government programs.

Technological platforms differ from the mechanisms and areas of government support discussed earlier in that they formally are not restricted in their choice of the organizational-legal form of their participants and the themes of their scientific research projects. However, in actual practice, their activity has been increasingly focused on following the priorities set by the government - among other things, because these are linked to the measures outlined in the Federal Targeted Program *Research and Development in the Top Priority Areas of Development of the Russian Scientific and Technological Complex*, and most of the projects in the framework of technological platforms are funded under that FTP. It should also be noted, in spite of the versatility of the existing platforms and the impressive number of enterprises and organizations operating in their framework (approximately 3,500), only a few platforms are *de facto* the recipients of the bulk of government allocations, and the actual beneficiaries are most often their biggest major participants.

The financial support from the federal budget of the innovative territorial cluster development programs is distributed much more evenly than the funding allocated to technological platforms in the form of tenders. Besides, as clusters are expected first of all to promote regional development, they receive not only federal budget allocations, but also

¹ I. Dezhina, Yu. Simachev. Matching grants for stimulating partnerships between companies and universities in innovation area: initial effects in Russia. The Journal of the New Economic Association, 2013, No 3.

² See, e.g., Sterligov, I. (2011) A third of all small businesses based at higher educational establishments exist only on paper. Science and Technology of the Russian Federation (STRF.ru.) URL: http://www.strf.ru/material.aspx?CatalogId=221&d_no=41450#.VNqByeY0Enh; Ruposov V. Economic activity analysis of ISTU small innovation enterprises. Proceedings of Irkutsk State Technical University, 2014. No 4.

support from the budgets of their regions, and the amount of the latter is usually rather substantial. However, at the same time, many of the measures thus funded (most frequently – from regional budgets) have little to do with the cooperation promotion and joint activities of the enterprises and organizations operating inside a cluster – *de facto*, the priority of regional funding is usually not the promotion of cluster participants and their interaction, but the development of the area in which the cluster is situated. It should also be noted that some clusters represent the already long-standing regional industry-science-education conglomerates, whose official formalization as clusters could do little to improve the well-developed links between their participants. Another extreme is 'cluster hypertrophy': the inclusion of a very large number (about 100) of enterprises and organizations, probably in the hope of gaining access to government support. If that is the case, the prospects not only of the development of joint activities of all its participants, but even of their coordination inside a cluster appears to be doubtful.

The evident limitation of the innovative development programs is that their 'specific target' is the group of 60 biggest companies of the public sector. Another less evident but nevertheless very significant limitation is that practically every company in that group, due to its size and long history, has developed a set of reliable partners, including in the science sector and among higher educational establishments. So, the cooperation with scientific research organizations and higher educational establishments envisaged in the development programs takes place, as a rule, as part of their habitual 'interaction profile',¹ similarly to the mechanism of support of joint innovative projects of business companies with higher educational establishments and scientific research institutions. It is not by chance that the recipients of support in the framework of that mechanism are several biggest companies operating in the public sector and implementing innovative development programs.

And finally, the key limitation of the pilot project support mechanism employed in the creation of engineering centers is that these may be set up only on the basis of higher educational establishments, and more specifically, only those subordinated to the RF Ministry of Education and Science. In this connection it must be added that the unquestionable and obvious advantage of this mechanism is its orientation to one of the fields that suffer most from the acute deficit of domestic supply of work and services needed by businesses, and so, in order to eliminate that deficit, it would be feasible to make use of the opportunities and competences not only of higher educational establishments, but also of scientific research organizations. Besides, in actual practice the contribution of some of the newly established engineering centers in the development of cooperation between their 'parent' higher educational establishments and businesses is restricted by the lack of interest, on the part of the latter, in using their services (due to the poor choice of the focus of their activity, the higher educational establishment's reputation, etc.), or, on the contrary, by the excessively high reliance of the business partner on the engineering center, when the latter turns it into its own 'satellite', to the detriment of its interaction with other companies.

¹ This fact is further confirmed in the report that analyzed the intermediate results of innovative development programs on the basis of official reporting and monitoring data. It was noted that there were no noticeable changes in the composition of participants in R&D projects resulting from the involvement of new scientific research organizations operating in the R&D sector (M.A. Gershman, T.S. Zinina, M.A. Romanov et al. Innovative development programs for companies with state stakes: intermediate results and priorities. Ed. by L.M. Gokhberg, A.N. Klepach, P.B. Rudnik et al. M.: NRU HSE, 2015).

All these limitations significantly narrow the range of real beneficiaries of the science-industry cooperation promotion measures and instruments relative to their potential number.

The second reason why the development of interaction between science and businesses in Russia is slow has been the less than favorable environment for generating knowledge and its 'conversion' into new products and technologies. As shown by international comparative studies, the level of science-industry cooperation development in Russia's economy was as least not worse than the scientific research and innovative activity indices in other countries (Fig. 24).

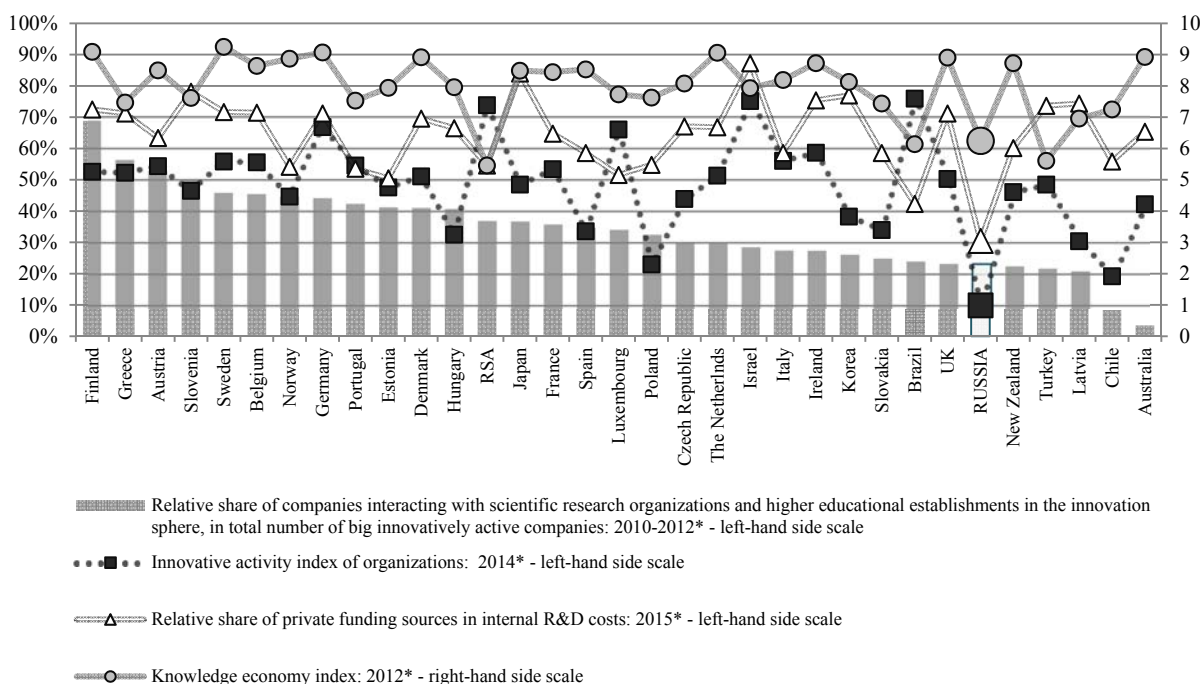


Fig. 24. Science-industry cooperation, scientific research, and innovative activity indices – international comparative data

* Or the nearest period for which comparable data are available.

Source: own calculations based on data released by the OECD, the NRU HSE, and the World Bank.

The analysis presented here has led to a number of conclusions and recommendations concerning the areas of development for the science-industry cooperation promotion measures and instruments applied by the government and the potential for improving their performance and increasing their inputs in innovative development on the macro level.

Firstly, as shown by these estimates, there exists a substantial resource for increasing the yield of the measures being implemented, which can become visible in the positive changes in the activity of direct recipients of support. However, these opportunities are naturally restricted to the existing group of beneficiaries, which is comparatively small due to the specificity of these instruments. So, even in the event of ensuring significant effects of government support for each individual recipient, it is unlikely that the situation may notably improve on the macro level. Thus, the main resource for strengthening the influence of the government's science-industry cooperation promotion policy on economic development will be, in our opinion, not so much the increased 'intensity' of implementation of the relevant measures (their increased input

in the development of each support recipient), but the 'extensive' expansion of the range of their real beneficiaries.

Secondly, the current government policy of supporting the interaction between the science sector and businesses mostly targets biggest players on either side, while small organizations and enterprises are relatively uninvolved in its 'orbit', with the exception of project-implementing companies set up by scientific research institutions and educational establishments. Thus, in particular, there exist strong grounds for believing that the 'consumers' of the special profits tax exemption for R&D costs are in the main big enterprises and organizations – just because they constitute only 5% of the total number of taxpayers reporting their R&D costs, while the relative share of their R&D costs – and not even the entire amount, but only the tax-exempt amount – is higher, about 15%. The mechanism of supporting the cooperation of business companies and higher educational establishments in the framework of measures outlined in Decree No 218, which envisages a rather large scale of the projects to be implemented, is also predominantly oriented to big entities. The bulk of support distributed in the framework of technological platforms, as has already been noted, goes to big players. Big-sized businesses and scientific research organizations are also prominent among the participants of innovative territorial clusters. In the framework of innovative development programs with the participation of biggest companies operating in the public sector, the latter de facto are not actively outsourcing their services to small businesses, although this is stipulated as one of the mandatory components of these programs.¹ Thus, *new participants in the implementation of government science-industry cooperation promotion policy can - and should be - recruited not from the group of big companies and scientific research organizations (as a rule, these have been already successfully cooperating for a long time), but from among small entities and the relatively recently created organizations and companies, which have not yet developed their own science-industry cooperation systems.*² *It must be added that in foreign countries, innovative startups are frequently regarded as an important source of demand for R&D products.*

Thirdly, the currently implemented science-industry cooperation promotion measures clearly display their focus on developing the science-business interaction on the institutional level, the parties involved being the organizations operating in the R&D sector (primarily state scientific research institutions and higher educational establishments) and industrial companies. Meanwhile, in order to expand cooperation, create new partnerships, promote network interaction, and ultimately to increase the flexibility of the entire system of cooperation links, *it is vital to promote the development of science-industry cooperation at the level of individual entities.*

Fourthly, since the current level of science-industry cooperation in Russia on the whole reflects the situation in the national innovation system, *it will be impossible to achieve fundamental progress in science-industry cooperation by relying only on 'branch-oriented' cooperation measures promotion; instead, it will be necessary to generally improve the innovative climate and to develop an appropriate environment for knowledge generation.*

¹ M.A. Gershman, T.S. Zinina, M.A. Romanov et al. Innovative development programs for companies with state stakes: intermediate results and priorities. Ed. by L.M. Gokhberg, A.N. Klepach, P.B. Rudnik et al. M.: NRU HSE, 2015.

² It should be noted that in foreign countries, innovative startups are often viewed as an important source of demand for R&D products (Cohen W., Nelson R.R., Walsh J.P. (2002) Links and Impacts: the Influence of Public Scientific research on Industrial R&D. *Management Science*, 48 (1), pp. 1–23).

Table 16

The scale, advantages and limitations in the use of the principal instruments and measures applied by the government in its support of science-industry cooperation

Instrument (direction) of support	Implementation scale	Strengths, advantages	Limitations, implementation issues
1	2	3	4
Special exemption from profits tax for some types of R&D costs	Cap on R&D costs to be exempt from tax is RUB 6–9bn, or approximately 15% of all R&D costs reported for taxation purposes. In 2014 and 2015, the exemption was applied by 64 organizations	<ul style="list-style-type: none"> • 'Genuine' exemption – it truly reduces the tax load. • Potentially broad range of beneficiaries. • Promotion of those R&D fields that are government priorities. • Prior to 2012 it was relatively easy to apply 	<ul style="list-style-type: none"> • 'Selective' application – the R&D theme must comply with the special list. • From 2012 – too complicated procedure for its application and administration. • It is <i>de facto</i> a targeted measure: very low – for tax exemption – number of beneficiaries
Subsidies to companies implementing innovative projects, to cover the costs of their R&D, orders for which are placed with Russian higher educational establishments and state scientific research institutions	More than 300 projects, annual budget funding volume is RUB 5–7bn	<ul style="list-style-type: none"> • Companies and higher educational establishment (or scientific research organization) apply jointly, which implies their mutual interest in collaboration • R&D is ordered directly by the company project initiator, which lowers the risk of generating results that do not correspond to its needs • Orientation to the creation of hi-tech industries, new and upgraded products, involvement in R&D of undergraduate and postgraduate students, publishing activity • Large scale and long period of application, well-elaborated procedures • Stronger orientation of scientific research conducted by higher educational establishments to real needs of businesses • Development of higher educational establishments' competence in those fields of scientific research, engineering and education that are truly in demand • Large-scale participation in project implementation of the personnel of higher educational establishments, undergraduate and postgraduate students, creation of a significant number of new jobs, sufficiently high scale of publishing activity 	<ul style="list-style-type: none"> • Excessively tough restrictions on participation in R&D projects: only higher educational establishments and state scientific research institutions prior to 2012 – only higher educational establishments) • Too strong emphasis on a substantial (frequently – predominant) relative share of R&D in the structure of projects • Limited opportunities for using the allocated budget resources • Cap on the amount of budget subsidies • From 2013 – insufficiently flexible project funding scheme • As a rule, the supported projects rely on long-standing science-industry links and partnerships • Some partnerships are purely formal, some projects are not viable • Problems with the distribution of rights to R&D products between the participants
Promotion of the creation, by scientific research institutions and educational establishments, of joint-stock companies for implementing the products of their intellectual activity	Over the period 2009–2016, 2,900 project-implementing companies were set up	<ul style="list-style-type: none"> • Orientation to commercialization of R&D products • High demand by higher educational establishments 	<ul style="list-style-type: none"> • Applied only to scientific research organizations and higher educational establishments registered as budget-funded or autonomous institutions, and to the project-implementing companies created by these entities • Purely nominal existence and non-viability of many of the newly created companies

1	2	3	4
Technological platforms	35 technological platforms, participated by more than 3,500 enterprises and organizations	<ul style="list-style-type: none"> • Borrowing of foreign best practices • Orientation to cooperation between the government, the science sector, and businesses, development of more common views and coordination of interests • Promotion of long-term R&D planning • Reasonable number of platforms 	<ul style="list-style-type: none"> • Preferential orientation to government priorities in the field of science and technology, and not to the needs of businesses • Lack of involvement in certain socially important fields • Excessive orientation to big state-owned players (state-owned companies, scientific research centers, higher educational establishments), to their interests • Focus on the attraction of government resources • Concentration of the bulk of budget allocations in the hands of a narrow range of platforms and their key participants • Relatively low involvement of private businesses • In some cases – insufficient focus on developing international cooperation
Subsidizing of the innovative territorial cluster development programs	Support of 25 clusters in 20 RF subjects, participated by a total of approximately 900 enterprises and organizations; the annual volume of federal budget funding is RUB 1.25-2.5bn	<ul style="list-style-type: none"> • Borrowing of foreign best practices • Orientation to regional development, promotion of closer interaction between businesses, the science sector, the education sector, and authorities, real involvement of regional administrations, including financial participation • Existence of detailed (as a rule) cluster development programs, approved and controlled by regional authorities • Orientation to the use and further development of the existing state-of-the-art competence • Focus on infrastructure development, achievement of synergic effects • Relatively small volume and even distribution of budget funding 	<ul style="list-style-type: none"> • Formal nature of some clusters, weak interaction between their participants • Lack of a real 'activity focus' in some clusters • 'Hypertrophy' of some clusters • Much of the expenditure allocated by RF subjects has little to do with the actual development of clusters: construction and repair of roads, social infrastructure projects, upkeep of residential areas, etc. • Excessive orientation to long-standing links and partnerships • In some cases – creation of infrastructure components simply for the sake of a good report, with no regard for the real demand for their services • Insufficient focus on developing international cooperation • Focus on the attraction of government resources
Programs of innovative development of biggest companies operating in the public sector	The programs for 60 companies have been approved and are being implemented	<ul style="list-style-type: none"> • Orientation not only to boosting the innovative and scientific-research activity of companies, but also to more cost-effective use of resources and better medium- and long-term competitive capacity • Setting development targets for companies based on relevant comparative indices achieved by major foreign companies (technological audit) • Strategic innovative activity planning • Clear focus on science-industry cooperation promotion • Regular monitoring of program implementation 	<ul style="list-style-type: none"> • Lack of information transparency concerning the programs and the activities of companies in the framework of their implementation: as a rule, there is no open access even to the full text of a program • The programs <i>de facto</i> are secondary to the other strategic planning documents adopted by the companies – long-term development strategies and programs • Strong orientation to long-standing science-industry cooperation links and partnerships

Cont'd

1	2	3	4
Subsidizing of projects involving the creation and development of engineering centers based at higher educational establishments	30 engineering centers are operating, another 11 are being set up; the annual volume of federal budget funding is RUB 0.5-1bn	<ul style="list-style-type: none"> • Orientation to the needs of business that are currently inadequately satisfied by Russian organizations • Orientation to commercial use of the state-of-the-art competence of higher educational establishments, involvement of their R&D products in economic activities • Opportunities for involving students, finding their future jobs • The examples of productive cooperation of federal ministries are set by the RF Ministry of Education and Science and the RF Ministry of Industry and Commerce 	<ul style="list-style-type: none"> • Engineering centers may only be based at higher educational establishments subordinated to the RF Ministry of Education and Science • Dual nature – each engineering centers consists of a two separate divisions - a higher educational establishments and a separately registered legal entity, where the former is the direct recipient of support, and the main performance assessment criterion is the amount of proceeds generated by the latter • Formal nature of some centers, they have little to do with engineering activity • Some centers get few orders and generate low proceeds • Low activity diversification at some centers, some of them being simply an 'extension' of their industrial partner

6.5. The situation in the sphere of science and innovation¹

Two ongoing parallel processes marked the year 2016. *The first* one had to do with the continuing implementation of previously planned measures, although it clearly fell behind the earlier established schedule. The scientific research community defined it as progressive stagnation. *The second* process involved the active elaboration, at the government level, of new strategic documents aimed at a fundamental revision of current policies in the sphere of science and innovation. These were the *Strategy for Scientific and Technological Development of the Russian Federation*, the *National Technology Initiative (NTI) Strategy*, and the draft federal law *On Scientific, Scientific-technological and Innovation Activity in the Russian Federation*, to supersede the Federal Law *On Science and State Scientific and Technological Policy* enacted in 1996. In August, a new RF Minister of Education and Science was appointed, and so it could be expected that the priorities of the government policy in the field of science and related measures would likewise be adjusted. The focus may well be shifted towards the sphere of education, which is also important from the point of view of science: the creation of high quality human resources in the field of scientific research begins in the secondary school education system. In spite of the introduction of a number of comprehensive measures aimed at support and promotion, some aspects of the issues that have to do with lack of personnel in certain key areas have never been resolved. Among other things, it is necessary to alter the hierarchical and age structure of research personnel, create proper conditions for their career growth, and properly adjust the highest-level qualification training system.

At the same time, the progress in the academic and higher education sectors was slower than necessary. The year 2016 saw a sort of anniversary - three years had elapsed since the start of reform in the Russian Academy of Sciences (RAS). The prevailing opinion within the academic community was that no serious organizational improvements had been achieved in the research sector, while productivity growth in the academic sector had been too slow. The response of the scientific researcher community began to resemble that observed in the mid-1990s, when the signs of destruction in the science sphere reached their historic high of the entire post-Soviet

¹ Author of chapter: I. Dezhina – Gaidar Institute, Skolkovo Institute of Science and Technology.

period. Most probably, such reactions were caused by the poor understanding of the half-baked reform measures coupled with lack of trust in the authorities, dwindling budget funding, and fears associated with possible personnel cuts in the future. Besides, the sphere of science has recently become 'swamped' in minor issues like calculating bibliometric measures, changing the documentation flow patterns for the Federal Agency for Scientific Organizations (FASO), merging some previously separate research institutes.

The pessimism felt by the scientific research community was evidently in contrast with some positive changes that last year had just become manifest. These were the increasing number and improving quality of scientific publications (the growth rate of publications in scientific journals soared in Q1; incidentally, the number of publications written without foreign co-authors was increasing at a higher rate than that written with foreign co-authors). Besides, some positive shifts also occurred in the sphere of commercial use of results of scientific research, including innovation clusters.

6.5.1. New strategic documents

In 2016, the development of two new strategies was underway: the *Strategy for Scientific and Technological Development of the Russian Federation* (hereinafter – STD Strategy) and the *National Technology Initiative Strategy* (hereinafter – NTI Strategy); besides, in autumn 2016, work was started on Russia's development strategy for 2018–2024¹, the sphere of science and technology being one of its principal aspects.

In each of these documents the emphasis is placed somewhat differently. The STD Strategy addresses specifically the scientific research field and the commercial use of intellectual products. The NTI Strategy regards the sphere of science and technology as one of the important components of Russia's entry into new hi-tech markets, but assigns a major role in this entry to business activities. The ever-increasing number of new strategic documents (in addition to the already adopted ones, including several sectoral strategies, one of the most recent being, for example, the strategy for developing the field of photonics) is a sign of something like a crisis unfolding in the sphere of science and technology, to which various stakeholders with different views are attempting to provide some sort of a solution. Indeed, the persisting core problems – the interdependence of all the components of the innovation system and the quality of state administration - are still there. Their existence was once again confirmed by the latest Global Innovation Index 2016 Report². Russia, while having moved up 5 spots to 43rd place, still fell significantly behind most countries in terms of some important parameters like innovation linkages (112th among a total of 128 countries), rule of law (104th), state of cluster development (101st). This country still ranks high by its share of females employed with advanced degree (2nd place), domestic market scale, and patent applications filed with the national patenting agency – but these are by no means the key innovation development parameters.

¹ Dmitry Medvedev and Alexei Kudrin discussed the work on the strategy for Russia's development from 2018 through 2024. Presidential Council for Economic Modernization and Innovative Development. September 22, 2016. See <http://i-russia.ru/all/news/31845/>

² The results of a comparative study of innovation systems in 128 countries. Source: *The Global Innovation Index 2016. Winning with global innovation*. JOHNSON Cornell University, INSEAD, WIPO, 2016. <https://www.globalinnovationindex.org/gii-2016-report>

The STD Strategy, approved by the RF President as of 1 December 2016¹, relies in the main on the concept of Grand Challenges. This term came to this country a few years ago, having been borrowed from the European Union's practices. Grand Challenges are understood as existing major issues that include the situation with food supplies, demography, energy and other major issues, as well as national security threats. The Strategy is designed to link Grand Challenges with the national goals and priorities as set out in strategic planning documents. The importance of the new Strategy was underlined by the RF President in his Annual Presidential Address to the Federal Assembly, where several important provisions were put forth, including the necessity to develop cross-cutting technologies², promote competition in the sphere of science and technology and to support talented young scientists on a long-term basis.³

The STD Strategy sets out two important parameters that should determine the provision of funding to the research and development (R&D) sector: it is expected that, by the year 2035, its amount will make up 2% of GDP, and the share of private investment therein should be not less than that of public investment⁴. Such expectations with regard to spending allocated to science are very moderate – both in quantitative terms and from the point of view of the private sector's share, because even at present, the average amount of expenditures on science in the developed countries is generally above 2% of GDP, while the share of private investment is usually higher than that of government investment. This is the most pessimistic target set by the STD Strategy, because it is indeed difficult to achieve any serious success with a low level of funding.

The STD Strategy contains one provision whereby it is linked to the NTI Strategy: the National Technology Initiative is viewed as a promising instrument designed to ensure that fundamental knowledge, fundamental and applied scientific studies are transformed into products and services capable of ensuring for Russian companies the leading positions in the most auspicious markets in the framework of the already existing priorities and those that may emerge in the future (including after 2030).⁵ The priorities listed in the STD Strategy correlate with the main technological development directions set out in the NTI Strategy. These are digital industrial technologies, robotic systems, new materials, *big data*, non-polluting energy, and so on. Later on, most probably, federal targeted programs (FTP) will be readjusted in an operative mode to suit those new themes, because at present the ongoing R&D FTP is structured in accordance with the priorities set out in 2011.

The NTI Strategy⁶ formulates as its core idea the entry into new network markets by means of developing cross-cutting (backup) technologies, and setting up 'NTI companies'.⁷ It is noteworthy that the strategy's orientation to network markets is not necessarily compatible with that to Grand Challenges. Indeed, promising markets may be found in a place where there are

¹ Executive Order on the Scientific and Technological Development Strategy of the Russian Federation No 642 of 1 December 2016.

