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

	Tunagen	Line Enterency Estimates		10		
	Economic s	ocieties with federal stakes, units	Other holders of ownership rights to registered federal property entities, units			
Date	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 °		1,683/1,620 ^d	1,236	48	16,726	
as of July 1, 2016	1,571	82	1,378	47	16,990	

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

^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;

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^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

		Econo	mic societies	s (JSCs and	LLCs) wh	ere RF is s	shareholde	r (or parti	cipant)	
Data	total	shawa	of these, with RF stake in charter capital amounting to							
Date	total,		100	%	50-1	00%	25-5	25–50% less than 25%		
	units	/0	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, 2016e	1,557	100.0	81	6 ^e	52	.4 ^e	174	11.2	567 ^f	36.4 ^f
as of July 1, 2016e	1,571	100.0	71	1 ^e	45	.3°	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;

 $^{\rm f}$ – 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.

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.

^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;

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

in exercising its shareholder rights as of August 1, as of August 1, as of August 1, as of August 1, as of July 7, 2014 201 2013 2015 2016 Why shareholder % of all rights are restricted units units units units units **JSCs** JSCs JSCs JSCs **JSCs** Total number of 47.9 42.3 45.3 47.4 1,258 988 949 884 858 53.85 JSCs, of these - state stake is less 465/134 19.95 434 165 436/78^b 20.8 373/75^b 20.0 349/61^b 21.9 than 2%^a - shareholder rights transferred to other 387 14 75 316 13.55 302 144 291 15.6 297 18.65 subjects - proceeding in 156 5.95 145 146 7.0 150 9.4 6.2 151 8.1 bankruptcy - liquidation 55 2.1 59 2.5 57 2.7 60^d 3.2 48^d 3.0 procedure - no stakes owned by 226 8.6 3 0.1 8 0.4 9 0.5 14 0.9

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

^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;

RF

 $^{\circ}$ – 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

	Economic societies (JSCs and LLCs) where RF is shareholder (or participant)									
Date	total.	share, %		of thes	se, with RF	stake in cl	narter cap	ital amount	ing to	
2	units		10)0%	50-10	0%	25-	-50%	2-2	25%
			units	%	units	%	units	%	units	%
as of August 1, 2012		r			1				1	1
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 Rosimushchestvo 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		T	r	n	r		r	n		1
- 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);

*** 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, that 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

^{**} the denominator is the total number of JSCs, as entered in the Federal Property Register;

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	State institutions	Economic societies where shares (or stakes) amounting to more than 50% of charter capital are owned by		
		enterprises		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 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 \notin 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 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, comleted in late 2016, the total yield of the first 3-year privatization program would have been unquestinably 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-sheer 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 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 valuated, 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 (precrisis) 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

Dented	Number of privatized enterprises (entities) formerly in federal ownership (data released by <i>Rosimushchestvo</i>)								
reriod	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	476	2655	40						
2013	26	1485	22						
2011–2013	216	730 ⁵	65						
2014	33	1075	12						
2015	357	1035	38						
2016	60 ⁷	1795	282						
2014–2016	1257	3895	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 19, 2015; 2015 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 19, 2015; 2015 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 vale 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 isn 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 *Rosneftegaz*, 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 enterprises 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. his 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 defines 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 jointstock 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 co	ntrol
bodies of JSCs entered on the Special List, in 2009–2016	

			State	representative	s in boar	ds of directors (s	upervisory b	ooards)		In audit
Year	JSC,	tota	al	Civil servan	ts	Professional	attorneys	Indeper direct	ndent tors	commissions: independent
	units	number	%	number	%	number	%	number	%	experts, 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 *Rosneftegaz* (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

Voor	ISCs units	State representa	In audit commissions:					
i cai	JSCS, units	total		Professional	Professional attorneys		lirectors	independent
		number	%	number	%	number	%	experts, 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 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

