## **Section 6. Institutional problems**

### 6.1. Public sector and privatisation

The core events which took place last year and which are related to the issues under consideration are the approval of a new three year privatisation programme for 2014–2016, including corporate control of market transactions associated with Rosneft and Gazprom, as well as the restructuring of the space industry, which is similar to that performed in relation to the aerospace and ship building industries.

#### 6.1.1. The scale of the public sector in the Russian economy

In the middle of 2013 the Russian government approved a new privatisation programme. This document, like previous ones, contains data for the beginning of the calendar year on the number of federal state unitary enterprises (FSUEs) and joint stock companies in the capital of which the RF (Russian Federation) has an interest. Unfortunately, there is insufficient information to assess objectively the dynamics of these components of the public sector at the start of 2013.

However it should be noted that, in the period between 1 January 2010 and 1 January 2013, the number of FSUEs decreased by fifty percent in total (from 3,517 to 1,795), the number of joint stock companies the shares of which are in federal ownership, reduced by more than 1/5 (from 2,950 to 2,337). It is also worth mentioning that, as shown in the new privatisation programme, the number of unitary enterprises at the beginning of 2013, is equal to that which prevailed on 1 February and was announced by A. Belousov, the former Minister of Economic Development of the Russian Federation, at the session of the Government of the RF, on 7 February 2013, for the approval of the new programme for federal property management. Meanwhile the number of joint stock companies with state interest is slightly different (2,337 vs. 2,325 as of 1 February 2013). According to the Department of the Federal Property Register of the Federal Property Management Agency, the data on the shares of 2,337 joint stock companies and on interest in 19 limited liability companies were recorded in the register as of 31 December 2012.

The total number of facilities recorded in the federal property register in 2012 increased by 102,336 (1,471,782 facilities as of 1 January 2013 vs. 1,369,446 facilities as of 1 January 2012)<sup>1</sup>, or by 7.5%.

Following the results of monitoring the composition of the public sector conducted by Rosstat (Federal State Statistics Service) the following quantitative dynamics of the business

<sup>&</sup>lt;sup>1</sup> www.rosim.ru, 15.05.2013.

entities comprising this sector was observed between the middle of 2011 and autumn 2013 (*Table 1*).

Table 1
Number of public sector organisations within the of economy, as recorded
by regional directorates of the Federal Property Management Agency and bodies
for the management of public property owned by RF subjects in 2011–2013

		PUE (state unitary			Business enterprises of which 50% of the shares (interest) in the charter capital are					
Date	Т	otal**	inclu	erprises) ding fiscal erprises	Public	institutions	in public ownership		in the ownership of business companies which are parts of the public sector	
	items	% as of 1.07.2011	items	% as of 1.07.2011	items	% as of 1.07.2011	items	% as of 1.07.2011	items	% as of 1.07.2011
As of 1 July 2011*	72,047	100.0	6,245	100.0	59,483	100.0	3,928	100.0	2,391	100.0
As of 1 January 2012*	69,689	96.7	5,805	93.0	57,839	97.2	3,733	95.0	2,312	96.7
As of 1 July 2012*	69,251	96.1	5,282	84.6	58,049	97.6	3,593	91.5	2,327	97.3
As of 1 January 2013	67,003	93.0	4,891	78.3	56,247	94.6	3,501	89.1	2,364	98.9
As of 1 July 2013	66,131	91.8	4,589	73.5	56,100	94.3	3,201	81.5	2,241	93.7
As of 1 October 2013	65,272	90.6	4,502	72.1	55,244	92.9	3,195	81.3	2,331	97.5

<sup>\* –</sup> federal property accounting is provided in accordance with RF Government Regulation No. 447 On Improvement in Federal Property Accounting as of 16 July 2007;

*Source*: About the development of public sector of the economy of the Russian Federation in the first half of 2011 (pp. 7–11), in 2011 (pp. 7–11), in 2012 (pp. 7–11), in the first half of 2013 (pp. 7–11), in January – September 2013 (pp. 7–11). M., Rosstat, 2011–2013.

As shown in *Table 1* the total number of public organisations decreased by 9.4% (by approx. 6,800) in the period between 1 July 2011 and 1 October 2013, therefore totalling about 65,300 by the end of this.

The key factor contributing to these results was a decrease in the number of unitary enterprises by 27.9% (or by almost 1,750). The percentage decrease in entities was not as big (by 7.1%), however the absolute decrease (by more than 4,200) was more significant. By 1 July 2013 the number of business companies, 50% of the shares (interest) in the charter capital of which are in public ownership, had decreased by a far greater proportion (by 18.7%, or by 730 units). As a result, the number of businesses, 50% of the shares (interest) in the charter capital of which are in the ownership of companies which belong to the public sector, decreased by 2.5% (by 60). Therefore, on 1 October 2013 there were more than 2,300 of these business entities, which is almost equal to the number observed in the middle of 2012.

However in the first three quarters of 2013 the total number of public organisations decreased by 2.6% (by more than 1,700).

The number of unitary enterprises decreased the most (by 8% or by approx. 400). Although the number of public institutions decreased by just 1.8%, the absolute decrease was actually larger than that of the unitary enterprises (about 1,000). At the same time, the number of business companies, 50% of the shares (interest) in the charter capital of which are in public ownership reduced by 8.7% (by more than 300). The number of businesses 50% of the shares

<sup>\*\* –</sup> including organisations for which publicly registered constituent documents do not indicate specific types, but 50% of the shares (interest) of which (excluding joint stock companies) are in joint public and foreign ownership.

(interest) in the charter capital of which are in the ownership of companies which are part of the public sector reduced by 1.4% (or 30 items), although in the third quarter of 2013 after decreasing to their lowest level for two years (to 2,240 items) their number increased by 4%, or 90 units), whereas in the first half of 2013 there had been a decrease of more than 120 units.

It should be emphasised that this analysis of the quantitative dynamics of public organisations was based on the number of such organisations at a specific date, which only allows estimation of the most general trends, characterised by a decrease in the public sector entities. The available statistics do not allow for an assessment of the demography of each category of business entity within the public sector – their creation, liquidation, reorganisation into other forms of incorporation, i.e. the analysis which would be possible with a number of observations over a period of time.

Regarding the State presence in the economy as a manufacturer of goods (works, services) the following can be noted. Monitoring conducted by Rosstat partially confirms the widespread idea that the public sector share in different summary indicators of business activities has grown when compared to the pre-crisis period (*Table 2*).

Table 2
Share of the public sector in the economy, based on main indicators of business activity in 2007, 2010, 2012 and 2013, %

Indicator	2007	2010	2012	January- September 2013
Volume of shipped goods of own production, works and services performed with the use of own resources				
- mining	12.8	9.8	16.5	21.2
- fossil fuel production	11.8	9.0	16.6	21.7
- manufacturing	8.4	8.7	9.8	10.9
- production and distribution of power, gas and water	11.4	17.8	25.7	25.1
volume of construction works performed with the use of own resources	4.0	4.1	3.8	3.9
Passenger turnover of transport organisations*	65.9	56.1	64.5	63.0
Volume of commercial transportation (dispatch) of goods performed by transport	72.9	78.4	76.0	75.3
organisations				
(excluding pipeline transportation)				
Commercial freight turnover performed by transport organisations (excluding pipeline transportation)	94.6	93.6	92.9	93.2
Communications services**	9.8	15.2	14.2	14.1
Internal costs of research and development activities	72.4	73.4	75.4	73.9
Volume of paid services rendered to the population	16.4	18.9	18.9	19.4
Investments in fixed assets	19.5/	24.5/	28.8/	27.7/
From all sources of financing***	15.0	17.8	20.9	18.9
Net proceeds from sale of goods, products, works and services (excluding VAT, excise tax and other similar obligatory payments)	10.2	18.9	12.6	12.0
Average number of employees in the public sector	24.9	24.9	25.8	26.8

<sup>\* –</sup> excluding municipal electric passenger transport organisations;

*Source*: On the development of the public sector economy in the Russian Federation in 2007 (pp. 9, 42, 90-91, 92, 103, 134–135, 136, 143–144, 164), in 2010 (pp. 13, 46, 48–49, 50, 53, 61–62, 63, 67–68, 89), in 2012 (pp. 13, 35, 37–38, 39, 42, 50–51, 52, 56–57, 78), in January - September 2013 (pp. 13, 33, 35–36, 37, 40, 42–43, 44, 48–49, 70). M., Rosstat, 2008, 2011–2013.

However, despite some growth, as observed in *Table 2*, in 2012 and following the results of the first three quarters of 2013, as in the 2000s, the public sector share, based on most

<sup>\*\* –</sup> net proceeds from sale of goods, products, works and services (excluding VAT, excise tax and other similar obligatory payments);

<sup>\*\*\* –</sup> the numerator excludes small business subjects and investments which cannot be observed by using direct statistical methods.

indicators, remained small (not more than 20–25%). It was larger in terms of investments (20–30%) and employment (about 25–26%).

Nevertheless, the official statistics show a significant increase in the relative weight of the public sector in 2012–2013, as compared to 2010, in mining (including fuel and energy production), in the production and distribution of electricity, gas and water and in investments into fixed assets.

The largest increase in the share of the public sector was observed in the production and distribution of electricity, gas and water. In 2012, and in January - September 2013, this share exceeded 25% (vs. 18% in 2010). There was a significant increase in the public sector share in the mining industry (including fuel and energy production) reaching 16.5% at the end of 2012, and more than 21% at the end of the first three quarters of 2013, against less than 10% in 2010.

Of special note is transportation. In 2012–2013, as compared to 2010, a decrease in the relative weight of the public sector could be observed in terms of the cargo volume (from more than 78% down to 75–76%), although not in cargo turnover - up from (92% to 93%), while the share of public sector organisations in passenger traffic, compared with that of private transport organisations, grew in comparison to 2010, although following significant growth in 2011 (more than 65%) it then tended to decrease<sup>1</sup>.

If we consider the situation in detail we can see that at the end of 2012, and in the period from January to September 2013, the public sector was dominant in only some types of activity (cargo and passenger transportation by rail, reforestation, and domestic expenditure on research and development).

In most other cases the relative weight was 20%, except in the extraction of oil including gas condensate (the share of the public sector in January - September 2013 was about 22%), the transportation of cargo and passengers by air, as well as by road (excluding small businesses) and all types of paid services<sup>2</sup> (according to the statistics) where the share of the public sector still does not exceed 50%.

Thus, the size of the public sector as shown by the official statistics does not, for most indicators, clearly illustrate the general status of the economy; while in industry, the public sector as a whole covers some types of activities in which government participation is common for other countries as well (science, social services, transport (partially), the defence industry and the fuel and energy industry). With regard to the relative weight of the public sector in investments it should be noted that the year 2013 indicated the importance of maintaining investment activity, since the completion of a number of large projects, either directly or indirectly financed by the state, including by state companies, led to a slowdown of investment in the economy as a whole. Employment in the public sector is mostly determined by events within the subsector of budgetary institutions, mainly in the social sphere Here the specific features enable optimisation especially as a result of problems in assessing the results of activity, and the absence of a uniform method for interpreting labour efficiency and non-commercial effectiveness.

However, the above data should be considered as a minimum, taking into account the formal non-state character of the ownership of the assets of state corporations established in

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<sup>&</sup>lt;sup>1</sup> As to the indicators characterising the transport industry the said trends should be clarified following the yearly results as a whole.

<sup>&</sup>lt;sup>2</sup> Within the given context transportation, medical, sanitary and health improvement and educational services are emphasized in the statistical reporting.

2007–2008, and the complexity of assessment of the relative weight of the public sector, since it can be assumed that some companies within specific economic fields concentrate on lower floors of 'agent chains'.

Thus, for example, in the past year Dobrolet, a low cost airline subsidiary of the Aeroflot Group, and the regional airline Aurora were established. The latter was incorporated, being based on the companies Vladivostok Avia and Sakhalinskie Aviatrassy, however, according to the agreements entered into with the Sakhalin region, Aeroflot owns 51% of the shares, while 49% are owned by the regional government<sup>1</sup>. In the current conditions of obvious non-transparency of ownership of any enterprise, and the availability of a multistage corporate control system which includes several levels in public companies (analogous to private companies) this is relevant to the calculation of the state share in the goods and services markets.

## 6.1.2. Privatisation policy

On 1 July 2013 the Forecast Plan (programme) covering federal property privatisation and its the main directions in 2014–2016 was approved in Order of the RF Government No. 1111-p. This is the second three-year programme for federal property privatisation.

This structurally approved privatisation programme, as before, consists of two sections. In the first section are stated the main positions of the government, forecasts of the effecs of privatisation on structural changes in the economy, including plans for the privatisation of the largest companies which are leaders in their relevant industries, together with the expected federal budget receipts from the sale of federal property. The second section, as in previous years, contains a list of facilities which it is planned to privatise under the normal procedure (514 SUEs, 436 JSCs, 4 CJSCs and 94 facilities which are other properties related the RF treasury).

However, there are significant differences between the new privatisation programme and the previous similar document for 2011–2013, as approved in November 2010.

Firstly, the document does not directly articulate state policy objectives in the area of privatisation, which is atypical for any privatisation programme since 2002<sup>2</sup>.

They are replaced partly by a reference to the purposes and objectives provided by the state programme of the Russian Federation 'Federal Property Management' approved by the Order of the RF Government No. 191-p as of 16 February 2013 (without any details), but mainly by reference to Decree No. 596 On the Long Term State Economic Policy as of 7 May 2012. This provides for the completion of the state withdrawal, by 2016, from the capital of 'non-resource' companies which are not subjects of natural monopolies or the defence industry. In this document there is a reference to subclause 'c' of clause 1, where the government is

<sup>&</sup>lt;sup>1</sup> A. Zakharov. Dobrolet from Demodedovo // RBK daily, 11 October 2013, pp. 1, 7; N. Kosyakova. Far East Aurora // Arguments and Facts, No. 46, p. 30. In addition, at the end of 2013 to attract investments into the reconstruction and development of airport infrastructure in 2013-2017, under conditions of public-private partnership in the amount of RUR 7,783.3m by the government of the Sakhalin region it was decided to transfer to regional ownership the federal shareholdings (100%) of 5 airports on the island, Sakhalin Airport and a number of airport property complexes.

<sup>&</sup>lt;sup>2</sup> In the previous privatisation programme for 2011–2013 these were the creation of conditions for extra budget investments into the development of joint stock companies based on new technologies; reduction in the public sector in order to develop and stimulate innovative initiatives by private investors; improvement in corporate management; securities market development; formation of integrated structures in strategic industries; the generation of federal budget revenues.

commissioned to take measures, by 2018, to increase the share of high-tech and knowledge-intensive industries in the gross domestic product by 1.3 times as compared to 2011 (amongst other indicators).

This correlation has raised some eyebrows as instructions to the government related to privatisation and improving the management of public property are contained in subclause 'c' of the second (not the first) clause of the Presidential Decree No. 596 as of 7 May 2012. If however, this is not a trivial mistake, then correlation between the sale of different state assets and growth in the output of high-tech and knowledge-intensive products is not going to be observed in the new privatisation programme.

Returning to the document content it should be noted that there are additional exceptions to the number of companies from the capital of which the state intends to withdraw by 2016, namely (1) from joint stock companies and enterprises included in the list of strategic organisations, (2) from minority public stakes in joint stock companies which are subsidiaries of parent companies in vertically integrated systems - for subsequent inclusion in the charter capitals of the parent companies of the relevant integrated structures, as well as (3) from single shares of joint stock companies which are in federal ownership, where the costs of preparation for privatisation exceed the possible income from such privatisation.

Secondly, the forecast of the effect of property privatisation on structural changes in the economy represents, for the first time, the break up and distribution of businesses in public ownership where it is planned to privatised them in terms of their economic activities rather than industry sector This means that the content of the privatisation programme is brought into line with the classification which has been used in statistical reporting from 2005 and to which the Auditing Chamber of the RF refers repeatedly. The problem of such a change is the impossibility of correctly matching the structures of the businesses in federal ownership.

Meanwhile, as in the previous privatisation programme the forecast of the effects of property privatisation on structural changes in the economy has been performed only 'on paper' since it does not even provide an overall assessment of the overall expected changes in the share of the public sector, quite apart from the effect of privatisation on the dynamics of output, employment, investment and innovation, or on the tax burden on public property, state tax discipline, etc.

Thirdly, the plans for privatisation of the largest companies have undergone dramatic changes as compared to those in force under the 2011-2013 privatisation programme, this process being described in detail in the Order of the RF Government No. 1035-p as of 20 June 2012.

The list of assets to be privatised is largely unchanged. Excluded from the list are Rosagroleasing and Rosselkhozbank (previously the state planned to terminate participation in the capital of both companies by 2016) and FGC UES (it was planned to reduce the size of the state holding by 75% plus 1 share), while, added to the list were: ROSNANO (a planned reduction in the state's share in the capital by 90% by the issuing and allocating additional shares), Rosspirtprom, Rostelecom, the State Transport Leasing Company and two metropolitan airports.

However, as opposed to the 2011–2013 privatisation programme, in the version as of June 2012, the reduction of the Russian Federation participation in the charter capital of many of the largest companies provides for maintaining corporate control, or at least, the possibility of influencing corporate governance procedures through 'blocking' stakes (25% plus 1 share).

This last option of state participation is provided in relation to the JSC, ALROSA, (with the coordination of the sale of shares in the public ownership of the Republic of Sakha (Yakutia) and in municipal ownership), OJSC Aeroflot – Russian Airlines and Modern Commercial Fleet. For 2016, the share of the State in the capital of RusGidro and VTB Bank is to be 50% plus 1 share, while the share of the state's holding in the capital of Zarubezhneft will be reduced to the same value by 2020 (the intermediate value before 2016 is 90%). The previous privatisation programme provided for the withdrawal of the State from the capital of all above mentioned companies by 2016 but assumed the special right (a golden share) to allow the Russian Federation to participate in the management of joint stock companies such as Zarubezhnefft, RusGidro, Aeroflot and ALROS.

The State Transport Leasing Company was added to the list including Russian Railways, the Joint Stock Company for Oil Transport, Transneft, the Dzerzhinsky Scientific and Production Corporation, Uralvagonzavod, previously included as a group where the minimum state share would be 75% plus 1 share.

There are plans to stretch the reductions of the share of the Russian Federation in the United Aircraft Corporation (UAC) and the United Shipbuilding Corporation (USC) until 2024 with the preservation of the previous change in the value of the State share in the UAC (50% plus 1 share) and a reassessment of the previous planned change in the State share in the USC (up to 75% plus 1 share vs. the previous: 50% plus 1 share).

In this context it is unclear why the State's share in the capital of INTER RAO UES (at 0% plus 9 shares) should be preserved, as earlier it was planned that the State would withdraw from its capital completely by 2016 (currently the company is included in the list of strategic organisations).

One of the most significant differences from the previous privatisation programme is the reduction in the share of OJSC ROSNEFTEGAZ in the charter capital of Rosneft by 50% plus 1 share by 2016 (earlier it was stated that there would be a complete withdrawal by this time limit). It is possible that, up to 2015, Rosneftegaz may act as an investor in relation to the fuel and energy sector companies where there are plans to privatise their share holdings, on the condition that it submits a programme for financing these transactions which provides for the use of dividends from the shares of the companies which are in the ownership of the joint stock company.

It is stated in the programme that a possible reduction of the State's share in OJSC VTB Bank by more than 50% plus 1 share will be coordinated with the decrease in the State's share in Sberbank of Russia<sup>1</sup>, although the new head of the Central Bank of the Russian Federation asked for the removal from the text of the projected privatisation, items related to the possible changes in the equity in the banks after 2016, and reported that the Central Bank of the Russian Federation does not have any plans for decreasing the Russian Federation share in the capital of Sberbank.

In 2014–2016 the State will withdraw from the capital of 7 companies (Rosspirtprom, the United Cereal Company (UCC), ROSNANO, Rostelecom, Sheremetievo International Airport (SIA), Vnukovo Airport and Vnukovo International Airport), amongst which only the UCC and SIA had this perspective before 2016 according to the previous privatisation programme. However, with regard to the three metropolitan airports, the decisions of the RF

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<sup>&</sup>lt;sup>1</sup> According to the Ministry of Economic Development and Trade of the RF and the Federal Property Management Agency VTB will lose its competitive advantages in the case of any further decrease in the State's share, with the retention of the relevant share in Sberbank.

President and the RF Government for strategic development of the Moscow airport hub will be taken into account. These companies and a range of others (UCC, ALROSA, Rostelecom) may use the special right to allow the Russian Federation to participate in the management of joint stock companies (golden shares).

In addition, it should be noted that the withdrawal of the State from the capital of each such company will most probably trigger further issues.

First of all, regarding Rostelecom in respect of which the Spring 2012 Presidential Decree approved reorganisation in form of amalgamation with the Investment Communications Company (known as Svyazinvest) with the exclusion thereof from the list of strategic organisations, on the condition that the state and Vneshekonombank control more than 50% of the ordinary shares of Rostelecom. Meanwhile by the beginning of 2013 the reorganisation of the public sector within the telecommunication industry was only at the stage of the issue of additional shares to Svyazinvest itself, within the framework of which the State will transfer the holding core assets (including shares in Central Telegraph, Bashinformsvyaz and other companies). If Rostelecom intends to retain its share in Svyazinvets (25% plus 1 share, with the remaining capital owned by the State) the company is to participate in the additional issue of monetary resources.

In this regard we must remember that the last sale of shareholdings by Svyazinvest was repeatedly postponed for a variety of reasons. In the 2000s, apart from the reorganisation and optimisation of the holding's corporate structure, there were several social and regional issues (tariff reform, social problems of regional communication operators being its subsidiaries and affiliates) and restrictions related to national safety (providing communication services to defence and law enforcement agencies toprotect the interests of these special users of communication services). The practical mechanisms to resolve such problems whilst implementing the newformat for absorbing Svyazinvets into Rostelecom have not yet been disclosed.

As for Rosnano, attention is paid to the issue of compensation for the budget expenditure incurred in recent years in order to provide the asset contribution of the State into this former State corporation, together with the issue of the effectiveness of development institutions as a whole. As to the UCC the issue is the use of funds raised by closed subscription in 2012, as well as the storage of state grain reserves and its participation in commodity and purchasing interventions. For Rosspirtprom the focus is on its control over the alcohol market where there has been an obvious decrease in the legal sales of alcoholic beverages after the increase in excise duties (being a traditional source of budgetary income in Russia. As to the metropolitan airports, attention is paid to their power to attract further budgetary funding for restructuring, and the degree of transparency of the new capital structure in the light of multiple problems identified in the mid-2000s involving Demodedovo Airport (long term proceedings with the Federal Property Management Agency related to the problem of ownership of a number of structures and facilities and the unclear ownership structure, detected while solving issues of transport safety).

The new privatisation programme as a whole appears to be more moderate and reasonable, taking into account the maintenance of state corporate control over some companies which are natural monopolies, the infrastructure which is involved in capital intensive types of activity associated with long term payback' and over structures which play an important role in the implementation of structural and industrial policy and which acted as agents of the State while implementing anti-crisis measures during the acute phase of the crisis in 2008–2009.

