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Dynamics and Structure of Investments in the Main Types of Economic Activity in Russia After 2014

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ABSTRACT

The multidirectional, hybrid warfare war against the Russian Federation, launched in March 2014 and designed for many years, makes it necessary to strengthen the country's power. Investments in the fixed capital of the main activities of society largely contribute to giving stability to the economic, financial, scientific, technological, military-technical potential of the state. **The purpose** of the study, the results of which are presented in this paper, was to find an answer to the following question. Are investments directed in Russia in those economic activities that contribute most to the development of the country's economy, as well as in industries that are most dependent on the state of affairs in foreign trade? **An analysis** of the data presented in the Rosstat's collections "Russian Statistical Yearbook" for 2015–2022 showed that after 2010, investments in fixed capital of the most dependent on foreign trade economic activities in the Russian Federation grew faster than other groups of activities. The growth rates of investments in fixed capital of those types of economic activities, the development of which contributes to the expansion of other types of activities, were higher than the all-Russian ones until 2017. The reason is that economic entities, having adapted to the anti-Russian sanctions, the main damage of which, according to the author, was inflicted on the domestic economy in 2015–2016, accelerated the growth of investments in other economic activities. The overall structure of investments in fixed capital of 47 types of economic activity in 2021 differs little from the structure of 2014.

Keywords: types of economic activity; investments in fixed capital; growth rates and structure of investments; anti-Russian sanctions

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INTRODUCTION

A work with the data of the input-output balance of the Russian Federation for 2019, presented on the website of the Federal State Statistics Service of the Russian Federation (Rosstat),¹ allowed us to divide the types of economic activity in Russia into two classes [1]. The first class includes those types of economic activity (let us conditionally call them “locomotive industries”), the increase in the growth rate of which does not require a faster increase in other types of economic activity. This class, in particular, includes:

- manufacture of motor transport vehicles, trailers and semi-trailers;
- production of agricultural and hunting products and services;
- provision of electricity, gas, steam; air conditioning;
- mining and quarrying;
- manufacture of chemicals and chemical products;
- financial and insurance activities;
- air and space transport activities;
- development of computer software equipment, consulting and similar services in the field of information technologies;
- manufacture of computer, electronic and optical equipment;
- manufacture of electrical equipment;
- manufacture of basic pharmaceutical products and pharmaceutical preparations;
- professional, scientific, technical, and other activities; veterinary activities.

The second class includes the types of activity, for the growth of output of which by some given value it is necessary to increase by a larger value the output of products and services of at least one other type of economic activity.

¹ URL: <https://rosstat.gov.ru/statistics/accounts> (accessed on 20.05.2022). This balance sheet contains 61 products (OKPD 2) and 61 industries (OKVED 2). There are no more recent Rosstat inter-industry balances. There is also an inter-industry inter-regional balance sheet for 2019 compiled by the Asian Development Bank (ADB) 2019.

Thus, according to calculations, to increase the output of construction by r per cent, it is necessary to raise the output of 18 other types of economic activity by more than r per cent. And the growth of services in the sphere of public administration and defence; compulsory social security requires outstripping growth of products of 27 types of economic activities.

The products and services that bear the greatest damage from bans, restrictions and sanctions imposed by states unfriendly to the Russian Federation on the export of Russian products and on the import of goods and services by Russia were also identified.²

It is known that the volumes and rates of output of products and services depend not only on inter-sectoral relations. Important factors³ are also the volume and dynamics of investment in fixed and current capital, the number and professional skills of employed in the production of products and services, the quality and consistency of management, and, in a market economy, also the resulting profit. Profit, investment volumes, requirements to personnel qualification and quality of management largely depend on the level of technologies used and the scale of production. The latter, in turn, depend on the technologies used and the amount of effective demand for the goods and services produced.

The results of the study of the dynamics of one of the mentioned factors — the volume of investment in fixed capital by types of economic activity in the economy of the Russian Federation in 2001–2021 — are presented below. The statistical base of the study was the data of Rosstat published in the “Russian Statistical Yearbook” for the corresponding years. We

² A similar set of such products and services is obtained from the Bank of Finland Institute for Transition Economies (BOFIT) based on the Asian Development Bank’s (ADB) 2019 inter-industry inter-regional balance sheet data [2].

³ “Factor — is the cause, driving force of any process or phenomenon, determining its character or individual features” (Prokhorov A. M., ed. Soviet Encyclopaedic Dictionary. 3rd ed. Moscow: “Soviet Encyclopaedia”; 1985. 1600 p.).

studied only those activities and products that are given in 2019 input-output balance sheet of the Russian Federation.