		(,	,		
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>Vietsovpetro</i>
2000	23,244.5	5,676.5	-	5,880.7	-	11,687.3ª
2001	29,241.9	6,478.0	3,916.7 ^b	5,015.7°	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	10,2	276.8 ^e	2,387.6	16,200.9
2004	50,249.9	17,228.2	908.1 ^f	12,374.5 ^g	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 ¹	5,002.0	-
2013	153,826.25	134,832.0	7,739.7 ^k	4,042.7 ¹ +1,015.75 ^m	6,196.1	-
2014	241,170.6	220,204.8	7,838.7 ^k	3,961.6 ¹ +1,348.5 ^m	7,817.0	-
2015	285,371.1	259,772.0	9,032.3 ^k	5,593.8 ¹ +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 ¹ +3,026.1 ^m	9,471.9	-

Federal budget revenues generated by the use of public property (renewable sources) in 2000–2016, RUB m

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 Vietsovpetro (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 budgetfunded 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 advertizing 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);

¹ – 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 $2003-2007 - also land plots^1$) have been treated as a source of funding to cover budget deficit.

Table 11

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°	1,967.0 ^f	226.0 ^g
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 ¹	980.9 ^m
2006	24,726.4	17,567.9	5,874.2 ¹	1,284.3 ⁿ
2007	25,429.4	19,274.3	959.6°	5,195.5 ^p
2008	12,395.0	6,665.2+29.6	1,202.0 ^q	4,498.2+0.025 (ITA) ^r
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) ^r
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) ^r
2013	55,288.6	41,633.3	1,212.75 ^q	12,442.2+0.310 (ITA) ^r
2014	41,155.35	29,724.0	1,912.6 ^q	9,517.7+1.048 (ITA) ^r
2015	18,604.1	6,304.0	1,634.55 ^q	10,665.5+0.062 (ITA) ^r
2016	416,470.5	406,795.2	2,112.7 ^q	7,562.6+0.012 (ITA) ^r

Federal budget revenues generated by privatization and sale of property (non-renewable sources) in 2000–2016, RUB m

^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, 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; ¹–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 budget, (3) sale of other land plots, which prior to the delineation of titles to land plots 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 paymenrs 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

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**

The structure of property-generated federal budget revenues from miscellaneous sources, 2000–2016

* 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 proceeded 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 – RANEPA, N. Polezhaeva – RANEPA, A. Radygin – Gaidar Institute, RANEPA.

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 transactionswww.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

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

Russia's M&A market to GDP ratio, 2007–2015

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 subdue. 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 2015¹, 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.





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 postcrisis 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, Commersant.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" // PΓ, 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-tsentrobuv-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'a 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/reyderstvo.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://traccc.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.rospres.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 aillustrates 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 socalled '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 raged, 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. Postprivatization 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/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 for the acquisition of the share offer to the other shareholders for the acquisition of the share offer to the other shareholders for the acquisition of 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' 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 stateowned 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-forprofit 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 publiclytraded 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 though 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 nonpublic 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 though transactions other than purchase/sale agreement, the sold shares will be transferred 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 publiclytraded 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 jointstock 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 jointstock 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 not 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 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 jointstock 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 3bm 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 – RANEPA.

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 hitech 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, 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 selfregulatory 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 sphere ⁶ 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

⁵ The securities market and commodity market. See http://www.cbr.ru/finmarkets/?PrtId=sv secur.

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.

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 financials 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 of certain provisions of 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; '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 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 according 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., Chaikeaw, 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 asistance? *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 asistance? *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.



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: 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 then 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, Salter²* 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, Albu² 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, Landry³ (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, Varblane⁴ 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, Tajar⁵ 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 scienceindustry 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				
			no, %	chi- square	yes, %	no, %	chi- square	yes, %	no, %	chi- square			
1		2	3	4	5	6	7	8	9	10			
	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			
Improved	volume of exports	13.1	8.0	2.583	12.8	8.2	2.057	13.9	9.2	0.808			
performance indices due to innovations	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	none or negligible	18.9	28.9		18.0	29.1		16.7	26.5	2.598
input in	moderate	65.4	57.0		66.4	56.7		72.2	58.5	
companies' competitive capacity	strong – innovations almost entirely account for competitive capacity	15.7	14.1	4.472	15.6	14.2	5.409*	11.1	15.0	
degree of	no innovative products	17.1	27.0		17.7	26.5		19.4	24.2	
novelty of	product is new for enterprise	44.2	57.8	57.8		57.8		44.4	54.2	
innovative	product is new for Russia	34.1	14.8	30 647***	33.9	15.3	20 260***	27.8	20.5	11 225**
(new and upgraded) products	product is new on global scale	4.7	0.4	50.077	4.8	0.4	27.200	8.3	1.1	11.225

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 innovationoriented 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., Chaikeaw, 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 asistance? *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 Zasimova 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.