The volume of budget revenues from privatisation is significantly decreased if we exclude consideration of the value of shares in the largest companies which occupy leading positions in their respective industries. In 2014–2016 budget revenue is expected to achieve RUR 3bn annually, as compared to the estimates under the previous privatisation programme of RUR 6bn in 2011 and RUR 5bn in each of 2012 and 2013.

There will be no basic receipts from privatisation at the expense of the shares of the largest companies which have high investment attractiveness in the case that the RF Government adopts separate decisions on them, whilst receipts under the previous privatisation programme amounted to RUR 1 trillion in 2011–2013.

The new programme provides for the possibility that the President and the Government of the Russian Federation can adopt decisions on privatisation by decreasing the State's share in the charter capital of a company through the issue of additional shares and by contributing proceeds to the recapitalisation of joint stock companies with regard to their long term development and the investments required, as well as through the capital adequacy ratio (in relation to banks).

Considering the information from official sources, and following the results of discussion of the forecast, the Privatisation Plan for 2014–2016 by the RF Government as of 27 June 2013, at the time RUR 630bn of direct budgetary income, may be achieved during the three years (2014 – RUR 180bn, 2015 – RUR 140bn and 2016 – RUR 300bn), mainly from sale of the shares of joint stock companies which occupy leading positions in their respective industries, and, possibly, RUR 9bn from other sales. An additional RUR 380bn could be received as Rosneftegaz dividends<sup>1</sup> from the sale of Rosneft shares. Altogether federal budget receipts should realise about RUR 1 trillion 20bn<sup>2</sup>.

The draft federal budget for 2014 and plans for 2015 and 2016 submitted to parliament by the Russian government provided for the use of assets received from the privatisation of federal ownership as a separate source of financing the federal deficit. In this respect the relevant federal law, as with a similar document which lapsed a year ago, did not contain any information about the specific value of the income from privatisation, either in the main body, nor in the annexes. Only the memorandum to the document considered the funds received from the privatisation of federal ownership and state borrowings as a separate source for financing the federal deficit.

In this context, in 2014–2016, it is planned to privatise the shareholdings of the largest companies which occupy leading positions in their respective industries. It is the Government of the Russian Federation that will determine the periods and methods of privatisation of these companies with regard to the market conditions and advice from leading investment consultants.

The memorandum to the bill of the federal budget for 2014–2016, as submitted to parliament, detailed the content of the forecast Plan (programme) for federal property privatisation and the core themes of federal property privatisation for 2014–2016, approved by the Order of the RF Government No. 1111-p. as of 1 July 2013. These actions will allow

<sup>&</sup>lt;sup>1</sup> At that meeting, the finance minister of the government of the Russian Federation expressed doubts about the reality of obtaining such sums from the company.

<sup>&</sup>lt;sup>2</sup> However, the direct addition of income through these channels has a total value of RUR 10bn less. This difference is more than in the single official statement in the new privatization programme: (value of privatization revenues at RUR 3bn, annually during 2014-2016.

for the attraction of funds to the federal budget in the amount of RUR 196.8bn – in 2014, RUR 158.5bn – in 2015 and RUR 99.9bn – in 2016 (*Table 3*).

Table 3 Federal budget estimated privatisation revenues 2011–2016, RUR bn

Source	2011	2012	2013	2014	2015	2016
Privatisation forecast plan (programme) and federal property	6.0	5.0	5.0			
privatisation fundamental objectives for 2011–2013						
BPFOs (budgetary policy fundamental objectives) for 2011 and target	298.0	276.1	309.4			
period for 2012 and 2013						
BPFOs for 2012 and target period for 2013 and 2014	298.0	276.1	309.4	300.0		
BPFOs for 2013 and target period for 2014 and 2015			380.0	475.0	385.0	
Estimated federal budget for 2013 and target period for 2014 and 2015			427.7	330.8	595.1	
(memorandum)						
RF Government session records of 27 June 2013*				180.0	140.0	300.0
Federal budget basic parameters for 2014–2016 (RF Ministry of				230.8	445.1	250.0
Finance projects)						
Privatisation forecast plan (programme) and federal property				3.0	3.0	3.0
privatisation fundamental objectives for 2013–2016						
Federal budget draft law for 2014 and target period for 2015 and 2016				196.8	158.5	99.9
(memorandum)						

<sup>\*</sup> Excluding the revenues from privatisation transactions not classified as being the largest.

There is an evident decrease in the value of the forecast proceeds from the privatisation of public property in comparison with those specified in the memorandum with reference to the applicable federal law of 3 December 2012 No. 216-FZ On the federal budget for 2013 and for the target period of 2014 and 2015: in 2014 – by almost 40% (against RUR 330.8bn), in 2015 – by almost four times (against RUR 595.1bn). However, it is worth noting that in the of publicly available versions the aforementioned law (as amended June and December 2013), there is no data on the magnitude of the funds from sale of shares and other federally owned forms of equity, and there is no distinction between federally owned property and the other sources of financing the budget deficit.

Within the new federal budget, the proceeds from privatisation play a subordinate role in financing its deficit. Thus, in 2014, the expected value of the privatisation revenues will amount to less than 1/3 of the funds which are supposed to be attracted in public borrowing, in 2015 – about 1/5 and in 2016 – approximately 1/10.

On the positive side the draft law submitted for the consideration of the Parliament on the budget for the next three years, among the items there are detailed projects on revenues from the use of state property. The most important role here is played by dividends on federal share packages. Thus, it is expected that in 2014 the proceeds from these dividends in the federal budget will amount to RUR 192.7bn, in 2015 to RUR 200.4bn, and in 2016 to RUR 761bn.

Such growth as is expected in 2016 would result from transfer to the federal budget of revenues in the form of dividends on Rosneftegaz shares as a result of selling 19.5% of shares minus one share of Rosneft (RUR 423.5bn) and from the supposed effect of the decision of the Government of the Russian Federation on the direction for payment dividends on shares owned by the state of at least 35% of the net value of the joint-stock companies, determined in accordance with the data of their consolidated financial statements (RUR 106.0bn). Other similar types of federal budget revenues from the use of state property through tangible assets (rental payments for land and property, and transfer of the profits of unitary enterprises) are additional.

To speak about the reality of achieving the declared target privatisation revenues for federal budget is quite difficult, because it depends both on the list of the assets supposedly

for sale and their value, which is associated with the evaluation procedures and with the situation in the securities market.

According to the Federal Property Management Agency, following the results of the sales during the three years of the 2011–2013 privatisation programme, RUR 25.67bn were subject to be transferred to the federal budget, including RUR 13,286.5m – in 2011, RUR 5,900m – in 2012, and RUR 6,471.9m – in 2013 (without taking into consideration the largest sales involving investment consultants), which amounts to 160% of the task established by the forecast privatisation plan. (If we use the values specified in the text of the programme as the basis for assessment of its performance: RUR 6bn for 2011, and RUR 5bn for each of 2012 and 2013, that is, in total, RUR 16bn – without taking into consideration the largest sales). This suggests performance above the target: in 2011 – more than in 2.2 times (or by RUR 7,287m), in 2012 – by 18% (or by RUR 900m), in 2013 – by 29.4% (or by RUR 1,472m), and in total for the three years – by 60% (or by RUR 9.7bn).

At the same time, according to the Federal Budget Versus Actual Reports (on internal sources for financing the deficit) available on the Federal Treasury website, the funds from the sale of shares and from other forms of participation in the capital which is in federal ownership, amounted to RUR 126.2bn in 2011 (with an annual target of RUR 174.3bn, actually 74.41%), to RUR 43.9bn in 2012 (with an annual target of RUR 58.7bn, actually 74.72%), and to RUR 41.6bn in 2013 (according to preliminary data) (with ne annual target of RUR 52bn, actually – 80%).

Altogether, over the three years of the preceding privatisation programme for 2011–2013, according to budgetary reporting, the federal budget received about RUR 371bn from sale of shares and from other forms of equity participation<sup>1</sup>. This value, on the one hand, is many times higher than the estimated revenues which were in the 2011–2013 programme without taking into consideration the main proceeds from privatisation with respect to the shares of largest companies, which have high investment attractiveness. On the other hand, the proceeds to the federal budget from sale of shares in 2011–2013 has proved to be approximately 2.7 times less than the RUR 1 trillion estimate which was given in the preceding privatisation programme, taking into consideration the proceeds from the possible sale of shares of the largest companies in the case of particular decisions taken by the Government of the Russia Federation.

The mechanism of the budget process which has been developed in recent years, in which the actual text of the adopted budget law does not contain any indication of the budget revenues in relation to the privatisation, leaves a great deal of scope, to take unrestricted decisions in respect of the list of the assets to be privatised, and the timing and format of their sale.

Especially since the example of the preceding privatisation programme clearly indicated a greater probability of numerous changes and additions to the similar newly adopted document. In all, from the moment of approval of the forecast plan (programme) of privatisation of the federal property and the main areas of the privatisation of federal property for 2011–2013, pursuant to RF Government Directive of 27 November 2010, No. 2102-p,

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<sup>&</sup>lt;sup>1</sup> Including the funds got by the Central Bank of the Russian Federation from selling Sberbank's shares in 2012. Of course, with the consideration of the revenues from selling other assets (land and different property), the total value of privatisation revenues turn out to be higher. See the paragraph "Privatisation Policy Budgetary Efficiency" for further details.

about 50 corresponding regulatory acts were adopted, 15 of which were published in 2013; 24 - in 2012; 11 - in 2011 (and one more appeared at the latter end of 2010)<sup>1</sup>.

Thus, RF Government's Directive of 18 April 2013 No. 627-p approved the changes in the privatisation programme for 2011–2013, provided for the includsion of 54 joint-stock companies and 14 federal state unitary enterprises (FGUPs), engaging in business activities in the spheres of road infrastructure, transport, agriculture and other industries, as well as 149 other pieces of treasury property, which are immovable property (primarily, land plots with buildings and facilities located on them)<sup>2</sup>.

After that, the total number of the assets subject to privatisation, which were specified in the programme, amounted to 298 FGUPs (in the initial version of the programme – 114 units which was an increase of 2.6 times), 1,428 open joint-stock companies (in the initial version – 809 units, an increase of 1.8 times), 43 closed joint-stock companies (in the initial version of the programme – 35 units, an increase of 1.2 times), 11 limited liability companies (in the first version – 10 units, an increase of 1.1 times), as well as 727 pieces of other property of the RF treasury (in the initial version – 73 units, an increase of 10 times). Furthermore, in accordance with the observations of the National Audit Office of the Russian Federation, the summary distribution of FGUPs and JSCs subject to privatisation in 2011–2013 has been refined, taking into consideration the changes made earlier in the privatisation programme, and the additions made in spring 2013.

From the practical side, the privatisation of 2013 was particularly remarkable for the six transactions with shares of the largest joint-stock companies made with the involvement of investment consultants pursuant to the decisions of the Government of the Russian Federation adopted in order to create conditions for attracting investments, to stimulate development of the stock market promotion, and modernisation and technological development of the economy, amounting to a total sum of RUR 286 bn.

Among them were:

- completion of a transaction for selling shares amounting to 55% of the share capital of OJSC Vanino Commercial Seaport (the dealmaker was CJSC VTB Capital) for RUR 15.5bn (the purchaser was Mechel-Trans LLC)<sup>3</sup>;
- Rosneftegaz selling 5.66% of Rosneft shares in favour of BP for a total sum of RUR 148.1bn, as part of the acquisition of shares in TNK-BP, as a result of which the monetary funds from the privatisation of Rosneft shares were placed on Rosneftegaz's books, the sole incorporator of which was the Russia Federation (the consultants for this transaction were Citi and Bank of America Merill Lynch);
- the placing of an additional issue of shares of VTB Bank, amounting to RUR 102.5bn by public subscription, bringing the state's share of capital in the bank down

<sup>1</sup> To add to this, by the beginning of February 2014, for the period of approval of the new privatisation programme for 2014–2016, four regulatory acts appeared which amended it.

<sup>&</sup>lt;sup>2</sup> Making technical changes and updating was also provided for with regard to the four OJSCs and another 11 pieces of property (with updating of the number of shares privatised, the names of the companies and the location of the pieces of immovable property). These pieces of federal property could have been of interest, first of all, for small and medium-sized business entities.

<sup>&</sup>lt;sup>3</sup> For further details of this privatisation transaction, which turned out essentially to be a scandal due to thequick resale by the purchaser of the government's stake (Mechel-Trans) of almost all the share to offshore companies, see 'The Russian Economy in 2012. Trends and Prospects' (Issue 34). M., IEP, p. 449–450. To add to this, in the preceding year Mechel suffered significant financial difficulties (falling capitalisation and high leverage), forcing it to appeal to state-owned banks for support.

from 75.5% to 60.93% and the direction of borrowed funds for the support of bank recapitalisation (transaction organisers were VTB Capital, Citigroup, J.P. Morgan and Bank of America Merill Lynch);

- the sale of shares amounting to 25.1% of the share capital of OJSC Territorial Generating Company No. 5 (TGK-5) (the dealmaker was VTB Capital) for RUR 1,080.4m (the purchaser was TGK-9);
- the sale of shares amounting to 25.5% of the share capital of OJSC Sibir Airline Company (the dealmaker was OJSC Alfa Bank) for RUR 1,133.1m (the purchaser was CJSC S 7 Group);
- the placing of ALROSA Share Company shares by means of public offer to a wide range of investors, in accordance with international standards (the dealmaker was the private unlimited company GOLDMAN SACHS (Russia), with the participation of G.P. Morgan Securities, Morgan Stanley & Co. International, VTB Capital, and Renaissance Securities (Cyprus) Limited as the underwriting banks).

This last-mentioned transaction deserves a more detailed consideration.

Late in October 2013, 7% of the shares of Alrosa AK, which were in federal ownership, were posted on the Moscow Stock Exchange, as well as 7% of shares which belonged to the Republic of Sakha (Yakutia), and 2% of quasi-treasury shares controlled by the company itself, with the purposes of ensuring a stabilisation mechanism to support the share price after the transaction. Thus, altogether, a 16% stake of ALROSA AK was placed on the Moscow Exchange.

The independent appraiser Ernst & Young – Appraisal and Consulting Services assessed the range of the market value of the ALROSA shares as between RUR 32.84 to RUR 38.21 per share. The corresponding report underwent an examination by the National Russian Non-Governmental Organisation, the "Russian Society of Appraisers". The formation of the book application from investors was carried out in the course of a road show between 14 and 25 October 2013. This resulted in a placing price of RUR 35 per share, with the provision of a premium to the weighted average price for the last six months in the amount of 6.5%. The total purchase price amounted to RUR 41.3bn, including RUR 18bn for the 7% of the shares alienated from federal ownership.

The implemented public offering of ALROSA AK's shares to a wide range of investors in accordance with international standards became: (1) the largest Russian public share placement in 2013; (2) the largest offering of local shares listed on the Moscow Exchange, throughout the history of the Russian securities market; (3) the first public offering of the shares of a Russian state company in the materials sector for the last seven years; and (4) the largest public offering of the shares of a mining company in the world, beginning from June 2011.

To add to this, after less than in a month, a shareholders' agreement was signed, with regard to the shares of the company, which reflected the state's strategic targets on the preservation of the controlling interest in the company in public ownership, as well as the interaction of the Russian federation and the Republic of Sakha (Yakutia) in corporate governance of ALROSA AK. The shareholders agreement was concluded for five years with an opportunity of automatic renewal.

Undertaking an overall assessment of the transactions, made in 2013, with the shares of the largest companies, we cannot pass over the fact that, as distinct from the two previous years, those transactions prevailed by volume and structure where the budget did

not obtain anything directly (an additional issue of the sale VTB shares in the Rosneft share package in the course of the transaction with TNK-BP), whereas, in 2011–2012, there was only one such transaction out of seven transactions (an additional issue of shares of the United Cereal Company (OZK) in 2012).

In 2014 the RF Government had taken decisions on selling INTER RAO YeES and Arkhangelsk Trawler Fleet's shares for a total of more than RUR 21bn, the arrangements for the sale of which were made in 2012–2013.

By its Directive of 16 January 2014 No. 22-r, the RF Government accepted the proposal of the Minekonomrazvitiya (the Ministry of Economic Development and Trade) of Russia, agreed upon with the Minenergo (the Ministry of Energy) of Russia, concerning the sale of the federally owned 13.76% of shares in INTER RAO UES in favour of Rosneftegaz. The transaction amounted to RUR 18.8bn.

This decision had been taken for the purposes of optimisation of the structure of the INTER RAO UES share capital, increasing the transparency of the company's management and decreasing the pressure on shares. This is an example of the implementation of the Decree of the President of the Russian Federation of 22 May 2012 No. 695, as well as of the norms of the preceding and of the effective privatisation programmes. (According to these, until the beginning of 2015, ROSNEFTEGAZ can act as an investor in relation to companies in the fuel and energy industry, the shares are scheduled for privatisation subject to the submission of the funding programme for these transactions, providing for the use of the dividends from the shares in companies which are fully owned by the aforementioned joint-stock company.

The transaction of the sale of the complete share package (100%) of the Arkhangelsk Trawler Fleet (the dealmaker was Gazprombank) for RUR 2.2bn can be used as an example of implementation of an unconventional approach within the privatisation process.

The peculiarity of the transaction lies in the special format of the interaction between the new owner (Virma LLC) and the regional authorities. There is an agreement between them, based on the voluntary conveyance of the title to one share to Arkhangelsk region. The key decisions, including the preservation of jobs and the registration of open joint-stock companies in the region in order to preserve the tax revenues received by the regional budget, are subject to agreement with the regional government, for which a seat on the Board of Directors is reserved.

The shareholder agreement between the Arkhangelsk region and Virma LLC is a unique example of the implementation of the post-privatisation control mechanism, allowing, inter alia, the balancing of the interests of the state represented by the Arkhangelsk region and those of the new owner with regard to the social obligations and improvements in business performance.

However it inevitably raises questions regarding possible conflicts of such tools with the more general legal norms, in particular, with corporate legislation (the role of the single share transferred to the regional authorities compared with the powers resulting from right to participate in control - "the golden share"), and with the adequacy of the concluded agreement for avoiding possible conflicts in the future, for example, in the case of Virma reselling all the share package of the Arkhangelsk Trawler Fleet, or a part thereof, to an outsider. This is in addition to the extent of taking into consideration all the negative experiences of investment tenders in the 1990s and the common practice of commercial tenders with social conditions,

which became common under the application as long ago as in the 2000s, of the, then effective, third privatisation law.

In 2013, the Russian Auction House (OJSC RAD) also joined in the sale of government stake. RAD, acting under the RF Government Directive of 31 January 2013 No.101-r and under the terms of the agency contract with Rosimushchestvo (the Federal Property Management Agency), is undertaking the sale of shares in 36 OJSCs which were part of the privatisation programme of the preceding year.

Altogether, in 2013, RAD successfully completed 15 sales, which resulted in RUR 1,967.8m for transfer to the federal budget, and this is comparable with the sum total of the transactions on the sale of the golden shares of TGK-5 and the Sibir Airline Company (RUR 2,213.5 bn) made with the assistance of investment consultants. RAD has planned the summing-up of 9 more sales for the 1<sup>st</sup> quarter of 2014. Among the transactions to be undertaken by the Russian Auction House from June, are the sale of the federal stakes in OJSC Ulyanovsk Automobile Plant (13.19%, RUR 850.31m), the Sakhalin Shipping Company (25.5%, RUR 405.77m), and Lenmetrogiprotrans (25.48%, RUR 266m).

As for the traditional privatisation tools, the largest transaction made with the use of these was the auction for the sale of the full (100%) government stake in Moskinap for RUR 935m held by Rosimushchestvo.

Altogether, in 2013, share packages (interests in their share capitals) of 148 companies were sold (without taking into consideration the two sales of shares made with the assistance of investment consultants), while the summing-up of the share sale of 55 other companies is planned for the 1<sup>st</sup> quarter of 2014, and the conditions of privatisation have already been adopted.

When these data are compared with the results of the previous years' privatisation programmes (*Table 4*), we may say that, in 2011–2013, during the period of the first 3-year privatisation programme, the number of share packages (interests), with 730 units being sold, increased by more than in 1.8 times compared with the crisis period of 2008–2010 and was also comparable with the total value of the two years before the crisis (2006 and 2007), but was lower than in the mid-2000s, when, every year, more than 500 share packages were sold. The results of the privatisation programme in 2011–2013, with regard to the unitary enterprises look much more modest: the number of FGUPs in relation to which Rosimushchestvo issued directives concerning the conditions of their privatisation by means of reorganisation into OJSCs was 216 units and among them 182 OJSCs were registered: in 2011 – 46 units, in 2012 – 103 units, and in 2013 – 33 units), and this is approximately four times lower than the number in 2008–2010<sup>1</sup>.

In spite of the significant number of cases of privatisation, the problems with the administration of the privatisation process are still relevant since not all the active assets included in the forecast plan of privatisation could be actually be put up for sale, because many businesses and unitary enterprises were in the process of bankruptcy, under reorganisation or liquidation and were therefore not economically active, and in some instances there was a lack of applications from potential participants in the appropriate procedures.

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<sup>&</sup>lt;sup>1</sup> It is possible that this difference was not so great, if we assume that a certain number of unitary enterprises were privatised by means of transforming into LLCs (limited liability companies) and ANOs (autonomous non-commercial organisations). However, there is no official information on this matter.

In total in 2011–2013 the shares of 730 companies (shares in charter capital) were sold, which was only half of the number included in the Programme of Privatisation (1,477 units) and about <sup>3</sup>/<sub>4</sub> of the number of companies, which were subject to the terms of privatisation (975 units). In fact the shares of 573 companies were offered for sale again, and 282 of them were offered for sale more than twice, in other words through repeated auctions by means of public offer without announcement of the price.

Table 4 Dynamics of privatisation of state federal unitary enterprises and federal blocks of shares in 2000-2013

Period	The number of privatised enterprises (objects) of federal property (according to the Federal Property Management Agency, until 2004 – the Federal Ministry for State Property Management)					
	Privatised federal state unitary enterprises <sup>a</sup> , units	Sold blocks of shares of JSCs, units.				
2000	2	320				
2001	5	125 <sup>b</sup>				
2002	102	112 <sup>b</sup>				
2003	571°	630				
2004	525	596 <sup>d</sup>				
2005	741	521				
2006		356 <sup>e</sup>				
2007	377	377				
2008	213	209 <sup>b</sup>				
2009	316+256 <sup>f</sup>	52 <sup>b</sup>				
2010	62	134 <sup>b</sup>				
2011	143	317³/359 <sup>b</sup>				
2012	47 <sup>g</sup>	265 <sup>h</sup>				
2013	26	148 <sup>h</sup>				

<sup>&</sup>lt;sup>a</sup> – all arrangements have been implemented and decisions on the terms of privatisation have been made;

<sup>&</sup>lt;sup>b</sup> – taking into account all blocks of shares which were announced to be ready for selling in the previous years;

<sup>&</sup>lt;sup>c</sup> – not including federal state unitary enterprises which were included as a contribution to the charter capital of JSC Russian Railways;

<sup>&</sup>lt;sup>d</sup> – taking into account 31 blocks of shares which were announced to be ready for selling in 2004 but where the results were reviewed in 2005;

e - calculated value, based on data from the Report of the Federal Property Management Agency On the Privatisation of Federal Property in 2007;

f – the number of federal state unitary enterprises which, according to the decision of the Ministry of Defence of the Russian Federation, were transformed into joint-stock companies, in addition to those enterprises which came under the same decision of the Federal Property Management Agency;

<sup>&</sup>lt;sup>g</sup> – calculated value, based on data from the Report of the Federal Property Management Agency on the implementation of the forecast plan (programme) of federal property privatisation in 2011-2013 regarding the total number of federal state unitary enterprises that, in 2011-2013, were subject to orders about the terms of privatisation, based on transformation into JSC (216 units) and separate data until 2011 and 2013 <sup>h</sup> – not including sale of shares implemented with the help of investment advisers.

