INDUSTRIES AND INTERINDUSTRY COMPLEXES =

Investment and Construction Activities in Modern Russia: State and Trends

M. I. Kamenetskii

Institute of Economic Forecasting, Russian Academy of Sciences, Moscow, Russia Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia email: kmi-kmi@mail.ru Received December 10, 2015

Abstract—The article analyzes the current state and problems that hinder the development of investment and construction activities in Russia in 2004—2014 and assesses the efficiency of this field against the background of problems related to the use of the Investment Fund of the Russian Federation. For the first time, a methodological approach to assessing import shares in investments in the acquisition of machinery, equipment, and transport means as one of the asset types in the domestic economy has been justified and the results of appropriate assessments have been given. The article proposes ways to solve pressing problems in the field of investment and construction activities, as well as demands that should be placed on the formation of state investment and construction policy.

DOI: 10.1134/S1075700716040079

The state of the investment and construction field in Russia both in the past and especially in the present should be considered to be a factor that hinders the development of the national economy. That is why the main task of the long-term development of investment and construction activities is to transition from the current state, to limit the growth in national economy, and to set a new standard that fully satisfies the national requirements for construction materials. This requires the radical growth in volumes and the quality of production capacities placed into operation and nonproductive assets, to increase the mobility and production flexibility of construction organizations, and to overcome the dependence of construction on the distant location and regional binding of production base in construction. The shift of emphasis toward significantly improving the quality of produced construction materials and reducing the terms of its creation (1.5–2 times) coupled with a 1.5fold decrease in the consumption of materials of construction processes and a decrease in their labor intensity by no less than two times should be accompanied by the strengthening of their own facilities and resource base in construction complex.

General assessment of the state and economic situation in the field of investment and construction activities in 2004–2014. Dynamics of key development indicators in the field of investment and construction activities in Russia in the period under consideration was divergent, including growth in 2004–2008, the crisis in 2009, an unstable situation in the first post-crisis

2010, some stabilization in 2011–2013, and sliding towards a new crisis that started in 2014 (Table 1).

2004–2008. This period is characterized by intensive growth in all key indicators in the field of investment and construction activities. Following the 40.1% growth in GDP in 2008 (compared to 2003), the added value created by the economic activity "Construction" increased even more significantly, i.e., by 76.3%; this was due to heightened demand for construction materials. This conclusion is confirmed by the growth in the volume of construction and installation works in 2008 by 96.2% compared to 2000.

The growth in the volume of construction and installation works was encouraged by significant growth in the volume of investments in fixed assets for the development of material and technical base in construction field, i.e., by almost 2.4 times in 2003– 2008. The especially significant growth in investments (by a factor of three) took place in the economic activity "Production of Other Nonmetal Mineral Products." However, insignificant growth in the production of materials in this field (by a factor of 1.44 in 2003-2008) may be perplexing. This divergence can be explained by the pricing policy that existed in that period, which was conditioned by increased housing demand. In other words, the growth in prices for construction materials, especially in housing construction, considerably outpaced the growth in prices for materials in the industry of construction materials and engineering structures.

Table 1. Dynamics of main macroeconomic indicators in the field of investment and construction activities in Russia (in comparable prices) (2003 = 100)