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*).





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 behaviouraladditionality. 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.

<u>Special procedure for exempting from profits tax certain types of R&D costs.</u>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 to government 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.

<u>Technological platforms.</u> 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 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.

<u>Programs of innovative development of biggest companies with state participation</u>. 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.

<u>Subsidies to the projects involving the creation and development of engineering centers on</u> <u>the basis of higher educational establishments</u>.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 organizations (*Fig. 20*).





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	2000	2010	2011	2012	2012	2014	2015
Higher education sector's internal R&D costs covered by business sector	2003	2000	2007	2008	2009	2010	2011	2012	2015	2014	2013
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 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 scienceindustry 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., Maffiolly 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 welldeveloped 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 scienceindustry 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*).



Relative share of private funding sources in internal R&D costs: 2015* - left-hand side scale

Knowledge economy index: 2012* - right-hand side scale



* Or the nearest period for which comparable data are available. *Sourceu:* 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.

<u>Firstly</u>, 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 projectimplementing 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. Bigsized 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 vet 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.

<u>Thirdly</u>, 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*.

<u>Fourthly</u>, 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 In 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	 '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 	 '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	 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, undergraduate and postgraduate students, creation of a significant number of new jobs, sufficiently high scale of publishing activity 	 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	 Orientation to commercialization of R&D products High demand by higher educational establishments 	 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

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1	2	3	4
Technological platforms	35 technological platforms, participated by more than 3,500 enterprises and organizations	 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 	 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	 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 	 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	 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 	 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

Section 6 Institutional Changes

Cont'd

1234Subsidizing of projects involving the creation and development of engineering centers based at higher educational establishments30 engineering centers are operating, another 11 are being set up; the annual volume of federal budget funding is RUB 0.5-1bn• 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• Engineering centers may only be based at higher educational establishments subordinated to the RF Ministry of Education and 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	1	2	2	4
projectsoperating, another 11 are being set up; the annual volume of federal budget funding is RUB 0.5-1bnare currentry inadequately satisfied by Russian organizationsbased at ingner educational establishments of the state-of-the-art competence of higher educational establishments, involvement of their R&D products in economic activitiesbased at ingner educational establishments subordinated to the RF Ministry of Education and Science and the RF Ministry of Industry and Commercebased at ingner educational establishments of the state-of-the-art competence of higher educational establishments, involvement of their R&D products in economic activitiesbased at ingner educational establishments subordinated to the RF Ministry of Education and Science and the RF Ministry of Industry and Commercebased at ingner educational establishments of the ministry of Industry and CommerceProve the provide stablishment is involvement of federal ministries are set by the RF Ministry of Industry and CommerceDased at ingner educational establishments of the RF Ministry of Education and Science and the RF Ministry of Industry and CommerceDased at ingner educational establishments of the RF Ministry of Education and Science and the RF Ministry of Industry and Commerce	1 Subsidizing of	2 30 engineering centers are	• Orientation to the needs of business that	Engineering centers may only be
• Low activity diversification at some centers, some of them being simply an	projects involving the creation and development of engineering centers based at higher educational establishments	operating, another 11 are being set up; the annual volume of federal budget funding is RUB 0.5-1bn	 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 	 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

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%20 развития.pdf ⁵ Strategy for Scientific and Technological Development of the Russian Federation. Section 23. http://sntrrf.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 ideology¹¹. 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, RANEPA, 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-rnf-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 startup 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 I	17
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0		0				
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