Source: www.mgi.ru; Materials for the meeting of the Government of the Russian Federation on the 17 March 2005 On Measures to Raise the Effectiveness of Federal Property Management. The report of the Federal Property Management Agency On the Privatisation of Federal Property in 2005. M., 2006; The report of the Federal Property Management Agency On the Privatisation of Federal property in 2007. M., 2008; The Federal Agency for State Property Management. Synthesis of activities for 2008. M., 2009; The report on implementation of the forecast plan (programme) of federal property privatisation for 2009, M., 2010; The report of the Ministry of Economic Development and Trade of the Russian Federation On the Results of Federal Property Privatisation in 2010; The report of the Ministry of Economic Development and Trade of the Russian Federation On the Results of Federal Property Privatisation in 2011; The report on the implementation of the forecast plan (programme) of federal property privatisation in 2011–2013.

In 2013 blocks of shares (shares of charter capitals) of 286 companies were actually put up for sale, while the shares of 148 of those societies were sold (shares of charter capital), which was about half of the number which were available for sale according to the stipulations on the terms of privatisation (301 units). A review of the results of share sales concerning 55 companies is scheduled for the first quarter of 2014. The unsold shares resulting from failed biddings on 221 JSCs were offered for sale again, including 130 which were offered not more than twice. The sales of shares (shares of charter capital) of 81 companies were declared as 'failed' in 2013.

Similar problems have also occurred during the sales of other types of property. So, during 2013 from 99 objects of immovable property put up for sale less than  $\frac{1}{4}$  - 22 units (in 2011 – 3 units, in 2012 – 40 units) were sold. Bidding for 8 objects was not conducted. A review of the results of share sales concerning 69 other types of property is scheduled for the first quarter of 2014. According to the results of sales that took place in 2013, the sum of RUR 166.8m is subject to transfer into the federal budget, and for the 3-years 2011–2013 the total is – RUR 327.3m.

The formation of vertically integrated structures (VIS) has been of great importance for implementation of the privatisation programme. This has been especially true of the privatisation of unitary enterprises and of property of the Russian Treasury. So, out of 298 federal state unitary enterprises included in the Forecast Plan (programme) of privatisation of federal property for 2011-2013, 163 enterprises (or almost 55%) were subject to participation in the formation of holdings. From 522 objects of Russian Treasury property which were privatised in 2011-2013 only 65 units (or 12.5%) were sold, while the others became parts of the charter capitals of integrated structures. This process had weaker influence on the privatisation of blocks of shares (participation shares): out of 815 companies which had come under the process of privatisation, only 85 units (or 10.4%) were privatised by means of inclusion into charter capitals of parent companies of vertically integrated structures.

In total, in 2011–2013, as part of the process of enforcement of 48 Presidential Decrees of the Russian Federation and 7 decisions of the Government of the Russian Federation concerning the creation/extension of vertically integrated structures the measures of the Federal Agency for State Property Management resulted in the formation of 44 VIS. Of the relevant 41 Presidential Decrees of the Russian Federation and 3 Government decrees of the Russian Federation 34 VIS have been fully completed (or more than <sup>3</sup>/<sub>4</sub> of the amount of those which came under the particular decisions of the state Government).

To the privatisation programme were added 163 federal state unitary enterprises, the shares of 98 OJSCs and 462 shares of other types of property which were all subject to inclusion into the charter capitals of Rosspirtprom, Russian Hippodromes, Russian Railways, UAC and the Federal Hydroelectric Generating Company. Nevertheless, for a variety of reasons the privatisation measures could not be implemented concerning 9 unitary enterprises and 13 OJSCs. That is why, de-facto, under the process of formation of the VIS, decisions were made about the terms of privatisation of 148 of 154 federal state unitary enterprises (96.1%) and of all the shares of the OJSCs (100%) which were possible subjects of privatisation (with approval of the transfer of titles and inclusion of shares of the OJSCs into the charter capital of the appropriate integrated structures), while orders on the terms of privatisation of 457 objects of other types of property (98.9%) have also been issued.

After a break which lasted for more than a year, last year saw a resumption of active improvements to privatisation law.

By means of three federal laws (in July and December, 2013) amendments and additions were made to Federal Law No. 178-FZ On the Privatisation of State and Municipal Property as of 21 December 2001.

As a result, the law possesses the following innovations:

- the list of property categories which do not come under the power of the law was supplemented with property transferred into the ownership of the Russian Scientific Fund as a material contribution of the Russian Federation (it now includes 16 categories);
- regulations for the special privatisation of objects of socio-cultural and municipal purposes came under radical amendments.

This last change deserves closer scrutiny. The universal norm, which is included in article 30, affords the opportunity for privatisation of facilities within the property complex of a unitary enterprise, but excluding a range of categories.

In the new version of the law the number of such exceptions no longer includes orphanages, children's homes and educational institutions intended to serve people particular settlements.

As far as an opportunity to change the designation of objects of social infrastructure for children is concerned, a reference to the order approved by Federal Law No. 124-FZ On the Fundamental Guarantees for the Rights of the Child in the Russian Federation of 24 July 1998 has appeared. The former maximum preservation term of designation of privatised institutions for socio-cultural purpose (health care, culture and sports) and for municipal purposes (5 years) was extended in connection to objects of social infrastructure for children by a factor of two – but for not more than 10 years.

With regard to the opportunity for privatisation of power grids, sources of heat energy, heat networks and centralised hot water systems the new version of the privatisation law (article 30) indicates that the abovementioned objects do not come under its restrictions if they are the main production assets of a unitary enterprise, in other words if the proceeds from sales of the products and services generated using these assets is higher than the proceeds from any other kind of activity implemented by the enterprise under its charter.

Concerning the regulation of opportunities for privatisation of specified categories of municipal infrastructure that cannot be shown to be major assets of a unitary enterprise, special article 30.1 has been included into the law; it allows privatisation under the terms of obligations on constructing, reconstructing and (or) modernisation (investment commitments) and with further commitments towards operation (operational commitments).

With the legal innovations it is important to notice that they are a part of actions aimed at lifting of the existing restrictions on privatisation. Evaluation of their effectiveness and consequences is rather difficult to undertake.

On the one hand, it is obvious that the great majority of assets related to children are institutions and that is why they do not come under the power of the privatisation law. On the other hand, within the ongoing campaign for decreasing the number of orphanages and enlargement of educational institutions, and taking into account information on the packing of those institutions, the new standards look very questionable from the perspective of morality and ethics.

As far as the relaxation of restrictions on privatisation of power grid facilities, sources of heat energy, heat networks, centralised hot water systems and separate objects of such systems is concerned, the following issue remains ongoing: to what extent are all negative

aspects of the experience of investment competition in the 90s and the consequences of the power sector reform in the 2000s being taken into account.

In connection with this fact, it is not surprising that the Investigation Committee of Russia (IC) has initiated a draft conferring additional powers on the law enforcement authorities for the implementation of control over privatisation. This implies inclusion into the criminal legislation of a special article 'Illegal Action within Privatisation of State and Municipal Property', introducing responsibility for the rigging of reports on asset evaluation, and the obligatory disclosure by claimants for state property, of their real owners and affiliated entities, with determination of the right for operational-search activity to make possible identity verification of the claimants and verification of provided documents<sup>1</sup>. The last of these has become even more urgent in connection with the announcement regarding the official level of focus on 'de-offshorisation' of the Russian economy. Nevertheless it also concerns state companies, and the message from the President at the end of 2013 emphasised that fact in connection with the use of foreign jurisdiction during the implementation of the business transaction between Rosneft and TNK-BP. Nevertheless a preliminary review by the Expert Advisory Council (EAC) of the Federal Property Management Agency, for the draft on the Investigation Committee of the Russian Federation, on the privatisation of large state companies is of a more negative character and underlines the need for perfection and completeness of the already existing standards.

### 6.1.3. Presence of the State in the economy and structural politics

In 2013 major events in this area were connected to the fuel and energy industry. Foremost amongst these was the completion at the end in March of the acquisition by Rosneft of TNK-BP which had been the property of the British oil company BP and the consortium AAR, which had shared the company equally. It is important to remember in this connection that one of the elements of the transaction, besides a cash payment of \$16.64bn, was the transfer of 12.84% of Rosneft shares, which were on the company's account, to BP and the purchase of an additional 5.66% of shares of Rosneftegaz for \$4.87bn, which were on that company's account. As a result, the British company became the owner of almost 20% of Rosneft shares<sup>2</sup>. In its turn the acquisition of TNK-BP made it possible for OJSC Rosneft to achieve leading positions in the fuel and energy sector and it created extra benefits for the shareholders of the company and contributed to the increase in its potential revenue and financial flow.

The forthcoming plans by Rosneft in the market of corporate control look rather ambitious. In the summer and autumn there was information about the possible acquisition of the oil assets of the Alliance business - group (a share in the Alliance Oil Company, Khabarovsky refinery and a share in the joint venture 'Petrol') and Domodedovo Airport (together with the Novoport holding). In the middle of the year by the purchase of 49% of the shares, Rosneft completed its acquisition of the gas company Itera, and at the end of the year Rosneft and Novatek signed the agreement on active assets exchange, provided for the exchange of the block of shares belonging to the oil company Severenergia, taking into account the participation of Gazpromneft, for the controlling interest in another gas project – Sibneftegaz.

<sup>&</sup>lt;sup>1</sup> Not a private case. Interview with the representative of the Investigation Committee of the Russian Federation A. Bastrykin // The Russian News Paper, 15 January, 2014, № 6 (6278), pp. 1-2.

The share of the consortium AAR in the capital of TNK-BP was repurchased for \$27.73bn.

In spring there was also information on the purchase by Rosneftegaz of 0.23% of shares of Gazprom which means it is possible, now, to speak about formal corporate control of the Government over the whole all-Russian gas monopoly even if in an indirect form. Until that moment it had directly possessed 38.37% of the shares, while another 10.74% of the shares belonged to Rosneftegaz, less than 0.9% had been under the control of RosGazifikatsiya, while the Federal Property Management Agency had a share of 74.55%. It is rather interesting that in the information on the structure of the share capital presented on the web site of Gazprom as at 31 December 2012 it was shown that the aggregate share of the government (including Rosneftegaz and RosGazifikatsia) was 50.002%<sup>1</sup>.

At the same time the Federal Anti-Monopoly Service blocked the purchase by Gazprom of the generating company Kvadra, controlled by the Oneksim group. Two years before that Gazprom had already failed in its attempt to purchase a large active asset in the power industry – of the company KES-Holding.

In the same spirit it is worth mentioning the purchase in spring of 2013 made by the bank VTB. For \$2.4bn it purchased the fourth largest (by the number of subscribers) cell phone operator in Russia, Tele2-Russia, from the holding Tele2 which comes under the control of the Swedish investment company Kinnevik. This transaction could be regarded as the first large-scaled acquisition in the sphere of mobile communications implemented by state companies and as a prerequisite for the possible emergence of a new mobile operator at a federal level in the case of a further sale of the active asset to Rostelecom. Supposedly, it is exactly this situation which has stirred up negative reactions from the existing cell phone operators, the so-called 'big three'.

Nevertheless, already by autumn of 2013 half of this active asset was re-sold to a consortium of investors led by the bank 'Russia' for RUR 40.4bn. As far as possible cooperation with Rostelecom is concerned, in the near future Tele2 is planning the creation of a joint venture with the Russian telecommunication holding, provided that the holding includes within the emerging mobile operator some relatively small mobile companies, the price for which is estimated at \$3.52bn. However there has still not been made any principal decision on the acquisition of the companies<sup>2</sup>.

In 2013 the list of strategic enterprises and joint-stock companies underwent significant changes. Two unitary enterprises joined the list (Including Russian Post) but 7 OJSCs and 9 federal state unitary enterprises were excluded from it (including 3 enterprises subject to transformation into a joint-stock company in order to implement further transmission of the share to Rosato, 1 scientific research institution joining another one and also a liquidated Russian agency for international information RIA Novosti<sup>3</sup>).

It is also important to underline the changes flowing from the Decree of the President of the Russian Federation No. 874 of 2 December 2013 on improvements to space industry management. The document provides for bringing the federal block of shares of OJSCs the Moscow Research Institute of Space Instrument Engineering (Moscow) to the rate of 100% with a subsequent renaming as The United Rocket-Space Corporation, (URSC).

<sup>2</sup> VTB sold half of Tele2 for RUR 40bn, www.lenta.ru, 5 December 2013.

<sup>&</sup>lt;sup>1</sup> www.lenta.ru, 1 April 2013, www.gazprom.ru.

<sup>&</sup>lt;sup>3</sup> Its property together with property of the subject of liquidation FGBU Russian State Radio Broadcasting Company Voice of Russia is transferred again to the emerging federal state unitary enterprise the International Information Community Russia Today. Those changes are a part of a wider set of measures for improvement of effectiveness of the state Mass Media activities concerning, inter alia, VGTRK, ITAR-TASS, The Russian Newspaper.

A further increase in its charter capital involves making it a part of the State as reimbursement for the additional issue of full (excluding one share) blocks of shares of the OJSCs, created on the basis of 9 converted into federal state unitary enterprises; blocks of shares of 13 OJSCs (including 2 minority packages) and also 100% of the shares, excluding one share, of the Rocket and Space Center Progress (the city of Samara) being under federal ownership, after preliminary inclusion in its capital of 100%, not including one share, of two other target enterprises the Moscow Institution of Thermal Engineering corporation, Echo (Moscow) and the Novator Technical Center (in the town of Mirny in the Archangelsky region).

At the same time the charter capital of the two last joint-stock companies will be rebuilt as payment of additional shares placed by them. One share of each OJSC created by means of the transformation of the abovementioned 9 federal state unitary enterprises is included into Echo, together with one share of 6 of the abovementioned 13 OJSCs and the Moscow Institution of Thermal Engineering and also one share of the Novator Technical Center into charter capital of which is added one share of Echo.

In addition blocking stock interests of 4 OJSCs are being contributed to the United Rocket-Space Corporation for their further inclusion in the charter capital of the State Missiles Center named after Academician V.P.Makeev (in the city of Miass in the Chelyabinsky district), the blocks of shares of 4 OJSC (1 blocking and 3 minority ones) – for their further inclusion in the charter capital of Information Satellite Systems named after Academician M.F. Reshetnev (in the city of Zheleznogorsk of Krasnodar region), blocks of shares of 5 OJSCs (2 controlling and 3 blocking) – their further inclusion in the charter capital of the Russian Corporation of Rocket-Space Device Engineering and Information Systems (Moscow) and a minority block of shares of 1 OJSC - for Space Monitoring Systems, Management - Information and Electromechanic complexes named after A.G. Iosifian (Moscow). Four specifically named OJSCs located in Moscow, Krasnodarsky krai and the Chelyabinsky district are included in the group which consists of 13 OJSCs; their shares are supposed to be used as a contribution to the United Rocket-Space Corporation. The blocking stock interests and two more OJSCs are subject to inclusion into the charter capital of the OJSC created on the basis of transformation of the Federal State Unitary Enterprise State Research and Production Space Center named after M.V. Khrunichev (Moscow).

Taking into consideration the large scale of the planned events which embrace more than 40 enterprises from the list of strategic organisations, only 1 enterprise and 7 OJSCs are excluded. So, concerning the rocket and space industry, a variant of implementation of restructuring has been chosen, this variant is similar to the one chosen for the aircraft and marine industries, where already, since 2006-2007 the national structures of the holdings have been active in the form of joint-stock companies (the United Aircraft Corporation (UAC) and the United Shipbuilding Corporation (USC)), although experience of their functioning during the last 6–7 years is rather ambiguous.

Precisely because of this, the President of the Russian Federation issued Decree of No.596 On the Long-Term State of Economic Policy (subclause 'b' of clause 2, concerning the privatisation and management of state property) as of 7 May 2012, which provided for implementation until 1 March 2013 for analysis of the performance of companies consolidated by the government, including the United Aircraft Corporation, the United Shipbuilding Corporation and Rostechnologies, in order to prepare suggestions for improvement to their administration, to ensure implementation of coherent strategies for their

development within the state development programmes for appropriate economic sectors; in order to gain leading positions in separate segments of the world markets for aircraft, shipping, information, communications and space technology.

Another important change concerning the energy sector is the permission to increase the charter capital of Russian Networks by means of an additional issue of shares with the increase in the threshold of government corporate control up to 61.7% (previously – 54.5%). There has been a small increase by 0.09% (from 79.55% to 79.64%) in the block of shares of the Federal Grid Company of Unified Energy System (FGC UES), subject to inclusion into the charter capital of Russian Networks.

Remember that after the completion of a long lasting process of restructuring of the energy sector and after the liquidation of RAO UES of Russia in the summer of 2008 the government turned out to be the owner of controlling interests of two infrastructure companies: FGC UES and the Interregional Grid Distribution Companies (IGDC). Decisions made in the second part of November 2012 provided for renaming the second of these as 'Russian Networks' with its inclusion into the charter capital of almost the whole federal block of shares of FGC UES as reimbursement for the Russian Networks' offer of additional shares in connection with the increase in its charter capital, together with the maintenance of direct participation of the government in the capital of FGC UES on the value of not less than one share. The abovementioned amount of the federal block of shares in Russian Networks (61.7%) is fixed for the company and it is in the list of strategic joint-stock companies.

In total in 2013 the Federal Property Management Agency implemented events on the formation of 20 vertically integrated structures (VIS), and during that year the following measures were totally completed: implementation of 12 decrees of the President of the Russian Federation within the process of formation of 11 vertically integrated structures, including the Shipbuilding and Ship Repair Center, the Federal Hydroelectric Generating Company RusHydro, the concern Oceanpribor, Russian Networks, the concern Morinformsystem-Agat, Roskartography, The Scientific and Production Corporation, Uralvagonzavod named after F.E. Dzerzhinsky, the corporation Tactical Rocket Armament, the corporation The Moscow Institute of Heat Engineering, Rosgeologyand the state corporation, Rostechnologies.

After well-known events connected to the company Oboronservice occurred in autumn of 2012 new authorities of the Ministry of Defence of the Russian Federation directed their activities towards reconstruction of the holding. The director of the Property Relations Department of the defence corps D. Kurakin was told that from 9 subholdings, 100% of the shares, excluding one share of each, were included into the charter capital of Oboronservice, and in its new structures only 4 of them would remain: Slavyanka (maintenance, renewal and new construction of public utilities), Oboronenergo (maintenance of electrical equipment), Voentorg (food, tailoring and laundry service), Oboronstroi (military construction). The enterprises Remvooruzheniye, Spetsremont and Aviaremont should be handed in to the Ministry of Industry and Trade of the Russian Federation, Agroprom should be eliminated, and Krasnaya Zvezda should be subject to reform. Realisation of military assets is supposed to be outsourced, choosing sellers based on the results of competition.

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<sup>&</sup>lt;sup>1</sup> Ivanov M. Sergei Shoigu will leave the Oboronservice with the very minimum required, 01.11.2013; Ъ-Online.

### 6.1.4. Public sector government issues

The legal and policy framework in the field of the management of economic entities included in the public sector remained unchanged until 2013.

At the end of the year the Law on unitary enterprises No. 161-FZ of 14 November 2002 experienced two amendments concerning reasons for the creation of state enterprises and the powers of the government as an owner of their property, which are of an editorial nature. From the point of view of content, a more important amendment was made in July 2013 and it completed the previous definition of a large transaction, as a transaction or several interrelated transactions connected to the purchasing, dispossession or the possibility of dispossession by a unitary enterprise, directly or indirectly, of property of which the value is more than 10% of the charter capital of the unitary enterprise or is 50,000 times the amount set by the federal law on the Minimum Wage for Labour, including the following phrase: 'unless otherwise provided by federal law or adopted in accordance with their legal regulatory acts'.

After approval of the Government Resolution of the Russian Federation No. 990 On Regulations of Allocations of the Sovereign Wealth Funds (SWF) into the Securities of Russian Issuers Connected to Implementation of Self-Financing Infrastructure Projects, of 5 November 2013, it was determined that the effective Provisions on the management of the federally owned shares of joint-stock companies and the use of the special right for participation of the Russian Federation in the administration of joint-stock companies (golden shares) dated 3 December 2004 is not applicable to the case management of shares under federal ownership, purchased at the expense of the Sovereign Wealth Funds in accordance with the resolution.

As far as state companies' management practice is concerned, the focus of attention was the dividend policy and issues of payments to their executives.

The year 2013 was the first substantial time frame within which the influence of the changes and additions to the former mechanism of payments of dividends for companies, with participation of government in their capital, in order to form the revenue of the federal budget should have become visible. The federal budget was approved more than 7 years ago by Government Order of the Russian Federation No. 774-p of 29 May 2006.

By means of a similar document No. 2083-p of 12 November 2012 amendments were made to the abovementioned document which provided for the direction of payments of dividends at the value of not less than 25% of the net profit of a joint-stock company (not including revenues received from the revaluation of financial investments) unless otherwise stated by Government acts (the former edition of the document included information about the definition of the minimum share of net profit of a joint-stock company directed towards the payments of dividends). Representatives of the government interests in joint-stock companies had to ensure the implementation of provisions which were stipulated by the Order in connection with their subsidiaries, while the authorities had to implement coordination and approval of the investment programmes of the subjects of natural monopolies, taking into consideration the terms provided in the amendments.

At the same time the new edition of the document does not include information about any necessity to use the rates of free (consolidated) financial statements in a joint-stock company that has subsidiaries when determining the amount of dividends; neither does it include information about the order of the Ministry of Economy and Development to develop and approve methodological recommendations on the determination of the state position, as a shareholder, concerning the question about the payment of dividends.

According to estimates by the Chief of the Management of Corporate Systems of the Federal Property Management Agency, V. Seerikova, taking into consideration the results of the annual meeting of shareholders in 2013, only a few state companies failed to fulfill the demand set by the Government about the minimum share of net profit of a joint-stock company directed for the payment of dividends.

Among the authorities of the companies with state presence, the reduction of government workforce representation still was going on. So, in the boards of directors of OJSCs included in the special list there was a reduction in members from 141 to 122 people while the number of professional directors was increased from 293 to 347 - more in other words, by over 18%<sup>1</sup>.

The Federal Property Management Agency approved a list of essential competences for the members of auditing commissions, and the methodology for determination of the core assets of state companies.

Under development are methodological recommendations on the management of activities of Boards of Directors of such OJSCs; methodological recommendations on management of the activities of the Audit Committee of the Board of Directors; methodology of individual estimation of the members of joint-stock companies' boards of directors with state presence; and also methodological recommendations on the use of key indicators of effectiveness which can be used by state companies, unitary enterprises and also by companies, in the charter capital of which the total proportion of state presence is 50%.

