

# PUBLIC ADMINISTRATION

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© Shulepov E.B., Zadumkin K.A., Rumyantsev N.M., Lukin E.V.

## Investment Activity in the Russian Economy: Activation Problems and Directions\*



**Evgenii B.  
SHULEPOV**

The State Duma of the Federal Assembly of the Russian Federation  
Moscow, Russian Federation  
e-mail: shulepov@duma.gov.ru  
ORCID: 0000-0001-6731-1653



**Konstantin A.  
ZADUMKIN**

Vologda City Branch of the Union of the Industrialists and Entrepreneurs  
of the Vologda Oblast  
Vologda, Russian Federation  
e-mail: zk00@mail.ru  
ORCID: 0000-0001-5313-0835



**Nikita M.  
RUMYANTSEV**

Vologda Research Center of the Russian Academy of Sciences  
Vologda, Russian Federation  
e-mail: rumnik.95@yandex.ru  
ORCID: 0000-0001-5660-8443; ResearcherID: AAC-2818-2019



**Evgenii V.  
LUKIN**

Vologda Research Center of the Russian Academy of Sciences  
Vologda, Russian Federation  
e-mail: lukin\_ev@list.ru  
ORCID: 0000-0002-1159-281X; ResearcherID: I-8183-2016

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**Abstract.** The big challenges facing Russia require ensuring high-quality economic growth which makes it necessary to search for investment resources. However, financial crises, foreign policy pressure, coupled with the export-raw materials model of the Russian economy, do not allow achieving necessary growth investment rates in fixed assets. The purpose of the research is to find and scientifically substantiate ways to enhance investment activity in the Russian Federation. For this purpose, the authors have evaluated parameters of investment activity, have analyzed the sources of financial resources for investment, and have developed specific recommendations to increase investment activity in the Russian economy. The results of the study revealed a number of problems: strengthening of sectoral and territorial disparities, growing dependence on imports of investment goods, deterioration of technological development parameters, reduction of the share of Research and Development and Research and Technological Development in GDP, and reduction of debt financing opportunities. As ways to boost investment activity, the authors propose monetary policy adjustments, expansion of fiscal and tax incentives to support investment and RTD, and development of value chains aimed at smoothing resource allocation imbalances including investment ones. The scientific novelty of the research is in development applied directions for increasing investment activity in the modern Russian economy. The methodological basis is the theory of social reproduction and national accounting. The information base of the research consists of statistical data and materials of the Federal State Statistics Service, the Unified Interdepartmental Information and Statistical Service, input-output tables, the Bank of Russia, the Higher School of Economics, normative legal acts and program documents of the Russian Federation and its subjects, publications of Russian and foreign authors in various periodicals, monographs. Further scientific research will be related to the study of institutional factors of investment activity activation and forecasting the results of implementing the proposed recommendations.

**Key words:** economics, investments in fixed assets, problems, activation, monetary policy, fiscal policy, Research and Technological Development, value chains.

### Introduction

In modern dynamically changing geopolitical and geo-economic environment, the Russian Federation faces many big challenges: technological and digital transformation of the national economy, deterioration of climatic and environmental conditions, depletion of natural resources, ensuring food and energy security, and development of the Arctic territories<sup>1</sup>. Their overcoming requires strengthening the Russian economy and ensuring positive economic dynamics.

One of the key factors of economic growth is investment. The Presidential Decree of the Russian Federation no. 474, dated July 21, 2020 “On the

National Development Goals of the Russian Federation for the period through to 2030” sets the task of increasing the investments volume in fixed assets and achieving real capital investment growth by at least 70% by 2030 compared to the indicator of 2020 (i.e. by 5.5% annually).

Over the past decade, it was possible to achieve such growth rates of investment activity only in 2010, 2011, and 2012. The average annual growth rate in 2009–2020 was 0.6%. There are a lot of problems in the investment sector. As a result, the amount of fixed capital accumulation in the Russian economy is insufficient to meet the challenges<sup>2</sup>.

<sup>1</sup> On the strategy of scientific and technological development of the Russian federation: Presidential Decree of the Russian Federation no. 642, dated December 1, 2016.

<sup>2</sup> In 2005–2019, the accumulation rate of fixed capital did not exceed 22.3% of GDP which is an extremely low value for a developing economy that sets itself the task of implementing large-scale transformations. For reference: according to the World Bank, the average global savings rate in 2019 was 24.4%, in the USA it was 21%, Japan – 24.3%, India – 30.2%, China – 43.8%.

At the same time, the COVID-19 pandemic and related restrictions exacerbate the situation: according to a survey conducted by the Institute for National Economic Forecast of RAS in the spring of 2020, 37.2% of respondents reported a complete stop of investment activity after the beginning of the crisis caused by the coronavirus pandemic, and 31.4% reported a partial stop [1].

With this in mind, the purpose of the research is to find and scientifically substantiate ways to activate investment activity in the Russian Federation. To achieve this purpose, the authors have solved the following tasks: assessment of the dynamic and structural parameters of investment activity in the Russian Federation; analysis of sources of financial resources for investment; development of directions for increasing investment activity in the Russian economy and specific measures within them.