Changes in the distribution of budget allocations to applied scientific research

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 quire 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 corpse;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 CSRP) 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. Polyanin. *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://chrdk.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_zavyshenii_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/OnTUmegFLNj5Uqtac57y1 WG1EtMG9ABe.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 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. Thus 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 Presiden'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 Wounters, 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 coauthored 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

2

1

1

2

national publications by each country								
Partner country								
	USA	China	Germany	UK	France	Italy	Japan	Canada
		-	-		-	-	-	-

Co-authored publications in 2011–2015, as % of the total number of
national publications by each country

Source: Mapping Researcher Mobility. Measuring research collaborations among APEC economies. Australian Government, Department of Education and Training, APEC. May 2016.

2

4

4

3

1

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.

USA

Japan China

Russia

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.





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-chto-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-chto-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 studies 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 approacha.

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 decadelong 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 if 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 nit 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 disproportionally 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, RANEPA.

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 provids 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 thata 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-zdravoohraneniya-rossii-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.

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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 interregional 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). IA 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 *Armkhi* 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 *Armkhi* 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 it 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 Checnya 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 – RANEPA (chapters 6.8.1 – 6.8.3); V. Tsymbal – RANEPA (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 guite 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 Military 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 and under 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 Moskvy 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.

⁶Federal 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

Code and name of section (subsection)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
with classified expenditures	2007	2000	2005	2010	2011	2012	2010	2014	2015	2010
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	02.5	02.0	02.0	01.7	02.4	02.0	04.2	02.1	01.7	06.2
defense	93.5	95.0	92.9	91.7	92.4	92.9	94.5	92.1	91.7	90.5
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	21.1	21.2	21.0	21.5	21.6	24.0	26.6	27.1	28.4	20.1
LAW ENFORECEMENT	31.1	51.5	51.0	51.5	51.0	24.0	20.0	27.1	20.4	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										
environmental and technical nature, civil	50.6	50.3	50.0	48.6	44.5	41.6	38.5	39.1	39.7	45.7
defense										
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	40.5	40.2	(0.(40.0	10.4	10.1	11.0	44.0	(0.7	50.7
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
0408Transport	-	_	_	-	_	_	0.1	_	0.2	-
0410Communications and information						<0.1	1.0	2.0	0.5	<0.1
service	-	_	-	_	_	\0.1	1.0	2.0	0.5	\0.1
0411 Applied research in national	5.2	6.0	4.5	5.4	11.0	15.3	183	23.8	26.7	14.2
economy	5.4	0.0	4.5	5.4	11.9	13.3	10.3	23.0	20.7	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	0.8	67	95	15.0	13.8	67	9.1	97	43	5.9
UTILITIES	0.0	0.7	1.5	10.0	15.0	0.7	7.1	2.1	1.5	5.7

The share of classified federal budget expenditures in 2007–2016, %

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	10.0	1.6	2.6	11.0	10.1	11.0	4.5	2.0	2.0	2.4
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	2.5	2.2	2.4	2.6	5.0	4.1	4.0	C 1	2.0	2.6
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 CUTURE, CINEMA AND MASS	0.2	0.2	0.2	0.2						
MEDIA	0.5	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	I	I	I	-	-	-
0806 Other issues of culture, cinema										
and mass media	-	_	_	-	-	-	-	_	-	_
0900 HEALTHCARE, PHYSICAL	37	31	20	28	_	_	_	_	_	_
CULTURE AND SPORTS	J./	5.4	2.9	2.0	_	_	_	_	_	_
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	_	14.5	14 7	11.0	10.0	10.6	123	14.6	153	16.1
recreation		14.5	14.7	11.0	10.0	10.0	12.5	14.0	15.5	10.1
0907 Sanatorium care and	_	0.7	0.2	0.5	0.6	07	07	0.6	0.7	0.7
epidemiological security		0.7	0.2	0.5	0.0	0.7	0.7	0.0	0.7	0.7
0908 Physical culture and sports	0.3	0.5	0.6	0.8	-	-	-	-	-	-
0910 Other issues of healthcare,	_	1.7	1.2	0.9	_	_	_	_	_	_
physical culture and sports										
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	_	_	_	_	0.2	0.3	0.3	0.3	0.2	0.5
SPORTS					(2.0	4.0	()	7.0	2.0	2.6
1101 Physical culture	-	-	-	-	62.0	4.9	6.9	/.0	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-										
DUDGET IKANSFEKS IU DUDGETS OF SUDJECTS OF THE	0.2									
DUDGETS OF SUBJECTS OF THE DUSSIAN FEDERATION AND	0.2	_	_	-	_	_	_	_	_	-
MUNICIDAL ENTITIES										
1401 Subsidies on adjustment of fiscal										
capacities of subjects of the Russian	05	_	_	_	_	_	_	_	_	_
Federation and municipal entities	0.0									