The catalyst for the question about the payments for the authorities of state companies and golden parachutes turned out to be a situation which happened to one of the members of the authorities of Rostelecom, who received from the company more than RUR 200m for prescheduled termination of his employment contract. The information about such a big sum was made public and instigated a wave of negative judgments in the field of the close association of authorities and public organisations and stirred up claims from minority shareholders of the company.

As a result, the situation was followed by the decision of the Court which was issued at the request of the Federal Property Management Agency; according to the decision the appropriate clause of the decision of the Board of Directors of Rostelecom was formally invalidated. After the above-mentioned decision of the Court had come into force the shareholders of the company had the right to take the matter to Court to seek the seizure of financial assets from the manager in the case of his refusal voluntarily to refund the money to Rostelecom.

This case served as the basis for the introduction by the Ministry of Labor and Social Security into the Government of the Russian Federation of the bill on limits on the payments for top-managers upon separation from state companies and state corporations. In accordance with the bill, the minimum value of compensations is equal to three month's income, while the maximum value is six month's income. Financial compensation for unused annual leave is paid outside of the abovementioned restriction. In the case of termination of an employment contract under the agreement of both parties, the payment of any compensation to the above entities must not be implemented<sup>2</sup>. Later the bill was laid before Parliament.

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<sup>&</sup>lt;sup>1</sup> www.rosim.ru, 19.12.2013.

<sup>&</sup>lt;sup>2</sup> The Court found the golden parachute of the former leader of Rostelecom inadequate, lenta.ru, 5 December 2013; www.rosim.ru, 06 December 2013.

#### 6.1.5. Budget effect of the government property policy in 2000-2013

In 2013, in contrast to several previous years, there was a decrease in budget revenues related to public property, and it was first observed in 2008-2009.

Remember that all federal revenues from property owned by the state can be divided into two groups. One group consists of the proceeds from the use of state property (renewable sources). The other group comprises receipts of one-time origin which may not be renewed due to the transfer of ownership from the state to other businesses and individuals after the sale including sale as part of the framework of privatisation (non-renewable sources).

Below in *Tables* 5 and 6 are given the data on the income to the federal budget for 2000-2013 regarding the use of state property and selling of it only for a certain range of material objects<sup>1</sup>.

Turning to the analysis of the preliminary results of the budgetary effect of the property policy of the state in 2013 in terms of renewable sources, firstly, it should be noted that there was a sharp (by more than 1/3 compared to 2012), fall in dividend income, the value of which was (RUR 134.8bn; however, this was greater than their total value for the first 2 years of post-crisis recovery (2010-2011). The transfer of part of their profits by unitary enterprises, by contrast, grew by almost 1/4 reaching RUR 6.2bn. Fiscal revenues from land rent remained almost at the same level as in 2012 (about RUR 7.7bn); but revenues from renting out federal property increased by 35%, which, however, corresponds only to the level of the early 2000s.<sup>2</sup>

owned by the state (income from the disposition of rights to the results of intellectual activities (R & D and engineering works) of military, special and dual purpose, income from the disposition of rights to the results of scientific and technical activities owned by the Russian Federation, profits from the operation and use of the property of highways, the exclusive right of disposal of the Russian Federation to the intellectual property in the field of Geodesy and Cartography, fees for the use of highways by vehicles registered in other states, and other income from the use of property owned by the Russian Federation), as well as incomes from the permitted activities of organisations to the federal budget and receipts from the sale of state reserves of precious metals and

<sup>&</sup>lt;sup>1</sup> Outside the scope were left federal budget revenues received as payments for natural resources (including water biological, revenues from the use of forest resources and subsoil use), recovery of agricultural production losses associated with the withdrawal of agricultural land, as a result of financial transactions (income from budget investments (income on the balance of the federal budget and from the placement thereof, and, since 2006, also revenues from the management of the Stabilisation Fund of Russia (since 2009 - the Reserve Fund and National Welfare Fund), incomes from the amounts accumulated in course of the auctions for the sale of shares owned by the Russian Federation), interest received from budget loans within the country at the expense of the federal budget, interest on government loans (inflow of funds from foreign governments and their entities in the payment of interest on loans granted to the Russian Federation, the income funds from enterprises and organisations in the payment of interest and loan guarantees received by the Russian Federation from foreign governments and international financial institutions)), from the provision of paid services or the reimbursement of expenses of the state, transfer of profits of the Central Bank of the Russian Federation, some payments from state and municipal enterprises and organisations (patent fees and registration fees for the official registration of computer programs, databases and topographies of integrated circuits, and other incomes, which until 2004 inclusive, were part of the payments from government organisations (other than income from the activities of the Vietsovpetro joint venture since 2001 and the transfer of part of the profits of the FSUEs since 2002)), income from the implementation of production sharing agreements (PSAs), income from the disposal and sale of confiscated and other property appropriated to the state revenue (including that transformed into state property by inheritance or gift, or treasures), revenues from lotteries, other income from the use of the property and rights

gemstones.

<sup>2</sup> This value also includes the first allocated in budget reports of income from the rental of the property constituting the treasury of Russia (except for land) (about RUR1 bn).

The amount of income from land rent, as in the previous year, includes revenues from the payment for the land located in the rights-of-way of federally owned public roads of federal importance while the payment from the implementation of agreements on the establishment of easements in respect of land plots within the boundaries

Table 5
Federal budget income from use of public property (renewable sources)
in 2000–2013 (million rubles)

Year	Total	Dividend on shares (2000–2013) and income from other forms of participation in capital (2005–2013)	Rent for land owned by the state	Rental income from publicly owned property	Income from transfer of the profits remaining after payment of taxes and other obligatory payments of the Federal State Unitary Enterprises (FSUE)	Income from business of joint venture Vietsovpetro
2000	23,244.5	5,676.5	-	5,880.7	-	11,687.3 <sup>a</sup>
2001	29,241.9	6,478.0	3,916.7 <sup>b</sup>	5,015.7°	209.6 <sup>d</sup>	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 <sup>e</sup>	2,387.6	16,200.9
2004	50,249.9	17,228.2	908.1 <sup>f</sup>	12,374.5 <sup>g</sup>	2,539.6	17,199.5
2005	56,103.2	19,291.9	1,769.2 <sup>h</sup>	14,521.2 <sup>j</sup>	2,445.9	18,075.0
2006	69,173.4	25,181.8	3,508.0 <sup>h</sup>	16,809.9 <sup>J</sup>	2,556.0	21,117.7
2007	80,331.85	43,542.7	4,841.4 <sup>h</sup>	18,195.2 <sup>j</sup>	3,231.7	10,520.85
2008	76,266.7	53,155.9	6,042.8 <sup>h</sup>	14,587.7 <sup>j</sup>	2,480.3	-
2009	31,849.6	10,114.2	6,470.5 <sup>h</sup>	13,507.6 <sup>J</sup>	1,757.3	-
2010	69,728.8	45,163.8	7,451.7 <sup>h</sup>	12,349.2 <sup>i</sup>	4,764.1	-
2011	104,304.0	79,441.0	8,210.5 <sup>h</sup>	11,241.25 <sup>i</sup>	4,637.85	773.4
2012	22,8964.5	212,571.5	7,660.7 <sup>k</sup>	3,730.3 <sup>1</sup>	5,002.0	-
2013	153,775.55	134,831.8	7,700.5 <sup>1</sup>	4,035.2+1,012.25 <sup>1</sup>	6,195.8	-

<sup>&</sup>lt;sup>a</sup> – according to the RF Federal Property Management Agency, not itemised separately in the law on the federal budget for 2000, specified is the amount of payments from state-owned enterprises (RUR 9.8871bn) (without specific components);

b – amount of rent (i) for agricultural lands and (ii) for the land of cities and settlements;

- e the total amount of income from the rental of property owned by the state (without itemisation of land rent);
- f amount of rent (i) for the land of cities and towns, and (ii) for land in federal ownership after the allocation of public ownership of land;
- g amount of income from the rental of the property assigned to (i) scientific organisations, (ii) educational institutions, (iii) health care institutions, (iiii) public institutions of culture and art, (iiiii) public archival institutions, (iiiiii) post offices of the federal postal service of the Russian Ministry of Communications and Informatisation, (iiiiiii) organisations of scientific services of academies of sciences having a state status and (iiiiiiii) other income from rental of federally owned property;
- h rents after the allocation of public ownership of land and money from sale of the right to lease agreements for land in federal ownership (except for lands of federal autonomous (2008-2011) and budget (2011) institutions);
- j income from renting out property located in the operational management of the federal authorities, and institutions established by them; and those under the economic management of FSUEs: placed under the operational control having state status (i) scientific institutions, (ii) scientific service institutions of the Russian Academy of Sciences and branch academies of sciences, (iii) educational institutions, (iiii) health facilities, (iiiii) agencies of the federal postal communication of the Federal communications Agency, (iiiiii) public institutions of culture and art, (iiiiiiii) public archival institutions; and (iiiiiiiii) other income from rental of property in the operational management of the federal authorities institutions established thereby; and the ones in

of rights-of-way of public roads of federal importance for the construction (reconstruction), repair and operation of the road services, construction, transfer, conversion and maintenance of utilities, installation and maintenance of advertising structures in the budget statements for 2013 was not itemised.

c – amount of income from the rental of the property assigned to (i) scientific organisations, (ii) educational institutions, (iii) health care institutions, (iiii) public museums, public institutions of culture and art, (iiiii) archival institutions, (iiiiii) Ministry of Defence of the Russian Federation, (iiiiiii) organisations of the Ministry of Railways of the Russian Federation, (iiiiiiii) Organisations of scientific services of academies of sciences having a state status; and (iiiiiiiiii) other income from renting out the property owned by the state;

<sup>&</sup>lt;sup>d</sup> – according to the the RF Federal Property Management Agency, not itemised separately in the law on the federal budget for 2000, the value coincided with the amount of other incomes in payments from the state and municipal organisations;

economic management of FSUEs<sup>1</sup> (for 2006-2009 without revenues from the permitted activities and use of federal property located outside the territory of the Russian Federation received abroad, which in previous years were not itemised at all<sup>2</sup>);

- i income from renting out property located in the operational management of the federal authorities and institutions established by them (except for autonomous and budget ones): placed under the operational control of having state status (i) scientific institutions, (ii) scientific service institutions of the Russian Academy of Science and branch academies of sciences, (iii) educational institutions, (iiiii) health facilities, (iiiii) public institutions of culture and art, (iiiiii) public archival institutions, (iiiiiii) located in the operational management of the Ministry of Defence and its subordinate institutions (2010) (iiiiiiiii) federally owned, by order of the functions implemented by the Office of Presidential Affairs (2010) and (iiiiiiiiii) other income from renting out the property located in the operational management of the federal authorities and institutions established by them (excluding income from permitted activities and the use of federal property located outside the territory of the Russian Federation received abroad);
- <sup>k</sup> rents after the allocation of public ownership of land and money from sale of the right to lease agreements for land in federal ownership (except for lands of federal budget and autonomous institutions) as well as (i) rent for lands located in a right-of-way of public roads of federal importance federally owned (2012-2013); and (ii) payments from the implementation of agreements on the establishment of easements in respect of lands within the boundaries right-of-way of public roads of federal importance for the construction (reconstruction), repair and operation of the road service, construction, transfer, conversion and maintenance of utilities, installation and maintenance of advertising structures (only in 2012);
- <sup>1</sup> income from renting out property in the operational management of the federal authorities and institutions established by them (except for the budget and autonomous ones) placed under the operational control of having state status (i) scientific institutions, (ii) educational institutions, (iii) health facilities, (iiii) public institutions of culture and art, (iiiii) public archival institutions, (iiiiii) other income from renting out the property in the operational management of the federal state-owned institutions, (iiiiiii) federal government agencies, the Bank of Russia and the management bodies of public extra-budgetary funds of the Russian Federation (excluding revenues from the use of federal property located outside the territory of the Russian Federation received abroad).

*Source*: laws on execution of federal budget for the years of 2000-2012; report on the federal budget as of 1 January 2014 (online), www.roskazna.ru; author's calculations.

As a result, dividends have provided for the overwhelming majority of federal income from renewable sources (about 88% versus 93% of a year earlier) while the share of other sources was more symbolic: land rent, - 5%; profit transferred by FSUEs, - 4%; property rent 3.3%.

Turning to an analysis of budget revenues from non-renewable sources it is necessary to recall that since 1999 the proceeds from the privatisation and sale of state property (shares, and in 2003-2007 land spots<sup>3</sup>) began to be treated as sources for financing the federal budget deficit (*Table 6*).

In 2013 federal budget revenues of a property nature from non-renewable sources fell by about 1/3 somewhat exceeding the level of 2005. The main contribution to this result caused a rapid (by an order of more 13.6 times) drop in revenues from land sales which amounted to only RUR 1.2bn against more than RUR 16.4bn a year earlier, which roughly corresponds to

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<sup>&</sup>lt;sup>1</sup> In 2008-2009 Federal state unitary enterprises as a source of income from rental of property in their economic management were not mentioned, and renting out the property located in the operational management of the federal authorities and institutions established by them excludes property of the federal autonomous institutions.

<sup>&</sup>lt;sup>2</sup> according to the RF Federal Property Management Agency revenues from the use of federal property located abroad (in addition to the income on the shares of the Russian party of Vietsovpetro) amounted to RUR 315m in 1999; and RUR 440m in 2000. Later, the FSUE Foreign property management company started to play a major role in the commercialisation of federal property abroad.

<sup>&</sup>lt;sup>3</sup> In 2003-2004 including for the sale of lease rights.

the values of 2008-2009. Also, revenues from various assets decreased by more than by 40%, while the proceeds from the sale of shares (RUR 41.6bn) decreased by only 5%.

*Table 6* 

# Income of federal budget from privatisation and sale of property (non-renewable sources) in 2000–2013, million rubles

Year	Total	Sale of shares in federal ownership (2000–2013) and other forms of participation in capital (2005–2013) <sup>a</sup>	Sale of lands	Sale of other property
2000	27,167.8	26,983.5	-	184.3 <sup>b</sup>
2001	10,307.9	9,583.9	119.6°	217.5+386.5+0.4(ITA) <sup>d</sup>
2002	10,448.9	8,255.9°	1,967.0 <sup>f</sup>	226.0 <sup>g</sup>
2003	94,077.6	89,758.6	3,992.3 <sup>h</sup>	316.2+10.5 <sup>j</sup>
2004	70,548.1	65,726.9	3,259.3i	197.3+1,364.6+0.04(ITA) <sup>k</sup>
2005	41,254.2	34,987.6	5,285.7 <sup>1</sup>	980.9 <sup>m</sup>
2006	24,726.4	17,567.9	5,874.2 <sup>n</sup>	1,284.3°
2007	25,429.4	19,274.3	959.6 <sup>p</sup>	5,195.5 <sup>q</sup>
2008	12,395.0	6,665.2+29.6	1,202.0 <sup>r</sup>	4,498.2+0.025(ITA) <sup>s</sup>
2009	4,544.1	1,952.9	1,152.5 <sup>r</sup>	1,438.7 <sup>s</sup>
2010	18,677.6	14,914.4	1,376.2 <sup>r</sup>	2,387.0+0.039(ITA) <sup>s</sup>
2011	136,660.1	126,207.5	2,425.2 <sup>r</sup>	8,027.4 <sup>s</sup>
2012	80,978.7	43,862.9	16,443.8 <sup>r</sup>	20,671.7+0.338(ITA) <sup>s</sup>
2013	55,198.5	41,633.3	1,212.6	12,352.3+0.310

<sup>&</sup>lt;sup>a</sup> – relate to the sources of domestic federal budget deficit financing; the amount of RUR 29.6m in 2008 (according to the report on the federal budget as of 1 January 2009) attributed to federal budget revenues; but absent in the law on execution of the federal budget for 2008;

- <sup>e</sup> including RUR 6m from sale of shares owned by the subjects of the Russian Federation;
- f proceeds from sale of land and intangible assets the value of income from which was not allocated separately, attributable to federal budget revenues;
- <sup>g</sup> proceeds from sale of property owned by the state (including RUR 1.5m from sale of property owned by the subjects of the Russian Federation) attributable to internal sources of financing the federal budget deficit;
- h includes income: (1) from sale of land on which the immovable property, that before alienation was in the federal property, to be transferred to the federal budget; (2) from sale of other lands as well as from sale of rights to enter into contracts of lease; (3) from sale of lands after allocation of public ownership of land; as well as from sale of rights to contracts on lease thereof credited to the federal budget attributable to internal sources of financing the federal budget deficit;
- j amount of revenue (1) from sale of property in federal ownership attributed to internal sources of financing the federal budget deficit; and (2) proceeds from sale of intangible assets attributable to federal budget revenues;
- <sup>k</sup> includes income: (1) from sale of land to the state ownership of the lands where the immovable property is located that before alienation was in federal ownership, credited to the federal budget; (2) from sale of other lands as well as from sale of rights to contract of lease thereof; (3) from sale of land after allocation of public ownership of land as well as from sale of rights to lease contracts, credited to the federal budget attributable to internal sources of financing the federal budget deficit;
- <sup>1</sup> amount of revenues (1) from sale of property located in the federal property attributed to internal sources of financing the federal budget deficit; (2) income (i) from sale of apartments; (ii) from sale of equipment, vehicles and other assets to be credited to the federal budget; (iii) from sale of products of ships utilisation; (iiii) from sale of property of SUEs, institutions and military equipment; (iiiii) from sale of products of utilisation of weapons, military equipment and ammunition; (3) income from sale of intangible assets (ITA) attributable to federal budget revenues;

<sup>&</sup>lt;sup>b</sup> – proceeds from privatisation of organisations owned by the state attributable to internal sources of financing of the federal budget deficit;

<sup>&</sup>lt;sup>c</sup> – proceeds from sale of land and rights to lease lands owned by the state (with itemisation of those where privatised enterprises are located) attributable to federal budget revenues;

<sup>&</sup>lt;sup>d</sup> – amount of proceeds from (1) the sale of federally owned property attributed to internal sources of financing the federal budget deficit; (2) income (i) from sale of apartments, (ii) from sale of productive and nonproductive funds, vehicles, other equipment and other assets; as well as (3) proceeds from sale of intangible assets (ITA) attributable to federal budget revenues;

- m includes proceeds: (1) from sale of land before allocation of public ownership of land where the immovable property is located that before alienation was in federal ownership; (2) from sale of lands that after allocation of public ownership of land to be transferred to the federal budget; (3) from sale of other lands owned by the state before allocation of public ownership of land and not intended for housing (last update applies only to 2006) attributable to financing the federal budget deficit;
- "- revenues from sales of tangible and intangible assets (net of the federal budget from the disposal and sale of confiscated property and other property converted into the state revenue) include income (i) from sale of apartments; (ii) from sale of property of FSUEs; (iii) from sale of property located in the operational management of federal agencies; (iiii) from sale of military property; (iiiii) from sale of products of utilisation of weapons, military equipment and ammunition; (iiiiii) from sale of other federally owned property; (iiiiiii) from sale of intangible assets attributable to federal budget revenues;
- ° revenues from sales of tangible and intangible assets (excluding incomes as a proportion of profitable products of state in the performance of production sharing agreements (PSAs) and the federal budget funds from disposal and sale of escheat, and other confiscated property converted into the state revenue) include income (i) from sale of apartments; (ii) from sale of property of FSUEs; (iii) from sale of property in operational management of federal agencies; (iiii) from sale of military property; (iiiii) from sale of products of utilisation of weapons, military equipment and ammunition; (iiiiii) income from sale of other federally owned property attributable to federal budget revenues;
- <sup>p</sup> proceeds from sale of lands after allocation of public ownership of land that were federally owned attributable to finance the federal budget deficit;
- <sup>q</sup> revenues from sales of tangible and intangible assets (excluding income as a proportion of profitable products in performance of production sharing agreements (PSAs) and the federal budget from the disposal and sale of escheat, and other confiscated property converted into state revenue, funds from sale of sequester timber) include income (i) from sale of apartments; (ii) from sale of property of FSUEs; (iii) from sale of property located in operational management of federal agencies; (iiii) from sale of released movable and immovable property of the military and other federal executive bodies which involve military and service equal thereto; (iiiii) from sales of military products from the stock of the federal bodies of executive power in framework of military-technical cooperation; (iiiiii) income from sale of other federally owned property attributable to federal income the budget; <sup>r</sup> proceeds from sale of lands in federal ownership (except for lands of federal autonomous and budget (2011-2012) institutions) attributable to federal budget revenues;
- s revenues from sale of tangible and intangible assets (excluding income as a proportion of profitable products in the performance of production sharing agreements (PSAs); the federal budget funds from disposal and sale of escheat, and other confiscated property converted into the state revenue; funds from sale of sequester timber (2008-2011); income from the release tangible assets of government reserves of special raw materials and fissile materials (in part of proceeds from sale; from the provision for temporary borrowing and other use) as well as, for 2012, funds from sale of wood obtained at conducting activities for protection, conservation, reforestation with state at placement of state order for performance thereof without sale of forest plantations for timber, and timber obtained using forests on forest lands in accordance with Articles 43-46 of the Forest Code; income from commodity interventions from federal intervention fund of agricultural products, raw materials and food; from release of tangible assets from state reserve; from engaging convicts in paid work (in terms of sales of finished products) from sales of special storage products)) include revenues: (i) from sale of apartments; (ii) from sale of property located in operational management of federal agencies (except autonomous and budget (2011-2013); (iii) from sale of movable and immovable released military and other property of the federal executive authorities which involve military and service equal thereto; (iiii) from sale of products of utilisation of weapons, military equipment and ammunition; (iiiii) from sale of military products from stock of the federal bodies of executive power in framework of military-technical cooperation (2008, and 2010-2013); (iiiiii) from sale of products of utilisation of weapons and military equipment within federal target program "Industrial disposal of weapons and military equipment (2005-2010); (iiiiiii) incomes from sale of other federally owned property as well as income from sale of intangible assets (ITA) attributable to federal budget revenues.

*Source*: laws on execution of the federal budget for 2000-2012; report on the federal budget as of 1 January 2014 (online), www.roskazna.ru; author's calculations.

This source has provided more than 3/4 of the total revenues from non-renewable sources, against 54% a year earlier. The share of income from the sale of various assets and from land is 22.4% and 2.2%, respectively.

The aggregate amount of federal budget revenues from the privatisation (sale) and use of state property in 2013 (*Table* 7) decreased compared to the previous year by almost 1/3; and, taking into account the funds received by the Central Bank of Russia in 2012 from sale of the SberBank stock of shares, - by more than half. However, their amount (about RUR 209bn) was the third largest since the early 2000s after the maximum achieved in 2012 together with indicators for the year of 2011.

The ratio between non-renewable and renewable sources in the structure of total revenues from the privatisation (sale) and the use of state property in 2013 approximately corresponded to the values for 2012, excluding the proceeds from the sale of the SberBank stock of shares.

Taking into account the results of that transaction, when compared to 2012, the share of non-renewable sources in the structure of total revenues from the privatisation (sale) and the use of state property in 2013 fell by almost half (by 26.4%) when compared to the level of 2001; although exceeding the values for the year of 2010. The share of revenues from the use of public property, on the contrary, increased from almost 49% to 73.6% in 2012. The absolute value of this result is second only to the results for the end of 2012, exceeding the values for the year of 2011 by one and a half times, while revenues from the privatisation (sale) of assets are approximately 2.5 times less than in 2011, also losing indicators for the years of 2003-2004.