#### **Theoretical foundations of the research**

Capital accumulation has been considered as one of the key sources of economic growth since the time of A. Smith. Even then, the transformation of savings into investments, and then into production funds intended for the “maintenance of productive labor” [2], acted as a driver for activating industrial activity. The Harrod-Domar model [3; 4] (based on the idea of an accelerator of the investment process) and the R. Solow model of economic growth [5] (with an exogenous rate of population growth and technological progress and an endogenous savings rate) which have become classical, essentially contained the same assumptions about the key role of savings and investment to expand production. Numerous models of endogenous economic growth developed later (Uzawa-Lucas, Romer, Grossman-Hellman, Aghion-Howitt, etc.), which took into account the possibility of the influence of economic policy on the rates of economic growth in the long term, expanded the definition of capital, dividing it into human and physical, and described in detail the optimal accumulation trajectories depending on the presence or absence of returns on scale [6–11].

The importance of ensuring the proper level of capital accumulation in the Russian economy was justified by leading domestic economists. A.G. Aganbegyan in his works showed that economic growth in Russia depends on investment by 80% [12; 13]. V.V. Ivanter concluded that acceptable economic growth (4–5% per year) can be achieved with a fixed capital accumulation rate of 25–28% [14]. V.P. Obolensky and I.A. Kvashnina believed that the domestic economy failed to recover after the collapse of the USSR largely due to chronic underinvestment [15]. Due to the lack of capital investments, the overcoming of crisis situations in the economy is significantly slowing down, which is due to the lack of funds for updating production capacities. Due to the raw material nature of the Russian economy, since the transition to a market-based management system, sectoral disparities have arisen in the direction of the raw materials sector and the manufacturing industry of the initial stages [16]. The spatial development of post-Soviet Russia is characterized by a number of stable trends that have formed an extremely disproportionate distribution of population, income, and resources across the country’s regions [17]. I.A. Budanov noted that the country’s leadership and Russian society see an urgent need to increase investment activity [18].

At the national level, there are high risks of conducting investment activities [19]. The institutions created by the state to support investment activities do not cope well with their functions [20]. There is an acute problem of returnable offshore investments which is a consequence of the leakage of Russian capital abroad and its subsequent investment in the Russian economy which deprives it of income from these funds [21]. At the same time, the low investment attractiveness of Russian regions negatively affects both the presence of domestic investors and the volume of attracted foreign investments [22]. As V.V. Ivanter noted, the acceleration of economic growth dynamics including in the investment sphere has structural imbalances caused by the destruction

of technological chains due to the export-raw material model of the Russian economy which are not eliminated by traditional market mechanisms [15]. These problems confirm the relevance of the study which contains the search for additional ways to activate investment activity in the Russian Federation.

#### Methodological aspects of the research

The methodological basis of the research is the theories of social reproduction and national accounting presented in the works of domestic and foreign economic scientists, as well as official documents and materials. In the course of the work, the authors use tabular and graphical visualization techniques of the analyzed data.

The information base of the research is made up of statistical data and materials of the Federal State Statistics Service, the Unified Interdepartmental Information and Statistical Service (EMISS), the input-output tables, the Bank of Russia, the Higher School of Economics, regulatory legal acts and program documents of the Russian Federation and its entities, publications of Russian and foreign authors in various periodicals, monographs.

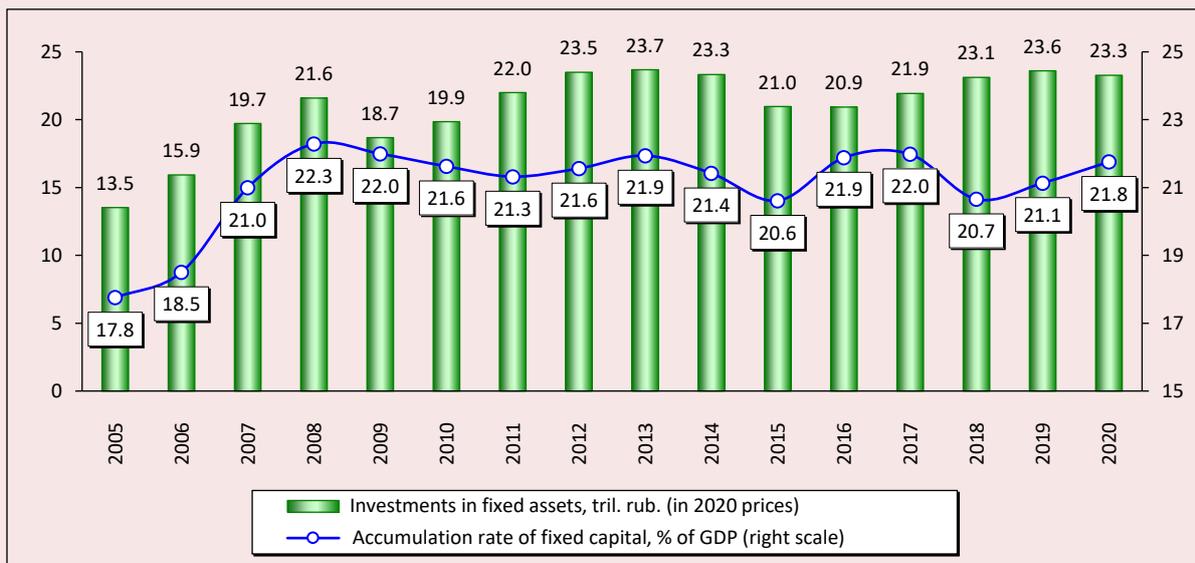
#### Research results

##### Investment activity trends in the Russian economy

From 2005 to 2020, the volume of investments in fixed assets in the Russian economy increased by almost 73% (Fig. 1). The average annual growth rate during this period was 3.7%, while the main contribution was made in 2005–2008, while in 2009–2020 the volume of investments was increased by only 8%, and the accumulation rate of fixed capital did not exceed 22% (which is inferior to the level of developing countries conducting active technological modernization). The investment activity dynamics was significantly negatively affected by the crises in 2008–2009, 2014–2015 and 2020 which caused a slowdown in the world economy and deterioration in the foreign economic situation which limited access to foreign investment and capital markets.