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

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>	463 254	<u>22.99</u>	4.39
	3 644 632	14.56	2.62	0.57
Armed forces of Russian Federation	<u>2 936 475</u>	401 248	17.88	3.41
	2 834 152	16.49	2.30	0.49
Mobilization and pre-conscription and	<u>6 867</u>	<u>332</u>	<u>0.04</u>	0.01
reserve military training	6 627	5.27	-	-
Mobilization preparation of economy	<u>3 586</u>	<u>-559</u>	0.02	<u><0.01</u>
	3 461	-13.91	-	-
Nuclear weapons complex	45 623	<u>-352</u>	0.28	0.05
	44 033	-0.79	-0.01	-
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	471 276	136 333	2.87	0.55
	454 854	42.80	0.83	0.17
Other issues of national defense	302 499	-72 956	1.84	0.35
	291 859	-19.99	-0.49	-0.09

Direct military expenditures of the federal budget on the National Defense" section in 2016

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 <i>nature of</i> <i>expenditures</i>	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		-	-	-
Expenditures of Ministry of Defense	<u>22</u>	<u>14</u>	<u><0.01</u>	<u><0.01</u>
	21	177.89	-	-
In "National Security and Law Enfor	116.420	_8 162	0.71	0.14
National Guard troops	$\frac{110 + 20}{112 363}$	-6.77	-0.06	-0.01
Dandar Cuard Carries	130 050	-11 190	0.79	0.15
Border Guard Service	125 519	-8.19	-0.08	-0.01
In "National Economy" section	T	1	1	1
"Elimination of Stocks of Chemical	515	33	< 0.01	< 0.01
Weapons in Russian Federation"	497	7.12	_	_
Subsidies on Russia NATO	20	15.5	<0.01	<0.01
Coordination Center	$\frac{20}{19}$	-4450	<u><0.01</u> -	<u><0.01</u> _
"Industrial Utilization of Weapons		11.00		
and Military Equipment in 2011–2015	49	<u>-19</u>	<u><0.01</u>	<u><0.01</u>
and in Period till 2020" Federal	48	-28.00	-	-
Target Program				
Capital building within SDO	<u>29 593</u>	<u>21 300</u>	<u>0.18</u>	<u>0.03</u>
frameworks	28 562	293.31	0.13	0.03
Contributions to charter capitals of MIC ontition and subsidion to them	<u>35 089</u> 32 866	$\frac{-22893}{4033}$	$\frac{0.21}{0.15}$	$\frac{0.04}{0.03}$
MIC entities and substates to them	160 674	-40.33	-0.13	-0.03
Classified expenditures	155 075	21.12	$\frac{0.50}{0.16}$	$\frac{0.19}{0.03}$
In "Housing and Public Utilities" sect	ion			
Expanditures of Ministry of Defense	<u>1 338</u>	-21 188	<u>0.01</u>	<u><0.01</u>
Experiation es of Ministry of Defense	1 291	-94.25	-0.14	-0.03
"Elimination of Stocks of Chemical	433	358	< 0.01	< 0.01
Providential Program	418	600.12	-	-
In "Protection of Environment" section	n n			
	573	342	< 0.01	< 0.01
Expenditures of Ministry of Defense	553	162.43		
In "Education" section	•			
Expanditures of Ministry of Defense	<u>75 692</u>	<u>6 351</u>	<u>0.46</u>	<u>0.09</u>
Expenditures of Ministry of Defense	73 055	9.52	0.03	0.01
In "Culture and Cinema" section	2.050		0.02	-0.01
Expenditures of Ministry of Defense	<u>3 059</u> 2 952	<u>-57</u> -1.89	<u>0.02</u>	<u><0.01</u>
In "Healthcare" section	2 7 5 2	1.07		
	56 310	-2 059	0.34	0.07
Expenditures of Ministry of Defense	54 348	-3.65	-0.02	-
Provision of medicines to Closed				
Administrative-Territorial Entities	$\frac{100}{25}$	11	<u><0.01</u>	<u><0.01</u>
(CATE) and Federal Medical and	97	12.58	-	-
Biological Agency(FMBA)				
III "Social Policy" section	466 421	_7 331	2.84	0.54
Expenditures of Ministry of Defense	435 501	-1.66	-	0.01
Expenditures of National Guard and	42 405	<u>1 353</u>	0.26	0.05
Border Guard Service	39 594	3.54	0.01	—
Material support of experts of nuclear	7 330	-329	0.04	0.01