Table 7
Structure of federal budget revenues of property nature from different sources in 2000–2013

Year	Total revenues fro		Revenues fron (nonrenewa		Revenues from use of state property (renewable sources)	
	Million rubles	% of total	Million rubles	% of total	Million rubles	% 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	94,77.6	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/	100.0	80,978.7/	26.1/	228,964.5	73.9/
	469,243.2*		240,278.7*	51.2*		48.8*
2013	208,974.05	100.0	55,198.5	26.4	153,775.55	73.6

<sup>\*</sup> including funds received by the Central Bank of the Russian Federation from the sale of SberBank shares (RUR 159.3bn) that may somewhat overestimate the total share of non-renewable sources because these funds were not credited to the budget in full but net of their book value and the sum of the costs associated with the sale of shares. Accordingly, the share of renewable sources is probably understated a little. *Source:* laws on execution of the federal budget for 2000-2012; report on the federal budget as of 1 January 2014

Source: laws on execution of the federal budget for 2000-2012; report on the federal budget as of 1 January 2014 (online), www.roskazna.ru; author's calculations.

Basically, in 2013 economic policy in the sphere of privatisation and state property management was characterised by the same trends as in previous years. Completion of the first 3-year forecast plan (programme) of privatisation (2011-2013) has left its mark on the details of the privatisation process in the past year (the predominance of the largest transactions not directly related to funding the budget) and on the contents of the new forecast plan (programme) of privatisation for 2014-2016 (greater moderation and reasonableness

taking into account the conservation of state corporate control over a number of companies, the importance of which is beyond the ordinary course of business for the Russian economy).

With all this as problematic issues highlighted by the results of implementation of the privatisation programme of 2011-2013 one must specify the repeated corrections of the forecast plan (privatisation) which is in certain contradiction to the idea of transition from their annual approval to a longer planning horizon (3 years), as well as the lack of correlation of the privatisation mechanisms with the resolution of such tasks as the creation of conditions for attracting investment in the development of joint stock companies based on new technologies, the development and promotion of innovation on the part of private investors, the improvement of corporate governance, and the promotion of stock market development.

This year the state of affairs in the area analysed will be heavily dependent on the macroeconomic situation, which will affect both the volume of privatisation revenues and the revenues derived from the activities of the state as a business entity (primarily dividends). Additional factors requiring careful analysis in this regard are the possible solutions to regulate the tariffs of the natural monopolies, affecting, primarily, the public sector of the economy.

# **6.2.** Industrial policy in Russia in 2000–2013: institutional features and key lessons

Conceptual and practical issues of the development of industrial policy have attracted, and continue to attract, the attention of experts and politicians. In the 2000s, especially after the world financial crisis, and in the period of remaining uncertainty over further developments, a discussion of best practices, reasons for the failure and the capabilities and features of a new industrial policy became quite popular in both developed and developing countries.

The subject of the formation and implementation of a state industrial policy in Russia has become particularly relevant in recent years as it has become obvious that an innovative model of development is needed. Additional impetus was provided to this theme by the recent discussions at the highest political level of issues related to Russian economic diversification, the increase in high-tech industries and the creation of high flying jobs in both the traditional and new sectors.

In this regard most of the focus of this article is on assessment of the experience in industrial policy implementation in Russia, and a determination of the key lessons including an analysis of two examples of industrial policy – the nano-industry and the automotive industry<sup>1</sup>.

# 6.2.1. The industrial policy: terms and features, evolution of models and change in government attitude

Industrial policy has always attracted greater attention from decision-makers, the business elite and experts. There are many reasons to look at industrial policy, although they can be very different, ranging from an accentuated need to compensate for specific market failures and the initiation of certain structural changes to the relatively neutral coordination of different policies.

The many discussions conducted by the State on the implementation of industrial policy and the objective difficulties of assessing the actual effect of such policies on economic

<sup>&</sup>lt;sup>1</sup> This paper is prepared on the basis of research conducted by the authors by the state order of the Russian Presidential Academy of National Economy and Public Administration in 2013.

development have resulted in uncertainty over the concept of industrial policy. In this regard we provide some basic definitions of industrial policy in our opinion:

- (1) industrial policy in general is a set of State measures to support or avoid certain shifts in structure<sup>1</sup>;
- (2) industrial policy is an attempt by the State to promote the flow of resources to those sectors which are considered by the State as important for future economic growth<sup>2</sup>;
- (3) industrial policy is aimed at specific sectors (and the companies being parts thereof) in order to achieve results which are considered by the State as effective for economy as a whole<sup>3</sup>.

With changing attitudes to industrial policy, its preferred forms and the definitions thereof have also been transformed. Currently the following definition is deemed to be operational for international institutions (OECD, UNIDO): *industrial policy is a State policy which is aimed at improving the business environment or the structure of economic activity in terms of sectors and technologies and, through intervention, it is expected to provide the best prospects for economic development and social benefit when compared to the absence of such intervention<sup>4</sup>.* 

The following industrial policy attributes can be identified: activity and advancement; determination of priorities (or anti-priorities); reallocation of resources, rights, control between sectors, industries (formation of different rents); orientation towards long-term profit from the economy as a whole. A typical feature of an industrial economy is a system of objectives to change the economic structure, so that such priorities can be determined either from top (State) or from bottom (entrepreneur). It should be noted that industrial policy is not just support for the winners, but also about providing assistance to those lagging behind; it is not just a support for progressive structural changes in the economy but, on the contrary, about countering negative structural changes in the economy.

A key feature of industrial policy is that it combines different tools, including those which are generally typical of other functional policies (tax, customs, monetary, etc.) without any original tools of its own. This creates difficulties in distinguishing such terms as 'industrial policy', 'structural policy', 'sectoral policy' and 'competitive growth policy'.

There are many different classifications of industrial policy: by nature of the priority – the sector, industry, market, or area of technology; by directivity – export expansion or import substitution; by the nature of the targeted objects – traditional and new business, large companies or small and medium-sized enterprises: by the sources of reallocated assets – budget, development institutes, business tools; by participants – Russian and foreign investors; by style of formation and implementation – state or national (partnership between governments, businesses, community), etc.

As to *industrial policy models* it should be noted that there are no firm views. Generally there are two models of industrial policy: *vertical* and *horizontal*.

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<sup>&</sup>lt;sup>1</sup> Price, C.V. (1981). Industrial Policies in the European Community. MacMillan for the Trade Policy Research

<sup>&</sup>lt;sup>2</sup> Krugman, P., Obstfeld, M. (1991). International Economics: Theory and Policy. New York. HarperCollins Publishers

<sup>&</sup>lt;sup>3</sup> Chang, H.J. (1994). The Political Economy of Industrial Policy. St Martins's Press.

<sup>&</sup>lt;sup>4</sup> Pack, H., Saggi, K. (2006). Is there a case for industrial policy? A critical survey. World Bank Research Observer, 21 (2): 267–297; Warwick, K. (2013). Beyond Industrial Policy: Emerging Issues and New Trends. OECD Science, Technology and Industry Policy Papers, No. 2, OECD Publishing.

In general, the vertical policy provides support, rendered by the State to individual companies and (or) industries (picking winners), with selectivity of the measures being implemented. *The vertical model of industrial policy is* aimed at the development of certain sectors and the establishment of industrial priorities. It is characterised, most of all, by the problem of the identification of future winners, the active use of the mechanisms of direct support and the creation of special conditions through preferences and protectionism.

Horizontal policy is generally connected with structural changes in the industry (supporting research and development, deregulation, promotion of competition), but is indifferent to the measures implemented. *Horizontal industrial policy* relies mostly on multiple channels of influence, innovations, the formation of new sectors and companies, and is less oriented towards direct reallocation of rental income and more towards reduction in the barriers to growth.

With all the conventions of such comparisons, some experts are of the opinion that currently three models of industrial policy can be determined: vertical, horizontal and, finally, industrial policy in an open economy. The peculiar feature of this last model is that it creates the conditions for quasi-rents (to obtain which, companies have apply their best efforts), a focus on maintaining communication between agents (matching winners) and extending the sphere of search networking. However this model does not solve the problem of how to achieve (accumulate) a critical level of changes.

Considering the history of practical implementation of industrial policies in different countries it should be noted that this type of policy has always been met with a mixed reception in different part of the world, with periods of 'enthusiasm' replaced by periods of 'disgrace'. From the perspective of the evolution of perceptions of industrial policy in the world and approaches to the implementation thereof<sup>2</sup> it seems appropriate to distinguish four stages (Table 8).

In the 50s – 60s many states saw their public policy priorities in industrialisation, the compensation of market failures, the protection of new emerging sectors and the potential for the public sector. In the 70s – 90s the existence of problems in the realisation of industrial policies became more obvious: governmental failures, distortion in the competitive sphere and the rent-oriented behaviour of agents could be witnessed. As a consequence, from the very beginning of the 80s there has been a domination by the ideology that includes such priorities as trade liberalisation, privatisation and direct foreign investments. Substantial attention has also been paid to the realisation of structural programmes.

Until the early 90s, active measures had been undertaken within the context of industrial policy. These related to the direct influence and support of "champions". Amid globalisation, the development of TNCs and the reallocation of industrial factors in the 90s, there was a change in emphasis of industrial policy – it became more connected with the creation of the conditions necessary for capital reflow into separate sectors in order to improve the investment attractiveness of those sectors.

<sup>2</sup> Aiginger, K. (2007). Industrial Policy: A Dying Breed or A Re-emerging Phoenix. Journal of Industry, Competition and Trade, 7(3):297–323; Aghion, Ph., Boulanger, J., Cohen, E. (2011). Rethinking Industrial Policy. Bruegel Policy Brief, 04/2011; Naudé, W. (2010). Industrial Policy: Old and New Issues. UNU-WIDER Working Paper No. 106.

<sup>&</sup>lt;sup>1</sup> Kuznetsov, Y., Sabel, C. (2011). New Open Economy Industrial Policy: Making Choices without Picking Winners. PREMnote, 161. The World Bank.

Table 8

# Major stages in the evolution of perceptions of industrial policy in the world

Stage	Priorities of state policy	Distinctive features of industrial policy	Attitude towards industrial policy
The 50s – 60s	Industrialisation, import substitution, emerging public sector management	Tough, vertical policy, compensation of market failure, high level of selectivity	Fast increase in popularity of industrial policy in different states
The 70s – 90s	Trade liberalisation, privatisation, attraction of direct foreign investments, laissez-faire	Limited application, renunciation of tough instruments (protection of markets, support of national champions) in favour of mild ones (terms for capital reflow)	Governmental failures, distortion in business sphere, seizure, rent-oriented behaviour, globalisation, substantial doubts about the necessity to implement industrial policy
2000–2009	Reindustrialisation, development of stable innovation, perfection of national innovation systems	Mild, horizontal policy, compensation of system failures contribution to acceptance of knowledge, guarantee of dynamic benefits, guarantee of demonstration effects, self-disclosure	Market failures and government failures, ecology, Chinese and Indian factors, lagging factor, influence of evolutionary theory of growth, reconsideration of the government's role in the concept of industrial policy
2010 – Present	Protection of national sectors, guaranteed employment, search for new resources of sustainable growth	Technological industrial policy, cluster-based industrial policy, stimulation of interagent links, partnership support, accumulation of critical changes, design of competition- and innovation-friendly sectoral policy that can increase the quality of growth	Ideological crisis of the Washington Consensus, new post-crisis realism, strengthening and clarification of the government's role, search for new models of industrial policy, experimental construction of new industrial policy

The 2000s was a period of some reconsideration of the government's role, a balanced assessment of market and government failures and also a period of intensified attention towards stimulation of innovation and the development of national systems of innovation. During the first half of the 2000s, after a period of serious disappointment with the results of past industrial policy, it again gained governmental popularity including attention from the authorities within the EU. This was connected to several factors<sup>1</sup>, in particular to the increased risk of deindustrialisation as a result of the displacement of production to the countries that could exploit retardation factors (low wages, the lack of strict environmental controls etc.), unfair competition and of weak economic growth in Europe. In this situation the typical market programmes (privatisation, deregulation) were already not leading to any significant results, especially when taking into consideration evolutionary growth theory, indicating that the significant factors of influence are education, interaction and the acceptance of knowledge; manifested through technological dynamism and the emergence of new technological industries.

Globalisation has weakened the potential of vertical industrial policy and its traditional instruments such as tariff-rates, subsidies and demands within local markets. At the same time there has been an increase in demand for a "new" industrial policy focused on the compensation of strategic "market failures" and moreover on supporting innovation and the development of education. During the acute phase of the world financial crisis (of 2008-2009) an actual expansion of the appliance of industrial policy instruments took place; at the same time as the implementation of protectionist and preferential methods were being reinforced.

<sup>&</sup>lt;sup>1</sup> Aiginger, K. (2007). Industrial Policy: A Dying Breed or A Re-emerging Phoenix. Journal of Industry, Competition and Trade, 7(3):297–323.

On the whole, during the 2000s, there was an active process of convergence of industrial policies and innovation policies: the former became horizontal while the latter, by contrast, became vertical and specialised, with the latter also becoming the most important component of industrial policy. During the post-crisis period, with unstable world economic development and contradictory lessons from past crises, industrial policy was hailed more as a systemic component for coordinating governmental policies.

At all stages in the evolution of the perception of industrial policy a lot of attention has been paid to a comparison of the benefits and risks connected to the realisation of industrial policy. However all the arguments on one side, as a rule, have always managed to come across as no less weighty than those of the other and vise versa. It goes without saying that today there are already a great many examples of industrial policies which have been implemented in different countries at different times. Examples of the most successful industrial policies usually include countries such as Brazil, Finland, Japan and South Korea while the least successful attempts to implements the policy include the countries of tropical Africa and, to a certain degree, the countries of Latin America. However most conclusions and evaluations by policy experts of examples of the realisation of industrial policies differ significantly, and so it can be really difficult to understand the impact of industrial policy. As a consequence, a general analysis of industrial policy examples does not lead to unambiguous conclusions about its "value" or "harm" for economic development.

In general, *industrial policy is a very complicated instrument with attractive prospects but high levels of risk*. For the realisation of effective industrial policy, the ability of the state to implement "smart politics" is important. Furthermore a concerned reaction to independent assessments is important and a readiness publicly to admit mistakes and to draw necessary conclusions for future needs is considered even more so.

6.2.2. Russian industrial policy in the 2000s: conditions and specifications, factors of change, interest groups

# A. Stages of formation and implementation of Russian industrial policy

In Russia, industrial policy has often been associated with vigorous and excessive state intervention in the economy, protecting the interests of particular large national companies, which is why it has been considered to be a particularly dangerous retreat from market reforms. Especially tough criticism of the industrial policy in Russia at the end of the 90s and the beginning of the 2000s was connected to an initial distrust of its effective implementation, taking into account the poor quality of the state system and the existence of many possible risks that there might have been hidden lobbying for the interests of different groups, a distortion of the results achieved and of "seized government".

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<sup>&</sup>lt;sup>1</sup> B. Kuznetzov (2001). Is an industrial policy necessary for Russia? Report for the seminar Development Strategy of the Institute for Complex Strategic Research and Higher Business School of the MSU, Moscow; Rodrik, D. (2004). Industrial Policy for the Twenty-First Century. CEPR Discussion Paper No. 4767; Pack, H., Saggi, K. (2006). Is there a case for industrial policy? A critical survey. World Bank Research Observer, 21 (2): 267–297; Warwick, K. (2013). Beyond Industrial Policy: Emerging Issues and New Trends. OECD Science, Technology and Industry Policy Papers, No. 2, OECD Publishing; Aiginger, K. (2007). Industrial Policy: A Dying Breed or a Re-emerging Phoenix. Journal of Industry, Competition and Trade, 7(3):297–323.

The peculiarities of Russian industrial policy and its transformation over time were, first of all, determined by such basic factors as changing budget constraints, the dominant model of relations between government and business and the major challenges for future development (exhaustion of conditions essential for the previous model of growth). Based on these facts we can specify five major stages in the development of Russian industrial policy in the 2000s. (Table 9):

- 1. Policy of structural reconstruction recovery growth mild regulatory policy—prioritisation of institutional reforms (in 2000–2003);
- 2. Vertical sectoral policy strengthening of the government's role in the economy (in 2004–2007);
- 3. Industrial compensation policy crisis direct support and preferences (in 2008–2009);
- 4. Technological industrial policy post-crisis development prioritisation of improvement of the business climate (in 2010–2011);
- 5. Vertical and technological industrial policies toughening of budget limits, social commitments prioritisation of job-creation (since 2012).

Table 9
Major stages of industrial policy in Russia
in the 2000s

Период	Priorities	Peculiarities	Resources	Relationship model
2000– 2003	Development of market institutions and structural reforms	Mild regulatory policy (types of taxes, natural monopolies` tariffs, exchange rates)	Regenerative growth, budgetary constraints	High level of personification, practice of meetings with big-business, business activity
2004– 2008	Diversification, stimulation of innovation	Vertical industrial policy, long-term planning, creation of development institutions	Substantial budgetary resources	Byuilding «vertical», government control, institualisation of access, increased numbers of organisations creating industrial policy (development institutions)
2008– 2009	Guarantee of social stability	Vertical compensation policy, support for large organisations, preference for manual control	Harsh toughening of budgetary constraints	Assistance, in exchange for commitments between the government and large companies
2010– 2011	Search for new sources of growth, innovation, modernisation, structural privatisation)	Technological industrial policy	A period of fiscal moderation, high uncertainty	Extension and competition for access, emerging of new players, intensification of competitive bidding
2012	Reindustrialisation, improvement of investment climate, assistance in development of new high- tech sectors	Industrial policy to create additional jobs	Toughening of budgetary constraints, limited growth	Development of new means of communications (ASI, Open Government)

#### Stage №1. Policy of structural reconstruction (In 2000–2003)

The early 2000s can definitely be called one of the most significant "windows of opportunity" both in Russian politics and in its industrial policy. The period opened with the development (until May, 2000) of one of the most informative conceptual documents of socio-economic development – the "Strategy of Development of the Russian Federation until 2010. (another, informal, title is the Gref Program). Even though the document was not officially accepted, many of its terms were nevertheless implemented. The main emphasis of this Program was the development of market institutions (equal conditions for competition,

deregulation, a reform of natural monopolies, a reform of the tax system, a reform of the system of power, a reform of administration etc.).

In the context of heated discussion about the choice between a strategy of liberalisation or the scenario of mobilisation of economic development in Russia, all suggestions of an industrial policy, even mild ones, were rejected during this period. This was determined by a string of additional circumstances:

- on the one hand, by the scarcity of recourses necessary for the launch of direct instruments
  of governmental support; on the other hand by the underdevelopment of market
  institutions, which explained the weak potential for the use of indirect regulatory
  instruments of industrial policy;
- by retention of the rather strong positions of big-business, including its political side (this was the reason why industrial policy was regarded by many experts as a serious risk of "a takeover" and as a risk of the strengthening of lobbying processes implemented by the business sphere on their own behalf).

In the context of industrial policy, the Gref Program, can include two major theses: (1) the main purpose of structural government policy is an increase in the proportion of industry sectors producing goods with a high degree of recycling and of the service sector; (2) based on the structure of the Russian economy, we can say that stimulation of exporting sectors to investment in modernisation and developing their potential is no less important than investment into the potential of other production sectors. Nevertheless, during the period of institutional reforms, the prioritised industrial policy on domestic aircraft engineering of the 90s continued unabated, which could be explained more by political factors and by the necessity for maintaining the export of armaments and military equipment.

In spite of the rejection of industrial policy, this period of time included at least one attempt at the reconstruction and implementation a new industrial policy that resulted from the fortuitously timed appearance of the development of the ICT sector in India. In February, 2001 the need was identified for the development of the Federal Target Programme "Electronic Russias (2002–2010)" and as early as the beginning of 2002, it had already been adopted. The Programme was within the Center for Strategic Developments and involved unbiased experts and business representatives (to a certain degree the discussion format copied and extended the one that had been accepted during the development of the Gref Program).

At first the aim of the Programme was declared as the creation of conditions essential for developing and enhancing the efficiency of the economy, public administration and local self-governance, to be made possible through the adoption and mass distribution of information and communication technology; to ensure the rights for free search, receipt, transmission, production and dissemination of information and for expanded specialist training. It was a rare example, for Russia, of horizontal industrial policy oriented towards the development of the ICT sector through limitation of the effects of irrational administrative barriers and through the creation of conditions for additional demand. Nevertheless, since 2004 the Programme has changed direction - towards supporting the government in improving public sector efficiency.

A comparison of the initial version of the Federal Target Programme and its updated version of 2006 shows that some principal parts of the Programme have been excluded, in particular the part on the development of the information industry and the ICT sector. Such

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<sup>&</sup>lt;sup>1</sup> Approved by the Resolution of the Government of the Russian Federation No. 65 as of 28 January 2002.

strong metamorphoses of the Federal Target Programme "Electronic Russia" are partly connected to the fact that the urgent character of realisation of a "cash-strapped" industrial policy in 2004-2005 decreased significantly while the reduction of administrative barriers turned out to be a very "sticky" task that demanded a great deal of effort but was of little benefit for administrative purposes. The Ministry of Economic Development switched its attention to other more ambitious goals. A further reason was that, during the first stage of the Federal Target Programme, no strong consolidated interest group was created amongst participants in the ICT market (due to the typology of such markets – which generally consist of small companies), so the further modification of the Programme into an ordinary departmental programme of the Ministry of Communications and Mass Media was considered to be a natural and evolutionary process.

An integral feature of industrial policy (the decisions on which can be associated with industrial policy) at the beginning of the 2000s was the focus on extremely large companies and towards the position of the large owners. In connection with an intensive process of industrial integration and the formation of industrial holdings, the interests of major owners, who supported the ideas of industrial policy, were broadened. This was the reason why more attention was directed towards the creation of the necessary conditions for internal capital reflow. In October of 2001 the Russian Unity of Industrialists and Entrepreneurs initiated a discussion on scientific-industrial and investment policies. In December of the same year a Working Group "The Russian Unity of Industrialists and Entrepreneurs" was created; it was responsible for industrial and investment policies (later it was reorganised into the Committee of The Russian Unity of Industrialists and Entrepreneurs). In April of 2002 there was discussion of the project "The Concept of Russian Industrial Policy"; among the most important statements, the following points can be underlined: a transition from sectoral policy to a policy of support for competitive companies; prioritisation of the knowledge economy; transition from a governmental to a national industrial policy. Later, at the end of 2002, the Russian Unity of Industrialists and Entrepreneurs made a decision to renounce the concept of industrial policy (it was declared that such an approach was out of date) and to pursue the policy of developing a national, competitive economy. However, the idea of the necessity for "national champions" still remained quite popular.

### Stage №2. Vertical sectoral policy (2004–2007)

The second stage was generally characterised by a significant strengthening of the role of the state in the economy and the move towards a vertical industrial policy. That transition was based upon the following factors and preconditions:

- creation of a vertical power structure, reduction in the power of influence of big business on government, target project-planning for structural changes in the economy;
- alleviation of budget restrictions, extension of the resource potential of the state;
- stabilisation of the business environment, the fulfilment of obligations, and, as a consequence, the opening-up of long-term project implementation opportunities.