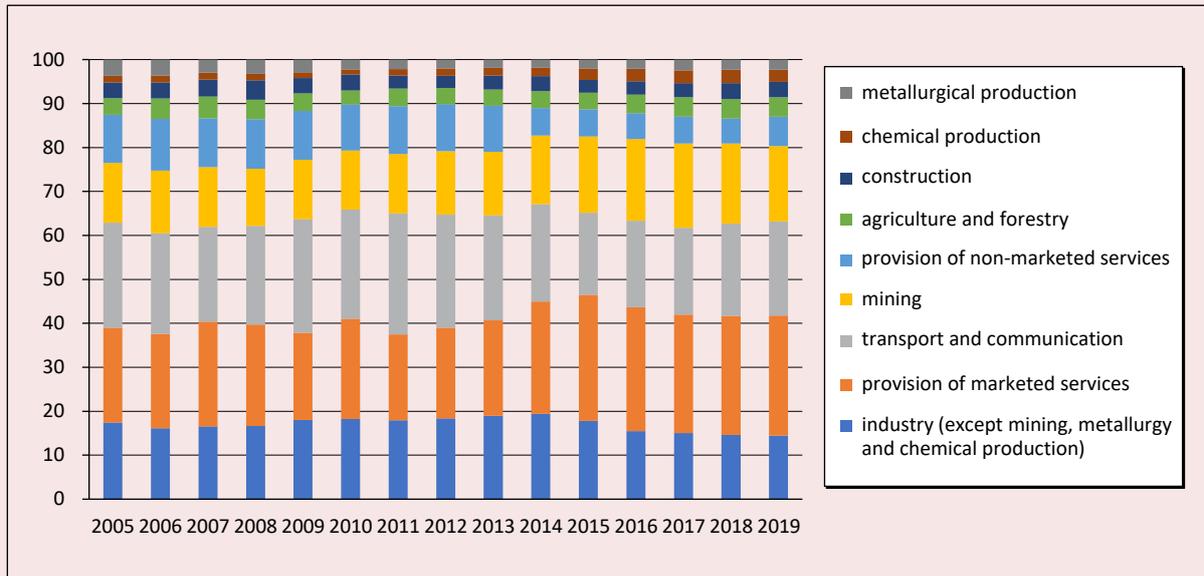
Investigating the causes of these trends, we will consider some structural parameters of the investment process. The analysis of sectoral and territorial proportions allows identifying its structural problems. For instance, due to the raw material

Figure 1. Investment activity dynamics in the Russian economy



Source: authors' calculations based on Rosstat data.

Figure 2. Structure of investments in fixed assets by enlarge economic sectors in 2005–2019, % of the total



Note: The market services sector includes such types of economic activities as wholesale and retail trade, hotels and restaurants, transport services, postal and telecommunications services, financial intermediation, insurance, real estate transactions, rental and provision of services. The non-market services sector consists of state administration and military security, social insurance, education, healthcare and provision of social services, provision of other communal, social and personal services.

Source: authors' calculations based on Rosstat data.

nature of the Russian economy, since the transition to a market-based management system, sectoral disparities have arisen in the direction of the extractive and manufacturing industries of low processing. This reduced the opportunities for other industries to access investment resources, formed the problem of capital outflow from the Russian economy and further exposed existing problems both in the investment process and the national economy as a whole (Fig. 2). Infrastructure services for the raw materials sector require a huge flow of investment, as evidenced by the significant share of transport and communications in the structure of capital investments. In recent years, there has been no leveling of the existing disparities in the sectoral structure of the investment process. Due to these shortcomings, there is an investment shortage within the manufacturing industries. Most of the oil and gas revenues remain inside the fuel and energy complex, activating investment activities in it and increasing

its attractiveness for investors. This has a negative impact on the state of the process of forming capital investments within the manufacturing industry, which in turn has a negative impact on the volumes of goods shipped. Such structural imbalances slow down the processes of technological modernization of the economy, increase dependence on imports, reduce the opportunities for digitalization and grow the share of high-tech industry.

The imbalance in the sectoral distribution of capital investments is confirmed by the low rate of accumulation of industrial capital<sup>3</sup>. For instance, the volume of investments in fixed assets for 2019 reached a value of 19.3 trillion rubles. At the same time, the total volume of fixed assets put into operation in the manufacturing industry was

<sup>3</sup> An indicator showing the share of updated fixed assets of industrial enterprises in GDP (source: Uskova T.V., Lukin E.V. *Economic Growth: the Essence, Factors, Ways of Acceleration: Study Aid*. Vologda: FSBIS VolRC RAS, 2018. 140 p.)

equal to 2.2 trillion rubles, i.e. the accumulation rate of industrial capital was only 2% of GDP. For comparison, in the US economy, the value of this indicator in 2018 exceeded 15%.