² The term was introduced by the STD Strategy. It is applied to technologies that are important for developing different areas of economic activity (for example, digital and quantum technologies).

³ Annual Presidential Address to the Federal Assembly, 1 December 2016. See <http://kremlin.ru/events/president/news/53379>

⁴ *Strategy for Scientific and Technological Development of the Russian Federation*. Section 48 (November 2016) <http://sntr-rf.ru/upload/iblock/7df/01%20Проект%20Стратегии%20научно-технологического%20развития.pdf>

⁵ *Strategy for Scientific and Technological Development of the Russian Federation*. Section 23. <http://sntr-rf.ru/upload/iblock/7df/01%20Проект%20Стратегии%20научно-технологического%20развития.pdf>

⁶ For further details concerning the STD, see *Russian economy in 2015. Trends and outlooks* (Issue 37) – M.: Gaidar Institute, 2016, p. 361–364.

⁷ NTI companies are businesses centered around breakthrough inventions and technologies that make it possible to achieve higher results with fewer resources.

no challenges; or, they may suddenly spring up somewhere in response to newly emerging breakthrough hi-tech inventions. The NTI Strategy is not a standard-setting document, because the National Technology Initiative itself, according to its ideologist Dmitry Peskov, Director of the Young Professionals Division at the Center for Strategic Research (CSR), is something of a cross between a system, a project, a movement, and an ideology'¹. What is needed to produce new fast-growing Russian companies capable of entering world market, is not 'cadres, but talent; not ministries, but services'.² In accordance with this postulate, the project named NTI Strategy views the government policy instruments and measures as services, and scientific research as a function that is critically important for the emergence of new technologies.

In its turn, Russia's development strategy for 2018–2024 entered its preparatory phase, which involved, among other things, also an analysis of the outcome of previously implemented strategies. This analysis revealed that none of the innovative development measures set out in *Strategy 2020* had been implemented in full,³ and the innovation target achievement index for Strategy 2020 was on the whole lower than that for Strategy 2010⁴. This is one of the reasons why last year saw the emergence of several draft strategies.

The noteworthy feature of the current versions of strategies is their very high degree of generalization. They focus mainly on the principles, while the actual mechanisms play a subordinate role, and sometimes they are not even adequately explained, while the expected results are poorly coordinated with the goals set by the strategies (for example, the inputs in the expected solutions to the problems formulated as Grand Challenges). At the same time, in view of the multitude of disputable and unresolved issues (including technical ones) across the entire sphere of science and technology (personnel, finance, organizational structure, administrative system, material base and other forms of necessary backing for the research process), strategies are indeed important because they provide a way to coordinate the directions of development, and the new documents explain the necessary points clearly enough.

6.5.2. The scale and forms of budget funding allocated to research and development

The STD Strategy emphasizes the importance of fundamental research, and this is reflected in the budget projections for 2017–2019. It is planned to increase budget allocations to fundamental studies in the budget classification category of 'fundamental research'. More particularly, the volume of budget funding allocated to the Russian Foundation for Basic Research (RFBR) will be reduced, and that allocated to the Russian Science Foundation (RSF) will be increased. As of today, the RFBR is the only fund providing support to minor initiative projects that may yield findings worthy of being used as a foundation for bigger studies funded both in the framework of the Russian Science Foundation and various programs. The Fund ensures ongoing research across a broad spectrum of fields, without setting any priorities, which is especially important for many reasons, including the prospects of technological development, because it cannot be predicted in which field breakthrough technologies will emerge. Besides, last year the RFBR was merged with the Russian Humanitarian Science Foundation (RHSF),

¹ *Where do we go with the STD: the project's co-author Dmitry Peskov explains its prospects*. June 17, 2016. http://news.ifmo.ru/ru/startups_and_business/initiative/news/5739/

² *Ibid.*

³ *Analysis of factors involved in the implementation of top-level strategic planning documents*. Analytical report. Ed. M.E. Dmitriev. St. Petersburg: CSR, RANEP, IEP, NEP, 2016, p.26.

⁴ *Ibid.*, p. 29.

but the budget of the enlarged RFBR remained the same. The effectively reduced budget narrows the RFBR's opportunities for maintaining the proper environment where 'initiative studies' may be brewed.

The merger of the RFBR and the RHSF evidently occurred, first of all, due to budget constraints. In the early 1990s the RFBR was the only existing fund, and the RHSF gemmated from it specifically because projects launched in the fields of natural sciences, engineering, humanities and social sciences have different goals and priorities, and so they need different forms of support. The RF Ministry of Education and Science and the CEOs of the two funds explained the necessity of their merger by the need to optimize their administrative costs, further supported by the rather incoherently stated 'necessity' to 'solve new problems and respond to the challenges that Russian science is faced with'.¹ In addition, in the explanatory note attached to the government directive it was stated that this decision will help elaborate unified procedures of getting access to grants for each field of research.² However, with this goal in mind, it would have been reasonable to merge all the three funds, the RSF including – then the procedures could indeed become unified.

In its turn, the RSF is faced with another problem – unsustainable budget; it is planned that the Fund will receive financing not only from the government, but also from private sources. Incidentally, this is what Vladimir Putin noted at the meeting of the *Presidential Council for Science and Education*³.

For 2017, the RSF will receive an additional RUB 3.5bn, earmarked for the support of postdoctoral researchers, which is very important for Russian science in general and research laboratories in particular.⁴ By 2019, the Russian Science Foundation budget is to increase significantly and top that of the RFBR by RUB 3.2bn.

While fundamental science may expect a somewhat greater inflow of funding - even if it is most likely to be eaten up by inflation, the way budget allocations to applied scientific research are distributed among the budget functions (*Table 17*) is indicative of their gradual dwindling, as well as of the fact that national defense is currently a top priority, as far as expenditures on R&D are concerned.

Applied studies in the national economy sector in 2017 will attract only about 57% of the amount allocated to those conducted in the sectors of national defense and national security, and by 2019 will shrink by 23.8% (on 2017). And finally, it is planned that, by 2019, the allocations to research in the healthcare sector will be increased (because the latter, in accordance with the draft STD Strategy, has been placed on the list of priorities), but by only 4.3% (on 2017) and from a very low baseline – RUB 16.1bn. For reference: this amounts to only 4.3% of the expenditures on studies in the sectors of national defense and national security.

The gradual withdrawal of the state from the system of support of studies oriented to applied results is an absolutely correct policy (at present, the relative volumes of government allocations to the development of innovation technologies are sufficiently high compared with the volumes of such allocations in the developed industrial countries). However, not all of the existing

¹ A. Gorbatova. *Safe merger*. March 4, 2016. See http://www.strf.ru/material.aspx?CatalogId=221&d_no=116784#.WDqzPH3wip0

² Directive of the RF Government of February 29, 2016, No 325-r on the reorganization of the RFBR and the RHSF. See http://www.rfbr.ru/rffi/ru/news_events/o_1951236

³ <http://kremlin.ru/events/councils/by-council/6/53313>

⁴ The head of the RSF explains how the RUB 3.5bn promised by the President is going to be spent. Source: <https://indicator.ru/news/2016/11/21/glava-rmf-rasskazal-kuda-potratyat-obeshannye-prezidentom-3-5-mlrd-rublej/>

budget functions pertaining to applied studies on the expenditure side should be subject to cuts. One of the important functions of the state has always been, and remains, the support of start-up R&D companies. This function is performed by the Fund for the Promotion of the Development of Small Businesses in the Sphere of Science and Technology. Regretfully, over the next three years its budget is going to be frozen at the level of RUB 4bn, although the Fund has been providing large-scale support to Russian startups and small innovative businesses.

Table 17

Changes in the distribution of budget allocations to applied scientific research

Field	2017, bn RUB	Change on previous year, %	2018, bn RUB	Change on previous year, %	2019, bn RUB	Change on previous year, %
Applied scientific research, national defense	346.9	80.2	213.9	61.7	176.4	82.4
Applied scientific research, national security and law enforcement activity	26.1	94.5	22.8	87.5	22.3	97.7
Exploration and use of outer space, national economy	56.8	35.8	59.2	104.3	65.5	110.5
Applied scientific research, national economy	211.0	182.4	189.9	90.0	160.8	84.7
Applied scientific research, healthcare	16.1	89.4	17.0	105.8	16.8	99.0

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

On the whole, the amount of budget allocations to R&D will slightly increase in absolute terms, while actually declining or remaining unchanged when adjusted by inflation. This is a negative trend, especially considering the fact that the federal budget has so far remained the principal source of funding for R&D. At the same time, as federal budget expenditure allocated to R&D still displays a positive movement pattern, however modest, while over the next few years budget allocations are expected to shrink overall in absolute terms, it can be concluded that science has been recognized as a relatively important type of economic activity. Meanwhile, as shown by the experiences of the past decade, increased budget funding is by no means the only success factor capable of boosting the development of science and innovation. To improve the output of the science sector and newly created technologies, it will also take non-financial mechanisms both inside and outside of the sphere of science and technology.

6.5.3. Transformations in the former academic sector

In autumn 2016, three years had elapsed since the start of the organizational reform of the Russian Academy of Sciences (RAS) – the period of time allotted to a thorough analysis of the situation in the academic sector, inventory checks, and to taking decisions concerning the methods of its optimization. The CEOs of the Federal Agency for Scientific Organizations (FASO) announced that the analysis of the property complex had been completed, with the identification of 600 entities (including land plots) available for transfer either to the treasury or to regions and municipalities¹. Since property deals have always been a rather painful issue, and some analysts even have believed it to be the true reason behind the entire RAS reform business, the FASO specifically pointed out that there were no 'golden assets' among the property entities earmarked for transfer. Indeed, the possibility of murky property deals was more or less overlooked by the academic community. Far more significance was assigned to

¹ Science is being transformed into practice, and generally into economics. The head of the FASO told Kommersant about the progress of reform in the RAS. Kommersant (in Russian), No 198, October 25, 2016, p. 1. See <http://kommersant.ru/doc/3125352>

other issues like restructuring of the existing institutes, possible job cuts, funding of fundamental studies, and elaboration of comprehensive future research plans.

The outcome of the reform is estimated quite differently by the RAS and the FASO.

The FASO released data that pointed to positive changes in the system of academic institutes. The following achievements were noted: a 50% growth, on 2013, in the number of postgraduate researchers in the FASO's institutes;¹ a 1.5-fold increase, by early 2016, of the salaries paid to the staff of research institute; a 14% growth, over two years, of the number of publications in peer-reviewed journals; a significantly 'rejuvenated' director corps;² and the creation of new federal research centers responsible for implementing priority research projects.

The CEOs of the RAS and its academic institutes, on the contrary, offered negative assessments of both the results achieved by the FASO and the current situation, predicting 'further degradation and marginalization',³ and stating that 'the point of no return' has already been passed,⁴ and that the current low level of funding 'is barely sufficient for survival'.⁵ Moreover, in September, the RAS trade union held a week of protest against the science budget cuts.⁶ Indeed, the amount of budget allocations to R&D had been on the decline, while researcher salaries, which were to rise to twice the average salary paid in a given region by 2020, were being increased at a slower-than-planned rate. Out of the 700 institutes supervised by the FASO, only 170 had managed to achieve their 2016 salary target of 145.8% of region's average salary.⁷

So, the situation appears to be controversial, and it is important to understand what results have actually been achieved in the course of the RAS reform, and how they should be estimated. We may distinguish *three main directions of the reform*.

The first one is the restructuring of the institutes' activities in such a way that they would better answer the economy's needs and/or be more cost-effective in terms of quantity and quality of scientific products. The estimates can be, for example, an increased patents index, an increased number of small-sized companies set up by research institutes, expanded cooperation with industries, and growth in number of publications in peer-reviewed journals and the citation index. No structured data are available for any of these parameters, but restructuring and, even more importantly, the methods applied during its implementation were one of the most hotly debated issues.

¹ Science is being transformed into practice, and generally into economics. The head of the FASO told Kommersant about the progress of reform in the RAS. Kommersant (in Russian), No 198, October 25, 2016, p. 1. See <http://kommersant.ru/doc/3125352>

² Yu. Medvedev. *A strike in an academic style*. The Russian Newspaper (in Russian), No 6946, April 12, 2016. See <https://rg.ru/2016/04/12/glava-fano-rasskazal-skolko-uchenyh-ediat-chuzhoj-hleb.html>

³ A. Vaganov. *Declining numbers of scientists is an inevitable process*. The Independent Newspaper (in Russian), August 2, 2016. See http://www.ng.ru/science/2016-08-02/3_kartblansh.html

⁴ D. Evdokimova. *Academician of the RAS Yuri Ryzhov: Science and education have already left this country*. Novye Izvestia (in Russian), August 1, 2016. See <http://www.newizv.ru/society/2016-08-01/243893-nauka-i-obrazovanie-uzhe-ushli-iz-strany.html>

⁵ A. Makeeva, D. Labutina, A. Vikulova. *Scientists disprove the laws of funding*. Kommersant (in Russian), No 171, September 16, 2016. See <http://kommersant.ru/doc/3089459>

⁶ *There is no money even for paying salaries*. Novaya gazeta (in Russian), No 102, September 14, 2016. See <https://www.novayagazeta.ru/articles/2016/09/14/69840-deneg-ne-hvataet-dazhe-na-oklady>; A. Makeeva, D. Labutina, A. Vikulova. *Scientists disprove the laws of funding*. Kommersant (in Russian), No 171, September 16, 2016. See <http://kommersant.ru/doc/3089459>

⁷ N. Volchkova. *Sustainable stagnation? Scientists are once again promised troubles*. Poisk (in Russian), No 1-2, January 13, 2017. See <http://www.poisknews.ru/theme/science-politic/22023/>

Over the past year, several spectacular mergers took place, each of them involving research institutes that specialized in different fields but were located on one and the same site; the purpose of their merger was to bring down the number of administrative personnel and to pool together the available resources. The FASO believes that the reorganization will enable them to respond in a more balanced way to external challenges and to make use of competitive properties¹. So far, there have been several precedents of mergers - completed or simply discussed². The FASO's CEOs argued that the institutes were always merged on a purely voluntary basis, after a comprehensive discussion. The CEOs of the RAS, in their turn, argued that the mergers were enforced, in one or another way (for example, under the threat that an academic institute would be merged with a higher educational establishment, or that the number of its scientific research personnel would be cut, and so on). In the final analysis, according to its opponents, restructuring may result in a narrower field of scientific research and the loss of some of its very promising directions,³ thus paving the way for further cuts, because the institutes after the merger lose their former status of a legal entity and are effectively turned into mere laboratories.⁴ At the same time, some institutes really desired to be merged and in doing so, to acquire a new status (of a federal research center, a national research institute), because the FASO declared that the newly merged institutes would be relieved of the obligation to undergo a performance assessment.

On the whole, negative estimations of the restructuring prevailed, and the autumn session of the General Meeting of the RAS approved a resolution demanding that the restructuring process should be suspended, and those academic institutes that had already been merged should undergo their performance assessment. It should also be noted that there also exist valid reasons for restructuring the existing institutes, including those that have to do with their personnel structure and the fields of research. However, sometimes the attempts to merge some institutes indeed acquired a scandalous flavor. There were also some instances of scientific and research personnel cuts after restructuring had been completed, in spite of the promises that only an optimization of the administrative personnel would be carried out.⁵ All these negative experiences undermined the trust in the ongoing reorganization.

The scientific researcher community is racked by a lingering suspicion that the ultimate goal of all these transformations is to reduce the overall number of researchers and worsen the conditions for doing scientific research. Such fears have been expressed both implicitly and explicitly. One example is the reaction to the proposal made by the RAS and the FASO, in the form of a letter released in October 2016 and addressed to the directors of research organizations and the heads of RAS branches, in which it was suggested that an unplanned intramural attestation of their scientific and research staff and research departments should be conducted. They were asked to submit the personal performance estimates for each researcher,

¹ *Science is being transformed into practice, and generally into economics. The head of the FASO has informed Kommersant on the progress of the reform in the RAS.* Kommersant (in Russian), No 198, October 25, 2016, p. 1. See <http://kommersant.ru/doc/3125352>

² N. Volchkova. *Generalizing in particular. The RAS will make its own way.* Poisk (in Russian), No 45, November 11, 2016. See <http://www.poisknews.ru/theme/science-politic/21191/>

³ *Deputy head of the RAS: the current science management trends give rise to big risks.* RIA Novosti (in Russian), August 19, 2016. See <https://ria.ru/interview/20160819/1474792035.html>

⁴ N. Volchkova. *Generalizing in particular. The RAS will make its own way.* Poisk (in Russian), No 45, November 11, 2016. See <http://www.poisknews.ru/theme/science-politic/21191/>

⁵ *The biologic institutes at Pushchino will be merged by late 2016.* Scientific Russia (in Russian), April 29, 2016. See <https://scientificrussia.ru/articles/biologicheskie-instituty-v-pushchino-obedinyat-k-kontsu-2016-goda>

including their involvement in scientific research (including international studies), tutoring and expert activities. In principle, such information can help in assessing more objectively the performance of the scientific and research personnel, which is useful for the administration of the academic institute. However, the letter caused much consternation among the scientific research community, and immediately it was suggested that such a monitoring was conducted in connection with forthcoming personnel cuts.¹ It is true that certain job cuts by way of optimization are indeed needed, and it is better to be open about it. When one goal is proclaimed initially (for example, 'simply to do a check'), and then certain actions are undertaken to achieve another one, this may give rise to tension and sometimes even hysteria, which can only make the actual implementation of reform even more difficult.

One of the key problems has also arisen because the merger of institutes was started prior to the assessment of their academic performance and organizational structure, while the discussion of the principles and methodology of such an assessment (including the setting up of reference groups)² had been underway for year. The lengthy debate continued into 2016; in June of that year, the FASO made some adjustments to the assessment methodology, after having announced in early March that it was launching the process of data collection and estimation across the system of institutes.³ The first assessment results were expected by July 2017.⁴

On the whole, the reform process in the RAS followed an inertia pattern. The was also true of the RAS in its capacity of the organization that elects new full members and corresponding members of the RAS. Last year's developments culminated in the election in the RAS, which demonstrated that the tradition of clandestine agreements and connections, including family relations, as well as the election, as full members and corresponding members of the Academy, high-ranking government officials and other personalities that have demonstrated no prominent achievements in scientific research, has by no means disappeared - instead, it has only become stronger.⁵ However, while previously such goings-on were discussed only within the close circle of the academic community, now, thanks to the open dialogue between RF President Vladimir Putin and President of the RAS Academician Vladimir Fortov, it has become known to the public. The reason was the election to the RAS of certain government officials, the RF President's directive proclaiming such acts to be undesirable notwithstanding. As a result, all the officials elected as full members or corresponding members of the RAS were dismissed from their government posts, with the right to become full-time scientific researchers. Another aspect of the discussion of the results of the recent election to the Academy was that few of

¹ D. Saprykina. *Either do scientific research, or vacate your positions: on the unplanned attestation of researchers*. Indicator (in Russian), October 21, 2016. See <https://indicator.ru/article/2016/10/21/esli-sotrudnik-ne-hochet-ego-ne-uvolish/>

² For further details, see I. Dezhina. *The Situation in the Sphere of Science and Innovation. Russian economy in 2015. Trends and outlooks* (Issue 37) – M.: Gaidar Institute, 2016, p. 353–355.

³ N. Volchkova. *A tournament of priorities. A new phase of science reform has started*. Poisk (in Russian), No 9, March 4, 2016. See <http://www.poisknews.ru/theme/science-politic/17875/>

⁴ O. Kolesova. *Preservation with a reduction. Scientists are promised troubles*. Poisk (in Russian), No 51, December 23, 2016. See <http://www.poisknews.ru/theme/science-politic/21804/>

⁵ A lot of material is available on this theme, including news releases and video footage, where the biographies of the relevant officials and the stories of their election as Full Members and Corresponding Members of the RAS are analyzed in detail, specifically for each RAS department. See, for example, B. Sobolev. *Family business: Full members of the Academy pull into the RAS even their good-for-nothing children*. Vesti.ru, December 3, 2016. <http://www.vesti.ru/doc.html?id=2828671>; *An expert estimates the loss for the RAS inflicted by the dismissal of government officials*. Lenta.ru, November 28, 2016. See <https://lenta.ru/news/2016/11/28/harm/>

those elected that year were eminent scientists (judging by their bibliometric indices).¹ Such episodes undermined the Academy's reputation - given that in the past, the Academy had frequently referred to its high moral standards and principles of scientific research as a justification for its acts.

The *second* direction of activity is the optimization of the current activities of the academic institutes, whose performance can be measured by the shrinkage of their paper documentation turnover, and their workload - by the number of checks conducted by the FASO and the volume of reports requested by it. In reality, the 'reporting load' on the institutes has increased, in part due to the inventory checks. Besides, the role of the FASO in the choice of themes for the studies has become more prominent, further boosted by the mergers of institute, which inevitably lead to an adjustment of the research fields. The FASO decided to compare the ongoing research with those fields that are being actively developed on a world level, so as to select those worthy of support and promotion.² In this connection, no consideration was given to the existing fundamental research program of the RAS. In actual practice, the search for new priorities resulted in the elaboration of complex scientific research plans (CSRPs). This instrument is designed to establish network connections between the institutes of the FASO operating in the framework of promising research fields. The goal of such cooperation is to ensure the competitiveness of the ongoing studies on the international level and to speed up the commercialization of their applied results. At the same time, the powers of directing each of these network projects are transferred to a leading institute (coordinator). Since the CSRPs are funded in the main from the budget, this becomes essentially a new mechanism of distributing the financial resources available to the FASO. On the plus side, such scheme enables the RAS, the relevant government departments and businesses to assess the real importance of the selected themes, and to discard the outdated ones that have been dragged along for years from one fundamental research program into another.³ The number of the selected priority fields in the form of CSRPs is on the rise: as of mid-year 2016, it amounted to 65.⁴ However, CSRPs have also turned out to be a highly disputable and controversial undertaking – its supporters (who, as a rule, already participate in one or other ongoing CSRPs) say that this mechanism is efficient in reorienting the studies towards the most modern research fields. Its opponents argue that CSRPs represent a form of interference, by the FASO, with the selection of relevant directions of research, which has always been the prerogative of the RAS.

The *third* direction is the improvement of the quality of expert activities carried on by the RAS and the institutes operating under the FASO in the framework of their participation in the selection and implementation of priority directions of scientific research and in the conduct of expert estimations of major socioeconomic projects - the functions consolidated to the Academy in accordance with new legislation (introduced in 2013). The activities in that sphere have begun to be better organized, a new institute of 'experts of the RAS' has been created, the experts being elected on a competitive basis with due regard for the quantity or amount of work produced personally (the number of publications, the past experience of expert activities) and

¹ See, for example, A. Polyinin. *How to save the Academy of Science's reputation*. Indicator (in Russian), February 1, 2017. See https://indicator.ru/article/2017/02/01/kak-spasti-reputaciyu-akademii-nauk/?utm_source=fbsharing&utm_medium=social

² N. Volchkova. *A tournament of priorities. A new phase of science reform has started*. Poisk (in Russian), No 9, March 4, 2016. See <http://www.poisknews.ru/theme/science-politic/17875/>

³ N. Shatalova. *Plan we will: research institutes work in accordance with comprehensive scientific research plans*. XPIR, May 13, 2016. See <https://xpir.ru/articles/Planirovat-budem>

⁴ Ibid.

for the quality of their past performance (they need to be recommended by a member of the RAS, professor of the RAS or the Presidium of the RAS, and have a recommendation by the academic council of their institute). The Expert Council of the RAS conducted a check of 5,000 projects that had been implemented by a total of 1,582 state research organizations and higher educational establishments. Its results revealed that only 7% of them comply with the world standards, whereas 26% projects ought to be terminated because they lack any scientific significance. This is an important finding, although only a small fraction of the science sector was investigated. By far, not all of the ongoing projects were subject to the check; for example, none of those funded by grants issued by the RSF, the RFBR and the RHSF was considered, while the total number of projects in that category is about 20,000. The experts also confirmed the fact that so far the level of 'academic' science is above that of higher educational establishments, because the results of 'academic' studies are more often published in international sources, and the results of those conducted by higher educational establishments – in Russian ones¹.

Thus, against the backdrop of the generally negative assessment of the progress of reform in the academic sector, by the scientific research community who do not like the resulting job cuts, the pressure imposed by the additional reporting, and the plans for the future, some of the parameters still point to positive shifts. These have to do with publications and the adjustments made to the themes of scientific research.