Indicator	2004	2005	2008	2009	2010	2011	2012	2013	2014
Russia's GDP	107.0	114.0	140.1	129.1	134.9	140.8	145.5	147.4	148.3
including GDP in construction field	110.3	121.8	176.3	146.0	152.4	164.0	168.2	164.2	n.d.
Total investments in fixed assets	116.8	128.7	205.5	177.8	189.0	209.4	223.2	225.4	219.3
(For reference: $1990 = 100$)	39.5	43.5	69.5	60.1	63.9	70.8	75.5	75.5	75.0
Including									
in construction	110.0	124.6	242.7	169.6	188.1	170.4	165.8	162.5	n.d.
in production of other nonmetal mineral products	118.8	144.7	300.7	215.4	222.9	207.7	213.0	191.4	n.d.
in production of machinery and equipment	101.3	99.9	159.2	110.2	119.4	109.5	130.9	148.2	n.d.
Total growth rates of fixed assets vol-	101.6	103.5	113.2	116.8	120.3	124.2	129.5	135.0	n.d.
umes									
Including:									
construction	100.1	100.3	106.3	108.6	110.6	112.6	116.5	120.3	n.d.
extraction of minerals	105.0	109.8	130.7	137.9	145.5	153.5	162.2	171.2	n.d.
Volume of works in construction	110.1	124.6	196.2	170.3	178.8	187.9	192.4	192.6	183.9
(For reference: $1991 = 100$)	50.9	57.7	90.8	78.9	82.8	87.0	89.2	89.3	85.4
Production of other nonmetal mineral products	108.4	113.7	143.8	104.2	115.4	126.1	133.2	130.5	132.9
(For reference: $1991 = 100$)	49.2	51.6	65.2	41.4	47.5	51.0	56.4	55.3	56.3
Production of machinery and equipment	120.8	120.4	163.2	111.8	122.4	122.9	136.1	133.3	135.7
(For reference: $1991 = 100$)	45.2	45.1	61.0	43.3	48.6	53.2	55.5	53.7	49.5
Deployment of total area of residential buildings, million square meters	41.0	43.6	64.1	59.9	58.4	62.3	65.7	70.5	81.0
(<i>For reference</i> : 1990 = 100 (61.7 million square meters)	66.5	70.7	103.9	97.1	94.7	101.0	106.5	114.3	131.3

^{*} Sources: made by the author based on statistical yearbooks of the Federal State Statistics Service.

However, indicators of the physical volume of the production of construction materials and the construction-materials industry, as well as the production of machinery and equipment in 2008, were not able to reach the level of 1991.

It should be stressed that the opportunities for active investments that arose in Russia in 2003–2008, as well as the growth and effective expansion of production capacities of the facilities in the domestic economy and its social fields, were not fully utilized. The existing opportunities related to the expansion of research, design, and other engineering works that are the basis for preparing for a future transition to upgrading the real sector of the national economy have not been implemented either.

Crisis of 2009 in Russia was, to some extent, a result of the U.S. mortgage crisis and it sharply decreased the opportunities for further receiving

cheap foreign credits by Russia. Besides, the significant reduction of oil prices occurred, and it decreased Russia's export revenues.

As a result, Russia faced severe economic recession; the GDP decreased by 9.2% and investments in fixed assets decreased by 8.7%. These crisis phenomena had an especially strong effect on investments in the development of material and the technical base of construction (reduction amounted to approximately 30%), the production of other nonmetal mineral products (reduction amounted to approximately 28%), and the production of machinery and equipment (by 31%). The production indexes based on the considered types of economic activities reduced correspondingly. The volumes of performed construction and installation works also reduced by 13%, and it had an appropriate effect on the commission of the total area of residential buildings (64.1 million square

Indicator	2000	2005	2007	2008	2009	2010	2011	2012	2013
Total investments in fixed assets	100	100	100	100	100	100	100	100	100
Including:									
new construction	58.5	54.5	56.3	58.2	62.8	61.1	58.1	58.3	57.7
modernization and									
reconstruction	29.8	21.7	20.4	21.1	18.3	18.8	19.3	19.5	18.8
acquisition of new fixed assets	11.7	23.8	23.3	20.7	19.1	20.1	22.6	22.2	23.5

Table 2. Structure of directions for using investments in fixed assets*

meters in 2008 and 59.9 million square meters in 2009).

In 2010 (the first post-crisis year), compared to the previous year, growth (albeit insignificant) was observed for all considered economic indicators, in particular investments in the development of the national economy in general and its main types of economic activities. A more distinct improvement in the economic situation in Russia's economy in general and in the field of investment and construction activities occurred in 2011–2013. However, many of the considered indicators were not able to reach the level of 2008 in 2011, including the level of investments in fixed assets for developing all considered types of economic activities, as well as the volume of works performed within the framework of "Construction" economic activity.

Errors in macroeconomic policy, the drop in oil prices, and the introduction of sanctions against Russia by the United States, the European Union, and certain other countries led to a new crisis in economy and in the field of investment and construction activities. This crisis started to become apparent in 2014 and, in 2015, it took the form of economic slump.

In this context, the problems of an economic assessment of the following factors become topical:

- —effective functioning of the field of investment and construction activities in Russia in 2004–2014;
- —the role of the Investment Fund of the Russian Federation as a driver for further development in the domestic economy;
- —the efficiency of currency resources spent to acquire foreign machinery, equipment, and transport means (as a kind of fixed assets of the domestic economy).

And, as a result, the justification of requirements that should be imposed on the formation of a state investment and construction policy in the coming period.