INVESTMENTS IN FIXED ASSETS

For some of the above-mentioned locomotive industries, there is no data in the statistical yearbooks of Rosstat. They are not available, for example, for such types of sectors as “Activities of air and space transport”, “Development of computer software equipment, consulting and similar services in the field of information technologies”, “Manufacture of computers, electronic and optical products” and “Activities of land and pipeline transport”, etc. Instead of: “Health care activities”, Rosstat uses the article “Health care and provision of social services”.

The data on investments in the production of manufacture of basic pharmaceutical products and pharmaceutical preparations, in the production of computers, electronic and optical products, in professional, scientific, technical, veterinary activities, in forestry and logging, in telecommunication activities and a number of other types of activities are given starting from 2014.

Therefore, in 2000, 2005 and from 2010 to 2013 we considered investments in fixed capital of 24, and in 2014–2021–36 types of economic activity, the list of which coincides with the one presented in the 2019’s input-output balance for 2019. The set of 22 types of economic activity (2000, 2005, 2010–2021) includes seven locomotive industries. Another 3 are included in the set of 36 types of economic activities in 2014–2021.

The Rossta’s data allow us to work with investments in ten types of economic activities whose volumes of products and services, according to our calculations [1], are the most sensitive to export bans and restrictions, and with investments in 11 types of activities whose work is most affected by export bans to the Russian Federation.

Let us consider the dynamics of investment in fixed capital of three groups of economic activities: locomotive industries (group “Locomotives”); those dependent on the external market (group “Dependent”) and all other types of economic activities (group “Others”). In the group of those dependent on the external market we will include the types of activities that are most sensitive to bans and restrictions both on exports of products and services they create and on imports of products and services they need, excluding the locomotive industries that are equally exposed to the influence of foreign trade.

Official data from Rosstat allow us to work with investments in the fixed capital of four types of economic activities from the group of those dependent on the external market: production of food, beverages, and tobacco products; metallurgical production; production of other vehicles and equipment; wholesale trade, except for wholesale trade in motor vehicles and motorbikes.

The average annual growth rates of investments in fixed capital of all groups of economic activities under consideration were decreasing in 2001–2013. With the introduction of anti-Russian sanctions, there were fewer investment opportunities (in particular, attracting foreign investors and using the funds of Russian legal entities and individuals frozen by the sanctioning countries). This is one of the reasons why there were changes in the dynamics (and, consequently, the structure) of investments in 2013. In 2014–2016, when the domestic economy felt the impact of anti-Russian sanctions to the greatest extent, the growth rate of investment in fixed assets of the locomotive industries and activities of the “Others” group continued to fall, while in the group of activities most sensitive to bans and restrictions on both exports of goods and services they create and imports of products and services they need, it increased (*Fig. 1*). Apparently, this group started to prepare and implement the transformations necessary for work in the