Separately, it is worth noting the high growth rates of the share of the market services sector in the investment structure which are due to a number of reasons: the presence of unsatisfied demand for these services due to the abrupt transition to a market economy, their high profitability, active

digitalization of its industries, high investment attractiveness for the banking sector and foreign capital. The flow of investment into the market services sector makes it difficult to solve the problem of lack of investment in industry.

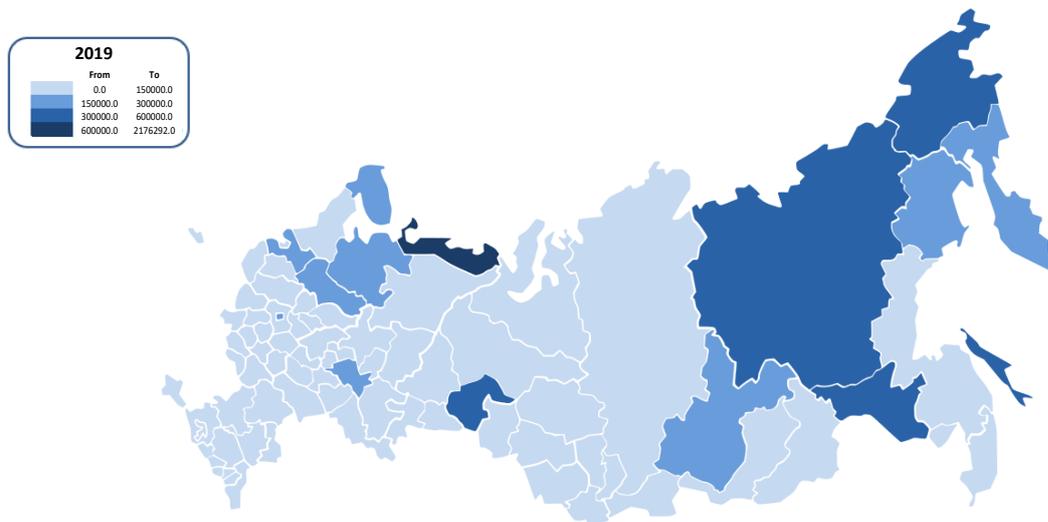
The formed sectoral imbalances caused the appearance of territorial disparities in the investment process. Due to a number of stable trends in Russia's socio-economic development in the post-Soviet period, the spatial distribution of resources,

Figure 3. Per capita investment in fixed assets in 2005, rubles



Source: authors' calculations based on Rosstat data.

Figure 4. Per capita investment in fixed assets in 2019, rubles



Source: authors' calculations based on Rosstat data.

population, gross income produced and used, and, as a result, investments in fixed assets is characterized by significant unevenness. The spatial structure of investments is traditionally dominated by Moscow, the Tyumen Oblast with autonomous districts, and other regions that received income from commodity exports (Fig. 3, 4). The long-term attempts of the federal authorities to reduce the interregional differentiation level by smoothing the indicators of budget security of the entities of the Russian Federation make it possible to equalize the

indicators of the social sphere in certain regions, but they do not solve the problem of growing imbalances in the territories' economic development.

Against the background of slowdown in investment activity in the Russian economy and reduction in incentives for increasing production volume of investment products, loss of the material and technical base of investment engineering continues. This is evidenced by the negative dynamics of production and capacity utilization for many types of such products (Tab. 1).

Table 1. Production of certain types of products and utilization of production capacities in the Russian mechanical engineering

Products	Indicator	2005	2010	2015	2019.	2019 to 2005, %
Alternator, MW	P	1,034	9,920	4,446	974	94.1
	UC	-	-	-	-	-
Excavators, units	P	3,565	2,121	1,417	2,745	77.0
	UC	39	28	12	34	-5
Cargo vehicle, thou. units	P	205	155	128	156	75.9
	UC	48	31	34	48	0
Crane trucks, units	P	4,400	2,912	2,066	2,969	67.5
	UC	58	43	31	44	-14
Harvester thresher, units	P	7,479	4,295	4,412	4,820	64.4
	UC	35	30	40	37	2
Gas turbines, except for turbojet and turboprop engines, thou. kWe	P	1,205	2,063	1,274	704	58.4
	UC	40	54	40	26	-14
Incandescent, gas-discharge, arc lamps, mil units	P	-	584	345	293	50.2
	UC	-	54	62	53	-2
Electric motor, thou. units	P	-	2,567	1,423	1,227	47.8
	UC	-	46	33	30	-16
Bulldozers, units	P	1,774	911	577	744	41.9
	UC	61	32	17	30	-31
Oil tank car, thou. units	P	8,3	12.3	2.3	4	29.2
	UC	-	-	-	-	-
Tractor grain drill (with no fertilizer drill), units	P	6,500	2,530	2,052	1,553	23.9
	UC	40	14	24	37	-3
Buses, thou. units	P	78.2	40.9	36.4	16	20.6
	UC	73	29	34	22	-50
Trolleybuses, units	P	812	406	62	74	9.1
	UC	24	12	6	0	-24
Looms, units	P	95	5	42	7	7.4
	UC	-	-	-	-	-
Water steam turbines and steam turbines, mil. kWe	P	24	4.2	1.8	1.0	4.1
	UC	26	41	20	6	-20

Symbols: P – production volume, UC – level of use of the average annual production capacity.  
Source: data of the Unified Interdepartmental Statistical Information System.