6.5.4. Science at higher educational establishments

The measures designed to support scientific research at the leading higher educational establishments of Russia, including those that participate in Project 5-100 (its goal being that no less than five Russian universities should by 2020 be ranked among the world's top hundred) have been implemented in a rather consistent manner. The 21 higher educational establishments included in this program have achieved certain success, and so have justly deserved the additional chunks of budget funding allocated to them. Higher educational establishments may now boast of having strong scientific research groups, which have emerged, among other things, due to the participation of specifically invited foreign scientists. Some universities have increased the number of their publications several-fold on 2013: for example, the total number of publications issued by Tomsk State University has surged 4.3 times, that of NRU HSE – 4 times².

It is the increasing number of publications prepared by the staff of leading higher educational establishments in the journals entered in the data sets run by Web of Science and Scopus that has become the most notable sign of improvement. The growth rates of the citation indexes of higher educational establishments have been moving ahead of those of the FASO institutes, although the number of co-authored publications likewise increased. The most remarkable are data relating to publications with high citation indexes (which means that they most frequently noticed by the scientific researcher community): in the majority of leading higher educational establishments, such publications are co-authored by scientists working in the academic sector (*Fig. 25*).

¹ E. Shcherbina. *Let us change the theme. Russian science lacks resources and newness*. February 1, 2017. See <http://chrnk.ru/sci/davaite-smenim-temu>

² *The equator of Project 5-100: the focus of higher educational establishments on their ranking by subject*. October 20, 2016. See <http://news.ifmo.ru/ru/education/official/news/6130/>

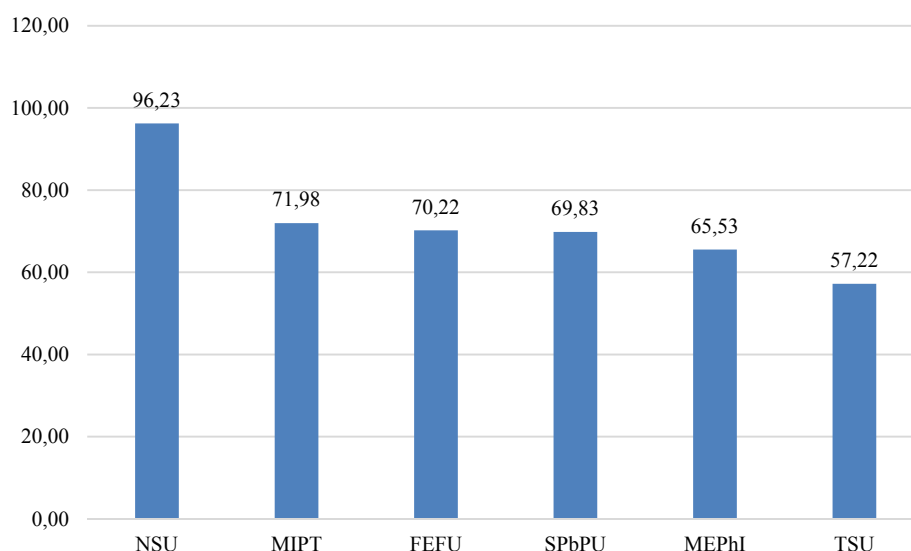


Fig. 25. The publications with the highest citation indexes in Q1 JCR-2015 affiliated to the RAS, as %, 2011–2015.

Source: I. Sterligov. Russia's Publication Activity: The main characteristics, the role of the RAS and higher educational establishments of the first wave of Project 5-100. Presentation at the MIPT. November 10, 2016.

The policy aimed at strengthening the science sector at higher educational establishments is on the whole quite correct, but it should be promoted not only through allocating additional funding to the projects and centers set up inside higher educational establishments. It is also important to maintain cooperation with academic institutes, and also to introduce systemic changes in the activity of higher educational establishments with a view towards a more adequate redistribution of the workloads between the faculty and researcher and their tutoring and consulting responsibilities, as well as the undergraduate to postgraduate student ratios. However, no such changes have been accomplished so far, or, at best, they have been minimal. At the same time, the amount of funding allocated to higher educational establishments has been increasing against the backdrop of a relative stagnation in the amount of budget allocations earmarked for the other sectors in the sphere of science. This has given rise to some negative phenomena like luring researchers to better paying jobs, artificially increasing the citation indexes, breaking up the research fields into smaller themes, and so on. The newly appointed (in August 2016) RF Minister of Education and Science Olga Vasilyeva noted, among other things, that citation indexes are rising at too high rates, which casts doubt on the scientific validity of the relevant ongoing studies: 'In an attempt to meet the necessary criteria we are looking for dubious journals and taking advantage of dubious opportunities for publication, and so the question arises as to the quality of those materials, and the price of the matter, which ultimately determines the value of these articles. Probably it is time to think of whether it is worthwhile to run so fast.'¹ This is one of the side effects of the striving to get a high ranking. It should be noted that the idea of university rankings is met with increasing criticism across the world because the majority of ranking systems assign too much importance to science

¹ Vasilyeva: *cornerstone higher educational establishments will not to be created by means of reorganization*. November 22, 2016 See <http://tass.ru/obschestvo/3804882>

citation and scientific achievements, thus undervaluing the actual quality of education that they offer. In the long run, this may have a negative impact on the academic level of their students¹.

Some important parameters of the activity of leading higher educational establishments were simultaneously negatively influenced by economic factors, including the ruble's plunge. As a result, the number of specialists invited from abroad has shrunk by 20%,² the earnings of faculty are boosted only by increasing their academic workload up to the cap set by the RF Ministry of Education and Science (900 hours per year),³ which reduces their opportunities to do high quality research. At present, even at the major higher educational establishments, the research staff spend 75% of their working hours on tutoring students.⁴

Towards the end of last year, the programs of support to higher educational establishments, including their research activities, began to be revised, and the main targets set for them may well be changed. In 2017, a high priority project titled *Educational establishments as centers of innovation-boosting environment* will be launched; according to the project's certificate, the higher educational establishments participating in Project 5-100 will be effectively reoriented to gaining high by-sector and by-subject rankings. By 2025, no less than 10 higher educational establishments must be ranked in the world's top hundred, and no less than 20 – in the world's top three hundred, for at least two consecutive years.⁵

It would be worthwhile to simultaneously revise the list of participating higher educational establishments in accordance with one more criterion: being ranked by one or several subjects, as of 1 January 2017, in the top three hundred of any of the international academic rankings (ranking by subject). It is these higher educational establishments that truly possess the potential to lodge securely in the group of leaders, and it would be critical to pool resources and ensure support for the aforesaid institutions. Then the list of participants in Project 5-100 may somewhat change, as some of the higher educational establishments formerly listed there may quit, to be replaced by others that had never been on that list but are already ranked in the world's top three hundred.

The quality of studies conducted by higher educational establishments may be further boosted if they are granted the right to award academic degrees, as has been the tradition at major foreign universities. So far, this right is enjoyed only by Moscow State University and St. Petersburg State University.⁶ At the same time, it is logical to assume that this measure is premature, because in view of the currently widespread ethical norms, it may trigger an

¹ P. G. Altbach, E. Hazelkorn. *Why most universities should quit the ranking game*. University World News. January 8, 2017, issue 442. See <http://www.universityworldnews.com/article.php?story=20170105122700949>

² T. Vozovikova. *To invest in promotion. The participants in Project 5-100 are hungry for new investments*. Poisk (in Russian), No 44, October 28, 2016. See <http://www.poisknews.ru/theme/edu/21079/>

³ *The CEOs of higher educational establishments were accused of overstating the average salary of their faculty*. September 19, 2016. See http://www.gosnews.ru/news/obshchestvo/rukovodstvo_vuzov_obvinili_v_zavysheanii_srednikh_zarplat_prepodavateley

⁴ M. Choshanov. *A senseless race. Russian scientists have already lost at the starting line*. Poisk (in Russian), No 3, January 20, 2017. See <http://www.poisknews.ru/theme/science-politic/22137/>

⁵ Certificate of Priority Project *Higher educational establishments as centers of innovation-boosting environment*, approved by the Presidium of the Presidential Council for Strategic Development and Priority Projects, protocol as of October 25 2016, No 9. See <http://government.ru/media/files/OnTUmegFLNj5Uqtac57y1WG1EtMG9ABe.pdf>

⁶ Alterations have been made to the Federal Law On *Science and State Scientific and Technological Policy* as of May 23, 2016. See <http://kremlin.ru/acts/news/51971>

uncontrollable degree-awarding spree. In this connection, it is essential to elaborate strict criteria for universities with degree awarding powers, and the activity of the newly set up dissertation councils will have to be closely monitored. This function can be successfully performed by non-governmental organizations and networking communities, including *Dissernet*.

In addition to purely scientific studies, top-ranking higher educational establishments must engage in applied research and development activities that are in demand across the national economy. The key factor here will be their cooperation with businesses, as well as the creation of small-sized innovative companies. So far, the success achieved by leading higher educational establishments in that sphere has been less impressive than their efforts to raise their citation indexes. The survey of Russia's top 40 higher educational establishments (from among the participants in Project 5-100, national research universities, and federal universities) conducted by the RBC and ITMO University has revealed that approximately half of the small-sized innovative businesses set up by higher educational establishments do not earn any income, no profits are generated by intellectual property management, the number of international patents is low, and 28 out of the top 40 higher educational establishments lack such patents altogether.¹

One of the persisting problems has to do with the quality of applied R&D projects implemented by higher educational establishments – they are met with weak demand in industry. The survey by the HSE Institute of Innovation Management ordered by *Skoltech*² has demonstrated that an average medium-sized hi-tech company generally expects from higher educational establishments to produce qualified human resources, and not new R&D products. They place only narrowly targeted orders for R&D, which is in part motivated by the narrow field of their own specialization. In this connection, three main interaction problems were identified, which have to do with cooperation in the field of scientific research and R&D:

- 1) higher educational establishments have poor understanding of the realities of commercial industrial production and the motives behind it;
- 2) the insufficient qualification of specialists working at higher educational establishments;
- 3) bulky bureaucratic procedures at higher educational establishments, and a highly formalized decision-making process.

Some additional data that did not contradict these findings were obtained in the course of a survey of members of the R&D Club,³ which revealed that 77% of companies had never bought any licenses or patents from higher educational establishments, and that 84% of companies had never bought businesses set up by higher educational establishments.

So, while the quality of fundamental studies conducted by higher educational establishments is improving, one of the boosting factors being their cooperation with academic institutes and the hiring of foreign specialists, the quality of their applied studies is still too low, and businesses display low demand for these products.

¹ T. Vozovikova. *No increase in profits. The experts are grieved by the incomes from innovations created by higher educational establishments*. Poisk (in Russian), No 45, November 11, 2016. See <http://www.poisknews.ru/theme/edu/21225/>

² The survey was conducted by the HSE Institute of Innovation Management in early 2016 among 150 hi-tech companies, of which 90% were medium-sized. The data from questionnaires were augmented by in-depth interviews with representatives of the companies.

³ A. Makeeva, A. Saveliev. *Incomplete higher education*. Kommersant (in Russian), June 6, 2016.

6.5.5. The problems with the performance assessment in the field of scientific research

The reform of public research organizations and higher educational establishments operating in the science sector has emphasized the importance of performance assessment indicators. This issue was the key discussion point throughout the course of 2016.

The discussion centered in the main around the methods of measuring the performance assessment indicators and the ways the pressure applied by the regulator in the form of requirements to the number and quality of publications (the Hirsh citation index) produces some unexpected side effects like the distortion and weakening of ethical norms and standards. In particular, the field of economics was chosen as an example of how the performance data can be distorted to better suit the interests of scientists; the systematization of available information resulted in the identification of six methods of doing so.¹ These are as follows: the works cited are not scientific publications (e.g., reference books and collections of statistics); the cited works are cited mostly by the co-coauthors; articles are always co-authored, or the number of co-coauthors is high; the citation of published articles in dependent and controlled journals is arranged; and finally, the articles are published in dubious periodicals. From the point of view of ethics, the situation is better in the former academic institutes, and more versatile in higher educational establishments. This can be explained by the fact that higher educational establishments are faced with the toughest requirements with regard to the number of publications and their citation indexes, especially if they belong to the categories of educational institutions earmarked for special government support (cornerstone universities, higher educational establishments participating in Project 5-100). Besides, it is in the academic sector that the most well-known scientific journals, including translated periodicals, have been published, and so it developed its own sophisticated practice of preparing and publishing scientific articles.

A separate theme in the discussion was the issue of bibliometric measurements *per se*: for example, how to achieve the target for Russia's WEB of Science index set in the RF President's Executive Order.² It should be noted that bibliometric indexes are also applied and discussed abroad, new measurements are being constructed with the purpose of most accurately reflect the inputs of scientists and journals in the progress of science.³ This has become something of a frenzy – it reflects the strengthening trend of using bibliometric data in the performance assessments of individual scientists, as well as research laboratories and institutes, and to rely on them when making relevant decisions concerning the allocation of funding and human resources.

The focus on formal indicators has become too prevalent in the current policies in the science sector, and this orientation ultimately translates into lower real productivity⁴. This road has already been traveled by the majority of countries with well-developed science sectors, where

¹ E. Balatsky. M. Yurevich. *Measuring the academic ethics*. The Independent Newspaper (Science) (in Russian), May 25, 2016. See http://www.ng.ru/nauka/2016-05-25/11_etika.html

² Executive Order of the President of the Russian Federation of May 7, 2012, No 599 *On the Measures Designed to Implement the Government Policy on Education and Science*, whereby it is stipulated that, by 2015, Russia's WEB of Knowledge index should be increased to 2.44%. Source: <https://rg.ru/2012/05/09/nauka-dok.html>

³ See, for example, Bjorn Hammarfelt, Alexander Rushforth (2016). *Judging merits in the age of the h-index: Citizen bibliometrics in biomedicine and economics*. <https://arxiv.org/pdf/1609.04931>; Loet Leydesdorff, Paul Wouters, and Lutz Bornmann (2016). *Professional and Citizen Bibliometrics: Complementarities and ambivalences in the development and use of indicators*. See <https://arxiv.org/pdf/1609.04793v1.pdf>

⁴ D. Sarewitz. *The pressure to publish pushes down quality*. Nature, May 12, 2016, vol. 533, p. 147. See

a sound understanding of the importance of expert estimations has been gained. In this respect, Russia often falls behind, while of the other hand frequently overestimating the relevance of one or other specific measure. The 'viability' of the formal approach is easily explained – such estimations are very convenient for managers.

The issue of publications is closely interrelated with the theme of international cooperation between scholars and their mobility around the world. A recent research on scientific partnership between the APEC countries has demonstrated that Russia's share of articles co-authored by scientists from the USA and Germany is comparatively higher than that of joint publications with representatives of other countries (*Table 18*). Such a partnership will certainly have the most positive effect on the development of to positively influence scientific studies in Russia. Those same countries host a significant community of émigré scientists from Russia and the former USSR, which can account in part for the high co-authorship indices. At the same time, Russia is a partner of secondary importance for the USA, China and Japan, as witnessed by the fact that scientists from these countries have written less than 1% of articles with Russian co-authors.

Table 18

Co-authored publications in 2011–2015, as % of the total number of national publications by each country

	Partner country							
	USA	China	Germany	UK	France	Italy	Japan	Canada
USA	-	5	3	4	2	2	2	2
Japan	8	5	3	3	2	1	-	1
China	7	-	1	2	1	-	1	1
Russia	7	2	7	4	4	3	2	-

Source: Mapping Researcher Mobility. Measuring research collaborations among APEC economies. Australian Government, Department of Education and Training, APEC. May 2016.

It is a characteristic feature of the USA that, although the country is self-sufficient, it maintains cooperation on a relatively high level with a number of other countries (China, the UK). This fact point to the increasing universal internationalization of world science (with the exception of those countries that deliberately follow isolationist policies). An alarming development from this point of view is the consistent closure of the representative offices of foreign organizations and foundations that have been issuing grants to Russian scientists, designed to fund their scientific research, including their joint studies. In 2016, the Moscow office of IREX (The International Research and Exchange Board)¹ was closed, and the US Civilian Research and Development Foundation (CRDF Global) also began to curb its activity in Russia. Besides, Russia's cooperation with the USA in the field of nuclear and energy research was halted by way of imposing retaliatory sanctions.²

Thus, although international cooperation can indeed be a very good method of boosting the citation index, the incentives for actually cooperating with foreign countries in the current economic and political situation are rather controversial.

¹ <http://www.ntv.ru/novosti/1624710/>

² *Russia suspends its research agreement with the USA designed to promote cooperation in the peaceful uses of nuclear energy.* *BBC Russian*, October 5, 2016. See <http://www.bbc.com/russian/news-37568552>

6.5.6. Emigration of scientists and the plans for returning expat scientists to Russia

The efficient performance of the science complex directly depends on the quality of human resources. The year 2016 was remarkable in that for the first time in many years, it saw a modest growth in the number of researchers, although it is now quite clear as yet how this phenomenon should actually be interpreted. Thus, for example, during the crisis of the late 1990s the number of scientific researchers began to grow, and the growth lasted for two years, after which it once again gave way to decline. Today, the slight increase in their number may point not to certain improvements in the situation in the science sector, but to the worsening conditions in the other sectors that triggered a temporary inflow of human resources there.

Simultaneously, there was a new upsurge in the outflow of scientific researchers from this country (especially young ones), with the increasing inclination in their community at large to either emigrate or to look for a job outside of the science sector. No accurate data are available as to the scale of this outflow, but according to expert estimations, it has been clearly on the rise. Even those who hold secure jobs at elite laboratories (for example, those set up in accordance with RF Government Decree No 220)¹ are now pondering about leaving the Russian science sector for good. Incidentally, the group of 'potential leavers' consists predominantly of highly motivated and productive young researchers.² More than half of them would like to stay at their laboratories 'if the situation does not get worse'.³ This indicates the necessity, for efficient scientific research, of a good external environment and secure prospects for the existence of the relevant laboratories, and that it is not enough just to create good working conditions. Indeed, as estimated by the scientists themselves, no more than half of the laboratories created by way of implementing the provisions stipulated in Decree No 220 have become sustainable and viable entities.⁴

Some similar data concerning the intentions to 'migrate' have been obtained at the FASO's institutes. Young scientists note that their work has become more difficult as a result of dwindling opportunities for participation in international conferences and the funding cuts have halted the imports of reagents, as well as other financial constraints.⁵ According to a survey conducted by the Siberian Branch of the RAS, about 40% of young scientists visualize no prospects for themselves in the Russian science sector.⁶ The reasons for such outlooks, beside purely financial factors, are most probably the attitudes of the employees of academic institutes to the ongoing reform, whose goals and prospects are poorly understood by the scientific research community.

¹ RF Government Decree No 220, April 10, 2010, On the Measures Designed to Attract Leading Scientists to Russian Educational Establishments for Higher Professional Learning, Scientific Institutions Subordinated to the Federal Agency for Scientific Organizations, State Research Centers of the Russian Federation in the Framework of Subprogram 'Institutional Development in the Scientific Research Sector of the State Program of the Russian Federation for the Development of Science and Technology in 2013–2020.

² S. Dushina, G. Nikolaenko, E. Evsikova. *Is it time to work in Russia? Young scientists under conditions of institutional changes*. *Sociology of Science and Technology* (in Russian), 2016, Vol. 7, No 3, p. 40.

³ *Ibid.*, p. 44.

⁴ Yu. Vishnevetskaya. *Brain-gaining: can Russian expat scientists be returned?* June 30, 2016. See <http://inosmi.ru/science/20160630/237032504.html>

⁵ D. Terentiev. *Blood from the RAS*. May 11, 2016. See <http://argumenti.ru/toptheme/n529/438091>

⁶ A. Aseev. *40% of young scientists in the Siberian Branch of the RAS see no research prospects in Russia*. March 1, 2016. See <http://www.ras.ru/news/shownews.aspx?id=98087056-e028-4c42-8c36-5c483eff0b3d#content>

It should be noted that the problems posed by an outflow of young people from the science sector are by no means typically Russian. Such problems exist in many countries, and they have become a sign of transformations taking place across the entire scientific knowledge production system. Elsewhere in the world, the departure of young people from the science sector has been caused by the complicated procedures of getting the necessary funding and the instability of its inflow, the heavy workload imposed on postdoctoral researchers, and the mounting pressure associated with the need to boost publications.¹ So, Russian science, in addition to its own troubles, is also partly involved in the global trend toward an organizational crisis in the sphere of science.

The outflow of human resources has already made evident the degradation of the intellectual environment. In some fields, the number of researcher groups performing at an international level has become insufficient, their interaction is receding, so one of the possible solutions could be promotion of international cooperation, including the cooperation with Russian expat scientists living abroad. In fact, the recipes for boosting international connections are well-known: science exchange; training abroad of postgraduate students and young Candidates of Sciences; allocation of funds to be used towards expenses for scholars who are to make presentations at international conferences; establishment of English language courses; an easing of visa requirements in order to simplify the visits of foreign scientists to Russia. All this has repeatedly been discussed, and is being done by some universities and research institutions. However, it is the incentives created by the government, and in some cases – government decisions, which is needed (especially with regard to the issuance of visas to foreign scientists).

Last year, Russia launched an internationalization approach based on attracting a massive inflow of Russian expat scholars was selected. The Agency for Strategic Initiatives (ASI) made public its plan of attracting to Russia a total of 15,000 scientists over 5 years,² while the Russian Venture Company (RVC) began to investigate the possibilities and methods for implementing that idea. Evidently it is expected that, by inviting scientists from abroad, the problem posed by the shortage of human resources in the science sector can promptly be solved.

As is typical of any argumentation concerning Russian expat scientists, there are rarely based on reliable calculations or any large-scale quantitative studies. This is also true of the figure 15,000. Meanwhile, as the Russian academic diaspora is becoming increasingly involved in Russian science (which is indeed happening due, among other thing, to the mega-grants program and Project 5-100), the number both of its supporters and opponents is increasing. However, on the whole, they all agree that it is necessary to promote international cooperation, and not only the above-mentioned cooperation between Russian-speaking scientists.

6.5.7. The changing innovation landscape

In 2016, the most proactive outlook with regard to technological innovations was demonstrated by the RF Ministry of Economic Development. It is at the Ministry's initiative that the program of creating innovative territorial clusters was launched and support was provided to export-oriented hi-tech companies (national champions). Besides, it is responsible

¹ K. Powell. *Hard work, little reward: Nature readers reveal working hours and research challenges*. Nature, November 4, 2016. See http://www.nature.com/news/hard-work-little-reward-nature-readers-reveal-working-hours-and-research-challenges-1.20933?WT.mc_id=FBK_NA_1611_FHNEWSHARDWORKLITTLEReward_PORTFOLIO

² Yu. Vishnevetskaya. *Brain-gaining: can Russian expat scientists be returned?* June 30, 2016. See <http://inosmi.ru/science/20160630/237032504.html>; *Russia decides to get back 15,000 scientists from abroad*. See <http://www.silver.ru/news/130303/>

for implementing the programs of innovative development of companies with state participation. Last year saw many training courses, contests, workshops and conferences; their number had notably increased by comparison with the previous years, one of the contributing factors being the start of projects in the framework of the National Technology Initiative. In this connection, the state invests comparatively substantial resources in innovative development (Fig. 26). The share of innovatively active organizations in Russia is less than 9% vs. 30–50% in the developed industrial countries; at the same time, nearly 24% of Russian companies receive federal funding allocated to technological innovations. In foreign countries (with the exception of France) the situation is exactly opposite: the share of innovatively active organizations exceeds that of the companies that are allotted federal funding specifically for that purpose.

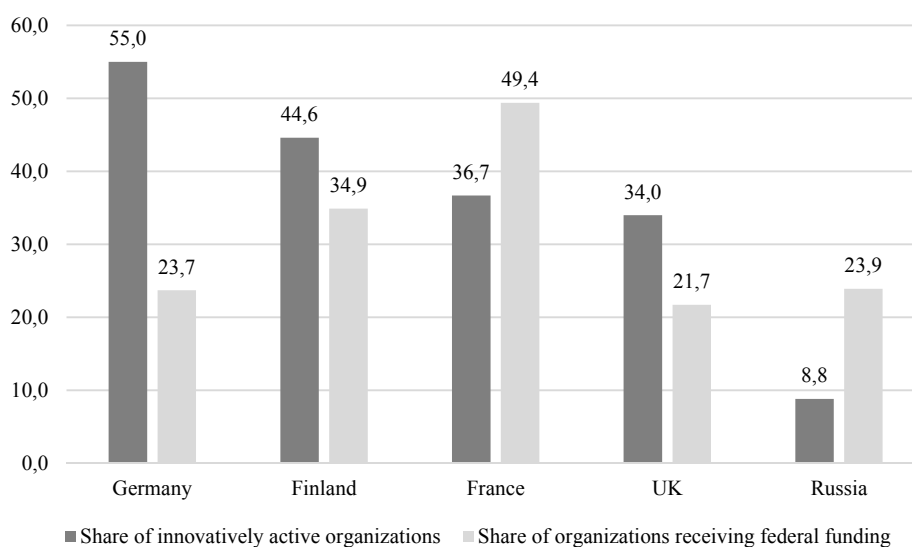


Fig. 26. Organizations implementing technological innovations: Russia and the world (2014)

Source: Science Indicators: 2016. Statistics Collection. M.: NRU HSE, 2016, p. 301, 306.