Characteristics of the efficiency of the functioning of the field of investment and construction activities. Results of this type of activities depend on quantitative indicators, including the deployment of production capacities and putting nonresidential and residential buildings and objects of housing infrastructure and sociocultural fields into operation, as well as implementing a qualitative indicator, such as the structure of directions for using investments in fixed assets.

As for this list, the main attention will be given to analyzing the structure of directions for using investments in fixed assets (Table 2), indicators of putting nonresidential buildings into operation (Table 3), and indicators of deploying production capacities (Table 4).

Table 2 shows that the share of investments in modernization and reconstruction of previously created fixed assets is insufficient. On the contrary, the share of this fundamental direction is decreasing very considerably, even compared to 2000 (from 29.8% to 2000 to 18.8% in 2013), although the wear rate of fixed assets by certain types of economic activities in 2014 fluctuated in the range of 47–65% [1]. However, at the same time, we can see a rather intensive increase in the share of investments in the acquisition of new fixed assets (from 11.7% in 2000 to 23.5% in 2013) and new construction (57.7% in 2013). This situation can be explained by the structure of putting into operation of nonresidential buildings (Table 3).

In the period under consideration, the share of business buildings in the general structure of nonresidential buildings increased from 20.5% in 2000 to 35.1% in 2014; in volume terms, the growth amounted to 7 times (from 1.7 million square meters in 2000 to 12 million square meters in 2014). Thus, the volume of construction of business buildings surpassed this indicator for other types of nonresidential buildings by several times, e.g., the disparity in relation to the volumes of putting healthcare buildings into operation reached 15 times in 2014 (business buildings totaled 12 million square meters and healthcare buildings equaled 0.8 million square meters).

As can be seen from Table 4, crisis phenomena in the national economy did not have a significant effect on the dynamics of quantitative and qualitative indicators of the deployment of production capacities. For example, as compared to 2000, in the 2009 crisis year, the production capacities for oil extraction and refining increased by 9.3 times and, in 2012, they increased by 33.7 times. Correspondingly, the number of oil

^{*} Construction in Russia, 2006, p. 161; 2010, p. 177; 2014, p. 78.

Table 3. Indicators of putting nonresidential buildings into operation*

Indicator	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Total area of buildings, mil-	8.2	11.5	23.5	23.3	22.6	21.2	22.0	28.1	30.7	34.2
lion square meters										
Including:										
industrial	2.1	2.5	3.7	4.1	4.1	4.3	3.4	4.5	4.2	5.2
agricultural	1.1	0.8	2.7	3.3	3.7	3.3	3.4	5.1	4.4	4.6
business	1.7	3.5	9.4	8.0	7.7	5.4	6.4	7.6	9.5	12.0
administration			•••	•••		1.5	1.7	2.1	2.2	2.5
educational	0.6	1.3	2.1	2.0	1.8	1.8	2.2	2.9	3.3	3.9
healthcare	0.6	1.0	1.2	1.2	1.0	1.4	1.3	1.1	1.3	0.8
other	2.1	2.4	4.4	4.7	4.3	3.5	3.6	4.8	5.8	5.2
Total area of buildings, %	100	100	100	100	100	100	100	100	100	100
Including:										
industrial	25.6	21.8	15.8	17.6	18.2	20.3	15.5	16.1	13.7	15.2
agricultural	13.5	7.0	11.5	14.2	16.1	15.6	15.5	18.2	14.4	13.5
business	20.5	30.3	39.8	34.2	34.1	25.5	29.1	27.1	30.7	35.1
administration	•••	•••	•••	•••	•••	7.1	7.6	7.5	7.2	7.3
educational	7.4	11.3	9.0	8.6	8.0	8.5	10.0	10.4	10.8	11.4
healthcare	7.4	8.7	5.1	5.2	4.5	6.6	5.9	4.0	4.3	2.4
other	25.6	20.9	18.8	20.2	19.1	16.5	16.4	16.7	18.9	15.2

^{*} Construction in Russia, 2008, p. 93; Russia in figures, 2010, p. 270; 2012, p. 282; 2014, p. 297; 2015, p. 297.