From 2005 onwards, the state began to play a significantly more active role in implementing long-term planning instruments together with working out different development strategies, initially, sectoral strategies, and the formation of a complex of industry-specific FTPs (federal target programmes) for science and technology. In that period, special attention was paid to determining target development figures and to indicators of the efficiency and effectiveness of budgetary expenditure, as well as to extending private co-

financing. There was a significant shift towards implementing a *sectoral industrial policy*, including policy in respect of the sectors dominated by private companies: in 2007–2008 (before the crisis), seven sectoral development strategies were established: for the development of the metal industry, forestry, the chemical and petrochemical industry, shipbuilding, the vehicle construction industry, nuclear power engineering and the electronics industry.

In the absence of other instruments and tools, *the federal target programme*, which already existed and was subject to the applicable regulations and standards, became the main instrument. However, the agencies still mainly considered it as a means of "extracting" additional resources from the budget in order to deal with their current, rather than their strategic, issues. The obscure wording of the targets and, inconsistencies in both the expenditure and the expected results led to the low efficiency of this tool.

From 2006 onwards, there was a revitalisation of the work towards *creating vertically integrated institutions in the state sector*, in particular, in the MIC (military industrial complex), aircraft building and shipbuilding, the large institutions: the United Aircraft Corporation and the United Shipbuilding Corporation were founded, in 2006 and 2007, respectively. All this was related not only to solving the problems of how to decrease the administrative burden of managing many separate enterprises, but also a desire of the state and the sector ministries to extend the influence of their direct instruments over the development of particular industrial sectors.

In 2005–2007, there was a significant increase in the imbalance between the updated priorities of social and economic development (economic diversification and the transition to innovative development) and the state's instruments for their completion. The brake on initiatives to improve the economic policy instrument, and the low efficiency of the then existing management tool, led to a shift away from improvement of the indirect instruments of reflation and the development of the institutional environment, to an expansion and strengthening of the mechanisms of direct state influence. Additionally, the unsatisfactory quality of the administrative system, the focus of the system on dealing with current issues, and problems with forming and implementing a system of measures to develop new sectors of the economy, introduced a need for the formation of additional measures for implementing state policy. Consequently, several decisions were made which were significantly outside the framework of the standard controls and which extended both the opportunities and the risks for the implementation of industrial policy. Among those decisions, were the *creation of the Investment Fund (2006)*, the formation and capitalisation of development institutions (2007), and the creation of state corporations (2007).

In 2007, there was a change of direction towards an intensive formation of financial development institutions and an extension of their resource base in the context of the policy decision to use a part of the National Welfare Fund (approximately Rb 300bn) for the capitalisation of several development institutions (the Development Bank, the Investment Fund, the RVC (Russian Venture Company) and others). It stands to reason that there were multiple causes for the decision to capitalise the development institutions, but one of the probable causes was a desire to strike a certain compromise against the background of, on the one hand, growing pressure from the supporters of a significant increase in state investments in the economy, and, on the other hand, opposition to the increase in the level of public

<sup>&</sup>lt;sup>1</sup>The message of the President of the Russian Federation to the Federal Assembly of the Russian Federation as of 26 April 2007.

expenditure, from the supporters of macroeconomic stability<sup>1</sup>. In this regard, the state's investment of a part of the accumulated funds into development institutions "tied" those funds into their further use for investment, without, however, meaning that it should lead to a sharp increase in public expenditure.

The most remarkable element of the industrial policy of 2007 was the *creation of large state corporations*. Two of these state corporations, Vneshekonombank and Rosnano were established as financial development institutions to compensate for "market failures"; two other state corporations, Rosatom and Rostekhnologii (Rostec) were established to restructure state property, consolidate state assets and to increase the competitive advantage of certain industrial sectors (the nuclear industry, MIC, the car industry and air transportation). The creation of these state corporations was significantly outside of the general principles of state control.

Vneshekonombank (Bank for Development) and Rosnano became two of the most important instruments for the implementation of industrial policy. However, if Rosnano was still close to horizontal policy – shaping the nanotechnology industry, technological priorities and the capitalisation of new high-tech companies, then *Vneshekonombank* was significantly closer to vertical policies. This follows, both from its focus on support for large projects (the cost of the projects it supported was not less than Rb 2bn), and from the system of the "key" sectoral priorities initially established for its activities (in particular, the space and aircraft industries, shipbuilding, the machine, wood, nuclear and electronics industries and the MIC). Thereafter, Vneshekonombank's priority list only expanded<sup>2</sup>.

Without delving into the pros and cons of state corporations as tools of state industrial policy, please note that, materially, the introduction of this approach was an acknowledgement of the state's incapability or unwillingness to look for the best practice in public-private partnerships, and a concentration of structural policy within the public sector of the economy (with the growth of this sector). The latter caused a decrease in the state's interest in solving the problems of the investment climate.

Amid the majority of the other industrial policies, between 2004 and 2007 there is quite an interesting example of an industry sector specific policy connected with the development of the automotive industry – which we shall examine in more detail in the next section. Firstly, it was a relatively successful example; secondly, it was not related to the implementation of any budgetary programmes; and, thirdly, there was a special focus on attracting foreign investors and the creation of new companies.

Of course, this period was not focused only on vertical industrial policy, because several important system measures were also taken, which were closer to horizontal industrial policy, although they were not the main ones at that stage. In 2004, the Kyoto protocol was ratified, which contributed to the development of less resource-intensive and environmentally-cleaner manufacturing. In 2005, the UST (uniform social tax) rate was reduced, which was

<sup>&</sup>lt;sup>1</sup> D. S. Ivanov, Yu. V. Simachev, M. G. Kuzyk (2012). Russian financial development institutes keep time? Economical Matters, No. 7. P. 4–29. Russian Financial System Institutes Development: Achievements and Problems http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2264360

<sup>&</sup>lt;sup>2</sup>Thus, in November 2008 in the conditions of economic crisis burning out rapidly, to these priorities was added one more – the agricultural sector (Order of the Government of the Russian Federation No. 1697, as of 19 November 2008), and within a year additional technological priorities were determined for Vneshekonombank – strategic computer-aided technologies and software, information and communication systems, medical equipment and pharmaceuticals (Order of the Government of the Russian Federation No. 1783-p, as of 26 November 2009).

particularly important for the development of "the new economy" of relatively small, science-based companies. Finally, in 2006, the Strategy for the Development of Science and Innovation in the Russian Federation for the period until 2015 was approved<sup>1</sup>, which evidences an increase in the significance of innovation for enhancing competitiveness.

The search for additional tools to implement horizontal innovative industrial policy began as early as at the end of the first stage and continued during the second stage. The most famous large scale experiment was the launch by the Minpromnauki (Russian Ministry of Industry, Science and Technology) in 2003 of *innovation projects on a national scale*. These got the unofficial title of "megaprojects". The experiment involved the competitive selection of large modernisation and development projects for the manufacture of new innovative products by private companies, with support from the state. In exchange for the commitment to a significant (manifold) increase in the manufacture of new products, the state provided funds for meeting the costs of research and development and for putting the new products and technologies into production. By November 2006, 13 megaprojects worth a total of Rb 8.58bn were under way, however there was little further development of the megaproject experiment.

Another experiment in the sphere of industrial policy instruments was the introduction of the "special zones" mechanism (an attempt to repeat the successful experience of China). In July 2005, the Federal Law "On Special Economic Zones in the Russian Federation" was adopted, in accordance with which two types of SEZs (special economic zones) were determined – industrial production zones and technology development zones. However, due to contradictions between the governance processes and restrictions on the regulatory plan, these zones were not highly attractive for investors.

### Stage №3. Antirecession compensatory industrial policy

This stage in the development of industrial policy in Russia is connected with the very severe economic crisis of late 2008 – 2009. On one hand, the crisis made the state turn from strategic to tactical objectives, including a transition to "manual control", on the other hand, it made the state once again review its development priorities and the opportunities to finance a large-scale economic restructuring.

In that period, its industrial policy became especially selective<sup>2</sup>, although some measures were implemented quite successfully, aimed at decreasing the administrative pressure on business. However, the majority of the measures then taken were connected with compensating for the recession in the most vulnerable sectors and with support for big strategic companies<sup>3</sup>. Among the main sectoral priorities of the industrial policy in that period were car and farm machinery building, the military-industrial complex, agriculture, the transportation industry and housing construction.

During the crisis, the activities of the development institutions were limited in terms of resources (for example, with regard to Rosnano) or re-focused on solving anti-recessionary problems (Vneshekonombank). There were several anti-recessionary measures, which were, although, a forced, but significant derogation from market economy principles, in particular,

<sup>&</sup>lt;sup>1</sup>Approved by the Inter-Departmental Commission for Science and Innovation Policy (Minutes No. 1 as of 15 February 2006).

<sup>&</sup>lt;sup>2</sup>M. Yu. Gorst, A. V. Daniltsev, B. V. Kuznetsov, M. G. Kuzyk, Yu. V. Simachev, A. A. Yakovlev (2009). Assessment of crisis response measures to support the real economy. Economic Matters, No. 5. P. 21–46.

<sup>&</sup>lt;sup>3</sup>Yu. Simachev, D. Ivanov, B. Kuznetsov, M. Korotkov, M. Kuzyk. (2012). State anti-crisis support for large and systemic companies: directions, features and the Russian experience. Science editor A. D. Rodygin. M.: Delo.

several measures connected with the substitution of private demand with public demand, with support for the continuation of the activities of operationally unprofitable enterprises, with protectionism towards certain sectors, with attempts at administrative price control and with the redistribution of losses and but lacking transparency in the reciprocal obligations of the state and the owners<sup>1</sup>.

Note that the process of adoption of long-term sector strategies for development had been so well established in the practice of the state administration that it was retained during the period of the severe crisis, in particular, some additional sector strategies were adopted (on the development of the fisheries industry and of the pharmaceutical industry) in 2009.

The lessons from the crisis have been learned at the highest political level, and they have led to diverse consequences. On the one hand, as far back as in the first half of 2009, efforts were made to determine a package of measures aimed at stimulation of innovative development, to determine the directions of further reductions in state involvement in the economy. In June 2009, the first session of the Committee on Modernisation and Technological Development of the Economy of Russia took place, and this determined the strategic technology priorities: the energy economy and energy efficiency, nuclear technology, information technology, space technology and telecommunications, medicine and the pharmaceuticals industry, and nanotechnologies. On the other hand, the importance of the measures for "manual control" of the economy was remarkable.

### Stage №4. Post-crisis policy learning and technological industrial policy (2010–2011)

The diversity and divergence of the lessons which the authorities had learned from the crisis determined the specific nature and instability of the industrial policy ideology in the post-crisis stage (2010–2011).

In the Guidelines for Action of the Government of the Russian Federation for the period until 2012, approved in November 2008<sup>2</sup>, the next priorities were determined – this time they were in the high-tech and backbone industries. In spite of the fact that these priorities had been determined before the crisis, there was no reappraisal of their contents in the post-crisis era. The adoption of the next sectoral strategies of development still continued (mostly in a variety of engineering subsectors).

At the same time, the state became more active in its search for and implementation of new instruments of horizontal policy<sup>3</sup>, which included, as we see it, technological platforms, associated grants for stimulating partnerships between companies and universities, the development of innovative trends in the system of procurement for public use, the development and adoption of programmes of innovation-driven growth in big state companies, support for the formation of regionalinnovation clusters, etc. However, the critical barriers to increasing the effectiveness of many of those new instruments were the problem of their "seizure" by the traditional interest groups, the problem of the appearance of obstacles to the extension of best practice and the problem of restrictions on the accumulation of the "critical mass" needed for stable self-sustaining changes.

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<sup>&</sup>lt;sup>1</sup>Yu. Simachev, M. Kuzyk. (2012). State anti-crisis support for Russian companies: assistance and limitations Journal of New Economic Association No. 1. P. 100–125.

<sup>&</sup>lt;sup>2</sup>Approved by the Order of the Government of the Russian Federation No. 1663-p as of 17 November 2008.

<sup>&</sup>lt;sup>3</sup>Yu. Simachev, M. Kuzyk. (2013). Russian policy for innovations stimulation: evolution, achievements, problems and experience. Source: Russian economy in 2012. Tendencies and perspectives. Edition 34. M.: Gaidar Institute Press. P. 521–571.

In general, beginning from late 2009, not only a declarative but also a practical strengthening of the technological and innovative direction of industrial policy became more prominent and this was connected with a significant change in the global competitive environment, a global reappraisal of the role of the state in the economy, especially with regard to innovation, a critical appraisal of the results of the classical sectoral industrial policy and the fact that the "field" for such a policy in the modern context had become much smaller.

The shift from the vertical sectoral industrial policy to a technological industrial policy was, to a certain extent, associated with the search for new factors for the growth and extension of influence of various interest groups from the spheres of science, technology and education. In late 2011, after some lengthy refinement of the approvals procedures, the Strategy for Innovation and Development of the Russian Federation for the Period Until 2020 was at last adopted<sup>1</sup>.

## Stage №5. "Search" industrial policy

It is our belief that, beginning in 2012, a new stage in the development of the industrial policy of Russia opened. It happened because of a further understanding by that time of the upcoming tightening of the budgetary resources policy, together with the accumulation of major social commitments, and with the changing conditions for the implementation of Russia's industrial policy after its accession to the WTO (World Trade Organisation).

The task of searching for new sources of growth, including those based on different types of industrial policy became especially significant in that period. Theses were developed about the need for a reindustrialisation of the Russian economy (which were to a large extent inspired by the example of Europe), the creation of new high-tech jobs and a massive improvement in the business climate. In January 2012, saw the first declaration at the highest political level of the necessity for an industrial policy<sup>2</sup> – amongst other priorities (it was stated that the priority list was open for additions and detailing) the named list included pharmaceuticals, high-tech chemistry, composite and non-metallic materials, the aircraft industry, information and communication technologies, nanotechnologies, nuclear industry and space.

In May 2012, amongst others, two principal long-range objectives were determined<sup>3</sup>: by 2018 to increase of the proportion of products from high-tech and knowledge-intensive industries in the gross domestic product by a factor of 1.3 in comparison with the level of 2011; the creation or modernisation of 25m high-level jobs by 2020. We have the impression that after that there was an effort by government to distribute the "share of responsibility" for fulfillment of the objectives and for ensuring regular monitoring of the current indicators between all the ministries and agencies on a voluntary basis. Discussion of state programmes, strategies and budgetary programmes was more oriented towards an appraisal of their contribution towards achieving the "basic" target.

In 2012–2013, a further component of the strategies for development was adopted – concerning the medical industry, the integrated power grid of Russia and the baby products industry. The transformation of the contents of industrial policy priorities continued, whilst, in the state programme, the "Development of Industry and Increase in Its Competitive

<sup>&</sup>lt;sup>1</sup>Order of the Government of the Russian Federation No. 2227-p as of 8 December 2011.

<sup>&</sup>lt;sup>2</sup> V. Putin. We need new economy // Vedomosti, 30 January 2012.

<sup>&</sup>lt;sup>3</sup> Decree of the President of the Russian Federation No. 596 On Long Term State Economic Policy as of 7 May 2012

Advantage"<sup>1</sup>, the number of priorities reached 14, and they were classified from a sectoral point of view in accordance with three market types – new markets; traditional industries, the products of which were oriented to user demand; and traditional industries where the products were geared towards investment demand. Furthermore, state programmes were also approved concerning the development of the aircraft industry, shipbuilding, the electronics and radio industry, pharmaceutics and the medical industry, the atomic energy industrial complex and other sectors<sup>2</sup>. In sum, the notion of "priority" lost its initial value as an instrument for the concentration of efforts in specific directions.

In that period, it probably became evident that there was a degree of crisis as a result of the implementation of the many approved sectoral development strategies. It was apparent that the state programmes had also not yielded the expected results, simply becoming an additional bureaucratic superstructure for the different FTPs and other mechanisms of federal budget expenditure.

In July 2013, action plans were adopted for development of the five sectors (industries) *in a new format – the format of road maps* (biotechnology and genetic engineering; information technology; engineering and industrial design; production of composite materials; optoelectronic technology and photonics). As a result one can see an emphasis on practical measures until 2018 with many target indicators for them. Please note that the adoption of road maps indicates the first *significant shift of attention of the state towards the development, initially, of, new and promising high-tech industries, as well as service industries*.

## B. Demand for industrial policy and main interest groups

The following were explicitly (or, more often, implicitly) declared as the tasks for industrial policy:

### (1) economic tasks

- ensuring long-term stable economic growth based on diversification of the economy;
- increasing the volume of exports of goods with high added value;
- the creation of new sectors of economy based on multidisciplinary technologies;

### (2) social tasks

- creating additional jobs with the help of structural economic reforms;
- ensuring full-employment at the largest enterprises;
- solving employment problems in the regions, including the monotowns.

In spite of all the concerns related to the "introduction" of industrial policy, there were always new issues demanding a certain choices to be made by the state – for some priorities reducing or raising the tax burden, changes in customs duties; determining the conditions for accession to foreign economic regimes (the WTO and the Customs Union), transitional periods and compensation to domestic producers; emphases on saving some sectors during the period of the crisis; investment priorities with adequate resources, and expanding the role of the state as an investor (directly or through development institutions).

It may be noted that during the 2000s, with the many variations and manifestations of industrial policy, the strongest and the most acceptable argument for an industrial policy was

<sup>&</sup>lt;sup>1</sup>Order of the Government of the Russian Federation No. 1535-p, as of 29 August 2013

<sup>&</sup>lt;sup>2</sup> List of State programmes of the Russian Federation (Order of the Government of the Russian Federation No. 1950-p, as of 11 November 2010)

the creation (and sometimes – saving) of jobs in the economy, in other words, *social tasks* were and remain a definite priority.

Meeting the challenges of industrial policy involves the redistribution of rents within the economy, which could then be used for:

- expanded dialogue with various interest groups, the expansion of support groups and the formation of new sources of development;
- the formation and consolidation of new, interest groups for modernisation;
- working with population's request for justice for the redirection of some of the rents (natural resource rent or monopoly rent) in order to solve social problems; and
- demonstrating the fulfillment of strategic tasks and of some political tasks, worthy of the power being wielded.

The aiming of industrial policy at bringing about a change in the distribution of rental income in the economy, added to the opportunities for appealing to long-term and potentially advantageous political tasks. Accordingly this defended the necessity for providing certain sectors with support and preferential treatment, and resulted in the high level of attractiveness of this policy for different interest groups.

For the period from 2000 to 2003, the discussion of industrial policy was apparently, more concerned with ensuring a change in the structure of the Russian economy, but *the driving force behind those discussions was, primarily, big business, the strongest consolidated industries*: metallurgy, the energy sector, mining industries and railway transport. In fact, it was a vertical industrial policy which was discussed, but that aspect appeared during discussion of the changes in functional policies – tax policy and customs policy. In the same period, businesses were mostly arguing with one another. One of the lines of those especially acute contradictions between big companies during that time was the service tariffs of subjects of natural monopolies, the necessity and conditions for accession to the WTO and the exchange rate policy of the Central Bank.

If in early 2000s, business was still relatively dominant in its interaction with the state, after that, state interest groups and their rivalry determined the development and "design" of industrial policy (*Table 10*). We see *four main interest groups* – "budgetary", "structural", "industry sector specific" and "science-and technology". The peculiarity and advantage of such a classification is in the fact that such groups are always present, and they all have a positive agenda of social and economic development. Their positions and influence vary greatly, depending on changes to budgetary restrictions, with the level of social support for the population and with the lessons learned by the authorities during times of crisis, big and small.

Table 10 Conventional State interest groups projected onto industrial policy

(1) "Budgetary"	(2) "Structural"	(3) "Industry sector specific"	(4) "Science-and-technology"			
	Main positions of interest groups					
1	2	3	4			
Ensuring macroeconomic stability	Diversification, development of new sectors	Ensuring social stability and control of the current situation and market prices	Ensuring transition towards an innovation-driven growth model			
Neutrality of control, improvement of the investment climate	Extension of exports and incentives for high-techn production	Retention (strengthening) of direct influence on the development of certain industries and sectors which are "sensitive" for the population, and development of the economy in general	The "proposition of innovation" through logic, extension of cutting-edge aspects			

Cont'd

1	2	3	4		
Restricted opportunities for the use of additional income for increasing current budget expenditure	Increase of expenditure for economic development, new programmes	Large investment programme implementation, ensuring significant progress in innovation	Increase in expenditure for science and education, forcing the state sector to cooperate		
Restriction of new initiatives	Extension of PPP (private- public partnership), different agreements between business and state	Reform of large companies, integration, forming of "national champions"	Foundation of national laboratories, research universities, development of scientific and production partnerships		
	Attitude toward	ls industrial policy			
In general – cautious, but hostile in the case of additional budgetary commitments	Positive towards horizontal policy, Cautious towards vertical policy	Neutral towards horizontal policy, Positive towards vertical policy	In general, positive, and in the case of technology industrial policy – especially positive		
Strengthening of the position of interest groups					
In the case of tightening of budgetary restraints	In the case of a reduction in traditional sources of economic growth	In the case of social tension	Decrease in the competitive advantage of traditional products		

In the period from 2004 to 2008, we can mark the following general shifts in the composition and positions of Russian interest groups:

- strengthening of state interest groups (due to the "vertical" and general strengthening of the state); reduction in the identity of the interest groups on the basis of their "origin", association with "security forces" and "technocrats" or by "thematic" trends;
- strengthening of the competition for distribution of resources between the power elites;
   increase in the role of rivalry between the controlling bodies of the interest groups(mutual grounds for claims lobbying for the interests of certain business groups; and inappropriate use of funds);
- formation and strengthening of interest groups oriented towards research, education and technology; rapid development of interest groups representing the development institutions (general opposition to outside pressure, "self-regulation", "innovative elevator");
- strengthening of the positions of business associations, extension of their interaction with the state bodies for project development and the evaluation of the structural changes.

With the issues of implementation of industrial policy in Russia, there has always been "competition" between the vertical and horizontal policies (*Table 11*).

Table 11
Features of traditional (vertical) and new (horizontal) industrial policy

Traditional (vertical) policy	New (horizontal) policy
Industry sector specific priorities	Technological priorities
Existing sectors and industries	New industries and creative economy sector
Production	Services and production
Import substitution	Exports and new demand
Big and very big business	Newly developed small and medium-sized business
State sector and state development institutions	Private sector and foreign investors
Integrated structures and holdings	Science and technology networks, clusters and subcontracting chains
Existing interest groups	Search for new participants
Rent redistribution	Future changes to rent redistribution
Investments and public initiatives	Innovations and private initiatives
Sectoral development strategies, target budgetary programmes and	Multiplicity of instruments, quasi-fiscal nature and "assembly" at
"assembly" at sector level	company level
"Discretionary" decisions	Decision rules

The traditional (vertical) industrial policy generally attracts representatives of the state, especially where an industry sector specific interest group is involved. This shift in attention may be explained, amongst other things, by the following:

- the critical nature of issues of employment at large enterprises from the perspective of social stability;
- the ease of direct interaction and influence on the state sector from the perspective of the control of socially-sensitive prices;
- under conditions of scant mutual confidence between the state and business, the existence
  of reciprocal obligations, of the personalisation of big business and of enforcement
  opportunities provide advantages when focusing on big business;
- the consequences of decision making in the context of a vertical policy can be better modelled and assessed, and the effects appear with a smaller delay; and
- where the learning mechanisms are weakly-developed the propensity for discretionary decision-making is inevitable in the course of implementation and adjustment of the mechanisms of industrial policy.