weapons complex of RF	6 844	-4.58	-	-
Benefits to family members of	12.040	10 124	0.00	0.02
disabled persons as a result of	$\frac{12.949}{12.091}$	<u>10 134</u> 517 82	0.08	$\frac{0.02}{0.01}$
military injury	12 071	517.02	0.07	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	<u>952</u> 889	<u>-117</u> -11.67	<u>0.01</u> _	<u><0.01</u> _
In "Physical Culture and Sports" sect	ion			
Expenditures of Ministry of Defense	<u>5 351</u> 5 164	<u>962</u> 22.90	$\frac{0.03}{0.01}$	<u>0.01</u> _
In "Mass Media" Section				
Expenditures of Ministry of Defense	$\frac{2\ 318}{2\ 237}$	$\frac{-43}{-1.89}$	<u>0.01</u> _	<u><0.01</u> _
In "Inter-Budget Transfers of Genera	l Nature to Budgets of l	Budget System of Russia	an Federation" section	
Subsidies to CATE budgets	<u>9 952</u> 9 605	$\frac{-382}{-3.83}$	<u>0.06</u> -	<u>0.01</u> _
Resettlement of citizens from CATE	$\frac{446}{430}$	<u>116</u> 36.97	<u><0.01</u> _	<u><0.01</u> _
TOTAL ON OTHER SECTIONS	<u>1 158 061</u> 1 117 708	$\frac{10\ 423}{0.93}$	$\frac{7.05}{-0.04}$	$\frac{1.35}{0.02}$

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	4 934 277	30.04	<u>5.73</u>
military activity		2.58	0.58
Total expenditures on sections "National Defense" and	5 674 476	34.54	<u>6.59</u>
"National Security and Law Enforcement"		1.59	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

	101 ccs in 2011 2010												
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													
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 De	fense" 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							
Ye	ear-on-year grov	vth in nominal	l 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							

Federal budget expenditures on manning and equipping of the armed forces in 2011–2016

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

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-conscription 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

Military expenditures of consolidated budgets of subjects of the Russian Federation in 2008–2016, million RUB

* 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

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	_

Distribution of state guarantees for fulfillment of the SDO in 2011–2016 by lending banks, billion RUB

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

	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	Ι		
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		

The main indices of military expenditures of the Russian Federation in 2006–2016

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.

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										C	lont'd
1	2	3	4	5	6	7	8	9	10	11	12
		2. In rea	l terms (i	n prices o	f 2016) ^d ,	billion R	UB				
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	I
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 rea	al terms (i	in prices o	of 2006)°,	billion R	UB				
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	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. Mil	itary bur	den of eco	onomy ^f , ^o	% of GDI	2				
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 elegeification	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 purch	asing pow	er parity	(in curre	nt prices)), billion l	USD	1	1	
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 a	annual ex	change ra	te (in cu	rrent pric	es), billio	n USD	r	r	
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.

 $^{\rm f}-$ 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.