Table 4. Deployment of certain production capacities through new construction, extension, and reconstruction*

Indicator	2000	2005	2008	2009	2010	2011	2012	2013
Production capacities for production and processing of:								
oil, million t	0.3	0.04	0.1	2.8	6.8	8.8	10.1	0.2
gas, billion cubic meters	1.5	0.8	_	3.2	_	_	_	0.1
Wells:								
oil, thousand pcs.	2.8	3.1	4.0	4.0	4.3	5.2	4.0	5.5
gas	115	160	213	69	174	81	312	120
Production capacities for production of:								
steel, thous.t	3.3	1113	761	3612	306	300	969	2110
finished rolled ferrous metals, million t	_	1.2	_	1.5	0.6	1.7	_	0.3
steel pipes, thousand t	_	88	50	300	635	693	58	_
cement, million t	_	_	0.3	_	1.3	3.6	4.9	4.2
wall materials,								
million equivalent bricks	92	77	477	839	1019	429	263	776
Constructed:								
hard-surface auto roads, thousand km	7.9	2.6	3.7	2.7	3.1	2.5	2.4	2.9
new railway lines, km	1.7	128	84	167	111	93	39	29
second tracks, km	46	120	92	120	104	95	77	56
hard-surface runways, thousand square meters	567	162	33	182	144	938	179	411
main gas pipelines with branches, thousand km	2.0	2.2	1.9	1.9	2.0	1.0	3.8	1.1
main oil pipelines and main regional oil-product								
pipelines, thousand km	0.7	0.6	1.0	3.2	1.2	1.2	2.1	0.9

^{*} Made based on: Construction in Russia, 2010, p. 100–102; 2014, p. 45–47.

wells deployed in 2006–2013 increased to 5500 in 2013 compared to 2800 in 2000.

In 2010–2013, the most intensive increase was noted among production capacities in the field of cement production due to the construction and deployment of 12 new cement factories with total production capacities of 22–24 million t. In all cases, they were modern factories that operated with the dry method and were highly productive and absolutely competitive in relation to foreign suppliers. During 2010–2013, the actual increase in the production capacities of domestic cement factories amounted to 14 million t (in 2000–2005, there was no increase in the production capacities of cement factories).

As for putting transport infrastructure objects into operation, i.e., highways, new railway lines, runways, main gas, oil, and product pipelines, stagnation and extremely weak progress (or its total absence) in increasing the deployment of appropriate production capacities can be seen.

Special attention should be paid to the situation in the field of constructing special industrial objects, factories, and structures. According to available data [2], in the country there are approximately 50000 potentially hazardous and 5000 hazardous objects. However, the largest manufacturing plants were established more than 70 years ago; wear rate of their assets amounts to 80% and sometimes reaches 100% (including chemical complex). The state of hydrotechnical objects and structures is critical; their total number reaches 70000, among which approximately 30000 fall on various dams, artificial reservoirs, channels, and sluices. One in ten of these structures is ownerless (over 6000 of them are in need of major overhauls, 400 are in emergency operation, and approximately 300 have been in operation for over 100 years).

With regard to the above, a sharp increase in the volume of construction and installation works related to the demolition and liquidation of outdated production and nonproduction buildings and structures that were built earlier can be expected in the future. Moreover, the volume of these works, as well as repair and restoration works performed by companies of the construction complex will increase rapidly in relation to the economy in general, since the passive part of production and nonproduction fixed assets continues to wear out and requires permanent attention. The volume of repair and restoration works will especially increase in the housing fund due to the almost complete absence of necessary major overhauls of residential buildings in 1987–2015.

Thus, a key contradiction in the domestic economy that arose in the early 1990s remains. This contradiction consists of the need for the cardinal renovation of outdated and worn-out production assets in the real sector of the economy and the country's housing complex, as well as the impossibility of meeting these requirements due to the lack of production capacities

in construction and machine-building complexes. To a considerable extent, this contradiction explains the low efficiency of implementing federal target investment programs [3], as well as the Federal Target Program "Housing" (2002–2010).

Thus, the situation in the field of investment and construction activities remains unsatisfactory and it is caused by the following factors:

- —external factors related to fluctuations in world raw material prices and internal reasons related, inter alia, to the errors in macroeconomic policy;
- —the high level of economic uncertainty that hinders activity of private capital [4];
- —insufficient efficiency in the use of state financial resources, including the Investment Fund of the Russian Federation.

Let us turn our attention to the opportunities of using the Investment Fund of the Russian Federation [5].