In 2009–2011, there was some extension of the access to and institutionalisation of new interaction channels, as new instruments appeared aimed at extension of the representation of new interest groups. However, the process of progress towards a technological industrial policy was accompanied by the continued existence of principles of verticality in its formation, among which were the following:

- (1) a focus on the interests of the major players, as a result of the expansion of their membership through the academic, scientific and technology sectors;
- (2) weak competitiveness of the state institutions, in some cases features of monopolization of viewpoints on possible approaches and evaluation are observed;
- (3) limited attention towards the demonstration effect and the transfer of best practices, an emphasis on the use of public (quasi-public) resources;
- (4) a relative openness to proposals, but a closed approach to decision-making procedures and the appraisal of results; and
- (5) personification, non-transparency of "exchanges" during redistribution, and the use of informal arrangements.

In the context of an underdeveloped system of "horizontal" assessment and the comparison of proposals from different interest groups, with a distribution of responsibility between different players this increased *the risks of inconsistency and opportunism in the formation and implementation of industrial policy*.

# C. General assessment of characteristics and problems in the development and implementation of Russian industrial policy

Based on an analysis of the processes of formation and implementation of Russian industrial policy in the 2000s, we can draw the following general conclusions.

1. Russian industrial policy of the 2000s predominantly consisted of efforts to prevent negative structural changes and to compensate for the losses of domestic producers. This policy was largely related to attempts to use the technological advances obtained as far back as in Soviet times. Only in recent years are there signs of a proactive agenda when industrial policy began to turn to the promotion of progressive changes in the structure of the economy and to the development of new sectors, knowledge and skills. The innovation policy has also

changed, more and more prominence being given to the formation of new competencies and areas of expertise.

2. The system of priorities in Russian industrial policy has been continuously transformed. In most cases this has involved an extension of those priorities; in which regard the priorities have stopped fulfilling their meaningful function of encouraging concerted action of the state and business. The selection and shift of priorities occurred mainly outside of the broad dialogue between "society – state – business" and were more ad hoc.

Russian industrial policy is mainly connected with the domestic market, which raises the risks of protectionist barriers, the substitution of private demand with public demand aimed at supporting selected priorities of government and an ongoing multiplication of the problems and expenses connected with inappropriate startup solutions.

3. In 2004–2008, the process of renewal of interest groups was rather weak. That can be attributed, amongst other things, to the process of formation of "vertical of power" structures and the strong influence of traditional interest groups on the feedback channels. The access channels were poorly institutionalised, and access itself was strongly personalised.

The predominantly latent character of the industrial policy implemented by the state often led to discrepancies between the declared tasks and the real ones, and this extended the opportunities for rent-focused behavior and indirect lobbying for the interests of particular businesses and owners. The significant advantages for lobbying by the traditional interest groups reproduced the vertical model of industrial policy, combined with its low predictability and episodic nature.

- 4. Instrumental Russian industrial policy gravitated toward the allocation of funds, while the regulatory instruments were considered ineffective. The traditional direction of support within Russian industrial policy is the promotion of domestic demand, including the active use of FTPs and public procurement, the fixing of different quotas and preferences for certain groups of producers. The ideology of Russian industrial policy was materially attributable to the building of state capitalism, which was why there was also a niche for the instruments of consolidation of state ownership in that ideology.
- 5. The existence of rent from large natural resources allowed "defraying" of the costs of the contradictory industrial policy, where decisions were first made in favour of one interest group and then in favour of another. In comparison with horizontal policy, a vertical policy is less able to use a demonstration effect and its implementation requires a significantly larger volume of public expenditure. In view of the scantiness of budgetary resources and of the opportunities for their redistribution (a general reduction of budgetary mobility), there was increased demand for an effective industrial policy, a policy of using demonstration effects.
- 6. In recent years, the process expanding access began, but predominantly with regard to alternative proposals and, to a substantially lesser extent, with regard to decision making. Although the access for new interest groups is being extended, civilised competition between interest groups and between state institutions, remains limited.

In 2009–2011, there were signs of a transition from sectoral industrial policy to a technological industrial policy; however, Russian policy still retains signs of verticality. This predetermines ongoing fundamental risks in the implementation of the policy, including the risk of its "seizure" by factional interest groups. The process opens up access ahead of the transformation of the industrial policy from a vertical to a horizontal one. Where there is an underdeveloped system of "horizontal" comparison of the proposals from different interest groups and the distribution of responsibility between the different players, this raises the risk

of inconsistency and opportunism in the formation and implementation of such an industrial policy.

- 7. The insufficient quality of state institutions limits significantly the opportunities for an effective industrial policy to be pursued in Russia, both vertical and horizontal. The difficulties for Russian state institutions in implementing industrial policy are attributable, in particular, to the limited feedback channels; the skills-shift of state officials from the technocratic (industry-specific and scientific-and-technical) to economic ones (financial, management and institutional); and limits choice by virtue of the domination of traditional interest groups and the ineffectiveness of agreements.
- 8. A system for evaluation of the performance of industrial policy is virtually absent. The processes involved in its adoption are characterised by the non-transparency of the groups of potential beneficiaries and political bias in the appraisals. The procedures for identifying and disseminating best practice in implementation of industrial policy are quite limited.

# 6.2.3. Analysis of examples of the formation and implementation of industrial policy in development of the automotive and nanotechnology industries

To analyse the Russian practice of adoption and implementation of industrial policy, we have chosen two fundamentally different sectors which have become a state focus from the perspective of the significant efforts and resources used, which has allowed a consideration of the different approaches to adoption of the policy and its model.

The first sector – car-making – is assumed to be a low level medium-tech sector<sup>1</sup>. It is characterised by a significant size, the existence of big and very-big companies and a permanently high level of interest from the state, not least because of the high social significance of those enterprises providing employment for a substantial part of the population, not only in population centres, but also in individual regions.

The second example is connected with the efforts which the state has made in recent years concerning the accelerated development of a new hightech area – the nanotechnology industry, which is based on the creation and commercialisation of nanotechnologies – a domain considered by the state as an area with the greatest priority. In that context, this direction is characterised not only by an increased focus from the state, but also by the large-scale expectations (declared in official documents) with regard to its influence on the economic structure, living standards of the population and national security.

### A. Car manufacturing industrial policy

<u>Industrial policy preconditions: automotive industry state and mechanisms of development</u>
The implementation of the state policy in the automotive industry of Russia and emerging market countries is determined by very similar launch environment:

- growing demand for cars in the domestic market;
- the limited scale of national car plants in comparison with the international manufacturers;
- technological leadership of international car makers and limitations of technology transfer;

<sup>&</sup>lt;sup>1</sup> See, for example, I. Frolov. 2010. Capabilities and problems of modernisation of Russian high technology complex.<a href="http://viktorvoksanaev.narod.ru/h14tt.pdf">http://viktorvoksanaev.narod.ru/h14tt.pdf</a>; V. Spitsyn. 2010. Aspects of innovative development of high technology and medium technology sectors of Russia. <a href="http://sun.tsu.ru/mminfo/000063105/342/image/342-166.pdf">http://sun.tsu.ru/mminfo/000063105/342/image/342-166.pdf</a>.

• international restrictions on implementation of the state policy, including the WTO's trade-policy standards.

As the income of the population grows, the demand for cars for personal use grows, too. This demand may be additionally extended at the cost of customer lending. The prices of the cars purchased in emerging markets tend toward the figures of developed countries – the demand is switched to models identical to those of more mature markets. The growth of the economy as a whole also encourages the growth of road haulage and of passenger bus services. The sales growth in the vehicle markets of the developing countries consistently exceeds that of the developed markets. The international automotive companies obtain from 10 to 55% of their profits in the markets of the developing countries where they account for from 15 to 40% of the sales volume.

The modern technological conditions of the automotive industry are characterised by the high cost of introduction of R&D (research and development) for the development of an own-product (new platforms and models of cars, and new key components). These expenses are worth making only if a certain minimum production volume can be achieved, estimated at the level of 1 million cars per year. Those car companies which do not exceed this bar do not get obtain the economies of scale of the high-volume market segments and are niche producers.

Therefore, we can see the intrinsic difficulties of the domestic producers in countries with developing economies. These companies, as a rule, do not achieve the production volumes necessary for a full-scale financing of R&D and the independent development of new car models.

Taking into consideration the spare capacity in their domestic markets, international car manufacturers prefer low-cost options for entry to the markets of developing countries – through imports or the organisation of assembly plants with low added value. A deeper *localisation of manufacturing* is performed with the purpose of cost reduction and access to markets defended by tariff barriers. In the first case, the most significant factors for the international car manufacturers are the investment climate and the long-term competitive advantage of production inside the country. In the second case, the creation of import-substituting production depends on the initial level of the tariff protection, the prospects for growth in demand on the internal market and on the behavior of competitors which are also considering localisation of their manufacturing.

In the context of the implementation of international trade agreements, the opportunities of developing countries with regard to tariff protection of their domestic markets are reduced, as the trade limitations which are connected with obligatory investments and localisation of manufacturing are abolished or eased. Under these conditions, where the interests of the state, domestic and international producers meet, there are the foundations for the formation of different types of **corporate alliances** for industrial cooperation. The role of the state policy is to choose an acceptable approach to integration into the global car market, which would ensure the growth of the competitive advantage of the domestic automotive companies or the achievement of other declared goals, taking into consideration the interests of the users of the products of vehicle manufacturing.

#### Systemisation of state policies

The importance of the automobile sector for the economy determines the diversity of the measures of providing state support. There are differences in the set of measures used by developed countries, where there are large domestic car manufacturers, which compete in the

global market, and by developing countries, which are creating their own national automotive industries. These differences are determined by the level of maturity of the market and the need for auto-mobilisation, as well as by the resources of the state to support the sector.

For developing countries with a large potential demand, the task of utmost importance is the localisation of the manufacturing of foreign models and the preservation of high levels of the trade barriers. For developed countries, the tasks of prime importance in the area of state policy in the automotive industry are the preservation of the international competitive advantage of production, including at through development and mastering the manufacturing of new innovative products whilst restructuring wasteful production. Developed countries show almost no use of tariff protection measures for their national markets because of the large gap in the quality of the products from international manufacturers and the manufacturers from developing countries.

There were also essential differences in the measures which were taken in automotive industry before and during the 2008–2009 financial crisis. The volume and nature of measures for the support of car manufacturers which were taken in the developed markets as part of their implementation of anti-recessionary measures, could have provoked a wave of criticism, if the measures had been taken in developing countries for the development of their national automotive manufacturing in the period before the crisis (there was violation of competitive conditions, the subsidising of domestic producers, etc.).

*Table 12* shows the main measures aimed at state support of the automobile industry applied in Russia and abroad, classified by the types and purposes of their application.

A separate area of state policy, which is not specially considered herein, is the support for the development and implementation of fundamentally new types of power units for vehicles (electric and hybrid engines) and other deep innovations which demand large changes in the infrastructure (for example, the creation of a network of electric charging points), in the existing business models of the market participants and in consumer behaviour.

Table 12

Measures aimed at support of the development of the automotive industry
by directions of control and instruments applied

	Measure Types					
Purpose	Budget expenses	State support of lending	Customs tariff	Taxes	Technical regulation	Other control measures
1	2	3	4	5	6	7
1. Stimulating Demand for Cars	State subsidies in the case of trading in of an old car for a new one so-called "scrappage schemes" (*)     Certain tax and levy recovery for buyers (*)     Public procurement of vehicles	Temporary credit lines for financial intermediaries in automobile lending (*) Interest rate subsidies for loans to purchase automotive equipment		Variation of tax rates: For vehicles (included in the car's price) Transport fuel taxes Taxes and fees related to car use (transport tax)	Prohibition or restrictions on certain vehicle types (obsolete engine types, left- /right-hand-drive models, etc.)	Certain measures aimed at restriction on or extension of the use of cars in cities (for example, small cars and electric cars)
2. Development of New Car Manufacturing Plants	Production infrastructure and industrial site preparation     Grants for production development (*)	Loan financing for creation of new plants and products (*)	Customs tariffs cut for equipment and components	Tax benefits/holidays for new plants     Accelerated amortisation		"Horizontal" incentives for the development of industrial production in general     Requirement for the development of related industries and suppliers
including localisation of manufacturing foreign car models and their components			The preferential tariffs are connected with production requirements, including local purchase (*)		Simplified requirements for product certification	Different additional requirements for newly created plants (**)
3. Export Support	Marketing and advertising support and trade fair activities	<ul> <li>Export crediting (suppliers and buyers)</li> <li>Export risk insurance</li> </ul>	Participation in trade negotiations on access to markets of other countries	Timely VAT recovery	Harmonisation of foreign and national certification standards	

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1	2	3	4	5	6	7
4. Financial Stability of Manufacturers and a Competitive Environment	Financing of different production development programmes (*)	Temporary provision of loans to refinance the debt market (*)		Tax credit (*)		Restrictions on foreign participation in capital     Approval of mergers and acquisitions     Controlled bankruptcy
5. Car Distribution			Rules for the imports of cars by high volume importers			Permit for creation of a distributor network (in developing countries)     Management of the contracts of dealers and manufacturers (in developed countries)
6. Rise in level of technology	R&D expenditures     Co-Financing     Transfer and     commercialisation of     intellectual property     created by means of     state financing	Loans for R&D activities		Reduction in most significant taxes for R&D (for example, employment tax cuts)		Identify long term     Technology     development     priorities     prioritisation     (foresight)
7. Environmental Requirements			Embargo on imports or increased import duties for automotive equipment which does not conform to the national standards	Scrappage fees     Tax differentiation in accordance with the cars' emission classes		Requirements as to:     specific fuel     consumption figures     high-pollution cars     certain car materials     and components
8. Human resources and labour relations	Changes to specialist training programmes in public educational institutions Professional retraining in the case of business closesure Co-financing of retraining programmes					Limit of the use of temporary employment     Trade unions' rights and prevalence

<sup>(\*)</sup> Denotes anti-recessionary measures to support specific car makers in Russian and foreign markets in 2008–2009.

### Application and results of industrial policy in the automotive industry

In the period beginning from 1998, we can see several stages in the development of state policy in the Russian automotive industry, which differ from each other in the sets of measures applied and in the main beneficiaries – the companies at which those measures were aimed.

- 1. The investment regimes for foreign car makers, which had been valid before 2006 (the "bonded store" regime) allowed for organising "light" assembly of foreign car models in Russia. That regime was used to organise initial assembly from prefabricated vehicle kits at plants in Kaliningrad (Avtotor) and Taganrog (TAGAZ). The first foreign car maker which independently organised car manufacturing in Russia after perestroika was Ford (at a plant in the town of Vsevolozhsk).
- 2. From 2005, customs duties for the import of second-hand cars were increased (including for imports by private individuals) simultaneously with the opening of an investment regime which allowed for a decrease in the duties for imported car components for organising local production facilities with a production volume of not less than 25,000 cars per year (the so-called "No. 1 Investment Programme" or "industrial assembly"). The required final level of localisation of production was, in practice, 30%. It is an extremely soft regime for the access of foreign car makers to the market, both by in production volume and by the localisation requirements

According to the Eurasian Economic Commission, as of July 2012, there are agreements with 31 companies, but only 18 of the enterprises had started car manufacture. Altogether,

<sup>(\*\*)</sup> Permitted geographical distribution of manufacturing volume, the content of technological operations, local production or the buying of certain components and parts, production technology transfers, new product development, staffing management, staff training and other requirements.

within the limits of the industrial assembly regime, there are 178 agreements in the car manufacturing sphere and 74 in car component manufacturing.

3. In 2008–2009, during the global financial crisis, the measures for state support were reoriented towards ensuring the financial stability of the domestic car makers (primarily, AvtoVAZ), as well as supporting the demand for cars by support for lending to individuals and the public procurement of automotive equipment at a federal and regional levels. Those steps allowed retention of financial stability in the domestic automotive companies, including AvtoVAZ; however, the effectiveness of implementation of those measures is still doubtful.

The measures aimed at providing support for demand allowed mitigation but did not prevent recession of production in the industry. In 2010–2011, other measures aimed at supporting demand were also implemented, including the an experimental payment to the buyers of new cars for their old cars handed over for scrappage.

- 4. Within the framework of completion of the negotiations on the accession of Russia to the WTO in 2010, some important understandings were reached concerning exceptions to the agreement of restrictions on investment measures in trade for the industrial assembly regime in the automotive industry. That allowed the introduction of a modified regime of "industrial assembly" (the so-called "No. 2 Investment Programme") with raised demands for localisation after project completion (both in the total contribution of Russia-manufactured car component 60% instead of 30%, and additional requirements for the localisation of engine manufacturing) and in the scale of production scale (300,000–350,000 cars per year instead of 25,000 cars). As of 2011, four such agreements were concluded, three of which were those with associations of several car makers: the Volkswagen Group Rus; the Ford Motor Company, Ford Sollers Yelabuga and Sollers-KAMA; AvtoVAZ, Avtoframos, Nissan Manufacturing RUS, Obyedinennaya Avto Gruppa, KAMAZ and Mercedes Benz Trucks Vostok; GM-AvtoVAZ and General Motors Auto.
- 5. The new investment regime will operate in conjunction with other state support measures declared as part of the Strategy for Automtive Industry Development in the Russian Federation until 2020 and the state programme "Development of Industry and Increase in its Competitive Advantage" (the Automotive Industry Subprogramme).

In 2014, the main areas of expenditure will be support for employment at plants under conditions of a limited demand for car industry products<sup>1</sup>, as well as for the partial compensation of the costs related to the implementation of the environmental standards Euro 4 and Euro 5. Furthermore, subsidies aimed at financing investment projects will be financed by loans and, preferential loans for individuals for the purchase of vehicles, in addition to covering the costs for transportation of cars from the Far East.

The Russian automotive industry is characterised by a significant concentration of production with relatively few companies, which, during the period in question had quite large differences in their strategies.

The most important of such differences in the strategies of the domestic car makers may be referenced to the product line of cars being manufactured and to the nature of the partnerships with foreign automotive companies. Depending on the initial conditions of their performance in the industry, the automotive companies could choose between a continuation of the manufacture of domestic cars, the assembly of foreign models with different depths of

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<sup>&</sup>lt;sup>1</sup> The Strategy for automobile industry development prior to 2010 and concept of the Strategy staff assistance approved thereafter determines formally the priorities for production restructuring and for increase in labour productivity while current announced measures are aimed at the maintenance of work positions available.

localisation and the manufacture and development of joint models, again, with different depths of integration of the technologies of the parties involved.

Table 13

# Content and timings of state policies (beginning from 1998)

Policy programme	Period	Main stakeholders	Main policies
Investment Modes	1998–2006	Importers	Bonded store regime
Before 2006		"Offshore" car assemblers (Avtotor, TAGAZ)	
		"Pioneers" (Ford-Vsevolozhsk)	
Investment	2006–2011	Car assemblers as partners of foreign companies (e.g.	Industrial car assembly regime
Programme 1	(accession	Sollers)	with minimum requirements
	to the WTO)	Foreign companies	
Crisis Bailout	2008-2009	AvtoVAZ and other domestic car manufacturers	Support for demand
Programme		Foreign assembly plants	Direct support for domestic
			automotive companies
Investment	2010 -	National consortia of companies (including consortia in	Exclusive localisation standards,
Programme 2	present day	partnership with large car manufacturers and manufacturers of	including for large car
		car components)	components
Other measures of	2010 -	Support of incumbent companies	Support for technical upgrading,
state support	present day		fleet replacement and other
compatible with the			measures
WTO requirements			

Foreign companies could choose between the import of finished cars or production startup in Russia, and in the case production startup – between independent organisation of manufacture at their own production facilities and the formation of alliances with Russian manufacturers. Foreign companies could also combine such production strategies.

During the stages of state policy in the automotive industry, referred to above, the profits and costs changed in connection with the implementation of the enumerated strategies of domestic and foreign car makers. Accordingly, the types of companies, which were principally interested in particular results of the implementation of state policy, changed.

Control over the then existing Russian car plants in the period from 2000 to 2008 was transferred to new owners. In 2000, the metals company Severstal and Bazovy Element Holding (which is the controlling shareholder of the United Company RUSAL) acquired control of the Ulyanovsk and Gorky Automobile Plants, respectively. The decisions might have been motivated by the unofficial support of the state with regard to diversification of production and by the necessity to develop the manufacturing sector. In 2005–2008, the state company Rostekhnologii obtained control of the AvtoVAZ plant, which was privately owned, and the KAMAZ plant, the controlling interest of which belonged to the federal and regional authorities.

There were the following "turning points" in the strategies of the Russian car companies, which were characterised by the different requirements of existing state policy, especially in the sphere of customs regulation:

- the decision to whether to develop domestic models or to transfer to the assembly of foreign models;
- the choice of which way to improve domestic models by borrowing technology from foreign suppliers; and
- the choice of foreign partners and agreements on possible technological cooperation with regard to new joint models.

According to experts, the UAZ/Sollers' strategy is mostly aimed at foreign model assembly and is being implemented in the niche market of off-roaders, which creates interest in small-scale industrial assembly regimes.

The companies GAZ and KAMAZ initially had a greater competitive advantage over imports in the niche markets for commercial vehicles than AvtoVAZ had in private cars. Implementation of technologies borrowed from foreign suppliers in these companies seems to be sufficient to guarantee a competitive advantage for their products in comparison with imported models. These companies could also be more interested in the localisation of manufacturing automotive components than in finished products.

Finally, in the light of the specific features of business competition in the car sector, where the returns of scale manifest themselves to a greater extent, the issue of getting a new process platform and beginning manufacture in association with a foreign partner was particularly important for AvtoVAZ. On this basis, AvtoVAZ should be interested in an industrial assembly regime which allows for the launch of large-scale manufacturing.

In general, the measures taken in Russia during the period from 2005 to 2010 which were aimed at encouraging foreign investment into the car industry failed to provide improvements in the trade balance for automotive products.

In 2000, the volume of imports and exports of automotive products in Russia was quite well-balanced, and the total trade turnover amounted to about \$2.1bn. By 2010, the volume of registered imports of automotive products had increased twentyfold, which was related to the increase of imports of both finished products and car components. By comparison, Russian automotive product exports are only about 9–12% of the import volumes (in Brazil and China the figure is 50–60%).

Reported data for 'The Automotive Industry Development Strategy for the period until 2020' also show that the steps taken to localise manufacturing did not make possible sufficient import substitution. From 2003 to 2008, the number of imported cars increased from 1.1m to 2.8m, while the localised production of car models increased from 200,000 to 600,000. Production of the traditional Russian models decreased by approximately 200,000 in the same period. Considering the difference in the prices for Russian cars in Russia and for cars imported into Russia, the share of imports is even greater in monetary terms in the Russian market.

As a result of the implementation of a policy of opening foreign assembly factories and a gradual localisation of manufacturing, Russia now occupies a position between the countries where the supply is formed by the production of foreign models and where the domestic producers are poorly developed (Brazil) and the countries which purposefully develop their car industries in cooperation with international automotive companies (India and China).