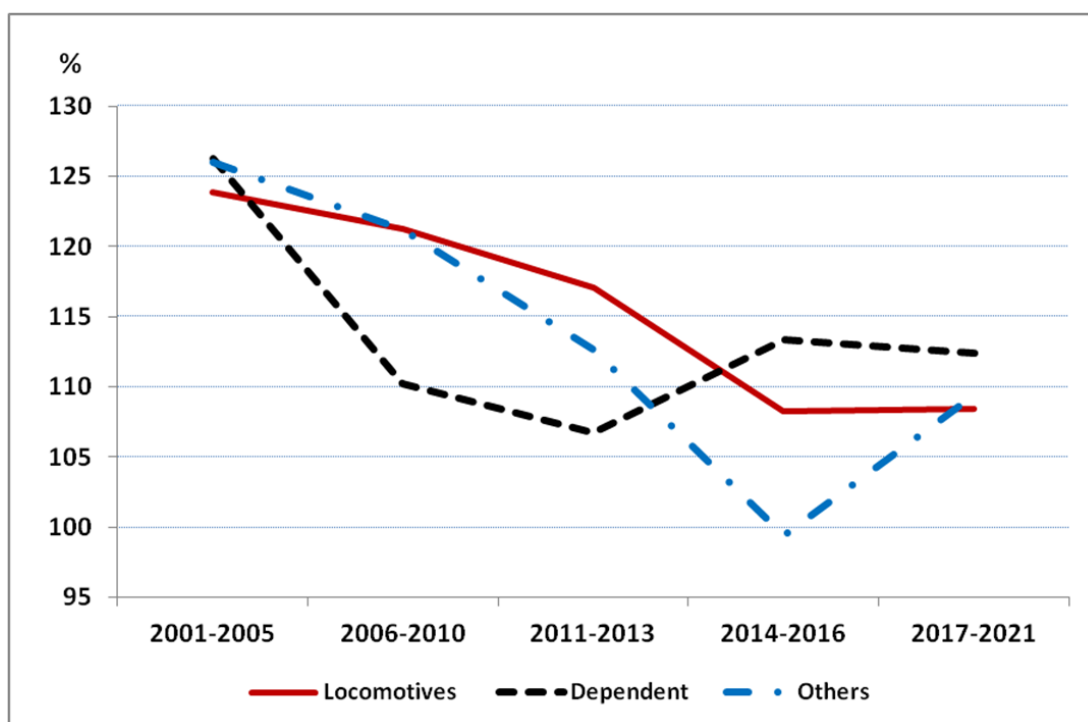


Fig. 1. The average rates of growth of investments in fixed capital by three groups of economic activity in 2001–2021, %*

Source: compiled by the author according to the Rosstat's data.

changed geo-economic conditions: transition to new markets for sales and purchase of goods and services, restructuring of technological chains and logistics, changes in the range of products, etc.

The locomotive industries maintained the growth rates of investments in fixed assets in 2017–2021. The group of activities that depend simultaneously on the export and import of goods and services (“Dependent”) slightly reduced the growth rates of such investments, which at the same time continued to remain high in 2017–2021.

The volume of investment in fixed assets of the “Others” group of industries decreased noticeably in the most painful due to sanctions period for the Russian economy — 2014–2016. In 2016 it was 151 bln roubles less than in 2013 (Table 1). After adapting to the anti-Russian sanctions, investors started restructuring the economic activities of this group, in particular, because their products are necessary both for the development of the industries of the other

two groups under consideration and for meeting the needs of domestic and foreign markets.

The difference in the growth rates of investments in fixed assets has led to a change in the shares of the groups of economic activities under consideration in the total volume of such investments (Fig. 2).

The economic sovereignty of the Russian Federation is largely based on its natural resources: water, minerals, forest, biological. “Russia is almost the only country in the world that is able to fully provide itself with natural resources”,⁴ although some mineral resources are not extracted in the country. The resources obtained from nature should be processed, use to create a means of production of production and consumer goods, to deliver them to consumers,⁵ not just exported.

⁴ Plenary session of the Eastern Economic Forum. URL: <http://kremlin.ru/events/president/news/69299>

⁵ S.N. Gorkov, General Director and Chairman of the Management Board of Rosgeologia, rightly noted that “we now need to create

Table 1

The difference in the volumes of investments in fixed assets $\Delta I(t)$ of the three groups of economic activities at the end ($I(t)$) and at the beginning ($I(t - 1)$) of the period, Bln roubles at actual prices

Groups of activities	Beginning and end of the period				
	2000–2005	2005–2010	2010–2013	2013–2016	2016–2021
Locomotives	684.8	1687.6	1646.2	1169.4	2767.5
Dependent	213.8	195.1	108.8	280.3	709.6
Others	1547.3	3658.3	2543.1	-151.0	4719.4

Note: $\Delta I(t) = I(t) - I(t - 1)$, where $I(t)$ is the volume of investment in fixed capital in year t .
 Source: compiled by the author according to the Rosstat's data.