The Investment Fund of the Russian Federation was formed January 1, 2006. The main task of the fund is to support certain investment projects in the foreground of the state and regions by creating transport, engineering, and energy infrastructure on the federal or municipal levels, without which these projects cannot be implemented.

The fund was filled by increasing the oil cut-off price during the formation of the Stabilization Fund and via the advanced repayment of foreign debt, i.e., by saving on interest. The procedure of project consideration consists of three main stages, including investment commission, government commission, and approval at a meeting of the Government of the Russian Federation. It was planned that the state should finance business projects of national importance with a cost of no less than 5 billion RUB and regional projects with costs of no more than 500 million RUB. The project's profitability should be no lower than 4% and no higher than 11%.

The selection of investment projects had to be performed based on indicators of their financial, budget, economic, and social efficiency, which would enable one to evaluate the projects' contribution to improving the main indicators of socioecomonic development of the Russian Federation and constituent entities of the Russian Federation, such as increasing the regional GDP, additional revenues in budget system of the Russian Federation, rise of the employment level of population of working age, as well as availability and quality of services for population. The fund's projects were selected in the framework of public procedure providing their consideration by the Investment commission for selection of projects pretending to the budgetary allocations from the Investment Fund of the Russian Federation, with the following selection by the Government commission for investment projects of national importance and approval of project passports by orders of the Russia's Government.

On July 26, 2006, the Government commission approved the first four projects that applied for cofinancing from the Investment Fund; and on August 3, three more projects. The total cost of seven projects amounted to 667.7 billion RUB; their financing from the Investment Fund of the Russian Federation was planned at the level of 164 billion RUB. Each of the projects took the form of an investment agreement.

In total, in 2006–2010, the approval of 14 projects of national importance and 39 projects of regional importance took place.

At the meeting held on January 14, 2014, in the Ministry of Regional Development of Russia, it was mentioned that as for January 1, 2014 implementation of 17 projects was completed; implementation of 35 projects is in process; implementation of five investment projects was cancelled; and implementation of

19 projects is behind the schedule. However, in this report, as well as in other similar documents (e.g., [7]) there are not appropriate data that would unfold necessary economic sense (efficiency) of functioning the completed projects of the Investment Fund of the Russian Federation in the present and in the future, which should be reflected according to the requirements set out in the Regulation on the Investment Fund, as well as in the appropriate directive instructions of the former Ministry of Regional Development (including [8]) and a report of the Auditing Chamber of the Russian Federation related to the performance of control activities [9].

Thus, the cumulative efficiency of the Investment Fund of Russia can hardly be evaluated as positive.

It appears that there is a more rational approach to the arrangement of funding from the Investment Fund of the Russian Federation and to the expenditure control. In the framework of this approach, financial resources of the Fund should be directed to specially created for this purpose long-term lending banks that operate very successfully in many developed countries [10].

These banks could (based on appropriate orders of both the state and commercial entities) extend credits to economic, infrastructural, and innovative projects, as well as forming and development of new industrial hubs and territories. These banks could also finance private investment projects under certain conditions. The peculiarity of these banks is that they provide project-tied loans. In this approach, having obtained a loan from a long-term lending bank, a borrower orders the performance of certain construction works, including works related to the installation of appropriate manufacturing equipment in innovation projects by a general contractor and forwarding appropriate bills to long-term lending banks for payment. The bank will pay them if it considers these works to be reasonable and to correspond to the purposes of the investment project. Thus, the bank also begins to control the efficient utilization of state resources (at the same time keeping in mind its margin to the extent specified by the state).

Regarding the estimation of the import share in investments in the acquisition of machinery, equipment, and transport means. As can be seen from Table 5, which contains the structure of investments in fixed assets by asset types, in 2000–2014, the share of investments in machinery, equipment, and transport means fluctuated from 35.3 to 41.15%.

According to the author's estimates, the share of imports in investments in machinery, equipment, and transport means in Russia has a tendency to grow. The import share increased from 0.544 in 2000 to 0.745–0.815 in 2005–2006; and to 0.867 and 0.810, in 2007–2008; then, this share fell sharply in the 2009 crisis year to 0.683; then, since 2010, it has started to grow (Table 6). At first sight, these ratios seem unbelievable.

However, during two pre-crisis years (2007 and 2008) the import of machinery and equipment reached 201.2 billion USD, although during the previous eight years (1999–2006), it reached only 199.5 billion USD [11].