At the same time, the innovative activity indices of small and big businesses, as well as the scale of venture funding, have remained practically unchanged, or even became worse with regard to some of their parameters.

Small-sized innovative businesses and venture funding

In the sector of venture businesses, last year was remarkable by the polarity of opinions and estimates of the current developments. Representatives of the development institutes cautiously voiced their positive attitudes, while entrepreneurs and business angels did not like the situation and often expressed their sharp criticism. Thus, for example, Managing Partner of Almaz Capital Partners Alexander Galitsky said that Russia had no venture industry at all,¹ and that instead of it an 'ecosystem of innovations' was being created in the form of seminars, conferences, contests, publications of analytical materials prepared by consulting agencies, and so on. Such results are more or less expectable, given that the development institutes are being

¹ Alexander Galitsky: *Quite simply, we have no venture industry*. 13 October 2016. See <http://realnoevremya.ru/articles/45299>

subjected to increasingly intricate regulation, and thus are forced to switch over to simpler activities. In fact, they only provide floors for the interaction between different entrepreneurs and businesses, including government representatives. The recipient companies also may use the brand name of the development institute that supports them as the proof that their activities have been objectively tested by experts. At the same time, the influence of development institutes on the innovation system as a whole has remained weak. The core of the innovative community has acquired stability: these are representatives of government departments and development institutes, several leading higher educational establishments, and some active private investors. All the innovation-themed forums are attended by basically the same group of major participants, and this has become a typical feature of the 'innovation management' sphere.

The conducted assessments and surveys confirm the fact that the environment is currently unfavorable for innovations, and so venture investors keep on to leaving Russia. According to the results of *Venture Barometer 2016*, a market research carried out by Russian venture fund *Prostor Capital*, the main factor that suppressed the development of venture capital in Russia were the political crisis and the economic sanctions introduced against Russia.¹ Russian venture investors continued to withdraw their money (preferring to invest in foreign startups), although of a lesser scale than in 2015. According to data released by *Venture Barometer*, 72% of the respondent business angels and managers of venture funds noted the existence of a trend towards investing in foreign assets. A year earlier the share of such respondents was 90%. The most attractive market is in the USA, where the yields are high and the risks are lower than in Russia. Besides, Western markets are more stable than the Russian ones. They are less dependent on prices of mineral resources and the factor of personal connections with bodies of state authority.²

At the same time, Russian investors have continued to operate in the framework of domestic projects because of their good quality/price ratio - the combination of low salaries of IT specialists and the high quality of their output.³ Moreover, there exist some fields (machine learning technologies, artificial neural networks and artificial intelligence) where Russian IT specialists have few rivals. But even in these subsectors the number of viable startups is low.⁴

The estimates also varied with regard to availability of venture funding. Some participants in the venture market were convinced that there was no money (these are usually the owners of new projects in search of funding), while others argued that money was available, but that little of it was actually spent because private investors saw no deserving projects, and on the whole on the whole it was safer to invest in fields other than hi-tech. According to data released by the Russian Venture Company and the Russian Venture Investment Association, over the first three quarters of 2016 Russia's market for direct and venture investment amounted to 71% of

¹ E. Krauzova. *Optimism against all odds: what sustains the confidence of venture investors in the Russian market*. Forbes, December 16, 2016. See <http://www.forbes.ru/investicii/finansy-i-investicii/335329-neunyvayushchie-cto-podderzhivaet-veru-venchurnyh-investorov>

² K. Frumkin. *Russian oligarchs look for foreign startups*. April 18, 2016. See <http://fastsalttimes.com/sections/obzor/655.html>

³ E. Krauzova. *Optimism against all odds: what sustains the confidence of venture investors in the Russian market*. Forbes, December 16, 2016. See <http://www.forbes.ru/investicii/finansy-i-investicii/335329-neunyvayushchie-cto-podderzhivaet-veru-venchurnyh-investorov>

⁴ S. Romanova, M. Podtserob. *There are few viable IT startups in Russia*. *Vedomosti* (in Russian), No 4206, November 18, 2016. See <http://www.vedomosti.ru/management/articles/2016/11/18/665933-rossii-zhiznesposobnih-it-startapov>

its volume in 2015, and 74% of deals were concluded by funds with state participation, so the activity of private investors was low. Generally, the idea of venture funding as a universal tool to be applied for supporting breakthrough technologies is giving way to an understanding that it is useful in sectors with a short business cycle, high growth potential, and low barriers to market entry. These are primarily e-commerce and IT.¹

Higher educational establishments and research institutes may become an important source of new projects and companies. Here, the situation with regard to development of small-sized innovative businesses was less than favorable. This is confirmed by the results of monitoring of small-sized innovative businesses operating in the sphere of science and education.² The process of setting up small-sized companies hit its record high in 2011, after which it began to recede. One of the reasons was that the number of R&D products that could be relied upon in launching startups had been used up, another reason – the persisting legislative regulation issues: by Federal Law No 217,³ the exclusive rights to R&D products were assigned to the state, and so private businesses had little interest in investing in such companies. So, in spite of the liberalization that has taken place since the enactment of that law (all the constraints on the participation of research organizations and educational establishments in the charter capital of economic societies, on the spending of dividends and the incomes generated by shares in capital by co-investors have been lifted), the downward trend in the number of newly founded small-sized innovative companies is rather stable.

The support of medium-sized tech businesses

Last year's most remarkable event in the innovation sphere was the launch of the RF Ministry of Economic Development's program of support for private hi-tech companies – leaders (national champions) for the period until 2020. Firstly, this was the first initiative that targeted exclusively those growing medium-sized businesses that had already demonstrated their sustainability and productive performance. Secondly, this was a well-substantiated program that was launched not 'from scratch', but as a result of a long-term (5 years) analytical investigation. The businesses participating in the program (the future national champions) were selected on the basis of TechSuccess data – the national ranking of innovative companies since 2012. As a matter of fact, TechSuccess is a tool for locating and monitoring the fast-growing medium-sized technology companies with a potential for leadership in Russia and abroad. The companies are ranked by the combination of their quantitative data (proceeds and their movement, exports, etc.) and expert estimations. Every year the requirements for these companies are revised and adjusted, and the estimation methodology is further perfected. Specifically, it is the expert estimations based on rankings that helped determine the needs and development constraints of the most promising companies and gave rise to the idea of a new tool. Essentially, this is individual support of private hi-tech export-oriented companies – leaders, with the purpose of enabling them to become transnational companies based in Russia. Three key criteria of successful completion of the project were determined, and all three have

¹ Vladimir Kosteev: *Innovations emerge where there is a competitive environment*. November 15, 2016. See <http://sntr-rf.ru/expert/vladimir-kosteev-innovatsiya-poyavlyaetsya-tam-gde-est-konkurentnaya-sreda/>

² *Records and monitoring of small innovative businesses in the sphere of science and education*. RF Ministry of Education and Science. See <https://mip.extech.ru/index.php>

³ Federal Law On Introducing Alterations to Some Legislative Acts of the Russian Federation with Regard to the Issues of Budget-funded Research Institutions and Educational Establishments Creating Economic Societies for Purposes of Practical Application (or Implementation) of the Results of Intellectual Activity, No 217-FZ dated August 2, 2009.

to do with the financial aspects (growth of hi-tech exports and sales).¹ Thus, a clearly defined goal was set, with a small number of measurable indices.

It should be noted that this tool is by no means an original Russian invention. Some countries are implementing similar programs (Denmark, The Netherlands, the UK, South Korea, Singapore, Malaysia, the Republic of South Africa and Kazakhstan). Their experiences have been studied in detail, and the Russian model has borrowed certain elements, including those applied in Kazakhstan, where such a program had been launched a year earlier.

In 2016, it was planned to carry out a two-phase selection procedure designed to determine 30 winner-companies (and this was accomplished), and then to start individual work with them. Individual work is understood as a variety of activities - organizational aid in getting access to the existing government support instruments (including programs initiated by the development institutes), project backing in the form of information and consulting, assistance in the exports of products and technologies (including through government trade representations). Thus, the case in point is not so much the allocation of additional budget resources, but administrative support and aid in removing the barriers. Importantly, in the course of the program's implementation some necessary alterations will be introduced in the normative legal acts regulating economic activities. Thus a feedback tool is implemented, whose purpose is to gradually change the 'ecosystem' of hi-tech business evolution.

The role of big state-owned companies in innovative development

The government support of big state-owned companies continued mainly in the framework of Innovative Development Programs (IDP). These were revised in order to increase their orientation to the development of most promising technologies.

The role of big Russian companies in innovative development was considered by experts both in a negative context (the reliance on big companies had failed to promote innovative development) and from a directly opposite perspective. *The National Report on Innovations in Russia*, released by the RVC in October 2016, focused on the support of big companies.² The idea promoted by its authors is as follows: the share of big state-owned companies in the Russian economy is very high, and so the state can influence them, thus turning them into innovative businesses in a rather short time. The idea is further backed by data on a number of foreign initiatives, the slogan being *Our bet is on the way followed by Japan and Korea, and not the USA and Europe*. It is not clear why this bet is destined to win, given that the Asian way is very specific and relies on cultural values and mentality that are alien to Russia. The European way is more familiar for objective reasons. Besides, the experience gained in the course of implementing the IDP, in spite of the positive dynamics displayed by the available quantitative data, has so far failed to confirm the feasibility of such an approach.

Changes in the interaction with the development institutes

In 2016, it was planned to reform the development institutes supporting technological innovations. At first, the government discussed certain radical acts that involved their closure or partial merger. Such plan could be explained by several reasons.

¹ For more details on the selection criteria, see *From TechSuccess to national champions. National rating of Russian fast-growing technological companies TechSuccess-2016*. M.: The RF Ministry of Economic Development, RVC, PWC, NRU HSE, IDF. 2016. – p. 4-5 (in Russian).

² *The 2016 National Report on Innovations in Russia. Preliminary version*. M.: The RF Ministry of Economic Development, Open Government, RVC, 2016.

First: the development institutes began to duplicate their functions both in determining the content of the initiatives to be implemented and in providing multiple support to the same companies. This trend became intensified with the emergence of companies and projects set up as part of the National Technology Initiative. Many of them became the recipients of monies from several funds, and so it was assumed that it would be feasible to pool the sources. Besides, as the NTI was recognized to be one of the strategic innovation-boosting tools, the development institutes were required in any event to revise their policies in compliance with the new priorities.

Second: budget funding is on decline, including the allocations to innovative activity, and under such conditions, a closer coordination or even a merger would appear to be logical, as the financial resources will be pooled as a result.

Third: there was also criticism of the performance of the development institutes. While previously the main argument in their support was that it was too early to judge the results of their activity after so short a time, in 2016, when many of them could already boast of a decade-long history, that argument could no longer be taken seriously. However, in terms of their formal indices, the overall picture appeared rather bright. Over the last five years, five development institutes – RUSNANO, Skolkovo, RVC, the Fund for the Support of Small-sized Businesses in the Sphere of Science and Technology and VEB Innovation - received a total of RUB 405bn from the budget¹ and produced a nearly double return on the investment. But it remains unclear how this return has been calculated, and there are no evident major success stories. The absence of champion companies was admitted by RUSNANO's Chairman of the Executive Board Anatoly Chubais.² In this connection it should be added that the development institutes were subjected to frequent checks, their faulty decisions attracted far more attention than their successful projects, and so their operation was viewed with mistrust. So, a sort of vicious circle was created.

In early 2016, the schemes of a possible mergers were discussed very hotly. The representatives of the development institutes warned, that each of them has its own niche, and so a rashly attempted merger may produce the same results as the reform of the RAS, – the development institutes, if merged into big conglomerates, will not necessarily function better. The final decisions were softer and, most probably, more rational:

1. Skolkovo is to be transformed into an integration center for all the systemic development institutes, RVC and the Fund for the Support of Small-sized Businesses in the Sphere of Science and Technology will set up their offices there, and the events launched by the project office of the National Technology Initiative will also take place on that site.
2. Skolkovo will become an extraterritorial entity – its regime will be extended to the other territorial formations, including the innovation clusters³.
3. The Skolkovo Foundation and RVC will set up three new venture funds, where RVC will invest capital, and the Skolkovo Foundation will become the asset manager. This scheme will make it possible to save resources: prior to the merger, approximately 30% of RVC's portfolio consisted of Skolkovo residents. Besides, the expert systems will be pooled. The

¹ I. Dashkovsky. *What will happen to Russian innovative projects*. Kommersant (in Russian), December 8, 2016. See <http://kommersant.ru/doc/2902134>

² O. Salmanov, P. Kantyshv. *Our goal is to build industrial plants and raise national champions*. Vedomosti (in Russian), May 25, 2016. See <http://www.vedomosti.ru/technology/characters/2016/05/25/642322-nasha-zadacha-zavodi-stroit-i-rastit-natsionalnih-chempionov>

³ A. Kaledina. *RVC will move to Skolkovo*. Izvestia (in Russian), June 30, 2016; see <http://izvestia.ru/news/620115>

Skolkovo Foundation has established an expert system oriented to the themes of 5 clusters – the Foundation's specialization fields. When these are reoriented to the NTI projects, the field for expert estimations will be expanded due to the addition of RVC's potential. It is also expected that priority support will be granted to the companies operating in the fields of IT, transport and hi-tech medicine - that is, the fields covered by the NTI roadmaps. It is planned that no less than 30% of resources for the new funds will be provided by private investors, while the Skolkovo Foundation will be responsible for attracting such investments.¹ The ultimate configuration of the funds will be determined in 2017.

So, the clustering of the development institutes around the Skolkovo Foundation has been started - both in physical terms (the moving of offices) and in terms of organization (the creation of joint investment funds and the implementation of relevant measures needed for developing the NTI projects. The performance of the Skolkovo Foundation itself at the Board of Trustees meeting in mid-December was estimated positively: the Foundation had managed to attract off-budget resources in almost the same amount as budget funding (RUB 92bn vs. RUB 100bn), and 1,600 companies had become its residents.²

RUSNANO remained uninvolved in that process; the constant criticism and claims on the part of the Accounts Chamber notwithstanding, it will not be reformed. The government plans that RUSNANO will become a global venture investor in the field of nanotechnologies, and that the profits thus generated will be invested in biotechnology projects.³ This field is being actively developed in many countries of the world, while in Russia it is underfunded. Due to the budget constraints, several sectoral programs were terminated, and so RUSNANO is expected to cover the financial gaps.

Regional initiatives: clusters and innovative development territories

The innovation clusters created by federal authorities continued to be developed, they are regularly monitored, and so their internal interaction problems are promptly identified and dealt with

So far, the funding to the specialized organizations responsible for cluster development has been allocated in the main from the federal and regional budgets. It amounts to 64.4% vs. the world indices of 18% (state budget) and 23% (regional budget)⁴. Their most remarkable feature, however, is not the modest role of the state budget (this is typical of Russia's entire innovative sphere), but the absence among the funding sources available for Russian cluster organizations of commercial services (elsewhere in the world the share of that funding source is 8%). A noticeable growth of income generated by commercial services usually becomes visible when three years have elapsed since the creation of a cluster, as is already the case in Russia.⁵

¹ *Three new venture funds of RVC and Skolkovo will fund STD projects in 2017*. TASS, September 12, 2016, see <http://tass.ru/ekonomika/3615651>; T. Edovina. *RVC and Skolkovo have signed a marriage contract*. Kommersant (in Russian), October 3, 2016, see <http://kommersant.ru/doc/3106470>; *Skolkovo will become an asset manager jointly with RVC's investment fund*. Lenta.ru, October 26, 2016, see https://lenta.ru/news/2016/10/26/skolko_skolko/

² *The development of Skolkovo was discussed at the meeting of its Board of Trustees with the participation of Dmitry Medvedev*. December 14, 2016. See https://www.ltv.ru/news/2016/12/14/316092-razvitie_skolkovo_obsuzhdali_na_zasedanii_popechitelskogo_soveta_s_uchastiem_dmitriya_medvedeva

³ A. Kaledina. *RVC will move to Skolkovo*. Izvestia (in Russian), June 30, 2016. See <http://izvestia.ru/news/620115>

⁴ E. Kutsenko. *Russia's pilot territorial innovation clusters: a sustainable development model*. Foresight, 2015, V. 9, No 1, p. 39-40.

⁵ The list of pilot innovation clusters was approved by the RF Government in August 2012.

One positive development is that the clusters are trying to find their own 'smart specialization'; however, this not an easy task because it is necessary not only to identify the areas of research (and industries) that are the most promising ones for a given region, but also to understand which technologies are going to ensure their development. The survey conducted by NRU HSE's Russian Cluster Observatory has revealed that approximately 40% of the regions have their own strategies elaborated with a view towards 'smart specialization'. However, they are for most part purely declarative, they lack roadmaps or proper monitoring and adjustment system, and the level of entrepreneurial initiative there is generally low.¹ The clusters, being dependent on state budget funding, continue to be oriented mainly to the nationwide technology priorities, which are drafted in a rather generalized manner.

Our own case studies of several clusters conducted in 2016² reveals that the process of cluster development is slow due to the inertia of the existing system of relationships and values; however, at the same time each cluster yields some unforeseen positive effects. These have to do with new approaches to education, including retraining of secondary school teachers, cooperation between big and small-sized businesses, implementation of multidisciplinary science projects. One cannot but agree with the frequently voiced opinion that what really takes place in Russia is the substitution of notions, and the clusters simply represent yet another form of getting budget funding to cover the cost of urgent projects being implemented at the municipal level, and by no means always related to innovative development. Perhaps in some places they are indeed innovative, but the study of several clusters that differ by the background of their participants and the degree of their maturity points to the fact that the local entities understand the importance of expanding and strengthening the horizontal connections for the development of their territories.

Last year, the selective approach was chosen by the RF Ministry of Economic Development, and so its innovation cluster support program was modified accordingly. The program's logic began to resemble the program of support of national champions. The successfully developing clusters will be granted individual support in a 'manual mode' in order to improve the quality of their governance systems.³ The Ministry selected 11 clusters on the basis of a contest, and its main activities there will be launched next year.⁴

By contrast with the clusters, the special innovative development territories could not boast of a dynamic progress. The innovative territorial center INO Tomsk (its idea having been elaborated since 2010,⁵ and the concept approved by a RF Government Decree in January 2015), was developing its plan of implementing a total of 65 measures. By late 2016, their number had increased to 79,⁶ including the creation of interdepartmental R&D centers, the

¹ E. Kutsenko. Presentation at the conference held by the IMEMO of the RAS. *The concept of smart specialization in regional and innovative policies*. December 9, 2016. See http://www.imemo.ru/index.php?page_id=502&id=2782&p=&ret=498

² I. Dezhina. The development of interaction networks: the role of Russian cluster initiatives. *Innovations*, 2016, No 9, p. 28-32.

³ *The RF Ministry of Economic Development will start developing clusters*. May 16, 2016. See <http://rt.rbc.ru/tatarstan/freenews/5739ab379a794741d23f0a83?from=newsfeed>

⁴ *The participants in the priority innovation cluster development project of the RF Ministry of Economic Development have been selected*. October 19, 2016. See <http://cluster.hse.ru/news/2255/>

⁵ A. Popov, E. Veselova, S. Charnyshov. *Comfortable innovations*. *Expert.ru Siberia* (in Russian), No 42-44, 2010. See <http://expert.ru/siberia/2010/42/inovacii/>

⁶ Directive of the RF Ministry of Economic Development, of July 29, 2016, No 1621-r *On implementing the concept of creating in Tomsk Oblast an innovative territorial center*. See <http://government.ru/docs/24067/>

development of the city of Seversk, and broader participation in the NTI projects of scientific research organizations, higher educational establishments and companies operating in Tomsk. Some of these measures have already been realized. Thus, for example, in December, at Tomsk State University of Control Systems and Radioelectronics (TUSUR), a NTI project office was set up. However, while in 2015 the INO Tomsk task force held 6 meetings, in 2016 it met only once.¹

Another major project – the Technological Valley of Moscow State University (MSU) – from mid-year onwards found itself in a situation of confrontation between the government and MSU's CEOs. In March, the draft law 'On the Technological Valley of Moscow State University' was published, and the University's administration was surprised to learn that the project would be directed not by MSU, but by a specially created state-owned asset manager which, in addition to construction proper, would also be responsible for selecting the priority projects to be implemented in the field of science and technology. In many of its aspects, the draft law reproduces the regulation scheme applied in the creation of the Skolkovo innovative center. However, the Skolkovo project was launched at a new location without a university. In this connection, the official explanation of the exclusion of MSU from the text of the draft law was that it was a model law designed to determine the conditions for the creation of a technological valley around any higher educational establishment, and not only MSU.²

MSU's academic community responded with an official protest, whereby it demanded the cancelation of the draft law as running contrary to the interests of Moscow State University and the proclaimed goal of developing the sphere of education and science. However, what is feared most is the possibility of 'transfer to the asset manager's ownership of 'the lands and buildings that are consolidated forever in federal ownership and held by Moscow State University by right of continuous (termless) use and by right of operative management.³

Then MSU elaborated an alternative draft law whereby the University was to retain all its lands and acquire the ownership right to the new properties to be erected there. The asset manager was to be an affiliation of MSU, and a development foundation (a financial institute owned by MSU) was to be set up. The government has already expressed its disagreement based on the fear that MSU, with its huge and cumbersome organizational structure, will be unable to efficiently negotiate, attract investors and gather resources.⁴ Thus, science and technology issues have become a secondary matter, and the conflict centered around the issue of property ownership and management. By the year's end the draft law had not been properly finalized, and it was suggested that the Technological Valley of Moscow State University should be launched without the adoption of a special law.⁵ It has not been decided yet which entity will function as the asset manager, and so it is still difficult to undertake any practical steps in that direction.

¹ https://ino-tomsk.ru/ru/rabochaya_gruppa/zasedaniya

² D. Sarkisov. *A valley on the palm of the hand. What will happen to the Technological Valley of MSU*. Lenta.ru, March 18, 2016. See <https://lenta.ru/articles/2016/03/18/dolina/>

³ See http://tomsinov.com/russia_contemp/zakluchenie_tech_dolina.pdf

⁴ F. Rustamova, Ya. Miliukova. *A dispute over the valley*. RBC, No 125, July 14, 2016. See <http://www.rbc.ru/newspaper/2016/07/15/578648bd9a7947905d06c40d>

⁵ *The Technological Valley of MSU may be created without a special law*. October 26, 2016. See <https://rns.online/economy/Tehnologicheskaya-dolina-MGU-mozhet-bit-zapuschena-bez-spetsialnogo-zakona--2016-10-26/>

* * *

Russia's 'science landscape' was made up of separately functioning sectors, each of which was dealing independently with its own problems. The RF Government decided to rely on the NTI as an integration platform and formulated the Grand Challenges. However, these could only be met with consolidated actions.

Science still lack competition both internally (there is no competition for the posts of scientific researchers, the inflow of foreign scientists is meager, the rotation and mobility of human resources is low) and externally, on a world scale. The main challenge for Russian science is the ever-continuing reform process. Besides, a typical feature of the year 2016 was the scientific research community's increasing distrust of the government's initiatives, and for good reason. The goals proclaimed by the latter often run contrary to its later acts.

Over the next 5 years, the resources earmarked for breakthrough technologies in the innovative sphere will, most likely, be allocated to the NTI, and under the existing budget this may indeed bear fruit. The main developments will occur with regard to improving innovations and creating products capable of entering market in the framework of international cooperation.

One serious drawback is that the share of funding allocated to innovation from the state budget is disproportionately high by comparison with private investment. The business environment remains complicated, and businesses are viewed with mistrust, which is counterproductive for innovative development. The fact that the government has begun to pay attention to fast-growing medium-sized companies may trigger changes for the better in the business environment, thus creating conditions for promoting not only the future national champions, but technology development at large.