Table 2. R&amp;D and RTD indicators in the Russian economy

Indicator	2005	2010	2015	2016	2017	2018	2019	2019 to 2005, %	For reference: level for 2018		
									China	USA	Germany
Share of domestic R&D expenditures, % of GDP	1.07	1.13	1.1	1.1	1.11	0.98	1.03	0.96	2.2	2.83	3.13
Research organizations, units	2,115	1,840	1,708	1,673	1,577	1,574	1,618	0.77	-	-	-
Number of personnel engaged in research and development, people per 10 thou. people	64	59	57	51	50	49	49	0.77	56	92*	158

Note: due to the difference in the classification of organizations, comparisons by their number are difficult.  
\* Data for the USA are given by the number of researchers.  
Sources: Rosstat data; Gokhberg L.M., Ditkovskii K.A., Evnevich E.I. et al. *Science Indicators: 2020: Stat. Coll.* Moscow: NRU HSE, 2020. 336 p.

In our opinion, it is difficult to implement technological development (i.e., based on modern high-tech technologies) without restoring the load and commissioning of new capacities of the machine-building complex. In the meantime, the practiced profit-taking at the stage of extraction of raw materials and production of semi-finished products leads to a depression in the production of final products, degradation of the sphere of machine production means. Domestic demand for fundamental and applied science, R&D and RTD is decreasing, the volume of expenditures on science is declining, and the number of research organizations and the number of their personnel is reducing (Tab. 2). In addition, Russia is lagging behind the industrially developed countries in scientific, technological and innovative development and commodity production volume of high-tech sectors of the real economy. The dependence on technology imports has reached critical values<sup>4</sup>. According to the latest available tables of resources and use of goods and services for 2018, the share of imports in a number of strategic industries exceeds 50%, while in the production of machinery and equipment it is more than 60%, in the production

<sup>4</sup> In September 2014, the Government of the Russian Federation has approved the "Plan for promoting import substitution in industry" which contains 22 sectoral import substitution plans. According to experts, most of the indicators could not be achieved. Available at: <https://tagilcity.ru/news/economy/06-11-2018/importozameschenie-v-rossii-chto-poluchilos-za-pyat-let>

of computers and electrical equipment – 60%, light industry – more than 65%, automotive industry – 40%, pharmaceutical and medical industry – 55%. All other things being equal, the dynamic growth of imports contributes to creation of competitive environment, but the high share of imports in the volume of investments in machinery, equipment and vehicles increases the dependence of the domestic market on changes in foreign economic conditions.

In general, the main trends of the investment activity development in the Russian economy in the study period include:

- slowdown in growth rate of investment volumes and rate stagnation of fixed capital accumulation;
- strengthening of sectoral and territorial disparity in distribution of investments which causes a lack of capital investment in certain types of economic activity in the regions, insufficient saturation of key industries with investments;
- decline in domestic production of investment products and increase in dependence on imports;
- deterioration of technological development parameters, share reduction of R&D and RTD costs in GDP.

#### Financial resources of the investment process

In the structure of financing sources, there is a smooth transition from the prevalence of attracted funds (a decrease in their share from 55% in 2005 to 45% in 2019) to the predominance of own funds

Table 3. Structure of financing sources of the investment process, % of the total

Element	2005	2010	2015	2019	Change, 2005–2019, p. p.
Own funds	44.5	41.0	50.2	55.0	10.5
Attracted funds	55.5	59.0	49.8	45.0	-10.5
Bank loans	8.1	9.0	8.1	9.8	1.7
Borrowed funds of other organizations	5.9	6.1	6.7	4.8	-1.1
Budget funds	20.4	19.5	18.3	16.2	-4.2
Federal budget funds	7.0	10.0	11.3	7.6	0.6
Budget funds of Russia's entities	12.3	8.2	5.7	7.4	-4.9
Local budget funds	-	-	1.3	1.2	-
Funds of the state extra-budgetary foundations	0.5	0.3	0.3	0.2	-0.3
Funds of organizations and population for shared-equity construction	3.8	2.2	3.2	4.3	0.5
Other	16.8	21.9	12.1	9.3	-7.5
Source: authors' calculations based on Rosstat data.					

(respectively, an increase from 45 to 55% of the total; *Tab. 3*). The reasons for such redistribution may be a reduction in access to foreign markets of investment resources due to geopolitical pressure, decrease in the budget revenue due to unstable energy prices and floating exchange rate of the national currency, high cost of credit resources.

Structure transformation is caused by significant changes in the ratio of attracted sources, primarily by a slowdown in the growth rate of budget investments. The reasons for this are the reduction of investment costs and the transfer of a number of powers for financing investments to the regional level, where there are significantly fewer opportunities to support investment activities.

Dependence of the enterprises' investment activity on their own funds leads to a significant vulnerability for making capital investments during crises (which is confirmed by the official statistics presented above). This is due, among other things, to the imperfection of the monetary policy implemented by the state as a result of which the cyclical problems are characteristic of the real economic sector:

- a significant tax burden does not give enterprises the opportunity to direct their own funds to investments in fixed assets and RTD which does not allow modernizing the production base;

- high rates on commercial loans reduce the possibility of replenishing financial resources to compensate for the fiscal burden and investment;

- decrease in the volume of capital investments significantly slows down the pace of renewal and modernization of the production and technological base;

- weak production base causes the production of products that are not competitive enough on world markets which leads to a reduction in demand for it;

- decrease in the number and volume of orders causes insufficient capacity utilization;

- reduction in output, strong positions of foreign manufacturers and low investment attractiveness of the domestic industry are the reasons for receiving an insignificant amount of revenue.