As we see it, indicators of the import share of machinery, equipment, and transport means calculated in this manner in the structure of investments in fixed assets can be considered to be preliminary estimates that require a more detailed examination. Certainly there is no full conviction that data on machinery imports are properly reflected in domestic statistics. Furthermore, there is a lag between payment terms and supplies of materials under international agreements, and certain fluctuations of currency exchange rates within a year and from one year to another (though for the purpose of calculations, these rates were smoothed).

Table 6 shows that the existing growth rates for imports of machinery, equipment, and transport means in actual prices (USD) in ruble equivalent (in 2014, by 20.7 times with regard to the level of 2000) almost swallows up the appropriate domestic ruble investments that could be spent for such purposes in the country.

This situation can be illustrated with the commodity composition of import machinery and equipment used in the Russian construction complex (Table 7). in total, over five years (2004–2008), costs for acquiring import construction machinery and equipment reached approximately 36.7 billion USD, which amounted (at an average price of USD in this period equal to 27.24 RUB) to approximately 1 trillion RUB (i.e. on average, over 7.3 billion USD equivalent per year, or over 200 billion RUB per year, in ruble equivalent). This growth in the quantity of the acquired import construction machinery was inevitable under intensive growth conditions performed in 2005–2008 construction and installation works, which were carried out in preparation for the XXII Winter Olympic Games and XI Paralympic Games of 2014 in Sochi, the 2012 APEC summit in Vladivostok, the World Summer Universiade 2013 in Kazan, the construction of the belt highway around St. Petersburg, and the Moscow-St. Petersburg expressway [12], as well as the beginning of the implementation of project financing using the Investment Fund of the Russian Federation. In 2009–2013, imports of construction machinery increased to 42.4 billion USD, while during the crisis of 2009, a significant reduction (by almost fivefold) took place in costs for acquiring imported construction machinery.

In many respects, growing expenditures that acquire import construction machinery can be explained by insufficient domestic production. Manufacturing certain types of domestic machine-building products measured in pieces, e.g., pneumatic wheel-

Table 5. Structure of investments in fixed assets by asset types (in actual prices, billion RUB)*

Indicator	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total investments in fixed	1165	3611	4730	6716	8782	7976	9152	11036	12586	13256	13528
assets											
Including											
by asset types:											
residential buildings	132	434	557	873	1194	1037	1112	1396	1534	2127	2070
buildings (except residential) and structures	502	1460	1935	2800	3742	3482	3963	4777	5560	5576	5533
machinery, equipment, and transport means	427	1484	1918	2613	3311	2870	3473	4186	4732	4676	4857
other	104	233	320	430	535	487	605	677	761	878	1068
Total investments in fixed	100	100	100	100	100	100	100	100	100	100	100
assets, %											
Including by asset types:											
residential buildings	11.3	12.0	11.8	13.0	13.6	13.0	12.2	12.7	12.2	16.0	15.3
buildings (except residential) and structures	43.1	40.4	40.9	41.7	42.6	43.7	43.3	43.3	44.2	42.1	40.9
machinery, equipment, and transport means	36.6	41.1	40.5	38.9	37.7	37.2	37.9	37.9	37.6	35.3	35.9
other	9.0	6.5	6.8	6.4	6.1	6.1	6.6	6.1	6.0	6.6	7.9

^{*} Russia in Figures, 2010, p. 461, 467; 2015, p. 453, 459.

Table 6. Share of import in investments, spending by Russia for acquisition of machinery, equipment, and transport means from non-CIS countries*

Indicator	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Import of machinery, equipment, and transport means (in actual prices),											
billion USD	8.1	38.4	59.3	92.2	109	67.0	92.6	133	142	140	128
billion RUB	231.8	1105	1561	2264	2681	2026	2822	4056	4312	4256	4800
Growth rate of import in ruble equivalent	1.0	4.8	6.7	9.8	11.6	8.7	12.2	17.5	18.6	18.4	20.7
Investments in machinery, equipment, and transport means (as a type of fixed assets of domestic economy), billion RUB	427	1484	1918	2613	3311	2967	3473	4186	4732	4676	4857
Growth rate of investments	1.0	3.8	4.5	6.1	7.8	7.0	8.1	9.8	11.1	11.0	11.4
Share of import in investments in machinery, equipment, and transport means in Russia	0.544	0.745	0.815	0.867	0.810	0.683	0.814	0.96	0.91	0.91	0.9

^{*} Russia in figures, 2009, p. 502; 2015, p. 520; Russian Statistical Yearbook, 2012, p. 640; 2014, p. 551.

mounted cranes, is obviously insufficient for Russia's construction industry.