6.6. The new system of formation of the public Ccontract in 2016: the main risks and prospects of development¹

A switchover from financing of budget-funded entities on the basis of a financial estimate to financing of the services they rendered was underway for more than a decade, however, real changes took place only in 2016 when calculation of the volume of budget allocations to those entities on the basis of baseline expenditure normals became mandatory for all the entities of the budget system. The earlier approved amendments to Article 69.2 of the Budget Code of the Russian Federation (BC RF) specifying the general guidelines for developing the public contract (introduced by Federal Law No.83-FZ of May 8, 2010 and Federal Law No.406-FZ of December 29, 2015), as well as Resolution No.640 as amended of June 26, 2015 of the Government of the Russian Federation representing the third version of the procedure for formation and financing of the public contract in the past 10 years constituted the legal framework for the above changes. The main difference of the new procedure for formation of the public contract from the rules which were in effect before is a formal ban on customized standards being approved for individual entities which are under the jurisdiction of the chief administrator of the budget funds (CABF), that is, efforts were made to establish an unified system of standardized financing of public and municipal jobs and services. Among other things, the new system envisages the following *order of formation of specified allocations*:

- federal authorities in charge of development of a sectorial policy prepare base lists of public jobs and services (in compliance with Order No.49n of June 16, 2014 of the Ministry of

¹ Author of chapter: A. Kireeva – Gaidar Institute, RANEPА.

Finance of the Russian Federation those lists are to be approved in respect of 32 lines of activities);

- the same authorities set baseline normals of expenditures for federal institutions and determine the types of adjustment sectorial ratios. Normals must be published on the official Internet-site which provides the information of public and municipal entities (bus.gov.ru). The content of the baseline normals has been expanded: it now includes the maximum scope of expenditures required for provision of public (municipal) services. If before 10% of costs on power and 50% of costs on heating were accounted for in the normals, from 2016 the above rates have been reduced with revenues from paid services taken into account. From 2019 it is planned to stop completely financing of the overall management of property which is not used for fulfilment of the public contract. In addition to the above, from 2016 the normal includes “costs related to purchasing of movable property” earlier financed through “other subsidies” which were calculated with the initially available property taken into account. From 2017, the normals will include “the amount of the reserve on complete rehabilitation of a particularly valuable movable property.” So, with a different extent of the initial availability of capital assets to entities and different wear rates of those assets, harmonization of funding normals sets inequality as regards the situation with entities’ property. As from 2019 providing of property to state and municipal entities in operating management is planned to be stopped and replaced by lease agreements or free use agreements with a simultaneous refusal to make budget allocations for payment of rentals on property which is not utilized in fulfillment of the public contract, the financial situation of such entities may deteriorate even further if idling of property happens to be justified by reduction of the volumes of the public contract;

- on the basis of the list of public jobs and services, founding authorities (CABF) at all the levels of the budget system develop departmental lists of public and municipal jobs and services on the basis of the baseline normals and adjustment ratios (at present there are territorial, sectorial and temporarily used adjustment ratios) and determine the volume of budget allocations to specific entities.

So, at first sight, the system of standardized financing limits the freedom of discretion of CABFs as regards issues of formation of public contracts and determination of the volume of allocations to specific institutions.

However, in practice a switchover to the principles of standardized financing is still largely formal, while the requirements of Article 69.2 of the Budget Code of the Russian Federation are not complied with in full. Also, it concerns the procedure for formation of the list of public services and formalization of the process of distribution of the public contract and the procedure for determination of the volumes of funding to specific institutions.

6.6.1. Baseline and departmental lists of public jobs and services

Identification of 32 lines of activities in respect of which base lists should be developed was not quite logically justified. They included both the lines in respect of which interdepartmental harmonization at all the levels of the budget system was actually required (education, healthcare and other) and those related to the exclusive competence of the federal level and carried out by a single agency (law, defense, foreign policy and other). Also, there is no strict functional division between base and departmental lists of public jobs and services: the types of the information provided in those lists and the extent of specification thereof overlap completely with most federal executive authorities (FEA). It is to be noted that a number of FEA are not specified in departmental lists available on open access even as regards functions which are not

related to a secrecy order (the Ministry of the Interior and other). In 50% of cases, departmental lists come down to itemization of auxiliary types of federal executive authorities' activities, including health services, training of civil servants, health resort treatment and recreation and other. It can be explained by the fact that main functions of the whole range of FEA (primarily those related to national security and law-enforcement agencies) are carried out by public institutions financed on the basis of a financial estimate. Most FEA approached formally to development of base and departmental lists of public jobs and services without dividing explicitly services by their quality, methods of delivery, types of entities and levels of authority and specified all the types of the entities of the sector as providers of services. Due to the above, there is a situation where, for example, apart from profile entities a museum subordinate to the authority which is in charge of environment protection may be responsible for fulfilment of jobs related to shoreline protection. Classification of services on the basis of quality criteria in those cases where they were presented is carried out by most FEA by way of singling out a group of privileged institutions (leading higher education establishments, highly valuable cultural heritage sites and other) whose higher quality of services is presumed to be as such by virtue of a very special status of those institutions. There have been instances which permit to state that base and departmental lists are incomplete. It concerns all the cases where a departmental list includes types of activities carried out by one entity subordinate to FEA and does not include those performed by other subordinate entities.¹ So, the requirements of Article 69.2 of the Budget Code as regards formation of the base and departmental lists of state services are complied with in most cases by FEA incompletely, while the system of standardized financing has consolidated the existing privileged position of entities with a special status and/or property which does not require any additional investments and maintenance-related costs, rather than ensured equality of entities providing services of comparable quality.

6.6.2. Formation of the public contract

Resolution No.640 of the Government of the Russian Federation proceeds from the fact that distribution of the public contract (hereinafter PC) between subordinated entities is to be carried out with some objective factors taken into account (dynamics of the number of consumers, level of satisfaction with the volume and quality of services, capacity of the entity, fulfilment of the contract in the previous year and other). However, the only FEA which tried at least partially to formalize the process of assignment of the public contract was the Ministry of Education and Science which approved the procedure for distribution of planned targets of enrollment into higher education establishments and secondary vocational training institutions. It is to be noted that the procedure for distribution of enrollment planned targets is not incorporated into the procedure for public contract formation and is carried out in accordance with other rules.

Other FEA distribute the public contract proceeding mainly from the practice which existed before and that turns the process of public contract distribution into a major instrument of customization of budget funding.

With the above taken into account, the issue is topical whether further formalization of public contract distribution is expedient and possible. It appears that it would create more risks than advantages. The main factor consists in the fact that it is difficult to form the system of criteria

¹ So, for example, the base list of the Roskosmos includes one service: "organization and carrying out of selection of applicants for the position of a space crewman...", while the departmental list includes only 4 services. Such an approach would have been justified if within jurisdiction of FEA there were no entities carrying out other types of services, but it is not so.

on which basis it would be possible to formalize the public contract distribution process: in most cases the indicators of quality (efficiency) of entities are formal and based on the parameters of activities which are more available for external evaluation and do not normally characterize the very process of service supply. For example, it is easier to compare the initial value of museum collections than the quality of jobs related to maintenance and restoration thereof. Also, it is easy to compare average grades as regards the single state exam (SSE) for students entering higher education establishments of the same profile than the quality of lectures delivered at those institutions. The extent of public contract administration in the previous periods depended on the entire range of external factors for entities, including a feasibility of cuts in budget funding during the previous year; in most cases the number of consumers of services changes very slowly and insignificantly, so it cannot be used as a basis. The mechanisms of accounting of the extent of consumer “satisfaction with the existing volume and quality of services and the outputs of work” of entities on the federal level are not developed enough. In a number of sectors, they are partially realized by way of granting to consumers the right to select a budget-funded entity. For example, in healthcare a consumer may get registered with an out-patient hospital which he/she believes provides higher quality services.¹ However, the mechanism based on a consumer choice financing has limitations of its own. Firstly, it is effective only in large cities with a developed budget-funded network and good transport accessibility, that is, in a situation where consumers have actually got a choice. Secondly, utilization of the above mechanism is partially limited by capacity of budget-funded entities selected by individuals: though in some instance it may be exceeded², certain limitations do exist, anyway. Thirdly, there are virtually no mechanisms which would permit to build formalized correlation between claims of budget service consumers and the volumes of funding to an entity (in particular, claims need to be divided into justified and unjustified ones).

So, it is quite difficult to formulate objective criteria for formalized distribution of the public contract between entities. It is to be noted that a switchover to a tender-based distribution of the public contract creates risks of incomplete utilization of entities and, as a consequence, incomplete funding which situation would mean gradual asset portfolio degradation and a loss of HR potential for entities receiving less volumes of the public contract than before.

The instance of a tender-based distribution of enrollment target figures in higher education is not exhibitive: as in the past few years it was subjected to optimization process it is rather complicated to assess the effect of an individual factor on the situation of higher education establishments. According to the data of the Ministry of Education and Science³, in the 2012–2015 period 46 higher education establishments and 19 branches were restructured, 269 branches were closed down and 43 branches were restructured for fulfilment a different

¹ See, for example, Article 36.10 of Federal Law No.326-FZ of November 29, 2010 on Mandatory Medical Insurance in the Russian Federation; Order No.543n of May 15, 2012 of the Ministry of Health and Social Development of the Russian Federation on Approval of the Guidelines for Provision of Primary Health Care to Adult Population; Letter No. 2056/26-i of May 8, 2009 of the Federal Mandatory Medical Insurance Fund on Guidelines for Methods of Payment of Medical Services in Phased Transition to Single Channel Financing and other documents.

² See, for example, Appellate Ruling No.33-4118/2013 of May 28, 2013 of the Altai Territory Court by which the court obligated an outpatient hospital to register a patient despite the fact that a recommended load on general practitioners was exceeded by large.

³ The Report – The Priorities in Development of the System of Higher Education in the Russian Federation – by S.O. Sorokin, Deputy Director of the Department of the State Policy in Higher Education of the Ministry of Education and Science // URL: <http://минобрнауки.рф/>

function. In 2015, restructuring was underway with other 27 higher education establishments and 334 branches. In the 2014–2015 period, plans were announced to cut “... up to 80% of branches of higher education establishments ... [and] ...40% of higher education establishments... provided that the number of students receiving high quality higher education ...with federal and national research universities increases”. In particular, similar plans could be found in Instructions No. 2765-r of December 29, 2014 of the Government of the Russian Federation on the Concept of the Federal Target Program of Development of Education in the 2016-2020 Period. Though Resolution No.497 of May 23, 2015 of the Government of the Russian Federation taken on the basis of the above Concept does not include straightforward instructions as regards the extent of the planned optimization, the process of optimization of entities is not completed yet.

6.6.3. Implementation of the standardized financing principles

Despite the requirements of Article 69.2 of the Budget Code of the Russian Federation, the values of baseline normals and sectorial adjustment ratios were published only by 5 CABF (the Ministry of Education and Science, the Ministry of Sport, the Administrative Department of the President of the Russian Federation, the Ministry of Healthcare and the Ministry of Culture (not in respect of all the types of services)) due to which the analysis of the practice of standardized financing was carried out both on the basis of open source data and outputs of surveys in which 137 budget-funded entities participated.

Resolution No.640 of the Government of the Russian Federation provides for determination of standard costs of federal entities with application of the following three methods: a normative method, a more efficient entity method and a median method. Other methods are admissible for regions, too. They include primarily the following three methods which were earlier applied by federal agencies: the expert method, structural method and a countdown method (which is not advised at present by the Ministry of Finance of the Russian Federation). It was believed that the normative method based on normals of material, technical and labor resources (construction norms and rules (SNiP), sanitary regulations and standards (SanPiN), standards, procedures and rules of service provision and fulfilment of jobs (items 18 and 31 of the Resolution No.640 of the Government of the Russian Federation)) envisaged by federal statutory acts would permit to ensure funding of services rendered by the budget-funded sector in the volume required for ensuring quality in compliance with relevant standards and constitute a base for a unified approach to determination of their costs by each sector. However, in practice the correlation between the volume of budget allocations to sectorial entities and real normals which determine the quality of services is notional. Entities' standard costs are calculated on the basis of the “available” volume, that is, the volume of allocations made by CABF, while real normal (GOSTs, SanPins and other) play an auxiliary role and are used at the most for proportional allotment by CABF of allocations between subordinate entities. In addition to the above, the normative method of calculation of the volume of budget allocations to entities is de facto unacceptable amid unstable budget revenues. In a situation where CABF have to adjust (generally reduce) thresholds of budget allocations during a year, correlation of budget funding with real normals is completely lost.

According to the data of our research, the normals of financing of budget services differ from market prices on similar services and amount to 10% to 100% of their market value. So, the situation of budget-funded entities placed in quasi-competitive conditions is highly risky: on one side they are exposed to a risk of underperformance and underfunding, while on the other

side their freedom in taking management decisions remains limited (in particular, they cannot refuse from a portion of the public contract in favor of rendering services to households at market prices), whereas allocations they receive cannot make up for all the costs required for provision of services in compliance with the standard and/or on comparative market conditions.

At the same time, CABF have preserved plenty of options of customization of funding of subordinate entities. For those purposes, they use the following: financing of jobs, application of sectorial and adjustment ratios, allocation of subsidies for other purposes and customized distribution of the deficit of budget allocations.

Until 2017, a number of CABF used jobs as an instrument of evasion of the requirements of Article 69.2 of the Budget Code of the Russian Federation as financing of jobs was not standardized until recently. For example, in the base list of public services (jobs) approved by the Ministry of Culture of the Russian Federation¹, one and the same type of activities can be classified both as a job and service which situation permitted agencies to bypass tough requirements set to standardization of services with an explicit creative customized nature and finance complementary entities which received less funding by standards set for services. For example, such a type of activities as “public showing of museum pieces and museum collections” can be financed both as a job and service.² Sampling analysis of plans of financial and business activities of entities which were within the jurisdiction of the Ministry of Culture of the Russian Federation showed that there were museums and theaters whose public contract was made up completely of jobs; for a number of large and most important entities of culture, jobs account minimum for 50% of the public contract.

Sectorial adjustment ratios are used as an instrument of customization of budget allocations by the following two methods:

- a few ratios aimed at increasing the volumes of allocations to a privileged group of entities are introduced. For example, by Order No.1272 of October 30, 2015 of the Ministry of Education and Science of the Russian Federation multiplying ratios for the (leading) higher education establishments which were granted the right to approve standards of their own, as well as multiplying ratios for the very fact of application of those standards and a number of other ratios permitting to increase volumes of allocations to that particular category of budget recipients were envisaged. As a result, leading higher education establishments accounted for over 40% of allocations allotted for financing higher education as a whole³;

- non-transparent content ratios are applied. For example, by Order No.1038 of December 31, 2015 of the Ministry of Health of the Russian Federation an adjustment ratio “reflecting the specifics of implementation of educational programs” of medical higher education establishments ensuring a differentiation of volumes of financing of services by 400% was approved. The value of the above ratio was set individually for each of 56 medical educational establishments.⁴ It is to be noted that in departmental documents of the Ministry of Healthcare it is not specified what should make an educational program of a medical higher education establishment special so that it could claim a higher volume of funding. It is to be noted that funding of educational establishments which are within the jurisdiction of the Ministry of Culture of the Russian Federation is carried out in a similar way.

¹ URL: <http://www.bus.gov.ru/pub/services>

² URL: <http://www.bus.gov.ru/pub/services>

³ URL: <http://regconf.hse.ru/uploads/3e50fea0e58869eb82b707696c7fc89e1497d069.docx>

⁴ URL: <https://www.rosminzdrav.ru/ministry/informatsiya-o-podvedomstvennyh-ministerstvu-zdravoohraneniyarossii-organizatsiyah>

Adjustment (multiplying and reduction) ratios can be applied to each entity individually and until recently they used to be the main instrument of customization of budget-funded entities' standard costs. It is to be noted that adjustment ratios can be applied only temporarily within a transition period. With the above taken into account, a question arises how the practice of distribution of budget allocations between entities after customized adjustment is abandoned is going to change. Analysis of agencies' documents and outputs of our survey of budget-funded entities have shown that refusal from utilization thereof would sooner be inexpedient.¹

The thing is that in practice multiplying ratios are used more rarely than reduction ratios which are applied on a large scale. It means that the main factor behind application of adjustment ratios is a shortage of budget funds for funding services in compliance with normals, rather than CABF's intention to preserve the earlier formed volume of funding of the budget institution network. For example, in the 2016-2018 period in the Republic of Komi the reduction adjustment ratio is applied to all the social in-patient departments.² In the course of our survey, representatives of some leading federal higher education establishments spoke about a 25%-30% customized reduction of funding volumes as compared to those calculated on the basis of the normals. So, in case of abandonment of the practice of customized adjustment it would be impossible to finance all the services in compliance with the existing normals. As a consequence, it would be necessary either to reduce the values of baseline normals applicable to all the entities, thus making worse the situation of "ordinary" participants -- that cannot take advantage of sectorial ratios -- in the budget institution network, or reduce the total number of services rendered to households.

As regards distribution of the deficit between budget-funded institutions, that issue failed to be duly regulated, while all the surveyed entities answering the question about the practice of reducing budget allocations in substance said that it was carried out on an individual basis.

Distribution of subsidies allocated to entities "for other purposes" is customized, too. Despite the fact that most CABFs have approved documents specifying the lines of allocation of subsidies for other purposes (building, overhaul, procurement of expensive equipment and other), the procedure for distribution of subsidies between entities is not set, while decisions on allocation of subsidies are taken by CABFs at their own discretion.

The practice of customization of budget financing is widely used at the sub-federal level, too. Though from 2016 public-law entities of the sub-federal level are obligated to switch over to standard principles of funding of public services, it did not happen overall. On the one side, introduction of standard principles of funding creates potential risks of limitation of budget independence of regions and local governments: confidential nature of base lists of public services limits regions' and local governments' independence in identification of lines of spending of funds. In addition to the above, the normative method of calculation of costs suggests that numerous federal standards, sanitary norms and rules, as well as guidelines approved by federal executive authorities which are in charge of management of various sectors should be taken into account and as a result of that the minimum amount of costs is formed for services to be rendered. On the other hand, the above risk is mitigated by the fact that the volume

¹ See, for example: A.G. Lovidova. Challenges in the Field of Upgrading of Efficiency of Public Services in 2016 // Manager of Autonomous Entity. 2016. Issue No.6. pp. 19–23.

² Order No.2280 of September 30, 2016 of The Ministry of Labor, Employment and Social Protection of the Republic of Komi on Approval of Values of Baseline Standard Costs on Provision of Public Services (Jobs) and Adjustment Ratios Applied in Calculation of the Volume of Subsidies on Financial Support of Public Contract Fulfilment Starting from Formation of the Budget in 2017 and the 2018-2019 Planned Period.

of subsidies allocated to entities of the sub-federal level is normally calculated on the basis of the available one. The analysis of the regional base has shown that there is a lack of harmonization of the values and pattern of regional baseline normals of costs even on such types of activities – which are overregulated by standards -- as services of pre-school education establishments; also it was established that the practice of utilization of customized adjustment ratios was widespread and there were instances of regions' evading a switchover to standards. So, representatives of most regional museums and theaters which took part in the survey said that funding they received was of a customized nature.

According to the data of our survey, no radical changes took place in the funding volumes of most entities partially due to the fact that values of some baseline normals of costs were determined at previous stages of the reforms by means of a countdown method and in addition to that federal executive authorities actively applied sectorial and adjustment ratios. So, having failed to solve the initial issue of upgrading transparency and formalizing distribution of budget allocations, a switchover to standardized financing have created additional risks for the budget institution network's functioning, in particular:

- there is a risk of incomplete provision of entities with the public contract, which situation entails gradual degradation of the budget institution network despite the fact that federal executive authorities have necessary instruments at their disposal to optimize it (restructuring, liquidation, change of an entity's management), while private providers cannot guarantee stable provision of services to households;

- the standardized system of funding complicates support and development of vulnerable, but necessary entities which for one reason or another cannot be liquidated;

- gradual switchover of a portion of the market of public services to non-government suppliers and the ideas of establishing a competitive (or quasi-competitive) environment are underpinned by provision of greater managerial independence to entities, that is, risks of entities grow disproportionately high to their potential;

- standardization of expenditures on maintenance of property and refusal to maintain from 2019 the state property which is not used in rendering of services will entail in the long-term prospect degradation of property units which are in ownership of public-law entities;

- Methods used in calculating baseline normals of costs contribute to deterioration of the quality of services, rather than upgrading thereof: as quality indicators are generally formal, "the more effective entities are those which make less investments to ensure rendering of services (that is, those which increase load on reduced personnel, cut investments in software and expenditures on expendables, liquidate services, which are not accounted for in the list of quality indicators, to households and other).

6.7. The North Caucasus: the main trends of 2016¹

This section analyzes the main new trends that became visible in the North Caucasus during the past year. Bearing in mind the specific features of this region of the Russian Federation, it is important that our analyst should not be confined to examining only the changes that occurred in the economic realm, but also pay attention to those that took place in the sphere of regional politics and regional security.

¹ Author of chapter: K. Kazenin – Gaidar Institute, RANEPА.

6.7.1. Major investment projects in 2016

One of the major components of the Strategy of Socioeconomic Development of the North Caucasus Federal District until 2025, adopted by the RF Government in 2010, is the creation, in the North Caucasus republics, of a ‘tourism cluster’ composed of several year-round recreational tourism complexes based on alpine ski resorts. The implementation of this project was continued in 2016. However, over the course of that year, several new trends capable of strongly affecting the final outcome of the whole project clearly manifested themselves.

First of all, the results of 2016 suggest that the tourism cluster has become totally fragmented. When the project was initially announced, it was presented as a unitary inter-regional tourism ‘hub’ designed to integrate all the regions of the North Caucasus, give them opportunities for economic growth, and make it possible for these territories to increase their budget revenues from tourism. Moreover, the initial plans for developing a new system of resorts clearly revealed the government’s aim to reduce the differences in economic development between the various North Caucasian territories, and primarily the mountainous ones, including those situated within the boundaries of one and the same region. Thus, it was planned that alpine ski complexes would be built in those regions of Kabardino-Balkaria and Karachaevo-Cherkessia which, unlike the neighboring regions, could offer no such facilities. The past year’s experiences showed that the idea of territorial ‘distribution’ of the tourism cluster facilities had largely become a thing of the past. To begin with, the plans of creating the tourism cluster entities in North Ossetia, one of the North Caucasus regions, have officially been frozen indefinitely. In 2016, OJSC *Health Resorts of the North Caucasus (HRNC)*, the principal operator of the special economic zones (SEZ) set up within the tourism cluster (98% of shares in this company are held by the State), did not even include the alpine ski resort *Mamison*, formerly planned to be built in North Ossetia, in the list of its future projects. The SEZ established to accommodate the construction of that ski resort was abolished last September. In the first few weeks of 2017, it became known that the lands earmarked for the future ski resort would be transferred to municipal formations¹. Also in 2016, the territory of the SEZ in Kabardino-Balkaria was drastically reduced by excluding from it the districts of Chegem and Cherek, where tourism objects had been planned to be built from scratch, thus confining the entire territory of the SEZ to Elbrus district alone, where alpine ski infrastructure had already existed for decades and was in need of mere upgrading. The CEOs engaged in the implementation of the alpine ski cluster have given no official explanations either of the reasons for the reduction of its territorial scope, or of the principles used as a basis for determining which territories were to be excluded from the said cluster.

It should be noted that the projects still being implemented are placed on a rather unequal footing with regard to one another. Over the course of 2016, OJSC *HRNC* continued to provide funding to the three construction projects of tourist resorts designated to be part of the first phase of the tourism cluster construction. The resorts in question are as follows: *Arkhyz* (Karachaevo-Cherkessia; the alpine ski tracks and infrastructure are being created from scratch; the resort began functioning in 2014); *Elbrus* (Kabardino-Balkaria; the existing tourist resort is being renovated); and *Veduchi* (Chechnya; the construction process is underway, the first tourists are expected to be welcomed by 2020). A total of approximately RUB 2.9bn was allocated in 2016 to OJSC *HRNC* for the construction of infrastructure entities for the three

¹ *In North Ossetia, the lands of the stillborn tourist resort Mamison will be distributed among farmers* (in Russian). I.A. REGNUM, January 27, 2017. See <https://regnum.ru/news/economy/2232052.html>

resorts included in the project's first phase. The prospects for the resorts to be built during the second phase of the tourism cluster project are far less clear. These are *Armkh*i and *Tsori* in Ingushetia, and *Matlas* in Dagestan. In 2016, the administrative coordination and the preparation of blueprints for all these resort complexes was continued. Thus, in March, the powers to manage the land plots allotted for the construction of the *Matlas* resort were transferred to OJSC *HRNC*. Late last year, the government of Ingushetia completed the preparation of the construction budget documentation and blueprints for the *Armkh*i resort. However, the prospects for each of the second-phase resorts are different, in our opinion. In Ingushetia, there is already an anchor investor for the project, thanks to which some infrastructure entities has already been created there prior to the start of investment flow from OJSC *HRNC*, and so the resort is now effectively functioning, although its current capacity is much lower than planned. As for the situation in Dagestan, no anchor investor has been designated there as yet, and no construction works have been started.