As a result, enterprises face the question of external financing which is actually unavailable for the following reasons:

- the problem of access to budget investments that do not directly support non-state investors, but mostly form the conditions for creating private investment projects (infrastructure investments);

- bank capital is very expensive for enterprises in an unstable economic situation, so there are high risks when making capital investments at the expense of loans.

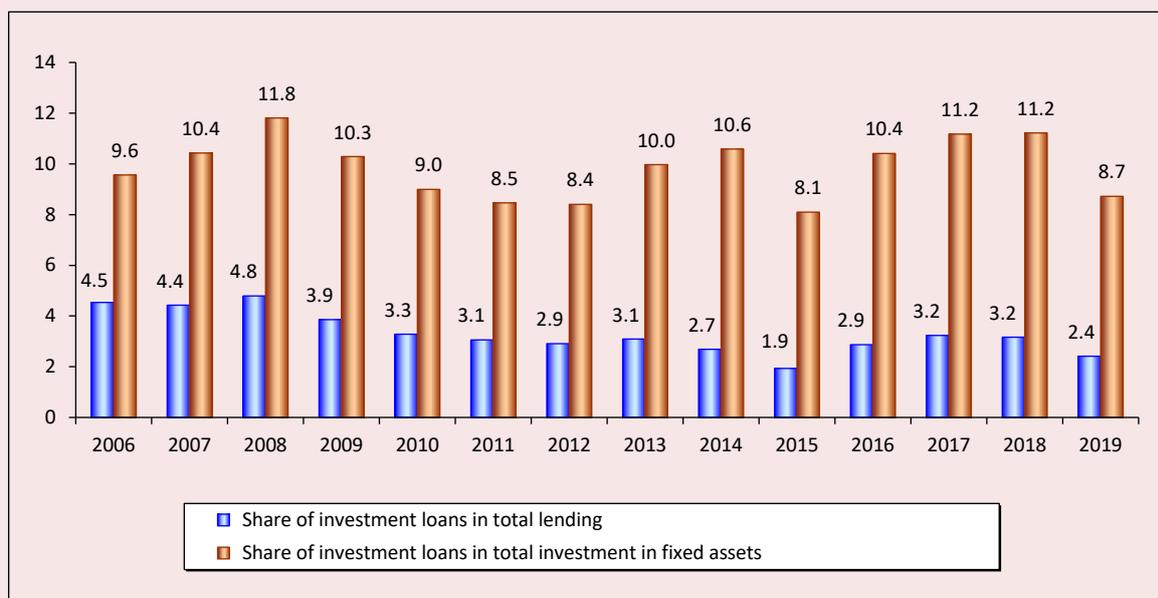
We should note that the structure of investments is fundamentally different abroad. In developing countries, for example in China, a significant part of investments is carried out at the expense of public funds. In developed countries, investment loans are used primarily which account for 70–80% of the external financing volume. Consequently, the role of attracted funds in investments in fixed assets is great [23]. As A.G. Aganbegyan noted, one of the main issues of monetary policy in the field of investment is the formation of a mechanism for involving the banking sector in the investment process, and it is lending that should become a priority source of financing for capital investments [12].

The existing credit market in Russia, with a significant saturation of assets, is not interested in financing investment projects, focusing on issuing consumer loans due to their greater profitability and short turnaround time, as well as significant investment risks on the part of both lenders and borrowers. At the same time, the structural

parameters of investment lending are only getting worse. For example, the share of long-term loans for non-financial organizations in the total volume of lending has been decreasing in recent years, but the share of the banking sector in financing the investment process remains approximately within the same limits (*Fig. 5*). This creates a problem of underfunding the economy due to the accumulation of significant funds in the financial sector.

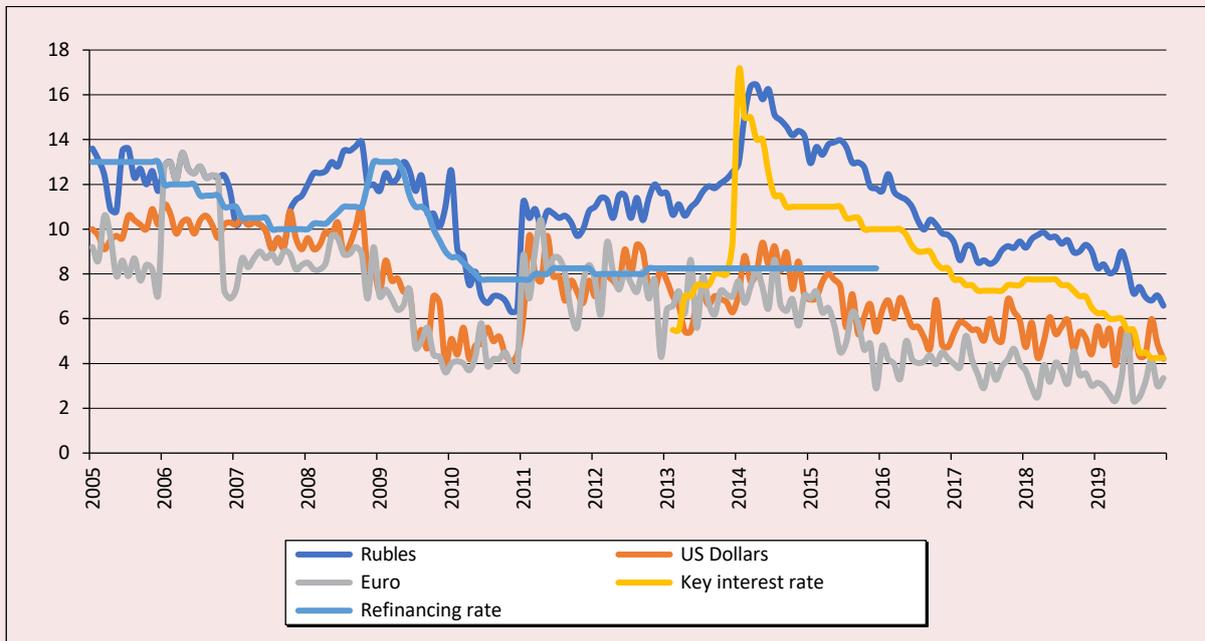
It is also necessary to note the high cost of debt financing. Despite the gradual reduction of the key rate since 2014, the price of credit for enterprises is still very high (*Fig. 6*). For comparison, the real lending rate abroad is significantly lower which allows increasing the financing volume of enterprises' investment projects at the expense of credit institutions: according to the World Bank, the real interest rate in Japan is 1.6%, Italy – 1.9%, the United States – 3.3%, and in Russia it is 4.8% (2019 data).