In the future, when the crisis that started in 2014 ends, the following tasks will have to be solved with regard to the field of investment and construction activities. First, this means activating and increasing the efficiency of the impact of banking and financial

rules and regulations on the functioning processes in the field of investment and construction activities. Second, the creation of material and technical foundations of the construction complex anew, particularly in the field of construction and road machine building, inter alia, based on assimilation of foreign technologies of industrial assembly is required. Third, a

Table 7. Import of certain types of multipurpose manufacturing machinery used in the field of construction

Item	2000	2005	2007	2008	2009	2010	2011	2012	2013
		In	quantitat	ive terms, p	ocs.				
Lift trucks, pcs.	7525	58421	60914	43054	8531	22724	34303	39353	38532
Bulldozers, pcs	219	656	2159	2992	751	1671	3110	3420	2627
Excavators, pcs.	1451	7742	24528	29246	4441	13017	49 485	34834	35232
Tractors, pcs.	20904	42477	77779	90363	26 660	44802	89634	92723	79064
Trucks, thousand pcs.	19.2	50.1	137	149	25.9	59.0	109	121	89.1
Machines for processing of wood and other hard materials, thousand pcs.	86.3	194.2	252.2	294.0	189.5	271.8	316.0	313.0	346.3
Metal cutting machines, thousand pcs.	20.5	225	395	445	387	562	727	673	845
	•	In	value term	s, million	USD .	•	•	•	•
Lift trucks	59.6	175	502	753	143	365	613	635	682
Bulldozers	30.6	99	384	584	158	335	694	731	416
Excavators	105	479	1476	2159	408	985	2346	2732	2399
Tractors	294	974	2886	4270	558	1184	3140	2659	1668
Trucks	459	1037	3532	4932	842	1843	3527	3835	2950
Machines for processing of wood and other hard materials	73.9	203	52	747	258	347	619	678	509
Metal cutting machines	66	254	558	964	669	653	923	1084	1140
Total import	1088	3221	9390	14 409	3036	5412	11 862	12 354	9764
Growth rate of import	1.0	3.0	8.6	13.2	2.8	5.0	10.9	11.4	9.0

^{*} Made based on: Russian Statistical Yearbook, Stat.sb. Rosstat, 2009, p. 17; 2012, p. 711; 2014, p. 617.

sharp rise in the efficiency of the state housing policy is necessary. Fourth, changes must be made in the technological and sectoral structure of investments in fixed assets by the dint of widespread implementation of innovations.

In order to ensure the country's transition to a new and innovative model of the economy based on the attraction of investments to regions, in 1998, the Prime Minister of the Russian Federation, Acad. E.M. Primakov [13], proposed recommending at least the following five measures that are still relevant at the state level:

- 1) Unambiguous confirmation for investors that tax burden in the country will not grow any further.
- 2) The provision of government guarantees to all entities that implement investment projects in Russia within the shortest possible time. These government guarantees could attract long-term credits from the market, e.g., for a term of ten years with preferential interest rates; overall, this will allow investors to alleviate the burden of creating manufacturing and engineering infrastructure.
- 3) Return to the 50% income tax relief if monetary funds are allocated to manufacturing investments and

reward enterprises that introduce technologies and produce innovative import-substituting goods with investment credits for a term of not less than three years.

- 4) The additional simplification of obtaining various permissions for investment projects for implementing and putting new objects into operation.
- 5) The establishment of a refinancing rate of the Central Bank of Russia's independence on the current level of inflation. A sharp decline, i.e., to 4–5% per annum, of all discount rates for the Central Bank of Russia at which financial resources are provided to commercial banks. This will help to reduce interest rates on bank credits for enterprises and population dramatically, i.e., by 5–6 p.p. at once.

Taking into account the extreme wear and tear on fixed assets of enterprises related to the construction industry, especially in construction and road machine-building industry, it is necessary, as previous reports have shown, to allocate for the development of a base level of 2–2.5 times more investments than were actually allocated before.