So, it must be admitted that the North Caucasus tourism cluster project has all but disintegrated into regional subprojects, each of them having different potential and, more importantly, different prospects for actual implementation. In such a situation, one may speak of the future strategic role of tourism for each republic, but not for the North Caucasus as a whole.

The prospects for increasing the tourist inflow into the resorts situated within the cluster are less than clear, either. Against the backdrop of the somewhat rising numbers of tourists in some of the resorts (according to data released by OJSC *HRNC*, over the ski season 2015/2016 in Arkhyz and Elbrus it jumped about 30% on the previous season), the North Caucasus regions are among the least attractive resort areas in the RF. In the 2016 Top 100 rating of RF tourist sites published in December by Russia-Rating.ru together with the *Vacation in Russia* magazine, all the republics of the North Caucasus were ranked in the group of the least attractive tourist sites. It can be assumed that the main factors that bring down the scale of tourist inflow have to do with the overall situation in the region, and not with the specific flaws in the operation of the existing resorts. However, given the region's bottom-ranking, the prospects of commercial success for the currently implemented resort projects appear to be dubious.

As for the other big investment projects, the main developments in 2016 centered around the transport infrastructure entities. Among these, it was the Makhachkala Commercial Seaport that topped the news headlines. It enjoys the status of a federal state unitary enterprise (FSUE). Its cargo turnover (the port specializes in the main in crude oil and grain shipment) continuously plummeted from 2013 through 2016,¹ and so the government of Dagestan many times spoke of the necessity of finding a strategic investor to take over the port. Meanwhile, according to mass media reports, the enterprise was effectively run by a group of entrepreneurs operating on a federal level, who originally came from Dagestan. Thus, according to RBC's reports, over the period from May 2010 through May 2016, the office of the port's director general was occupied by somebody from the team headed by well-known businessman Suleyman Kerimov.² Then he was replaced by another manager who had previously worked in the structures attached to *Summa Group*, which is controlled by Ziyavudin Magomedov, another businessman of Dagestani origin. The new director general, however, was prevented from actually performing his functions by his predecessor's supporters, who blocked his entry into the port by physical

¹ *Makhachkala seaport: the logic of defeat*. PortNews.Ru, January 6, 2017. See <http://portnews.ru/comments/2263/>

² *Dagestani fighters: how Kerimov and Magomedov are struggling for the port at Makhachkala*. RBC, September 1, 2016. See <http://www.rbc.ru/business/01/09/2016/57a0c5819a794780a991fc45>

means.¹ Soon after the new director general's appointment, the port was sued by the Cypriot company that had bought out its debt obligations from one Russian bank. It was the same company that had previously initiated a proceeding in bankruptcy against state enterprise *Dagestan Airlines*. As a result, the Makhachkala airport was privatized by certain companies attached to Suleyman Kerimov. As security for the debt owed by the port, some of its infrastructure entities were pledged. According to Dagestani mass media,² this is the continuation of the struggle for the port between Dagestani oligarchs, which is still far from being over. It should be added that Dagestan's head Rustam Abdulatipov, in his interview with RBC on July 11, admitted the fact of an ongoing struggle between the 'groups of influence' for the ownership of the Makhachkala Commercial Seaport, and urged them to resolve the dispute in a constructive manner. However, this has had no effect on the actual state of affairs.

The situation around the Makhachkala Commercial Seaport port was the most high-profile 'privatization scandal' of 2016 in the North Caucasus. It reflects the following typical features of the current investment climate in that region:

- the use of force in the struggle for assets;
- the possibility, as an alternative to privatization, of 'indirect' control of business groups over public property entities through the appointment of loyal CEOs;
- the application, by those willing to seize big assets, of 'indirect' privatization schemes, including bankruptcy procedures.

All these investment climate peculiarities are by no means conducive to a better transparency of privatization deals and competitiveness in the public property privatization process in the North Caucasus.

6.7.2. Federal elections in the republics of the North Caucasus: 'political Islam' and the increasing role of businesses based in other regions

As is well known, one of the main specific features of the sociological pattern of the republics of the North Caucasus, especially of its eastern part, over the course of the past two decades has been the growing importance of Islam in various social fields not related directly to the confessional field, including, to a certain extent, the field of economic conflict resolution. It should be emphasized that this phenomenon has been taking place against the background of a growing internal split within the Islamic milieu fractured by serious contradictions between various Islamic branches and sub-branches, some of which enjoy support from the authorities who consider the rest of them to be 'non-systemic'. It is noteworthy in this connection that last year, some influential figures representing precisely those Islamic sub-branches that are considered to be loyal to the authorities made a number of attempts to increase their political influence not only without properly coordinating this issue with the regional authorities, but also in order to defy them to a certain extent.

This trend became clearly manifest in the course of elections to regional executive bodies, which took place in a number of North Caucasus regions in September 2016. It was likewise clearly visible in Dagestan and Ingushetia. One of the most important characteristic features of the religious situation in both these republics consists in the fact that the official Islamic

¹ *The struggle for the Makhachkala Seaport: why does Abdulatipov need a third party?* IA REGNUM, August 2, 2016. See <https://regnum.ru/news/economy/2162355.html>

² *The curtain has dropped; the play is to be continued.* Novoe delo (in Russian), January 13, 2017. See <http://ndelo.ru/news/ekonomika/4086/>

structures there, the so-called Regional Spiritual Administrations of Muslims, are predominated by representatives of Sufism, one of the major branches of Islam, while the adepts of its other branches are routinely called 'non-traditional Muslims'.

In Dagestan, the incident in the course of the 2016 electoral campaign that became headline news in the federal and regional mass media was the attempt of the federal party *People against Corruption* to nominate, in a multi-mandate election district, a list of its candidates. Among the candidates to the People's Assembly of the Republic of Dagestan backed by that little-known party were at least three eminent regional Islamic activists close to the *Dagestani Spiritual Muslim Administration*. The party announced its intention to take part in the election to the People's Assembly in March 2016, and immediately made known its critical attitude towards the regional authorities. This was expressed, firstly, in the form of some very tough rhetoric addressed to the republic's officialdom, and secondly, in the support by the party of some eminent public figures who were part of the opposition to the region's head (the latter represented not only by religious activists)¹. The regional observers estimated the nomination of candidates by the party *People against Corruption* as an entirely new political situation, where the republic's authorities could no longer totally control the activities of high-profile Muslims attached to the *Dagestani Spiritual Muslim Administration*. However, the *People against Corruption's* entry in the political arena was short-lived: in early August, it declared its withdrawal from the election campaign. This was viewed by a majority of observers as being the result of administrative pressure applied to the candidates, and the victory of the region's head Rustam Abdulatipov, which had practically insured him against any undesirable outcome of the election.

The reliance on 'traditional' Islam by the legislative authority in Ingushetia in connection with the ongoing election campaign there followed a similar scenario, which envisaged the launch of an 'electoral project' that closely involved several local Islamic leaders.² In July, it became known that the election to the People's Assembly of the Republic of Ingushetia will be participated by the Russian All-Peoples Union, its Ingush regional branch being then headed by an Islamic preacher that was very popular across the region, while the number one candidate on the party list was the republic's deputy mufti. In the current political context in Ingushetia such an initiative could only be viewed as an attack on the region's head Yunus-bek Yevkurov, because since 2015 he had been in a state of conflict with the republic's muftiyat, demanding that its head be replaced, and that the principles of its operation be altogether altered.³ In contrast to Dagestan, the political project of the 'opposition imams' in Ingushetia proved to be extremely transitory: in less than a week, the first information of its emergence was followed by the news that the republic's electoral commission did not register the list of candidates put forth by the Russian All-Peoples Union.

So, we may speak of the intensification of political activism in the two republics, of the Islamic communities centering around the regional *spiritual Muslim* administrations, and of the practically synchronous halt of that process in the phase of submitting the lists of election candidates to the regional legislative bodies. These events underline the situation as it emerged

¹ K. Kazenin. *Four questions concerning the 'political Islam' in Dagestan*. IA REGNUM, June 1, 2016. See <https://regnum.ru/news/polit/2139786.html>

² M. Muradov. *The Ingush clergy were not allowed to participate in the election*. Kommersant (in Russian), July 28, 2016. See <http://www.kommersant.ru/doc/3049013>

³ K. Kazenin. *A general of compromise: how Ingushetia is searching for the correct Islamic policy*. Carnegie.Ru, July 6, 2016. See <http://carnegie.ru/commentary/2016/07/06/ru-63927/j2sg>

in 2016, marked by the increasingly 'secular' role of Islam in the republics of the North Caucasus - or, more precisely, in its eastern part. The attempts to further strengthen that role by ensuring the presence of Islamic leaders in the bodies of legislative authority represent an entirely new phenomenon. However, these attempts failed, which in this case means that the heads of the two republics are going to retain their control over the current political processes. Nevertheless, the recurrence of such 'scenarios' involving the participation of circles close to the Regional Spiritual Administrations of Muslims points to a trend towards strengthening the political activities of Islamic circles, clearly not controlled by the regional authorities. It should be noted in this regard that the intensification of the political activism of Islamic leaders in both of these republics was taking place against the background of some deep-seated conflicts within local Islam, and that the persons who had tried to interfere in the elections through the course of election campaigns represented one of the parties in those conflicts. Thus, there are good grounds to believe that if such an intensification of political activism should recur, the inter-Islamic conflicts can notably deepen.

Yet another phenomenon which manifested itself in the course of the 2016 election campaigns in the North Caucasus regions was the surfacing of the political ambitions of those businessmen who, although having hailed from the North Caucasus republics, possessed no significant assets there. This trend was especially pronounced in Karachaevo-Cherkessia, where Aliy Totorkulov, a wealthy Moscow entrepreneur who hailed from that republic and was renowned for his multiple humanitarian projects implemented both in that region and in the North Caucasus diaspora in Moscow, made an attempt to be registered as a candidate for election to the RF State Duma from a single-member district. The nomination of big entrepreneurs whose businesses are concentrated in the North Caucasus region, as candidates for election to various legislative and executive bodies, is a long-standing practice in the North Caucasus, its primary aim being to strengthen one's own business within one or other region. In this case, however, Mr. Totorkulov's participation in elections can hardly be explained by his direct commercial interests, because there is no evidence that this candidate has any such interests in the region. The 'political' explanation that the candidate was eager to obtain a seat in the State Duma in order to gain influence in the federal bodies of state authority is equally unsatisfactory: the nomination of Totorkulov was carried out against the backdrop of a direct confrontation between the regional authorities and the regional branch of *United Russia* – a situation that could hardly give him a chance, even if he had won, to increase his political clout at the federal level (it is notable that observers attributed Totorkulov's removal from the electoral race in August to the very fact that the regional authorities had not supported his nomination.¹)

We believe that by far more justified is the assumption that it has become crucially important for the entrepreneurs of North Caucasian origin who have achieved success outside of their home turf to create support networks in their home regions, and especially, judging from the character of Totorkulov's election campaign, to gain support among young people there. Even before the election campaign, he had been known for his support of youth education- and cultural projects in Karachaevo-Cherkessia, and activists engaged in those projects figured prominently in his campaign team. It should be noted in this regard that, on the whole, the readiness of entrepreneurs hailing from the North Caucasus to provide funding for the launch of youth education- and cultural projects in their home regions has become apparent in a number

¹ K. Kazenin. *The voice of the Caucasus: how politics are returning to the regions*. (In Russian). RBC, September 29, 2016 <http://www.rbc.ru/opinions/politics/21/09/2016/57e24bf49a79475d19b83965>

of other regions of the North Caucasus (although, unlike in Karachaevo-Cherkessia, this phenomenon has had no relation whatsoever to electioneering activities). Thus in late 2016, it became known that a businessman of Dagestan origin, Ziyavudin Magomedov, the co-owner of *Summa Group* (according to Forbes, he is worth USD 900m), intended to invest about RUB 1bn in constructing a large education center in Dagestan's capital, which would combine a number of educational projects being implemented in Dagestan and already supported by various Magomedov's funds. The main purpose of this education center will be to provide young people with education in modern specialties in the field of IT, programming, etc. According to our observations, the common 'vector' of such businessmen's humanitarian activities in their home regions is to increase the stratum of youth whose social links and relationships make them independent of the clan system that is dominant among the regional elite, and whose set of competences can make them better adapted to today's challenges than the majority of local officials. No conclusions as to the aims of these attempts at creating such a new elite can be made on the basis of the results of the year 2016. It is evident that their relation to some specific political projects, including elections, is not universal but rather reflects situational factors. However, there is no doubt that the results of 2016 make it possible to interpret such attempts as a pronounced inter-regional trend.

6.7.3. Terrorist activities

The year 2016 saw no radical changes in the armed confrontation between the authorities and clandestine Islamist groups in the North Caucasus. On the whole, the scale of terrorist activities remained far below that typical of the late 2000s and early 2010s, especially with regard to the number of major terrorist attacks and large-scale guerilla actions carried out by various illegal armed formations (IAF). However, in this respect the year 2016 compared poorly with the previous year. According to the *Caucasian Knot* online information portal, which uses its own information as well as that provided by the Human Right Center 'Memorial', in 2016, the number of victims of the armed conflicts in the North Caucasus increased by more than 11% on 2015 – from 258 to 287 persons. The number of violent incidents remained the same, but the percentage of bomb blasts increased 2.4 times, from 11 to 26. The number of terrorist attacks went up 1.5 times, from 6 to 9. In 2016, the total number of civilian casualties in the North Caucasus Federal District was 24, including 8 dead and 16 wounded, which represented a 31% drop on 2015, when the total number of civilian casualties had been 35. In 2016, the total number of government casualties was 97, including 32 dead and 65 wounded, which represented an almost 2-fold rise on 2015, when the number of government casualties had been 49.

The worst 2016 results were seen in Chechnya, where the number of violent incidents increased 2.3 times on the previous year, while the number of casualties rose 2.4 times. Over the course of that year, Chechnya registered 7 exchanges of fire, resulting in at least 39 casualties, including 25 dead and 14 wounded. In 2016, the clandestine armed groups lost 20 dead and 2 wounded. Casualties among government forces, including police, were 5 dead and 11 wounded. As far as violent incidents and casualties were concerned, Dagestan fared second among the North Caucasus regions. In 2016, Dagestan experienced a 14% rise in the number of violent incidents relative to 2015, while the number of casualties increased by 30%. Dagestan registered 65 violent incidents that resulted in 174 casualties, including 127 dead and 47 wounded. Among the dead were 105 persons believed to be members of IAFs, 20 members of government forces, including police, and 2 civilians.

As regards the struggle against clandestine rebel groups, Dagestan and Chechnya differ rather profoundly from all the other republics of the North Caucasus Federal Okrug. Thus, in 2016, the number of violent incidents in Kabardino-Balkaria dropped by 59% on the previous year, while the number of casualties resulting from such incidents decreased by 71%. In 2016, the number of violent incidents in Ingushetia remained the same relative to the year 2015, while the number of casualties dropped by 21%. Karachaevo-Cherkessia and North Ossetia registered zero activity on the part of clandestine rebel groups.

As this negative reversal of the long-term trend in the war on terror in the North Caucasus is still a very recent phenomenon, it is far too early to try to analyze its underlying causes, because the data at our disposal are confined to a single year. It should be noted, however, that observers express their unanimous opinion that in recent years, the authorities of Chechnya and Dagestan have enforced a very rigid religious policy, where regional officials and the republican power structures have openly demonstrated their support for one or other branch of local Islam, while refusing dialogue with adherents of any other branch of this religion, including those having legal status¹. It should be said that this intolerance came to the fore in the political life of Dagestan only three or four years ago, while in the late 2000s and early 2010s the republican authorities had been eager to promote dialogue between various branches and sub-branches of Islam and to include representatives of conflicting Muslim groups in various public councils and community boards created by the regional bodies of state authority, etc. It can now be said with assurance that the abolition of this policy has not led to a sustainable improvement of the situation in the region.

6.8. Defense economy and military reform in Russia²

In 2016, the main provisions of the military reform started in 2008 and approved by the Executive Order of President Vladimir Putin³ of May 2012 were successfully realized as a whole.

6.8.1. Military recruitment and social policy

In July 2016, the total strength of the armed forces of the Russian Federation increased by 542 civilian personnel to 1,885,371 persons, while the manpower remained the same: 1 million military servicemen⁴, a decrease of 134,800 servicemen compared to 2008.⁵

It is to be noted that the indicators of the accountable strength both of the military personnel and civilian personnel remain much below those of the manning table. So, by the end of 2016 the accountable strength of the armed forces amounted to 930,000 persons, which was 10,000

¹ I.V. Starodubrovskaya, K.I. Kazenin. *The North Caucasus and the modern model of democratic development* (presentation). Polit.Ru. April 1, 2016 <http://polit.ru/article/2016/04/01/caucasus/>

² Authors of chapters: V. Zatsepin – RANEPА (chapters 6.8.1 – 6.8.3); V. Tsymbal – RANEPА (chapters 6.8.1, 6.8.2).

³ Executive Order No.604 of May 7, 2012 of the President of the Russian Federation on Upgrading of Military Service in the Russian Federation.

⁴ Executive Order No.329 of July 8, 2016 of the President of the Russian Federation on the Strength of the Armed Forces of the Russian Federation.

⁵ Executive Order No.1 of January 1, 2008 of the President of the Russian Federation on Actions Strength of the Armed Forces of the Russian Federation.

servicemen (as judged by declared year-on-year growth in manning from 92% to 93%)¹ and 100,300 servicemen more than a year ago and three years ago, respectively.

In 2016, the accountable strength of contract servicemen from rank and file to junior command personnel reached the historical maximum of 384,000 servicemen, an increase of 32,000 servicemen (9.1%) compared to a previous year. Sergei Shoigu, Defense Minister of the Russian Federation emphasized the fact that “for the first time in the Russian history noncommissioned officer corps had entirely become professional” (it means that all the sergeants and sergeant-majors do their military service voluntarily on a contract basis).²

So, in 2016 the Ministry of Defense of the Russian Federation managed to make professional the entire noncommissioned officer corps of the armed forces, which it planned to do as early as 2014, but failed to achieve the projected strength of 400,000 contract military servicemen³ in 2016 due to high fluctuation of rank and file and junior command personnel: there were about 45,000 retired servicemen per 77,000 newly recruited ones.⁴ To achieve the target strength of that category of military servicemen (425,000 servicemen) in 2017, the Ministry of Defense of the Russian Federation has to employ at least 41,000 servicemen which goal is quite feasible taking into account the experience of the past few years and the practice of amending the effective legislation. As early as autumn 2014, relevant amendments made it possible for conscripts with higher education to choose between one year of compulsory military service and two years of contract military service,⁵ while from 2017 all the conscripts are allowed to sign up a contract for the term of maximum one year for participation in combat missions, including those beyond the territory of the Russian Federation without being on a three-month trial period.⁶ To make the manning of the armed forces with contract servicemen simpler, later in 2016 the government submitted a draft law to the State Duma to make persons with secondary vocational education equal to those with higher education, that is, such persons would have the right to sign the first contract without doing compulsory military service.⁷

In 2016, 307,000 persons⁸ were drafted into the military service, a year-on-year increase of 9,900 persons, but it was 1,100 persons less than in 2014.⁹ The Ministry of Defense assigned 275,000 persons out of that number for service in the armed forces¹⁰, while the remaining

¹ Report by Sergei Shoigu, Defense Minister and Army General to the expanded meeting of the Collegium of the Ministry of Defense of the Russian Federation (December 22, 2016) URL: http://function.mil.ru/files/morf/2016-12-22_MoD_board_extended_session_RUS.pdf (accessed date: December 30.2016).

² Ibid.

³ Manning of the armed forces with military personnel. The 2013–2020 Policy Plan of the Ministry of Defense of the Russian Federation, 2013. URL: http://mil.ru/mod_activity_plan/constr/lvl/plan.htm (accessed date: December 30.2016).

⁴ M. Yeliseeva. With a Focus on Future // The Krasnaya Zvezda. February 6, 2017 (No. 12). p. 2.

⁵ Federal Law No.159-FZ of June 23, 2014 on Amendment of Individual Statutory Acts of the Russian Federation.

⁶ Federal Law No. 512-FZ of December 28, 2016 on Amendment of the Federal Law on The Military Duty and Military Service.

⁷ Federal draft law No.63563-7 on Amendment of Article 32.1 of the Federal Law on The Military Duty and Military Service was submitted to the State Duma on December 24, 2016.

⁸ Executive Order No.139 of March 31, 2016 of the President of the Russian Federation and Executive Order No.503 of September 29, 2016 of the President of the Russian Federation.

⁹ Defense of Russia. The Results of Development and Prospects. Moscow: The Center for Political Information, 2016. p. 9.

¹⁰ See. The above report by the Defense Minister of the Russian Federation.

32,000 persons were distributed among the National Guard, the Federal Security Service, the Federal Security Guard Service, the EMERCOM and other.

The number of servicemen under command of their commanding officers decreased from 49,000 servicemen three years ago to 2,000 servicemen in 2016.¹ So, the Ministry of Defense is close to solution of the problem of this category of servicemen who are actually discharged from the armed forces, but keep receiving money allowances and wait for permanent housing to be granted them.

In 2016, about 1,000 officers of the Ministry of Defense served as sergeants and were to be reassigned to the position of an officer until the end of the year.² According to the information of the mass media, in 2016 the overall number of officers doing military service amounted to 225,000 persons³. The official data on the number of officers and warrant officers of the Ministry of Defense in 2016 is unavailable, except for that on high-ranking officers, in which category out of 730 permanent appointments only 38 was vacant.⁴ It was reported about problems related to manning of the aircraft personnel of the Russian Aerospace Forces and commandership of platoons of ground forces, as well as a nearly twofold reduction of the number of officers discharged from the armed forces ahead of time.⁵ In 2016, over 11,000 officers were engaged in the military service, of which number over 7,000 officers were on reserve.⁶

Unlike the previous year, in 2016 the Defense Ministry did not release the official statistical data on the number of military pensioners as of January 1, 2016; such data are subject to mandatory publication in compliance with the federal statistical work plan.⁷ According to the data of 2015,⁸ the number of military pensioners of the Ministry of Defense amounted to 1,156,352 persons, of which 992,334 persons (85.8%), 35,903 persons (3.1%) and 128,115 persons (11.1%) received long-service pension, disability pension and survivors pension, respectively. In the past decade⁹, from January 1, 2006 the number of pensioners of the Ministry of Defense did not change much (an increase of 1.2% or 13,752 persons).

According to the updated information, in 2016, the average money allowance to military servicemen of the Ministry of Defense remained at the previous year level of RUB 61,800 (168% of the average accrued wages and salaries in the Russian Federation), while the average amount of long-service pensions of servicemen of the Ministry of Defense grew in nominal

¹ See. The above report by the Defense Minister of the Russian Federation.

² *D. Litovkin*. No More Sergeant-Officers in the Armed Forces // The Izvestia daily. December 29, 2016.

³ Ibid.

⁴ Manning of positions of high-ranking officers of the Russian armed forces amounts to 95%. URL: http://function.mil.ru/news_page/country/more.htm?id=12110651@egNews (accessed date: February 3, 2017).

⁵ See. Yeliseeva.

⁶ *A. Ramm*. In 2018 The Armed Forces will See New Professional Lieutenants // The Izvestia daily. February 15, 2017.

⁷ Executive Order No.1063 of August 10, 2011 of the President of the Russian Federation on Approval of the List of Information on Activities of the Ministry of Defense of the Russian Federation Placed on the Internet.

⁸ The number of pensioners, including disabled persons registered with and receiving pensions from the Ministry of Defense of the Russian Federation. URL: <http://stat.mil.ru/files/morf/opendata/7704252261-MORF-3.3.csv> (Accessed date: January 24, 2017).