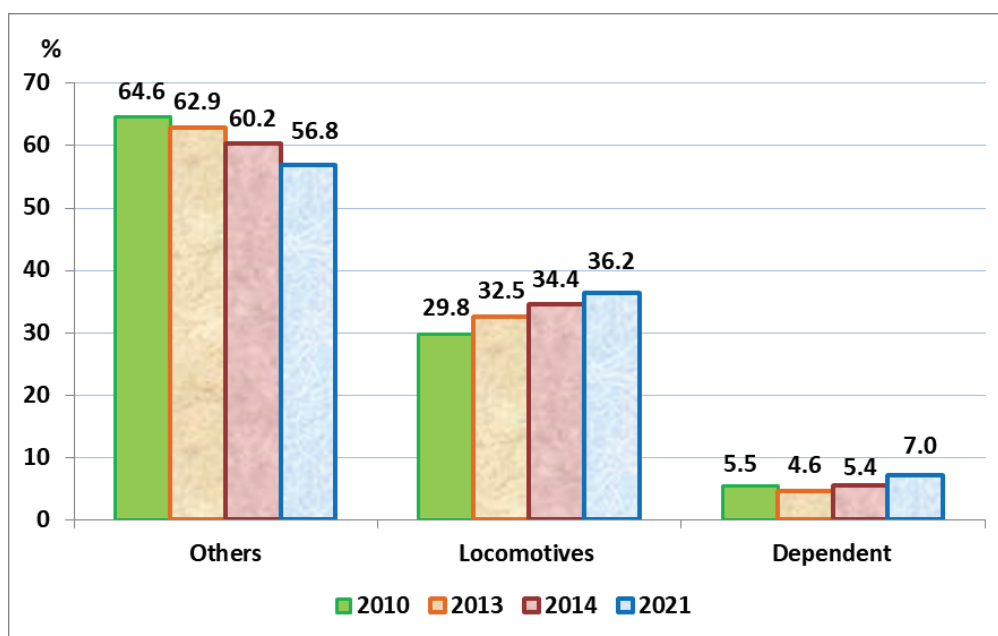


Fig. 2. The shares of three groups of economic activity in the total volume of investments in fixed assets in 2000–2021, %

Source: compiled by the author according to the Rosstat's data.

For this purpose, it is necessary to have a developed industry for manufacturing means of production — modern technological lines and equipment, machines, apparatus and tools, data processing, surveillance and control systems,

not only the first stage of production (mining), but also the second (processing), third (production output), and fourth (ready-to-sell goods to consumers) stages of consumption. We need to create our own production chains, because the sanctions have destroyed many links with the global market” [3, p. 5].

software and much more — and to possess advanced technologies and knowledge. It also needs infrastructure development, advanced science, information, communications, a sustainable financial system and, of course, a well-functioning, professional and efficient management system.

All this requires resources of development [4], including investments. In the period under consideration in Russia in the total volume

Table 2

The shares of investments in fixed assets of some types of economic activity in the Russian Federation, 2014–2021, percent

Type of economic activities / Year	2014	2016	2021
Mining and quarrying	15.4	18.4	15.2
Manufacturing industries	15.0	14.3	14.9
Providing electricity, gas and steam; air conditioning	7.9	5.9	4.9
Transportation and storage	18.9	16.4	16.4
Information and communication	2.5	3.1	4.3
Financial and insurance activities	1.1	1.4	3.3
Professional, scientific and technical activities	2.3	3.2	4.8
Public administration and defence; compulsory social security	1.7	1.8	1.7
Education	1.7	1.4	2.1
Health care and provision of social services	1.4	1.3	2.6

Note: during the period under review for the Russian economy 2015–2016. turned out to be the most difficult after the start of the introduction of anti-Russian sanctions (March 2014).

Source: compiled by the author according to the Rosstat's data.