The creation and implementation of foundations of new and effective state housing policy in the country is necessary since, despite the series of steps related to the housing construction development carried out by the Government on multiple occasions (Federal Target Program "Housing" for 2002-2010, "Your Own House," "Affordable and Comfortable Housing for Russian Citizens," etc.), in recent years, the ratio between population income and prices for accommodations decreased permanently. A monthly income of 30000-35000 RUB per family member hardly brought a real chance to buy a one-room apartment on the domestic real estate market. To a large extent, the reason for this is that, as realtors say, in the country there is deficit of land for construction. Another extremely sensitive issue is need to modernize and replace worn-out production infrastructure of housing complex (heat, gas, water supply and water disposal) and to reduce the extremely high prices for connecting residential buildings to these facilities.

Thus, in the coming period, state investment and construction policy should stimulate the following:

- —growth in investments in processing industries, first of all in high-tech industries, which provide a high rate of added value;
- —an increase in the volume of investments with high innovative content, which enables the growing needs for equipment of up-to-date scientific and technical levels to be satisfied;
- —the expansion of investments in the modernization and reequipment of the domestic machine-building industry in order to create a base for the large-scale renovation of productive facilities in Russia in the near future. The development and implementation of progressive investment policy will have a very positive effect on the increase in volumes of not only indus-

trial, but also housing, social, and cultural construction.

In order to eliminate negative reasons that impede the efficient development of the field of investment and construction activities, it is suitable to act as follows:

- —reconsider prior laws in the field of investment and construction activities that do not work in order to replace them and develop appropriate new laws with the parallel determination of their how they work and are executed:
- —make the procedure of state procurement mandatory for construction works and provide control of the real practical effect of this both during their performance and after their completion;
- —combat corruption in the field of investment and construction activities, as well as in major and minor repairs of production facilities and residential buildings;
- —strengthen the control of statutory compliance in the field of investment and construction activities by law enforcement and prosecution authorities.

Moreover, overcoming these and other contradictions is important, since in the field of investment and construction activities, there are objective conditions that provide opportunities for efficient functioning. The main of opportunity is the permanent and considerable demand for construction materials, especially by the manufacturing industry, as well as the housing and social field of the domestic economy.

ACKNOWLEDGMENTS

This paper is based on research carried out with the financial support of the grant of the Russian Science Foundation "The purpose-oriented complex programme of the Russian Arctic development (project no. 14-38-00009). Peter the Great St. Petersburg Polytechnic University.

REFERENCES

- 1. Russia in Numbers (2015), p. 68.
- 2. Rossiiskaya Gazeta, July 27 (2012).
- 3. *Construction in Russia* (2012), p. 169; (2014), p. 62.
- 4. Rossiiskaya Gazeta, Oct. 241 (2015), p. 5.
- Russian Federation Investment Fund. http:// www.investinginrussia.ru/rus/ppp/investfund/; http:// www.ppp-russia.ru/page/investitsionniy_fond_rf.html. Cited January 21, 2015.
- 6. Information from the Ministry of Regional Development from 2014 On the Implementation of the Approved Projects of the Investment Fund of the Russian Federation. http://www.minregion.ru/news_items/3934?locale=ru.
- Information from the Ministry of Regional Development from 2012 On the Implementation of the Approved Projects of the Investment Fund of the Rus-

- sian Federation. http://old.minregion.ru/upload/documents/091213/091213 inf 1.doc.
- 8. Order of the Ministry of Regional Development of the Russian Federation from December 12, 2010 no. 730 On Approval of the Reporting Format on the Implementation of the Project that received Budget Allocations from the Investment Fund of the Russian Federation (2011), p. 12.
- 9. "Report on the results of the controlling event Checking the Use of resources of the Investment Fund of the Russian Federation in 2010 and 2011," Sshchetnaya Palata Ross. Fed., No. 2 (182) (2013). http://www.budgetrf.ru/

- $\label{eq:publications} Publications/Schpalata/2013/ACH201302231022/ACH201302231022_p_006.htm.$
- 10. N. Petrakov, "Tough anti-monopoly regulation is the only way to deal with bubbles," Kommersant Den'gi, No. 6 (2009).
- 11. Russia in Numbers (2004), p. 407; (2009), p. 501.
- 12. "Regions," Rossiiskaya Gazeta, June 17 (2010).
- 13. Rossiiskaya Gazeta, Oct. 2 (2009).

Kamenetskii, Mikhail Il'ich, Dr. Sci. (Econ.), professor, chief researcher; senior researcher *Translated by E. Bataeva*