⁹ On Pensions and Other Things... // The Krasnaya Zvezda daily. November 29, 2006.

terms by 4% to RUB 22,700.¹ The money allowance of military servicemen doing compulsory military service still remains at the level of RUB 2,000 within the frameworks of money allowance unification experiment started in January 2012.²

In 2016, permanent housing was granted out of different sources to over 20,400 servicemen of the Ministry of Defense, though at the end of the year 29,800 military servicemen were on the housing waiting list of the Ministry of Defense. In 2016, 29,200 servicemen of the Ministry of Defense received service housing, while 59,000 servicemen, a compensation for renting accommodation.³ With such rates, the housing problem can hardly be solved by the end of 2017 as was expected early in 2014.⁴

In 2016, the Ministry of Defense received 120,000 applications (1/3 of them from military servicemen), a year-on-year decrease of 12%. It is to be noted that the number of applications greatly decreased on the following issues: payment of money allowances to military servicemen (a decrease of 33%), provision of social guarantees, compensations and privileges (31%), retirement insurance (9%) and maintenance and operation of the housing fund of the Ministry of Defense, including the sanitary and engineering condition of service housing (4%).⁵

6.8.2. Military-technical policy

In 2016, there was further implementation of the military-technical policy outlined in the State Armaments Program (SAP) for 2011–2020 and the Main Guidelines of the Military-Technical Policy of the Russian Federation till 2020 and in the Long-Term Period approved by President Vladimir Putin in May 2012.⁶

As a year before, in May and November President Vladimir Putin held two three-day sessions of meetings on various aspects of implementation of SAP and the Federal Special Purpose Program (FSPP). Also, a meeting on utilization of the facilities of the military-industrial complex (MIC) in production of high-tech civil-purpose products⁷ was held in the city of Tula on September 8, while another one took place on the next day in Novo-Ogarevo, where the main parameters of the state armaments program in 2018–2025 were discussed.⁸

¹ O. Falichev Resource Maneuver // Military and Industrial Courier. 2016. December 21, 2016 (No. 49).

² Executive Order No.333 of July 13, 2016 of the President of the Russian Federation on Extension of the Time-Limits of the Experiment on Unification of Money Allowances of Servicemen on the Compulsory Military Service.

³ I. Zotov. A Year of House-Warming // the Krasnaya Zvezda daily. February 15, 2017. (No. 16).

⁴ Report on the Progress in Fulfillment of the Plan of Activities of the Ministry of Defense of the Russian Federation on Implementation of Executive Orders Nos. 597, 601, 603, 604 and 605 of May 7, 2012 of the President of the Russian Federation in 2013. Voenny Sovet // Ekho Moskvyy Radio Station. October 21, 2016.

⁵ Out of 120,000 applications received by the Ministry of Defense of the Russian Federation in 2016, only one-third of applications was filed by military servicemen. URL: http://function.mil.ru/news_page/country/more.htm?id=12116994@egNews (accessed date: April 04, 2017).

⁶ Executive Order No.603 of May 7, 2012 on Implementation of Plans (Programs) of Building and Development of the Armed Forces of the Russian Federation, Other Troops, Military Formations and Forces and Upgrading of the Military and Industrial Complex.

⁷ The meeting dedicated to the issues of utilization of MIC facilities in production of high-tech civil-purpose products. Tula, September 8, 2016. URL: <http://www.kremlin.ru/events/president/news/52852> (accessed date: September 08, 2016).

⁸ The meeting on the main parameters of the State Armaments Program in 2018–2025. Novo-Ogorevo. September 9, 2016. URL: <http://www.kremlin.ru/events/president/news/52866> (accessed date 09.09.2016).

In 2016, the armed forces received 41 intercontinental ballistic missiles, over 3,000 new upgraded samples of weapons and military equipment, including 139 modern aircraft, 2 submarines, 24 surface ships, crafts and supply vessels, 4 regiment sets of S-400 surface-to-air missile systems and 25 Pantsir-C anti-aircraft missile and gun system combat vehicles. Within a year the armed forces received 260 unmanned drones, so their overall number amounted to 2,000. As a result, the extent of equipment of the armed forces with modern samples of weapons and military equipment was the following: strategic nuclear forces (60%), aerospace forces (66%), the Navy (47%), Ground Forces (42%) and airborne forces (47%), while as regards troops of permanent combat readiness it increased to 58.3% from 47.2% in 2015.¹

According to the preliminary data, in 2015 growth in the MIC's output amounted to 10.1% with a 9.8% increase in labor efficiency and a 16.1% share of civil-purpose products.² It is to be noted that in 2016 the added value volume index on the economic activity "Shipbuilding, Aircraft and Spacecraft-Building, Manufacturing of Other Transport Vehicles and Other Materials not Included in Other Groups" and the economic activity "Manufacturing of Electronic Components and Radio, TV and Communications Equipment" amounted to 101.4% and 91.3%, respectively. Exports of military-purpose products increased by 3.5% in nominal terms compared to 2015 and exceeded \$15bn.³

Unlike the practice of the previous years, in 2016 the official data on the volume of the state defense order (SDO) were not actually published. T. Shevtsova, Deputy Defense Minister who released the information in December (RUB 1.5 trillion) denied it three and a half months later (RUB 3 trillion according to calculations).⁴ So, for the purpose of comparing growth in the SDO with that in MIC output and equipment of the armed forces with modern samples of weapons and military equipment (*Table 19*) the amount of budget expenditures by expenditure types 211, 214, 216, 217 of subdivisions of the functional classification of the expenditures of federal budgets "The Armed Forces of the Russian Federation" and "Applied Research in the Field of National Defense" with amounts of state guarantees issued to MIC entities for fulfillment of the SDO was used as an estimate of the SDO volume of the RF Ministry of Defense and it approximated rather fairly the existing omissions. In 2017, the expected SDO reduction in nominal terms can be explained by the specifics of the 2016 base which was distorted by additional expenditures of about RUB 800bn allocated by the government to repay a portion of the debt of MIC entities to commercial banks; the debt arose due to a simultaneous utilization of budget and credit funds for financing the SDO starting from 2011. With the above factor taken into account, it can be expected that the target of the existing state armaments program – 70% of modern samples of weapons and military equipment in the armed forces – will be achieved in the troops of permanent combat readiness by the end of 2017.

¹ See. The specified report by the Minister of Defense.

² The Presidential Address to the Federal Assembly. Verbatim. Moscow. December 1, 2016.

³ Meeting of the Commission on Military and Technical Cooperation with Foreign States. Verbatim. Moscow. March 22, 2017.

⁴ Yu. Gavrilov. Budget in Defense // The Rossiiskaya Gazeta, daily. December 19, 2016 (No. 287); Reduction of the Budget of the Ministry of Defense of the Russian Federation Has Not Affected the State Armaments Program and Social Obligations. URL: http://function.mil.ru/news_page/country/more.htm?id=12116553@egNews (accessed date: April 03, 2017).

Table 19

The State Defense Order, growth in the MIC's output and equipment of the armed forces with modern weapons and military equipment in 2010–2017

	2010	2011	2012	2013	2014	2015	2016	2017
SDO in current prices (estimate), billion RUB	509.1	742.3	889.9	1294.7	1716.4	1901.4	2687.8	1579,1
SDO growth, % change on previous year	–	45.8	19.9	45.5	32.6	10.8	41.4	-41,3
MIC output growth, % year-on-year change	17.4	5.8	6.4	13.5	15.5	12.9	10.1	–
Equipment with modern samples, %	12	n.a.	n.a.	19	26–48	47.2	58.3	–
Equipment growth, p.p.	n.a.	n.a.	n.a.	n.a.	7	21.2	11.1	–

Source: The Ministry of Industry and Trade of the Russian Federation; Federal Laws on Budget Administration; the Accounts Chamber; the Ministry of Defense; own calculations.

From September 2015, the Ministry of Industry and Trade of the Russian Federation stopped publishing the list of entities included in the overall register of entities of the military-industrial complex (MIC).¹ The total number of entities included in the register² increased by 14 entities from July 2015 till the beginning of 2016 to amount to 1367 entities. By that time, licenses to activities related to the state defense order were issued to 4,122 entities (a year-on-year growth of 39%).³

6.8.3. Military and financial policy

In administrating the 2016 federal budget, a single adjustment was made in November.⁴ Under the Law on the 2016 Federal Budget, allocations on the “National Defense” section of the budget expenditures were initially set at RUB 3,149 trillion,⁵ or RUB 32bn (1%) less than actual expenditures a year before.⁶ In November, allocations on the National Defense grew to RUB 3,895 trillion (an increase of RUB 746bn or 23.5%)⁷ due to the government’s decision to repay ahead of schedule a portion of commercial loans taken against state guarantees for financing the state defense order in 2011–2016. Compared to 2015, allocations on the National Defense grew by 22.4% in nominal terms.

As the above indicators of military allocations were not available in the published laws, they were determined on the basis of the explanatory note to the draft law on the budget and the Accounts Chamber’s February Report. From February 2016, the Federal Treasury stopped publishing monthly reports on the overall federal budget expenditures; such reports were

¹ Resolution No.944 of September 7, 2015 of the Government of the Russian Federation on Amendment of Resolution No.96 of February 20, 2004 of the Government of the Russian Federation and Recognition as Null and Void Resolution No.843 of August 21, 2012 of the Government of the Russian Federation.

² The Report on Challenges and Goals of the Ministry of Industry and Trade of the Russian Federation in 2016 and the main results of activities in 2015. July 26, 2016. p. 165. URL: http://minpromtorg.gov.ru/common/upload/files/docs/Doklad_MPT_072016.pdf (accessed date: 29.09.2016).

³ Ibid. p. 162.

⁴ Federal Law No.359-FZ of December 14, 2015 on the 2016 Federal Budget; Federal Law No. 397-FZ of November 22, 2016 on Amendment of the Federal Law on the 2016 Federal Budget.

⁵ Annex No.3 to the Explanatory Note on the Federal Draft Law on Amendment of the Federal Law on the 2016 Federal Budget.

⁶ Federal Law No.377-FZ of October 31, 2016 on Administration of the 2015 Federal Budget.

⁷ The Operation Report on Progress in Administration of the Federal Budget in January–December 2016. Moscow. The Accounts Chamber of the Russian Federation, February 9, 2017.

published starting from 1997. In 2016, the information on federal budget expenditures became more and more sensitive and exceeded by 2.6 p.p. the last-year maximum (*Table 20*), so classified expenditures amounted to RUB 3,569 trillion (4.1% of GDP). It is to be noted that in the Russian public finance statistics not only the data on expenditures which constitute a state secret both in accordance with the law and executive orders of the President of the Russian Federation, but also those marked as “for internal use only” are attributed quite officially to the classified information.¹

Table 20

The share of classified federal budget expenditures in 2007–2016, %

Code and name of section (subsection) with classified expenditures	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	2	3	4	5	6	7	8	9	10	11
Overall federal budget expenditures	11.2	11.1	10.1	10.5	11.7	11.6	13.8	14.9	19.1	21.7
0100 FEDERAL ISSUES	7.5	7.4	5.6	5.9	10.4	11.4	10.1	10.1	15.2	13.3
0108 International relations and international cooperation	< 0.1	< 0.1	–	–	–	–	< 0.1	1.4	24.8	25.0
0109 State material reserve	92.1	89.7	84.6	83.9	85.6	86.5	86.1	86.7	87.2	84.1
0110 Fundamental studies	1.1	0.9	0.7	0.2	0.5	0.8	0.7	0.8	0.8	0.8
0112 Applied research in federal issues	–	–	–	–	–	0.3	0.3	0.8	0.7	< 0.1
0114 Other federal issues	0.6	1.1	1.9	1.9	1.7	1.6	3.6	5.1	5.1	5.1
0200 NATIONAL DEFENSE	45.5	45.9	47.7	46.5	45.4	47.5	50.4	56.0	65.4	70.5
0201 Armed Forces of the Russian Federation	37.2	38.9	39.2	37.8	39.3	40.7	46.7	52.0	65.3	69.0
0204 Mobilization preparation of economy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0205 Preparation and participation in collective security and peacekeeping activities	100.0	–	–	–	–	–	–	–	–	–
0206 Nuclear weapons complex	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0207 Implementation of international commitments in field of military and technical cooperation	53.2	100.0	100.0	100.0	100.0	61.6	80.6	76.7	80.8	77.7
0208 Applied research in national defense	93.5	93.0	92.9	91.7	92.4	92.9	94.3	92.1	91.7	96.3
0209 Other national defense issues	24.5	29.9	37.1	48.0	35.0	48.6	34.6	46.9	38.8	41.8
0300 NATIONAL SECURITY AND LAW ENFORCEMENT	31.1	31.3	31.0	31.5	31.6	24.0	26.6	27.1	28.4	29.1
0302 Internal Affairs Agencies	5.2	5.0	3.7	4.2	3.9	3.3	3.8	3.9	4.9	5.7
0303 Internal troops	10.5	10.3	8.2	8.2	7.4	4.6	4.4	5.3	6.9	7.7
0306 Security agencies	97.5	98.9	99.6	99.6	99.6	99.7	99.8	99.8	99.8	99.8
0307 Border Guard Service	97.8	100.0	99.5	98.6	99.2	99.1	99.6	99.9	100.0	100.0
0309 Protection of population and territory from emergency situations of environmental and technical nature, civil defense	50.6	50.3	50.0	48.6	44.5	41.6	38.5	39.1	39.7	45.7
0313 Applied research in national security and law enforcement	64.7	75.1	75.0	91.4	86.6	86.6	82.5	82.7	91.2	90.5
0314 Other issues of national security and law enforcement	40.5	49.3	60.6	49.9	12.4	12.1	11.8	44.8	60.7	59.7
0400 NATIONAL ECONOMY	0.4	1.1	0.8	1.4	1.9	2.5	4.7	3.6	5.5	7.0
0408 Transport	–	–	–	–	–	–	0.1	–	0.2	–
0410 Communications and information service	–	–	–	–	–	< 0.1	1.8	2.0	0.5	< 0.1
0411 Applied research in national economy	5.2	6.0	4.5	5.4	11.9	15.3	18.3	23.8	26.7	14.2
0412 Other issues of national economy	< 0.1	1.3	0.9	2.9	2.2	2.5	9.4	2.9	8.0	17.2
0500 HOUSING AND PUBLIC UTILITIES	0.8	6.7	9.5	15.0	13.8	6.7	9.1	9.7	4.3	5.9

¹ Order No.221 of November 30, 2016 of the Ministry of Finance of the Russian Federation on Approval of the Procedure for Formation of the Public Finance Statistics Data.

RUSSIAN ECONOMY IN 2016

trends and outlooks

Cont'd

1	2	3	4	5	6	7	8	9	10	11
0501 Housing services	5.6	14.5	11.4	19.1	20.2	8.6	16.8	25.0	12.0	22.3
0700 EDUCATION	2.4	2.8	2.9	3.2	4.0	3.3	3.8	4.1	3.3	3.1
0701 Pre-school education	2.6	2.8	3.6	3.5	3.7	3.2	0.7	0.8	1.2	7.2
0702 Basic education	1.7	2.0	2.9	2.7	0.7	0.3	0.5	1.1	1.0	0.6
0704 Secondary vocational training	1.0	0.9	0.2	–	–	–	–	–	–	–
0705 Vocational training, retraining and skills upgrading	18.2	1.6	2.6	11.8	18.1	11.3	4.5	2.8	2.9	3.4
0706 Higher and post-graduate vocational education	2.5	3.3	3.4	3.6	5.0	4.1	4.9	5.1	3.9	3.6
0709 Other educational issues	0.2	0.4	0.6	0.5	0.3	0.4	0.5	0.9	1.2	0.9
0800 CULTURE, CINEMA AND MASS MEDIA	0.3	0.2	0.2	0.2	–	–	–	–	–	–
0800 CULTURE AND CINEMA	–	–	–	–	0.1	0.1	0.1	0.1	0.1	0.1
0801 Culture	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
0804 Periodicals and publishing	2.4	2.7	3.1	3.3	–	–	–	–	–	–
0806 Other issues of culture, cinema and mass media	–	–	–	–	–	–	–	–	–	–
0900 HEALTHCARE, PHYSICAL CULTURE AND SPORTS	3.7	3.4	2.9	2.8	–	–	–	–	–	–
0900 HEALTHCARE	–	–	–	–	2.4	2.1	2.8	2.6	2.6	2.9
0901 Healthcare	4.3	–	–	–	–	–	–	–	–	–
0901 In-patient medical service	–	2.9	1.9	1.8	2.1	1.5	2.3	1.6	1.7	1.9
0902 Out-patient medical service	–	3.7	3.6	4.6	2.3	2.3	3.3	3.0	2.6	3.3
0905 Sanatorium resort care and recreation	–	14.5	14.7	11.0	10.0	10.6	12.3	14.6	15.3	16.1
0907 Sanatorium care and epidemiological security	–	0.7	0.2	0.5	0.6	0.7	0.7	0.6	0.7	0.7
0908 Physical culture and sports	0.3	0.5	0.6	0.8	–	–	–	–	–	–
0910 Other issues of healthcare, physical culture and sports	–	1.7	1.2	0.9	–	–	–	–	–	–
0910 Other healthcare issues	–	–	–	–	0.4	0.3	0.4	0.6	0.4	0.7
1000 SOCIAL POLICY	–	<0.1	<0.1	–	–	0.1	0.1	<0.1	0.1	0.2
1001 Pension insurance	–	–	–	–	–	–	–	–	0.1	0.1
1003 Social security	–	<0.1	<0.1	–	–	0.3	0.4	0.1	0.2	0.3
1004 Protection of family and childhood	–	–	–	–	–	–	<0.1	<0.1	<0.1	<0.1
1100 PHYSICAL CULTURE AND SPORTS	–	–	–	–	0.2	0.3	0.3	0.3	0.2	0.5
1101 Physical culture	–	–	–	–	62.0	4.9	6.9	7.6	3.8	3.6
1200 MASS MEDIA	–	–	–	–	0.2	0.2	0.4	0.4	0.3	2.2
1202 Periodicals and publishing	–	–	–	–	2.9	3.1	5.0	5.4	4.5	5.1
1204 Other issues related to mass media	–	–	–	–	–	–	–	–	–	12.9
1400 GENERAL PURPOSE INTER-BUDGET TRANSFERS TO BUDGETS OF SUBJECTS OF THE RUSSIAN FEDERATION AND MUNICIPAL ENTITIES	0.2	–	–	–	–	–	–	–	–	–
1401 Subsidies on adjustment of fiscal capacities of subjects of the Russian Federation and municipal entities	0.5	–	–	–	–	–	–	–	–	–

Source: Laws on federal budget administration and the Accounts Chamber's operation reports. The 2006–2010 data were supplied to the corresponding sections of the budget classification which became effective from 2011. The italics is used to show the data of the previous budget classification.

The absolute and relative values of the main components of direct military expenditures of the Russian Federation in the 2016 federal budget and changes thereof in real terms over 2015 determined on the basis of the operation report of the Accounts Chamber of the Russian Federation are shown in *Table 21*. Prices of the year 2015 were recalculated by the Rosstat with utilization of another estimate¹ of the 2016 GDP deflator-index (103.6%), except for social

¹ On Production and Utilization of the Gross Domestic Product (GDP) in 2016. Moscow, Rosstat, March 31, 2017.

expenditures to which average annual consumer price index (107.1%) was applied.¹ It is to be noted that the expenditures of the National Defense section were administered with a saving of RUB 119bn compared to the indicator of the November version of the Federal Budget Law mainly due to the fact that the reserves of RUB 99bn of the Ministry of Finance in the expenditure subsection “Other Issues of National Defense” were not utilized. Nearly a half of those savings in the above subsection (RUB 236bn) was redistributed to increase expenditures of subsections related to financing of the state defense order: expenditures of the subsection “Armed Forces of the Russian Federation” and the subsection: “Applied Research in National Defense” exceeded by RUB 51bn and RUB 66bn, respectively, those set by the law.

Table 21

**Direct military expenditures of the federal budget on the National Defense”
section in 2016**

Name of section and subsections	2016, million RUB / in prices of 2015	Change in 2016 compared to 2015, million RUB/ growth, %	Share of allocations, % / change compared to 2015, p-p.	Expenditures, % of GDP / change compared to 2015, p-p. of GDP
1	2	3	4	5
NATIONAL DEFENSE	<u>3 776 216</u> 3 644 632	<u>463 254</u> 14.56	<u>22.99</u> 2.62	<u>4.39</u> 0.57
Armed forces of Russian Federation	<u>2 936 475</u> 2 834 152	<u>401 248</u> 16.49	<u>17.88</u> 2.30	<u>3.41</u> 0.49
Mobilization and pre-conscription and reserve military training	<u>6 867</u> 6 627	<u>332</u> 5.27	<u>0.04</u> –	<u>0.01</u> –
Mobilization preparation of economy	<u>3 586</u> 3 461	<u>–559</u> –13.91	<u>0.02</u> –	<u><0.01</u> –
Nuclear weapons complex	<u>45 623</u> 44 033	<u>–352</u> –0.79	<u>0.28</u> –0.01	<u>0.05</u> –
Implementation of international commitments in the field of military and technical cooperation	<u>9 890</u> 9 545	<u>–780</u> –7.55	<u>0.06</u> –0.01	<u>0.01</u> –
Applied research in national defense	<u>471 276</u> 454 854	<u>136 333</u> 42.80	<u>2.87</u> 0.83	<u>0.55</u> 0.17
Other issues of national defense	<u>302 499</u> 291 859	<u>–72 956</u> –19.99	<u>1.84</u> –0.49	<u>0.35</u> –0.09

Source: The Accounts Chamber of the Russian Federation, own calculations.

The military expenditures of other sections of the federal budget are shown in *Table 22*. In 2016, the pattern of those expenditures underwent a number of changes: the National Guard troops replaced the internal troops; expenditures related to organization of the alternative non-military service disappeared completely; mechanized military columns were deprived of funding after the budget was adjusted in November and stipends to young workers of the military-defense complex were transferred into the “National Defense” section. The highest increase in absolute terms was observed in the “National Defense” section (capital development within the frameworks of the state defense order and classified expenditures) and the “Social Policy” section (benefits to family member of perished military servicemen and persons disabled as a result of war injuries).

¹ Important Economic Indicators of the Russian Federation and Some Foreign States. Moscow, Rosstat, February 21, 2017.

Table 22

Direct and indirect expenditures in other sections of the federal budget in 2016

Name of subsection, special-purpose item or nature of expenditures	2016, million RUB / same in prices of 2015	Change in 2016 compared to 2015, million RUB / increase, %	Share of expenditures, % / change compared to 2015, p.p.	Expenditures, % of GDP / change compared to 2015, p.p. of GDP
1	2	3	4	5
In "Federal Issues" section				
<i>Expenditures of Ministry of Defense</i>	<u>22</u> 21	<u>14</u> 177.89	<u><0.01</u> -	<u><0.01</u> -
In "National Security and Law Enforcement" section				
National Guard troops	<u>116 420</u> 112 363	<u>-8 162</u> -6.77	<u>0.71</u> -0.06	<u>0.14</u> -0.01
Border Guard Service	<u>130 050</u> 125 519	<u>-11 190</u> -8.19	<u>0.79</u> -0.08	<u>0.15</u> -0.01
In "National Economy" section				
"Elimination of Stocks of Chemical Weapons in Russian Federation" Presidential Program	<u>515</u> 497	<u>33</u> 7.12	<u><0.01</u> -	<u><0.01</u> -
Subsidies on Russia-NATO Coordination Center	<u>20</u> 19	<u>-15.5</u> -44.50	<u><0.01</u> -	<u><0.01</u> -
"Industrial Utilization of Weapons and Military Equipment in 2011-2015 and in Period till 2020" Federal Target Program	<u>49</u> 48	<u>-19</u> -28.00	<u><0.01</u> -	<u><0.01</u> -
<i>Capital building within SDO frameworks</i>	<u>29 593</u> 28 562	<u>21 300</u> 293.31	<u>0.18</u> 0.13	<u>0.03</u> 0.03
<i>Contributions to charter capitals of MIC entities and subsidies to them</i>	<u>35 089</u> 33 866	<u>-22 893</u> -40.33	<u>0.21</u> -0.15	<u>0.04</u> -0.03
<i>Classified expenditures</i>	<u>160 674</u> 155 075	<u>27 041</u> 21.12	<u>0.98</u> 0.16	<u>0.19</u> 0.03
In "Housing and Public Utilities" section				
<i>Expenditures of Ministry of Defense</i>	<u>1 338</u> 1 291	<u>-21 188</u> -94.25	<u>0.01</u> -0.14	<u><0.01</u> -0.03
"Elimination of Stocks of Chemical Weapons in Russian Federation" Presidential Program	<u>433</u> 418	<u>358</u> 600.12	<u><0.01</u> -	<u><0.01</u> -
In "Protection of Environment" section				
<i>Expenditures of Ministry of Defense</i>	<u>573</u> 553	<u>342</u> 162.43	<u><0.01</u> -	<u><0.01</u> -
In "Education" section				
<i>Expenditures of Ministry of Defense</i>	<u>75 692</u> 73 055	<u>6 351</u> 9.52	<u>0.46</u> 0.03	<u>0.09</u> 0.01
In "Culture and Cinema" section				
<i>Expenditures of Ministry of Defense</i>	<u>3 059</u> 2 952	<u>-57</u> -1.89	<u>0.02</u> -	<u><0.01</u> -
In "Healthcare" section				
<i>Expenditures of Ministry of Defense</i>	<u>56 310</u> 54 348	<u>-2 059</u> -3.65	<u>0.34</u> -0.02	<u>0.07</u> -
Provision of medicines to Closed Administrative-Territorial Entities (CATE) and Federal Medical and Biological Agency(FMBA)	<u>100</u> 97	<u>11</u> 12.58	<u><0.01</u> -	<u><0.01</u> -
In "Social Policy" section				
<i>Expenditures of Ministry of Defense</i>	<u>466 421</u> 435 501	<u>-7 331</u> -1.66	<u>2.84</u> -	<u>0.54</u> 0.01
<i>Expenditures of National Guard and Border Guard Service</i>	<u>42 405</u> 39 594	<u>1 353</u> 3.54	<u>0.26</u> 0.01	<u>0.05</u> -
Material support of experts of nuclear weapons complex of RF	<u>7 330</u> 6 844	<u>-329</u> -4.58	<u>0.04</u> -	<u>0.01</u> -
<i>Benefits to family members of perished military servicemen and disabled persons as a result of military injury</i>	<u>12 949</u> 12 091	<u>10 134</u> 517.82	<u>0.08</u> 0.07	<u>0.02</u> 0.01

Cont'd

1	2	3	4	5
Lump sum benefits to pregnant wives of servicemen doing compulsory military service and monthly child benefits to servicemen doing compulsory military service	952 889	-117 -11.67	0.01 -	<0.01 -
In "Physical Culture and Sports" section				
<i>Expenditures of Ministry of Defense</i>	5 351 5 164	962 22.90	0.03 0.01	0.01 -
In "Mass Media" Section				
<i>Expenditures of Ministry of Defense</i>	2 318 2 237	-43 -1.89	0.01 -	<0.01 -
In "Inter-Budget Transfers of General Nature to Budgets of Budget System of Russian Federation" section				
Subsidies to CATE budgets	9 952 9 605	-382 -3.83	0.06 -	0.01 -
<i>Resettlement of citizens from CATE</i>	446 430	116 36.97	<0.01 -	<0.01 -
TOTAL ON OTHER SECTIONS	1 158 061 1 117 708	10 423 0.93	7.05 -0.04	1.35 0.02

Source: The Federal Treasury; the Accounts Chamber; own calculations.