Figure 5. Structural indicators of investment lending to the Russian economy for 2006–2019, % of the total



Source: authors' calculations based on data of the Bank of Russia.

Figure 6. Weighted average interest rates on investment loans granted to non-financial organizations, %



Note: By the instruction of the Bank of Russia no. 3894-U, dated December 11, 2015 "On the refinancing rate of the Bank of Russia and the key rate of the Bank of Russia", the refinancing rate is equated to the key one. Data on weighted average rates on long-term loans have been available only since 2011.

Source: authors' calculations based on data of the Bank of Russia.

It is worth noting that the banking system resources as a whole carry a significant potential for stimulating the investment process, but high credit rates are a significant barrier to the infusion of financial resources into the real economic sector. Administrative and regulatory measures are necessary to stimulate the flow of bank capital into fixed capital investments. This can give an additional increase in investment which is necessary to increase the rate and time of accumulation.

In general, according to the results of studying the sources of financial resources of investment activity, we have identified the following problems:

- dependence of enterprises' capital investments on their own investment funds which creates a threat to conducting investment activities in

an uncertain economic situation and requires changing the structure of sources of financial resources;

- lack of budget financing of investments that are the engine for attracting private capital through the implementation of infrastructure projects;

- existence of a number of barriers to increasing the share of bank investment credit in the structure of investment sources: high rates, banks' disinterest in long-term lending, unstable business conditions that increase risks for both enterprises and credit institutions.

#### **Adjustment directions of the state investment policy**

In our opinion, the implementation of a number of state policy measures in the following areas will contribute to solving the problems of investment

activity and providing the Russian economy with investment resources identified by the results of the analysis.

1. Adjustment of monetary policy.

The activation of investment activity requires changes in the current monetary policy, in particular:

1) The use of a targeted credit issue of federal loan bonds to increase the volume of money supply in the economy which will expand the access of economic entities to financial resources for investment. For example, the US Federal Reserve System used the issued funds to implement a bond loan of the Ministry of Finance aimed at implementing large infrastructure projects.

2) The refusal of the Bank of Russia from the inflation targeting regime which significantly slows down investment activity and the transition to the regime of maintaining economic growth for which it is advisable to reduce the amount of funds attracted for deposits of the Bank of Russia and the purchase of its securities.

3) Gradual reduction of the key rate of the Bank of Russia to 0.5% which will contribute to a greater demand for an investment loan which will become the main source of capital investment for enterprises. As S.Y. Glaz'ev notes, "The main financing source for capital investments in the development of all countries that have performed an economic miracle was and remains the target credit issue" [24].

4) Reducing the volume of investments in foreign assets and directing these funds to the Russian economy on the basis of changes in the net international investment position (NIIP) as a source of investment resources which will ensure that the accumulation rate is maintained at the level of 30–35% for three years. This is especially important in the conditions of constant foreign policy and foreign economic pressure on the Russian Federation, as assets can be blocked at any time. According to the scientists of the Institute of Economics and

Industrial Engineering, Siberian Branch of RAS, the funds from equating the NIIP to zero are enough to provide the Russian economy with investments at the level of 30–35% of GDP for three years [25].

We should add that alignment of the investment process with the use of monetary policy instruments will require efforts not only from the Bank of Russia, but also from the Ministry of Finance, legislative institutions, and tax authorities.