As a result, the current figures for Russian automotive products in the balance of foreign trade are not too promising: Russia is the fifth in the world by imports of automotive products (after the European Union, the USA, China and Canada), and it is not even among the top 15 large exporters of automotive products. Russia's 2011 automotive product export volume was smaller than that of the RSA (Republic of South Africa) or that of the UAE (United Arab Emirates).

It is expected that the new industrial assembly investment model will bring an opportunity for improving the trade balance in respect of automotive industry products by virtue of an increase in the proportion of added value by Russian enterprises.

To summarise it is important to comment on the following.

- The target-oriented image of the automotive industry in countries with developing economies is a replication of the experience of South Korea in 1970s-1980s when it was trying to create a competitive position in the world market as a car producer. From a country perspective the achievements of this goal would be characterised by a positive surplus in automotive industry products. Nevertheless, replication of South Korea's experience nowadays is difficult to implement due to the high level of competitiveness in the global automotive market and due to the existence of different institutional limitations, including the international trade agreements under the WTO.
- Developing countries use various opportunities for cooperation with world automotive producers: they may organise assembly plants for foreign models and the production of automotive parts within the country and do it at different levels of localisation, or they may establish mutual enterprises or purchase niche automotive producers in developed markets. Those strategies differ in the depth of technology transfer and in the contribution of the automotive industry to the added value.
- Active measures for stimulating foreign investments into the Russian automotive industry
  during the period from 2005-2010 did not provide any improvement in trade balance in
  the automotive industry. Between 2000 and 2011 the import of automotive products into
  Russia increased by 40 times in terms of value, while exports grew by only by 4 times.
  Nowadays Russia is the fifth largest importer of automotive products in the world, but it
  does not featured as a large international exporter state.
- In spite of the fact that import substitution is not represented in the Russian market, a corporative structure within the sector has been created and an investment regime has been introduced under the terms of the WTO. The regime provides for deeper cooperation between national and foreign automotive producers and is helping to increase the scale of production at new plants to allow it to reach the level of foreign counterparts and to broaden its domestic production of automotive parts.

## B. Industrial policy on the development of the nanotechnology industry

The process of development and realisation of industrial policy in the development of the nanotechnology and nano-industry sectors in Russia began relatively recently. During the first half of the last decade the above issues regularly became the subject and point of discussions at the level of individual ministries and agencies and also within the Government of the Russian Federation. Certainly, the formation of the National Nanotechnology Initiative in the USA was a particular "trigger" for this process.

The process of formation of Russian government policy in the sphere of nanotechnology and nano-industry was started in 2006; the President of the Russian Federation acted as its initiator and active participant: the nanosystems industry has become one of the major directions of development for science technology and engineering. The list of crucial technologies includes nanotechnologies and nanomaterials, and the corresponding issues have been raised in presidential addresses to the Federal Assembly.

In the middle of 2006 the Government of the Russian Federation accepted the *Program for Working Coordination in The Spheres of Nanotechnologies and Nanomaterials*. This document, like almost all other documents else in this sphere, was distinguished by the magnitude of its targets which were not followed by any indicators of their achievement. The Program was not provided with its own "separate" budget support. It was only indicated that the budgets of target programmes and non-Programme activities could serve as its financial

resources. Funds allocated for the maintenance of institutions could also used as a financial resource for the Program. Implementation deadlines were not determined either. On the whole, the document should be recognised to be excessively generalised and declarative; but nevertheless it included a number of steps which have become key elements of government policy in the sphere of nano-industrial development.

The publication in 2007 of the Presidential Initiative "The Strategy of Nano-Industrial Development" was, without doubt, the initial stage of active government policy in regarded to this field. The "status" and the "ambitious character" of the document have emerged already at the level of the formulated aims and goals which concern not only the spheres of nanotechnology and nano-industry, but also the socio-economic developments in general. Just like the abovementioned coordination Program the Presidential Initiative lacked any target indicators and financial projections. But in spite of its some of its pretentiousness, this document has not become just one more composition of "catchwords and imaginings" of the government (from our point of view, its presidential status contributed to this): the President Initiative has fixed the major instruments of government policy in the sphere of nanotechnologies; the necessity for the formation and development of the national nanotechnology network has been determined; and substantive areas to support its activities have been formulated. Looking ahead we can note that the President Initiative has played a key role in the formation of government policy in the nanotechnology and nano-industrial spheres and it still remains essentially the only strategy document in the sphere of development of these sectors and branches which has been implemented almost in full, at least insofar as the formulated activities and instruments are concerned.

Perhaps the most important practical governmental step towards ensuring the development of nano-industry has been the establishment of the *Russian Corporation of Nanotechnologies* – the relevant law being passed in 2007. The high importance of this government corporation can be explained by its legal forms and targets which cross the borders of the "traditional" competence of major government sectors, and by the fact that the President of the Russian Federation and both chambers of the Federal Assembly were directly engaged in the formation of its Supervisory Council. At the same time, judging by its basic functions, this government corporation was a financial development institution of albeit with extended powers: its major functions were determined as the selection and support of three categories of project: Research and Development projects, a, project which includes the introduction of nanotechnologies or the manufacture of such products together with projects on specialist training. We should underline that in 2010 this government corporation was transformed into a joint-stock company, but this transformation has not led to any significant changes in the profile of its activities. The only difference is that support for projects in the spheres of infrastructure and education has been handed to a specially established fund.

In August 2007 the Federal Target Program "Development of the Infrastructure for Nano-Industry in the Russian Federation in 2008-2010" was intended to support the formation of the essential infrastructure needed for the functioning of the National Nanotechnology Networks: the instrumentation and the information-analytical and methodological infrastructures of the nano-industry.

At the beginning of 2008 the composition of the basic documentation with regard to this sphere was enlarged by the state Program of *Development of the Infrastructure for Nano-Industry in the Russian Federation until 2015*. Unlike the Presidential Initiative that was, primarily, an "ideological" document; this Program was intended to become a practical basis

for the realisation of integral government policy on the development of nanotechnologies and the nano-industry. Judging by the content of the Program it had a purpose at a higher level than the Federal Target Program, departmental programmes and non-program arrangements. But in practice the Program has become no more than a "superstructure" because its status has not been officially confirmed. This was the reason why the Program did not have its "own" resources – its financial provision included only those funds which were allocated under other programs and support instruments. These aspects do not mean that this document is worthless from the point of view of the "construction" of government policy: in comparison with the Presidential Initiative the Program includes a concrete and operational determination of the major stages of nano-industry development, their targets and emphasis; the Program has documented, for the very first time, clear quantitative benchmarks for nano-industry development (even though some target figures seemed, at first, to be very difficult to achieve); finally the major participants in the development of nano-industry and the sum of all the relevant instruments of government policy have been determined.

In 2008 the process of formalisation of the National Research Center, the "Kurchatovsky Institution" began. This is the major element of the scientific research component of nanoindustry and is the central link of the National Nanotechnology Network, on which rest such functions as the coordination of scientific activities on the implementation of the Presidential Initiative. In 2010 the process was "crowned" by the adoption of a special law that established that the National Research Center is the direct responsibility of the government, which was its founder, accepted its charter and represented the government. Coupled with the fact that the National Research Center is the mainmanager of budgetary funds it has obtained an extremely high status in the system of government.

Since 2011 intensity of implementation by the state of new practical steps in the sphere of nanotechnology and the development of nano-industry has decreased which is not unexpected since all the major instruments and measures stipulated by the Presidential Initiative had been implemented in one way or another. The activities which have since been undertaken are to a large extent technical.

The following *major interest groups* in the spheres of nanotechnologies and nano-industry in Russia can be identified:

The state. Since we are essentially talking about the creation of a new sector, the key player is actually the state. Its basic interests are quite clearly revealed by the targets of strategy and programme documents adopted in this field: an increase in the level of implemented research works and developments in the spheres of nanotechnologies and nanoindustry; the entry of Russia into the list of world leaders in relevant field; the guarantee of successful commercialisation within Russia of the developing technologies and the creation of new high-tech manufacturing based on those technologies; a substantial increase in the amount of manufacture and export of particular products and at last an improvement in the structure of the Russian economy, the quality of life of the population and in national security. Furthermore, under increasingly stringent budgetary restraints, the aim of a rapid return on investments comes to the fore.

Scientific institutions. These are interested in obtaining funding for carrying out research and development, the evaluation of the material-technical base and the maintenance of current activities preferably on a regular basis. It is important to underline that this particular group (represented primarily by the Kurchatovsky Institute) was one of the originators of the government policy of support for the nano-industry in Russia. Which is why it is no surprise

that in practice the policy to a large extent ensures the realisation of the interests of a rather narrow circle of scientific organisations, primarily, the Kurchatovsky Institute).

Higher Education institutions. In addition to their requirements as scientific organisations, these institutions are also interested in target financing of specialist training in the spheres of nanotechnologies and nano-industry. This interest is partly realised within the educational projects and programmes implemented under the authority of "RUSNANO".

Russian Business. Business is interested in the development of promising new products and technologies which are ready for commercialisation, and also in the availability of funding for their manufacture and market launch. Currently the supported projects embrace only an extremely small part of the potential "audience".

Foreign Business. This is also interested in the commercial use of advanced Russian nanotechnologies, as is proved by the participation of foreign investors in venture capital funds founded by "RUSNANO". Furthermore, some individual companies are showing interest in the creation of their own production areas within Russia and, generally, in the development of the Russian market.

*Venture investors*. These are interested in the appearance of a significant amount of new development with a substantial potential for commercial usage, but nowadays there are some problems with this in spite of the scale of government support.

The key role in ensuring the development of funding *supply* for nano-industry belongs with the financing of the government corporation "Rusnanotech" / OAO "RUSNANO": in general, during the period being considered this instrument of support has obtained more than a half of the budget appropriations — about Rb 130bn; furthermore, "RUSNANO" has been given governments safeguards to the value of Rb 120bn. The annual amount of budget assignments for all other supported areas is about Rb 20bn, and one third of 120bn. has been assigned to the National Research Center, the "Kurchatovsky Institute" for the last years.

If we are speaking about the *results* of the policy being implemented by the government (*Table 14*), then we should say that recent years have witnessed a stable increase in domestic spending on research and developments in the sphere of nanotechnologies. There has also been some increase in the proportion of total expenditure on R&D; and it is obvious that the effect is, to a large degree, explained by large-scale government investment into the nanoindustry.

Table 14
Factors in the development of the spheres of nanotechnologies and nano-industry

	2008	2009	2010	2011
1	2	3	4	5
Internal spending on research works and developments in the sphere of nanotechnologies, million Rub	11,026	15,113	21,284	26,086
The proportion of domestic spending on research works and developments in the sphere of nanotechnologies, of the total domestic expenditure for research and development, %	2.6	3.1	4.1	4.3
The amount of organisations implementing research works and developments in the sphere of nanotechnologies	463	465	480	485
The proportion of organisations implementing research work and development in the sphere of nanotechnologies, as a percentage of the total number of organisations implementing research work and development	12.6	13.2	13.7	13.2
The number of researchers implementing research work and development in the sphere of nanotechnologies	14,873	14,500	17,928	21,166
The proportion of researchers implementing research work and development in the sphere of nanotechnologies, as % of the total number of researchers	4.0	3.9	4.9	5.6

Cont'd

1	2	3	4	5
The value of innovative goods, works and services connected with	582	1,074	52,921	63,029
nanotechnologies, million Rub				
Indicators of the Development Programforf Nano-Industry in t	he Russian Fe	deration until 2	2015	
Domestic spending on research works and the development promising directions in		14,300	20,000	28,000
nano-industry, mln. rub				
The number of researchers implementing research works and developments in the		10,600	10,900	11,200
sphere of nano-industry				
Sales of products of nano-industry, million Rub	20,000	80,000	155,000	240,000

These figures can be regarded as evidence of development dynamics of the Russian nano-industry, but based on these it is difficult to judge how appropriate such resources dynamics and effort are for the industry. Some understanding can be gained by the comparison of these figures with similar indicators from the Program for Development of Nano-Industry: if the planned and actual values of the amount of spending on research work and development are fairly similar and the number of researchers is higher than the indicators shown, this means that the actual realisation of nanotechnological products is significantly higher (by several times) than the planned realisation.

So, the government policy implemented in the sphere of nano-industry has significantly more impact on the "input" characteristics (financing of the R&D, the number of researchers) than the results of product realisation. The significant obstacle on the path of development of the nano-industry is represented by an unavailability of a substantial number of developments for commercialisation, including very promising ones. As a result there is no stable "flow" of innovational projects; while the projects which are being realised are rare and do not lead to any significant economic effects.

# C. Special features of used approaches, achieved results and problems

These examples allow us to distinguish two fundamentally different approaches to the realisation of industrial policy (*Table 15*). The situation with the automotive industry addresses the support of a large traditional sector with an inclination for attracting investments from leading foreign companies, the creation of new production areas with a larger degree of localisation. All these are combined with the support fornational automotive manufacturers (primarily to retain jobs). Industrial policy in the sphere of nano-industry has the aim of guaranteeing the formation of a new globally-competitive high-tech sector, important for the national economy; the major policy directions here include creation of the necessary infrastructure (including financial), the guarantee of advanced promotion of the research work and developments, and at the same time, a rush to increase in the volume of manufacture of nanotechnology goods.

The instruments used by the government also varied significantly: the policy used for the automotive industry was based on the application of customs and tariff regulation, stimulating demand for the products of the national vehicle manufacturers (including, importantly, the Russian production areas of foreign companies) as well as assigning various budgetary funds to specific enterprises (primarily to AvtoVAZ). To support the nano-industry, a new large-scale development institution, RUSNANO, was founded; a special Federal Target Program was instigated to create the essential research and informational infrastructure; the National Research Center, with an appropriate profile, has been set up to provide government funding for research and development.

When talking about the results of these measures, it should be mentioned that the simultaneous attraction of several leading world automotive producers to Russia, their creation of stable alliances with Russian companies, the organisation of a string of new production facilities and, as a result, an improvement in the general culture of production and, last but not least, the significant progress of industrial development in separate regions are obvious signs of the successful support of the automotive industry. On the other hand, the policy, as implemented, has not provided any improvement in the balance of trade in automotive industry products, and has not led to any significant development of its own private research and development competences; besides which, the original players still operate in the market alongside the new, retaining their 'competitiveness' primarily through government support.

Table 15
Special features and outcomes
of industrial policy

	Automotive industry	Nano-industry
The Sphere of Political Realisation	A traditional middle/ high-tech branch, rather large	An entirely new high-tech sector, with significant promise for the economy
The Beginning of Realisation	1998 (2006 – activation)	2007
Initiator interest group	Structural	Scientific-technological
Emphasis	Attraction of foreign investments	Creation of infrastructure
	Support for cooperation     Creation of new manufacturing, localisation     Import substitution     Promotion of employment	Advanced promotion of research work and developments     Commercialisation, production of new high-tech goods
Political Type	Vertical	Horisontal with vertical elements
Key Instruments and Measures	Customs regulation     Stimulation of demand     Financial support of existing manufacturers	RDE «Kurchatovsky Institute»     RUSNANO     FTP «Development of Nano-Industry Infrastructure»     Budget financing of R&D
Strong Sides, Success	Foreign investments     Creation of new products     Cooperation of Russian and foreign manufacturers     Improvement of manufacturing culture	A new institution of innovation stimulation     «Planned» increase in spending on R&D and the number of researchers     Launch of new high-tech products
Weak Sides, Problems	weak influence on import substitution, deterioration of the balance of trade     Retention of ineffective companies     The lack of significant progress in development of research and constructor competences	<ul> <li>The limited amount of beneficiaries</li> <li>Weak demonstrative effect</li> <li>Deficit of new perspective projects</li> <li>Orientation towards government support, scarce inflow of private resources</li> <li>Relatively low rates of production growth</li> </ul>

Industrial policy in the sphere of the *nano-industries* has created conditions for the creation of a large and active functioning institution for the support of innovation, which can pay attention, not only to project financing, but also to infrastructural development and the development of educational programmes; and thanks to large-scale government investments "as planned" the indicators of the value of R&D are rising; there are some examples of the launch of new industries and the development of new products and technologies. At the same time the circle of beneficiaries from such support is quite small and progress is piecemeal in nature and therefore does not provide significant demonstrative effect; the actual production volumes of nanotechnological products are still far from those which were expected. Moreover, in contrast to the policy measures used to support the automotive industry, the measures in support of nano-industry have not brought a significant inflow of private investment. At the same time the major players and interest groups are focused on the receipt

and use of government recourses. All these factors lead to the inevitable question of whether the achieved local successes have been worth the invested governmental funds.

# 6.2.4. Some general lessons of industrial policy implementation in Russia

There have been many attempts to implement industrial policy in Russia in one way or another. It's most likely that such an approach will remain: industrial policy is inevitably attractive for politicians as an understandable and clear mechanism of communication with society, as an instrument for the reallocation of rents and for interaction with economic interest groups. Basically this instrument can be useful from the perspective of the "packaging" into 'industrial policy' of the "standard" measures used to improve the investment climate, and for the optimisation of governments regulations and aggregation of different policies directed towards fairly clear and measurable goals.

In this connection it is quite useful to identify *some lessons for the future* based on the existing but diverse manifestations of industrial policy. We shall try not only to point out existing faults, but also to identify causal relationships for the sustained repetition of certain imbalances in the formation and realisation of industrial policy.

**Lesson 1**. A negative attitude towards particular alternative policies, or the activities of government in specific spheres should not be "taboos" preventing us from studying the appropriate issues. The fact that for a long time in Russia it has been as if there were no "kind of" industrial policy and this has led to the quality, formation and implementation of industrial policy and the culture of its research have remained at a rather low level.

In any case, there is no government policy which is entirely neutral in its effect on different business groups, sectors and markets. So it is a matter of choice, whether it is appropriate to use the heterogeneity of influence purposefully or not. Nevertheless it is necessary to understand the reasons for this heterogeneity and to assess the real beneficiaries in the group during the implementation of particular measures.

**Lesson 2**. World experience has evidenced that the requirements for industrial policy and its opportunities (especially instrumental ones) change significantly with time. Such policies in each country and at a given time need new ideas and solutions; it is extremely difficult to replicate the success of the industrial policies of various countries.

In this connection ex-post assessments of industrial policies are valuable from the perspective of determining not only the necessary ("right") content and direction, but, to a greater extent the principles on which the policy should be formed, controlled and refined. For industrial policy in particular, both "politics" and proficient state management are of special importance (these are the methods for the creation and exercise of policy).

**Lesson 3.** It is usually that the most important element of industrial policy is a system of priorities, yet, in Russia no system of clear and reasoned priorities has been established. We cannot but agree from this that branch and sectoral priorities have changed and been supplemented many times, as a result, not fulfilling any consolidation role in the efforts of government and business. Such isolation from the system of priorities of real economic policy and the lack of at least some attempts by the government to understand and estimate progress

in the realisation of one or another priority has significantly undermined the trust of strategic investors and of society in every further "serving" of government priorities.

However we do not believe that it is necessary to make special efforts to define priorities or even regard it as an urgent step.

We can notice that each new cycle of enhanced attention to industrial policy in Russia usually begins with a discussion of priorities, and here, on the whole, is also where it ends. Priorities have been perceived by the majority of players as a kind of "rubricator of directions" within which public money can be required. Politically it is rather difficult to limit the sprawl of process priorities – it is hard to deny the priority of a particular sector, especially under the widespread perception that major governmental resources should be spent within the framework of priorities.

Practice shows that a transition from industrial to technological priorities will not change the situation beyond recognition – there are some "sacred" priorities in the field of science and technology, at the same time other interest groups emerge with pledges which are even longer and more difficult to verify.

**Lesson 4**. A significant problem is the attempt to maximise all the advantages of industrial policy but only at the level of the national economy. The majority of Russian industrial policy initiatives have focuses on the domestic market which means that structural changes, primarily through import substitution have been implied. This greatly increased the risk of protectionist barriers being set up, limitation of competition, replacement of private demand with governmental ones for the support of selected priorities and as a result a multiplication of problems and costs of inappropriate starting decisions.

However on a global basis, the most successful industrial policy examples are focused on the conquering export markets. Let us underline the fact that globalisation does not diminish, but on the contrary, increases, the significance of the need for a policy of building global chains of value formation, and the extension of modern competences, of choosing strategic partners and forming a range of technological alliances. Taking into account Russian's accession to the WTO there is a need for different "leaner" and more effective instruments for supporting exports.

There is also a serious problem of correctly assessing the accumulated scientific and technological potential and identifying appropriate ways to apply it. The relevant assessments and perceptions are often overstated, taking into consideration the fact that they are based on perceptions which were relevant 20-30 years ago and on the supposition that business demands for technology have not really changed. The aim of using the legacy of past decades has become a political problem, blocking some new approaches and the development of cross-border technological cooperation. Note that in the development of the automotive industry it was easier for the government to orientate towards world brands and the attraction of foreign investors as a consequence of the lack of a strong private car industry, combined with a public perception of the low competitiveness of the quality of the domestically produced cars.

In our view, under current conditions the implementation of industrial policy without the participation of foreign partners (financial and technological) and without definite and sufficient conditions for the free entry and withdrawal of major players, is doomed only to simulate achievement, to have strong informational asymmetry and to form antagonist images of what is actually happening in society and in public governance.

**Lesson 5**. Industrial policy which does not rely on the supply of demonstrative effects, competition between companies and investors and on independent objective assessment is, on the whole, possible but inefficient. An emphasis on the primary usage of state resources heightens the risk of rent-oriented behaviour and limits the possibility of adequate evaluation. There are usually not enough resources to support all the priorities and initiatives and, as a result, reasons appear for "limited responsibility" together with requests for the assignment of additional resources in order to achieve better results (in the future).

The implementation of industrial policy detached from institutional changes, especially in the organisation of individual sectors, results in both significant limitation of the possible positive results and high risks of excessive distortions in the market environment. For successful realisation of industrial policy it is fundamentally important to have a high quality institutional environment and positive dynamics of change. Note that an independent factor may also be the expectations of some business change. This largely determines the scale of demonstrative effects.

**Lesson 6**. A significant obstacle to improving the efficiency of industrial policy is the limited access for new interest groups to participate in the development and evaluation of the results achieved. While the government is trying to form new instruments and to use new factors and interest groups in development, the traditional interest groups quickly "capture" these new instruments and contribute to their adjustment for their own purposes.

An analysis of individual cases of Russian industrial policy has shown that the stability of changes and movements is critically dependent on the *rapid formation of new interest groups* (or reorientation of existing groups towards modernisation). The consolidation of new interest groups is more likely in emerging sectors, where the traditional groups are not yet strong enough to carry out the "seizure" of industrial policy instruments. However the government often unintentionally prevents the creation of new interest groups and the accumulation of a "critical mass" when it engages new charismatic representatives of such groups into the organs of the state.

In conclusion, it is important to underline that ideological bias and categorical judgments on industrial policy, and a lack of pragmatism and questioning are significant obstacles on the way to ensuring the relevance and improved rationality of such policy. Both globally, and in Russia, there has been an increase in the number of prerequisites (or 'risks' – depending on your point of view) for the implementation of industrial policy its the current stage of development – in a period of deep transformation of perceptions about the 90s and the role of government in economic development. In this connection *critical and verifiable exchange of reasoned assessments and opinions concerning the issue of how industrial policy should be implemented. and what results can be achieved, are really fundamental; but most importantly, what should not be undertaken during implementation of the policy.*