As a result, in 2016 total military expenditures of the Russian federal budget (*Table 23*) calculated in accordance with the UN standards for military expenditures increased by 0.6 p.p. of GDP year-on-year to 5.7% of GDP.

Table 23

Consolidated figures of military and related federal budget expenditures in 2016

Name of expenditures	Amount of expenditures, million RUB	Share of expenditures, % / change compared to 2015, p.p.	Expenditures % of GDP / change compared to 2015, p.p. of GDP
Total military expenditures related to present and past military activity	4 934 277	30.04 2.58	5.73 0.58
Total expenditures on sections "National Defense" and "National Security and Law Enforcement"	5 674 476	34.54 1.59	6.59 0.41

Source: own calculations.

As a result of a switchover to advance funding on a quarterly basis of the SDO of the Ministry of Defense in 2016, the peak of expenditures of RUB 1,789bn (47.4%) on the "National Defense" section took place in Q4 (25.0% in Q1). The maximum overspending on the overall federal budget quarterly breakdown compared to allocations set in accordance with the Law on Budget in respect of this section amounted to RUB 39bn in June.

In 2016, military personnel costs of the Ministry of Defense amounted to RUB 473,536bn (0.55% of GDP), that is, a 2.7% increase in real terms compared to RUB 429,836bn a year before. Expenditures on wages and salaries of the civilian personnel of the Ministry of Defense fell by RUB 4,733bn to RUB 198,989bn (0.23% of GDP).

In 2016, the Ministry of Defense spent on pensions RUB 327.64bn (0.38% of GDP), which corresponds to the level of the previous year in real terms.

The main indicators of federal budget expenditures on manning and equipping of the armed forces in 2011-2016 are shown in *Table 24*. Expenditures on pensions of the Ministry of Defense are considered here together with expenditures on military and civilian personnel as a result of expenditures on manning of the armed forces in the previous period.

Table 24

Federal budget expenditures on manning and equipping of the armed forces in 2011–2016

Type of expenditures	2011	2012	2013	2014	2015	2016
In nominal terms, billion RUB						
Payments to military servicemen	262.0	352.7	379.4	400.7	429.8	473.5
Payments to civilian personnel	n.a.	189.2	213.2	211.3	203.7	199.0
Pensions of Ministry of Defense	136.4	252.6	262.6	287.4	305.3	327.1
% of GDP						
On payments to military servicemen	0.44	0.53	0.53	0.51	0.53	0.55
On payments to civilian personnel	n.a.	0.28	0.30	0.27	0.25	0.23
On pensions of Ministry of Defense	0.23	0.38	0.37	0.37	0.38	0.38
Share of expenditures on "National Defense" section, %						
On payments to military servicemen	17.3	19.5	18.0	16.2	13.5	12.5
On payments to civilian personnel	n.a.	10.4	10.1	8.5	6.4	5.3
Pensions of Ministry of Defense	9.0	13.9	12.5	11.6	9.6	8.7
Year-on-year growth in nominal terms, %						
On payments to military servicemen	–	34.6	7.6	5.6	7.3	7.5
On payments to civilian personnel	–	n.a.	12.7	–0.9	–3.6	–2.3
Pensions of Ministry of Defense	–	85.3	3.9	9.5	6.2	7.1

Source: The Federal Treasury; draft law No. 2428-7; the Accounts Chamber; own calculations.

The data in *Table 24* permit us to conclude that after increasing money allowances and military pensions of the Ministry of Defense in 2012 the government managed to retain federal budget expenditures on manning and equipping of the armed forces on the acceptable level by reducing costs on payments to the civilian personnel and freezing an increase in military personnel's money allowances which real purchasing power would fall by one-third by the end of 2017 compared to 2012; such a situation undoubtedly makes worse the material standing of the entire personnel of the armed forces and leads to social tensions, Higher expenditures on military personnel are related at present mainly to growth in the number of soldiers and sergeants doing contract military service, but after 2017 this factor ceases to have effect as the target size of that category of servicemen has been achieved.

In 2016, expenditures of the Ministry of Defense on fuel and lubricants amounted to RUB 81,573bn, an increase of RUB 12,813bn compared to the previous year (18.6% and 14.5% in nominal terms and real terms, respectively), of which over RUB 5bn was spent on supply of jet fuel to Russian Aerospace Forces in Syria. Expenditures on subsistence support rose by RUB 12,404bn (18.8% in real terms) to RUB 66,132bn, while those on material support increased less dramatically by RUB 2,339bn (4.9% in real terms) to RUB 29,277bn. Generally, in 2016 the expenditures of the Ministry of Defense on provision of material needs of the armed forces amounted to RUB 176,982bn (0.21% of GDP), while those on other purchases of goods and services, to RUB 162,705bn (0.19% of GDP).

In 2016, the total capital investments of the Ministry of Defense fell by 30% to RUB 158,690bn (0.18% of GDP); it is to be noted that that a portion thereof which was spent at the expense of the "Housing and Public Utilities" section decreased by 94% to RUB 1,338bn. Federal budget expenditures on the savings and mortgage system of provision of military servicemen of the Ministry of Defense with housing remained virtually at the previous year level, that is, RUB 84.62bn (–0.5% in real terms).

Generally, in 2016 the public portion of expenditures of the Ministry of Defense increased in by 2% in nominal terms to RUB 1,703,353 trillion (1.98% of GDP).

Expenditures of subsection 0208 "Applied Research in National Defense" retained the first place as regards growth rates in section 0200 "National Defense" having increased by 42.8%

in real terms to RUB 471,276bn (0.55% of GDP) and thereby became virtually equal to military personnel costs of the Ministry of Defense.

Dynamics of administration on a quarterly basis of expenditures on the largest subsections of section 0200 “National Defense” of the federal budget in 2014–2016 are shown in Fig. 29–31.

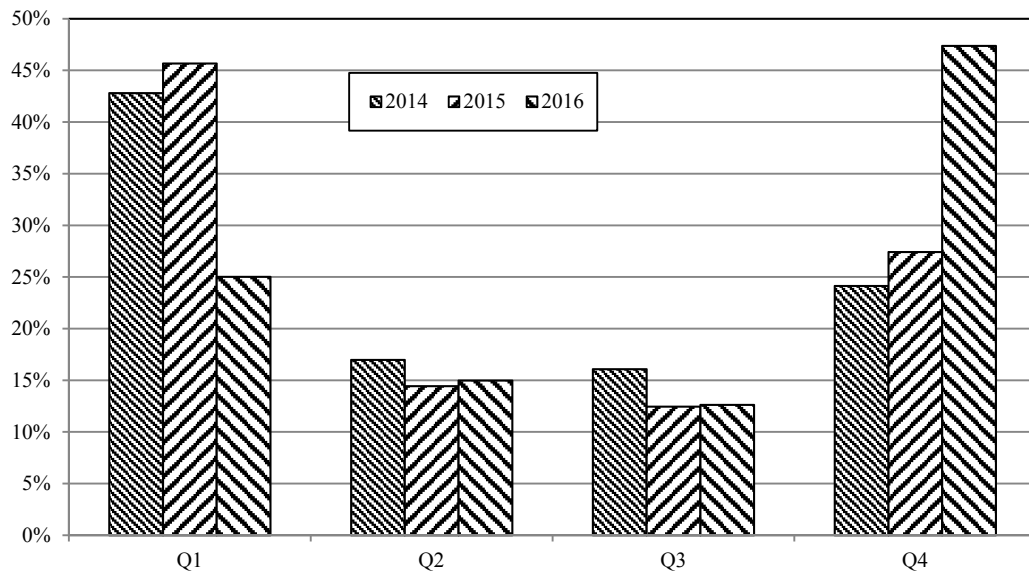


Fig. 29. Administration of expenditures of the federal budget on the subsection “Armed Forces of the Russian Federation” in 2014–2016

Source: The Accounts Chamber, own calculations

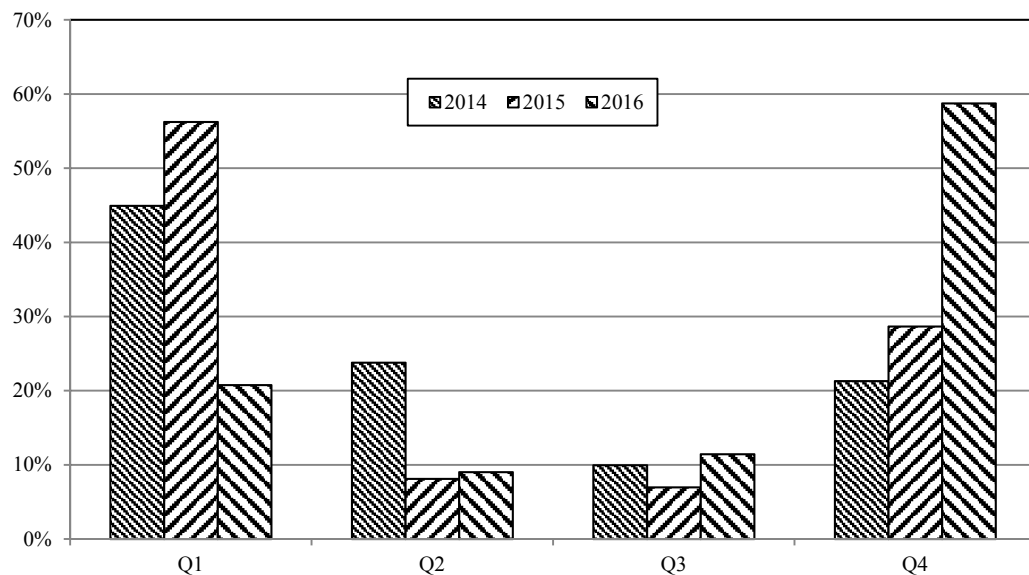


Fig. 30. Administration of expenditures of the federal budget on the subsection “Applied Research in National Defense” in 2014–2016

Source: The Accounts Chamber, own calculations.

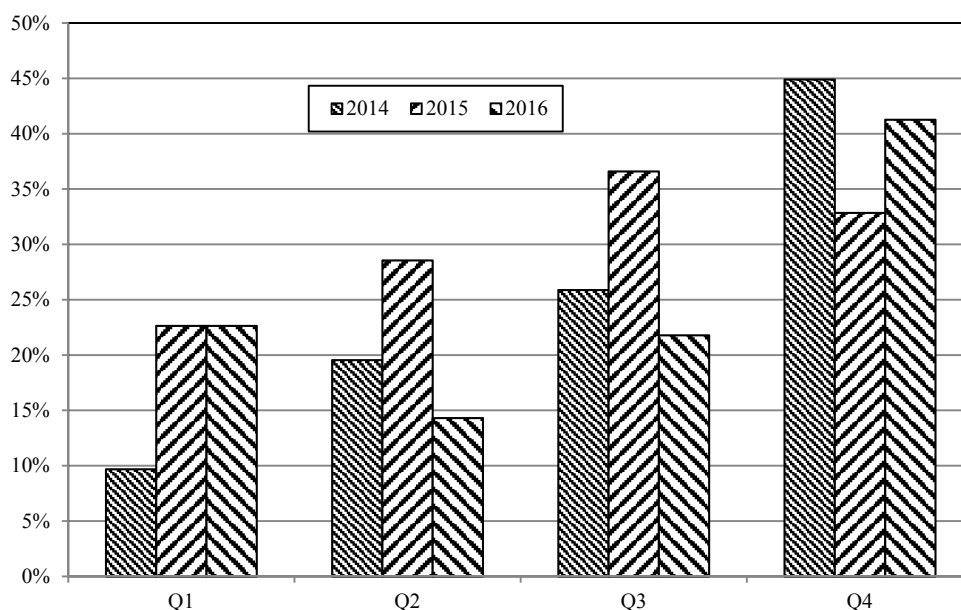


Fig. 31. Administration of expenditures of the federal budget on the subsection “Other National Defense Issues” in 2014–2016

Source: The Accounts Chamber, own calculations.

Military expenditures of governments of subjects of the Russian Federation are shown in *Table 25*. The value of those expenditures amounts to 0.005% of GDP or less than 50% of mobilization expenses of the federal budget.

Table 25

Military expenditures of consolidated budgets of subjects of the Russian Federation in 2008–2016, million RUB

Subsection of expenditure classification	2008	2009	2010	2011	2012	2013	2014	2015	2016
Armed Forces of Russian Federation	0,3	–	–	–	–	–	–	–	–
Modernization of armed forces of Russian Federation and military formations	0,5	–	–	–	–	–	–	–	–
Mobilization and pre-prescription and reserve military training	1 702,2	2 021,6	1 958,4	2 187,3	2 316,4	2 444,7	2 518,9	2 494,7	2 521,4
Mobilization preparation of economy	1 063,9	989,7	1 247,8	1 266,3	1 689,1	1 935,1	1 580,9	1 332,6	2 192,6
Other national defense issues	0,5	4,4	<0,1	2,7	3,0	2,9	3,0	16,9	6,0
Internal troops	0,3	–	–	–	–	–	–	–	–
TOTAL	2 767,7	3 015,7	3 206,2	3 456,3	4 008,5	4 382,7	4 102,8	3 884,1	4 720,0
Net military expenditures *	2 767,7	3 015,7	3 206,2	1 216,4	1 671,5	1 921,3	1 592,2	1 326,0	2 216,3

* The difference between the executed expenditures of the consolidated budget and the federal budget.

Source: The Federal Treasury; own calculations.

In 2016, issuing of state guarantees to MIC entities renewed in full volume after it was reduced a year before to fulfill the SDO which outputs in terms of lending banks are shown in *Table 26*. Certainly, the loans received on fulfilment of the SDO should be added to Russian military expenditures of corresponding years with the amount spent in the budget on repayment thereof and being virtually an inter-bank transfer deducted from the 2016 expenditures. Unfortunately, such netting is infeasible at present because the data of the State Duma's Committee on Budgets and Taxes on proposed allocations for those purposes (RUB 795bn)¹ differ considerably from those of the Accounts Chamber on actual expenditures (RUB 973bn)², so this situation needs to be elaborated on further.

Table 26

**Distribution of state guarantees for fulfillment of the SDO in 2011–2016
by lending banks, billion RUB**

Bank	2011	2012	2013	2014	2015	2016	2011–2016	Share, %
Sberbank of Russia, Moscow	46.9	92.9	152.9	249.2	10.7	127.2	679.9	46.9
BankVTB, St. Petersburg	101.5	87.9	167.4	183.9	–	70.0	610.7	42.1
Gasprombank, Moscow	8.7	7.6	20.6	21.6	1.4	3.4	63.3	4.4
Vneshekonombank, Moscow	0.7	0.8	21.4	41.4	2.8	–	67.1	4.6
AB Rossia, St. Petersburg	–	–	–	6.6	2.9	7.6	17.1	1.2
Promsvyazbank, Moscow	–	–	–	6.9	1.4	–	8.3	0.6
NOVIKOMBANK, Moscow	–	–	–	1.7	0.5	0.5	2.8	0.2
Allocated by government, total	157.9	189.3	362.3	511.2	19.6	208.8	1 449.0	100.0
Permitted by Law on Budget	169.0	199.8	399.5	496.9	26.0	209.0	1 500.2	–
Non utilized	11.1	10.6	37.2	–14.2	6.4	0.2	51.2	–

Source: laws on the federal budget, government's instructions; own calculations.

The Russian military expenditures in 2006–2016 with net military expenditures of consolidated budgets of subjects of the Russian Federation (*Table 27*) accounted for in the aggregate ones are shown in *Table 25*.

Таблица 27

The main indices of military expenditures of the Russian Federation in 2006–2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	2	3	4	5	6	7	8	9	10	11	12
1. In nominal terms (in current prices), billion RUB											
Federal budget allocations on "National Defense" section: in current budget classification	686.1	839.1	1 031.6	1 192.9	1 278.0	1 537.4	1 846.3	2 111.7	2 470.6	3 163.8	3 895.4
Administration of federal budget expenditures on "National Defense" section in current budget classification ^a	681.8	831.9	1 040.8	1 188.2	1 276.5	1 516.0	1 812.3	2 103.6	2 479.1	3 181.4	3 776.2
Military expenditures of Russian Federation in accordance with data submitted to UN ^b	815.9	942.0	1 118.0	1 166.1	1 162.5	1 423.3	1 689.3	1 660.1	1 962.1	2 903.3	–
Total military expenditures related to present and past military activities ^c	947.8	1 133.5	1 448.8	1 748.7	1 880.3	2 143.9	2 654.2	2 993.5	3 457.9	4 290.0	4 936.5

¹ Verbatim records of the State Duma's meeting on November 2, 2016. URL: <http://transcript.duma.gov.ru/node/4534/> (accessed date: December 02, 2016).

² Executive summary on progress in administration of the federal budget in January-December 2016. Moscow Accounts Chamber of the Russian Federation, February 9, 2017. p 237.

Cont'd

1	2	3	4	5	6	7	8	9	10	11	12
2. In real terms (in prices of 2016)^d, billion RUB											
Federal budget allocations on "National Defense" section: in current budget classification	1 694.8	1 821.1	1 898.0	2 151.9	2 019.0	2 095.4	2 323.5	2 536.5	2 768.4	3 278.0	3 895.4
Administration of federal budget expenditures on "National Defense" section in current budget classification	1 684.0	1 805.5	1 915.0	2 143.4	2 016.7	2 066.1	2 280.8	2 526.8	2 777.9	3 296.2	3 776.2
Military expenditures of Russian Federation in accordance with data submitted to UN	2 015.3	2 044.6	2 057.0	2 103.6	1 836.6	1 939.9	2 125.9	1 994.1	2 198.7	3 008.2	–
Total military expenditures related to present and past military activities	2 341.1	2 460.1	2 665.6	3 154.5	2 970.6	2 922.0	3 340.3	3 595.7	3 874.8	4 444.9	4 936.5
3. In real terms (in prices of 2006)^e, billion RUB											
Federal budget allocations on "National Defense" section: in current budget classification	686.1	737.3	768.4	871.4	817.4	848.4	940.7	1 027.0	1 120.8	1 327.2	1 577.1
Administration of federal budget expenditures on "National Defense" section in current budget classification	681.8	731.0	775.3	867.8	816.5	836.5	923.4	1 023.0	1 124.7	1 334.5	1 528.9
Military expenditures of Russian Federation in accordance with data submitted to UN	815.9	827.8	832.8	851.7	743.6	785.4	860.7	807.3	890.2	1 217.9	–
Total military expenditures related to present and past military activities	947.8	996.0	1 079.2	1 277.1	1 202.7	1 183.0	1 352.4	1 455.8	1 568.8	1 799.6	1 998.6
4. Military burden of economy^f, % of GDP											
Federal budget allocations on "National Defense" section: in current budget classification	2.55	2.52	2.50	3.07	2.76	2.58	2.76	2.97	3.12	3.80	4.53
Administration of federal budget expenditures on "National Defense" section in current budget classification	2.53	2.50	2.52	3.06	2.76	2.54	2.71	2.96	3.13	3.82	4.39
Military expenditures of Russian Federation in accordance with data submitted to UN	3.03	2.83	2.71	3.00	2.51	2.38	2.52	2.34	2.48	3.49	–
Total military expenditures related to present and past military activities	3.52	3.41	3.51	4.51	4.06	3.59	3.97	4.22	4.37	5.15	5.74
5. Based on purchasing power parity (in current prices), billion USD											
Federal budget allocations on "National Defense" section: in current budget classification	54.4	60.0	71.9	85.0	80.7	88.6	102.3	114.6	116.1	96.0	108.4
Administration of federal budget expenditures on "National Defense" section in current budget classification	54.1	59.5	72.6	84.7	80.6	87.4	100.5	114.1	116.5	96.5	105.0
Military expenditures of Russian Federation in accordance with data submitted to UN	64.7	67.4	78.0	83.1	73.4	82.0	93.6	90.1	92.2	88.1	–
Total military expenditures related to present and past military activities	75.2	81.1	101.0	124.6	118.8	123.6	147.1	162.4	162.5	130.1	137.3
6. Based on average annual exchange rate (in current prices), billion USD											
Federal budget allocations on "National Defense" section: in current budget classification	25.2	32.8	41.5	37.6	42.1	52.3	59.9	66.3	64.4	51.6	58.0
Administration of federal budget expenditures on "National Defense" section in current budget classification	25.1	32.5	41.9	37.4	42.0	51.6	58.8	66.1	64.6	51.9	56.2

Cont'd

1	2	3	4	5	6	7	8	9	10	11	12
Military expenditures of Russian Federation in accordance with data submitted to UN	30.0	36.8	45.0	36.7	38.3	48.4	54.8	52.1	51.1	47.4	–
Total military expenditures related to present and past military activities	34.9	44.3	58.3	55.1	61.9	73.0	86.1	94.0	90.1	70.0	73.5
For reference only											
Deflator of gross domestic product, % year on year	115.2	113.8	118.0	102.0	114.2	115.9	108.3	104.8	107.2	108.2	103.6
Purchasing-power parity ^g , RUB/USD	12.61	13.98	14.34	14.03	15.83	17.35	18.04	18.43	21.28	32.97	35.95
USD/RUB exchange rate (annual average) ^h	27.19	25.88	24.85	31.74	30.37	29.38	30.84	31.84	38.38	61.29	67.19

^a – In respect of 2016, the data of the Operation Report of the Accounts Chamber on Administration of the Federal Budget in January-December 2016 were used.

^b – In respect of 2016, the data, including that on expenditures on the internal troops of the Ministry of Internal Affairs and the border gourd troops will be submitted by the Government of the Russian Federation to the UN in 2017.

^c – including pensions of military servicemen and expenditures on elimination of stocks of chemical weapons and recycling of weapons and military equipment.

^{d, e} – Deflated by GDP deflator.

^f – Italics is used in respect of GDP values which do not take into account the latest changes in the Rosstat's methods.

^g – In respect of 2015 and 2016 – own calculations.

Source: Federal Laws on Federal Budgets in 2006–2016 and Administration of Federal Budgets in 2006–2015; objective information on military issues, including transparency of military expenditures. The UN Secretary-General's Reports in 2006–2015; the Accounts Chamber; the Rosstat; the Federal Treasury.

RUSSIAN ECONOMY IN 2016
Trends and Outlooks
(Issue 38)

Editors: Glavatskaya N., Mezentseva K., Shanskaya A.

Proofreader: Andrianova N.

Computer design: Yudichev V.

Information support: Avralov V., Pashlova O., Filina O.

3-5, Gazetny per., Moscow, 125993 Russia

Тел. (495) 629-6736, fax (495) 691-3594

E-mail: info@iep.ru

www.iep.ru

Signed to print 22.05.2017

ISBN 978-5-93255-502-6



9 785932 555026