2. Expansion of budget and tax benefits to support investment activities and RTD.

Fiscal policy improvement in the field of investment and RTD contributes to stimulating the growth of capital investment and increasing the accumulation rate. Introduction of a package of additional fiscal measures aimed at stimulating investment and RTD spending will not only overcome the long-term stagnation processes in the Russian economy, but also increase the budget system stability due to the growth of the tax base for future periods. The proposed set of activities is as follows:

– to create a special tax regime for enterprises designing and producing high-tech products including those formed and operating within the framework of the National Technology Initiative<sup>5</sup>. It will make it possible to increase the attractiveness of venture projects by reducing a number of investment risks and to enter the Russian market to a larger number of private investors;

– to expand the benefits within the "patent window" by removing the fiscal burden from enterprises in the form of income tax, stimulating the growth of innovation and investment activity by increasing RTD profitability;

<sup>5</sup> The National Technological Initiative is an association of business representatives and expert communities to develop promising technological markets and industries in Russia that can become the basis of the world economy. See: On implementation of the national technological initiative: Government Decree of the Russian Federation no. 317, dated April 18, 2016. Available at: <https://nti2035.ru/documents/docs/317.pdf>

- to return the previously canceled investment tax benefit which consists in the exemption of enterprises from taxation of a part of the tax base, provided that funds are invested in the expansion and modernization of fixed assets for production purposes;

- to introduce a flexible system of tax deductions for RTD expenses which contributes to industry transition to higher technological structures;

- to form of a network of regional funds to support scientific research and innovation activities allowing to significantly increase investment in RTD [26];

- to maintain a temporary investment tax incentive as a tool to support enterprises in the framework of post-pandemic economic recovery. This will help to reduce enterprises' costs in the short-term period for investment (from 1 to 3 years). Strict time periodization encourages the acceleration of current investment expenditures with the possibility of using tax incentives.

The proposed measures will contribute to the growth of investments in high-tech activity spheres which will not only increase the competitiveness of Russian enterprises, but also strengthen their investment attractiveness. According to the estimates of the International Monetary Fund, a change in the tax burden by 1% contributes to the growth of investments from 2.6 to 14% [27; 28].

3. Development of value chains as a part of the adjustment of the state economic policy.

Stimulating investment processes is possible on the basis of the development of value chains (VC) in priority economic sectors. The formed sectoral and territorial investment disparities are, among other things, a consequence of the gaps in the VC. Creating production stages that are absent in the country, stimulating domestic demand (both final and intermediate) along the value chains, supporting the development of production cooperation will

contribute to income redistribution in the economy, thereby increasing investment opportunities.

The internal economic policy of the state can become a decisive factor in the formation of conditions for the unification of economic entities in the VC, as it is the state that creates favorable conditions for interaction of firms, regions and industries with higher-level markets, and also determines the potential for improving these relations. Currently, Russia is an active participant in the international division of labor, but the current format of the country's participation in the global value chains is far from optimal: mainly the Russian Federation is a supplier of intermediate products and a consumer of finished final goods. To change the situation (i.e., to integrate Russian companies into more profitable areas of global value chains in terms of added value), it is necessary:

- to form a system for managing VC transformation in the Russian economy (perhaps the renaissance of special state macro-regional funds in the context of the VC development; the examples are the European Interregional Initiative in the field of smart specialization "Avangard", the Interregional Partnership RIS3 "Safe and sustainable mobility" [29]);

- to conduct an in-depth analysis of the existing VC in the Russian economy (including taking into account their external sites), design their prospective development (based on technological scanning and forecasting, competitive intelligence, implementing the concept of smart specialization of territories, etc.), form a system of macro-regional VC planning;

- to develop and implement a unified investment, structural, and technological policy at the macro-regional level (coordinated investment attraction plans); to accumulate investment resources in the form of macro-regional development funds (corporations) (integrated territorial investments);

– to provide with infrastructure support for projects' implementation within the framework of the VC development, etc.

We are sure that creating conditions for ensuring access of economic entities to investment resources, increasing RTD costs, eliminating sectoral and territorial disparities will contribute to solving the existing problems in the investment sphere and strengthening the Russian economy.

### Conclusion

Investments in fixed assets are a key driver of economic growth. The renewal of fixed assets and creation of new production capacities will help to increase the competitiveness of the Russian economy and deepen its integration into the global division of labor. The main reason for the current restrictions on investment development was the export-raw materials model of the Russian

economy which led to dependence on foreign markets for raw materials and capital, contributed to the destruction of internal economic ties and reduced domestic demand for many types of goods and services.

Activation of investment activity requires active state participation. The recommendations can be used by the authorities when adjusting the state investment, monetary and structural-industrial policy. The research contribution to science is to identify modern patterns of investment processes in the Russian economy, as well as to define promising areas for enhancing investment activity. Further scientific research will be related to the study of institutional factors of investment activity activation in the Russian economy and forecasting the results of implementation of the proposed recommendations.

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### **Information about the Authors**

Evgenii B. Shulepov – Member of the State Duma, the State Duma of the Federal Assembly of the Russian Federation (1, Okhotny Ryad Street, Moscow, 103265, Russian Federation; e-mail: shulepov@duma.gov.ru)

Konstantin A. Zadumkin – Candidate of Sciences (Economics), Associate Professor, Executive Director, Vologda City Branch of the Union of Industrialists and Entrepreneurs of the Vologda Oblast (15, Konev Street, Vologda, 160013, Russian Federation; e-mail: zk00@mail.ru)

Nikita M. Rumyantsev – Research Engineer, Vologda Research Center of the Russian Academy of Sciences (56A, Gorky Street, Vologda, 160014, Russian Federation; e-mail: rumnik.95@yandex.ru)

Evgenii V. Lukin – Candidate of Sciences (Economics), Leading Researcher, Deputy Head of Department, Vologda Research Center of the Russian Academy of Sciences (56A, Gorky Street, Vologda, 160014, Russian Federation; e-mail: lukin\_ev@list.ru)

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