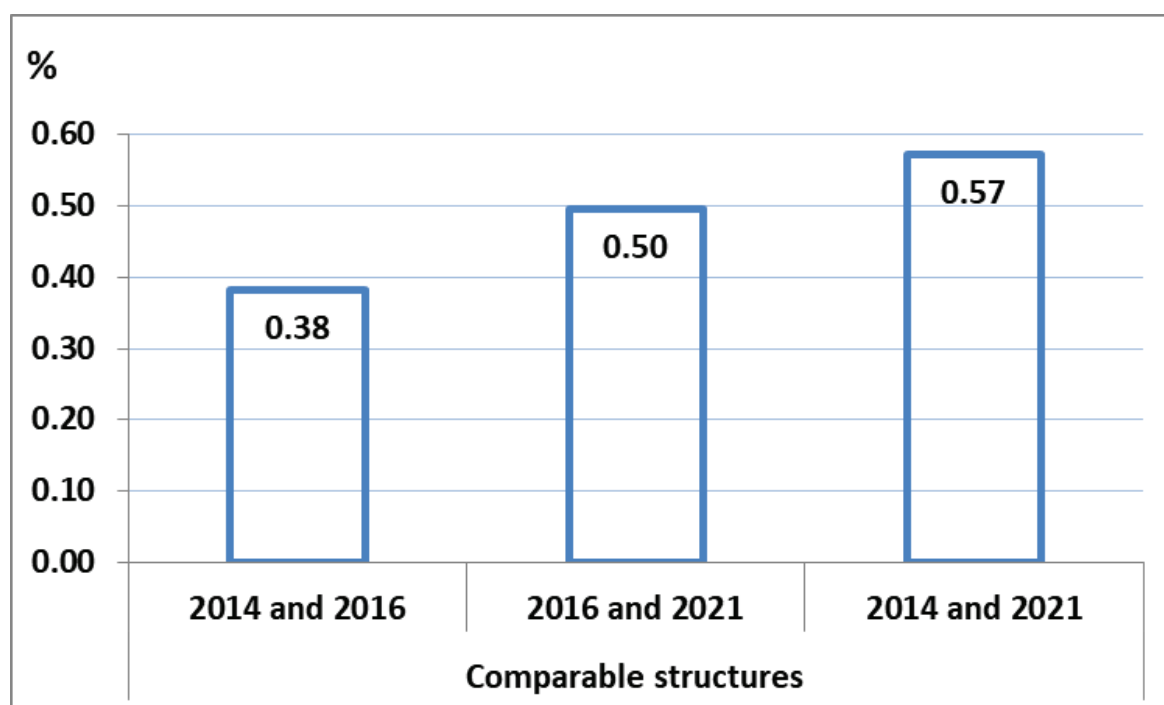


Fig. 3. The value of the linear coefficient of structural shifts in the structure of investments in fixed capital of 47 types of economic activity of the Russian Federation in 2014–2021, percent

Source: compiled by the author according to the Rosstat's data.

of investments in fixed capital, the shares of investments in information and communication activities, financial and insurance, professional, scientific, and technical activities, education, and health care increased (*Table 2*). The shares of investments in mining and processing industries in Russia in 2021 remained at the level of 2014.

Such changes, including the increase in the share of investments in fixed asset of the locomotive industries and types of economic activities of the “Dependent” group did not have a significant impact on the structure of investments. The values of the linear coefficient of structural shifts (*Fig. 3*) indicate insignificant changes in the structure of investments in fixed asset of 47 types of economic activities, the data on which are published by Rosstat.⁶

Based on this, we can conclude that investment reserves for changing the orientation of the Russian economy on raw materials production and export have not been created by 2022. One of the main functions of investment, “related to the creation of the basis for the gradual reorientation of the economy to a new quality of growth” has not been fulfilled [5, p. 47]. Of course, in a hostile geo-economic and geopolitical environment, the transitional stage can cause instability, intensify even weak negative external and internal influences. But the preservation of the previous state, immutability in a new environment can lead to degradation and destruction of the existing one.

CONCLUSIONS

In the period under consideration, the volume, dynamics, and sectoral structure of investments in Russia varied depending on the investors’ opportunities, the conjuncture of the world and domestic markets, the phase of the business cycle, the profitability of investments and other factors. In 2001–2013, the volumes of

⁶ Structural shifts are considered small if the value of the linear coefficient of structural shifts is less than 2%. In our case, this coefficient is less than 0.6%.

investments in fixed assets of all three groups of economic activities under consideration in the Russian Federation increased, but under the influence of external and internal factors their growth rates decreased. In 2014–2016, investments in fixed assets of industries in the “Locomotives” and “Dependent” groups continued to increase, but in the group of industries-locomotives they grew at a lower rate, while in the group of economic activities most strongly dependent on the state of exports of domestic products and imports of goods and services to the Russian Federation — the rates increased. This was partly a consequence of their low average annual growth rates in 2011–2013 (*Fig. 1*). The volumes of investments in fixed capital of the types of economic activities of the “Others” group decreased in 2014–2016. Apparently, high uncertainty of the future; investors’ expectations of deterioration of foreign economic relations; actions of states unfriendly to the Russian Federation to freeze Russian assets, ban payments of some Russian banks, refusal to insure goods and services; decline in the role of money incomes of the population as a factor of economic growth had their impact.⁷

In 2015–2016, the primary adaptation of the Russian economy to the negative changes in the economic environment took place, and the average annual volumes of investments in fixed assets of all three groups of economic activities under consideration increased in 2017–2021. Slowdowns and accelerations in the growth rates of investments in fixed capital did not lead to a noticeable change in their structure by types of economic activities under study. This gives grounds to believe that in terms of investments by 2022 the country has not created the groundwork for the development of the economy with the reliance mainly on its own forces.

Successful development is possible when all the necessary components are in place

⁷ “It can be argued that the monetary incomes of the population ceased to be an important factor of economic growth in this period” [6, p. 107].



and their interactions are well established. Investments are an important, but not the only factor of economic development. In addition to them, skilled labour, modern technologies and information support, markets, effective demand, competent management, efficient motivation, reliable financial system, developed science and rentable production are also needed.

Another important aspect, not considered in this paper, is the object in which investments

are made. They can be used to replace worn-out and retiring funds with the same or new ones, to expand existing funds, to reproduce existing means of production or to develop fundamentally new ones, to replicate already used or to invent new technologies, etc. The consequences for the economy and the time when they will manifest themselves may be radically different for investments in different objects.

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