

Investment Dynamics As a Factor of Transformation of the Russian Economy

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Received January 25, 2019; revised February 5, 2019; accepted April 17, 2019

Abstract—The dynamics of long-term investment by primary economic activities is considered in general and in detail by manufacturing. Russian and American investment programs are compared in terms of gross and specific indicators. The quality of economic growth, as seen through the 2000s Russian investment pattern, mismatched the long-term goals of domestic economic development. In addition, the current phaseout of investment activity is largely an effect of the inadequate investment policy of those years. The existing institutional system orients the Russian economy toward building into the global pattern as a supplier of natural and partly agricultural resources, dooming manufacturing to stagnation at best. The authors prove that stimulation of industrial policy is fundamentally based on a state approach: investing with long-term strategic interests in mind and considering the potential of market relations (efficient resource management) would finally launch large-scale investment programs, providing conditions for the creation of a national innovative economy.

Keywords: investments, extraction and manufacturing, services, quality of economic growth, institutions, industrial policy, international comparisons.

DOI: 10.1134/S1019331619050010

The topic of investment into equity is left at the periphery of substantive discourse, behind a sharp sociopolitical discussion on the low rates of economic growth and the discrepancy between the existing model of economic development and the modern realities of the Russian economy. These problems are traditionally masked by very heated discussions over investment strategies in the financial market: gambling in the stock market and the buying/selling of currencies and bonds. However, maximization of investor profits through financial transactions and solutions to socioeconomic problems faced by society, which are only possible through the development of the real economy, are essentially different tasks.

The relatively low societal interest in investments is explainable. To increase investments means to agree to a decrease in consumption today and/or an increase in the external/internal debt for the sake of a better future. Obviously, the party that declares the necessity of reducing the current level of consumption has few chances to win elections. Increasing the debt is also an unpopular idea. Everyone agrees that the debt can eas-

ily be increased, but the fact that the domestic economy will benefit from it is highly doubtful.

Fixed capital investment dynamics. The modern Russian investment policy is only one step away from the principle formulated by Goethe back in the 18th century: “Learn of the great and little world your fill, To let it go at last, so please ye, Just as God will!” [1]. Figure 1 shows clearly that the growth rates of fixed capital investments are closely related to the growth rates of oil prices in global markets (the correlation coefficient is 0.7). During a quick rise in oil prices, fixed capital investments grew at rates unseen by today’s standards in Russia, reaching 123% in 2007. The opposite side of this model is as follows: oil prices stopped growing, and the accelerated growth of investments stopped too. In addition, they decreased in absolute terms during 2014–2015 and stopped at the 2015 failure rate in 2016. As a result (considering the data of the first half of 2018), today the Russian economy is invested about as much as in crisis 2008 and less than in 2012–2014.

Technically, the fixed capital investment growth rates since 2012 may be explained by a “sudden” decrease in the share of borrowings in all investments. This occurred not owing to a reduction in bank loans (their share in investment funding in Russia is tradi-

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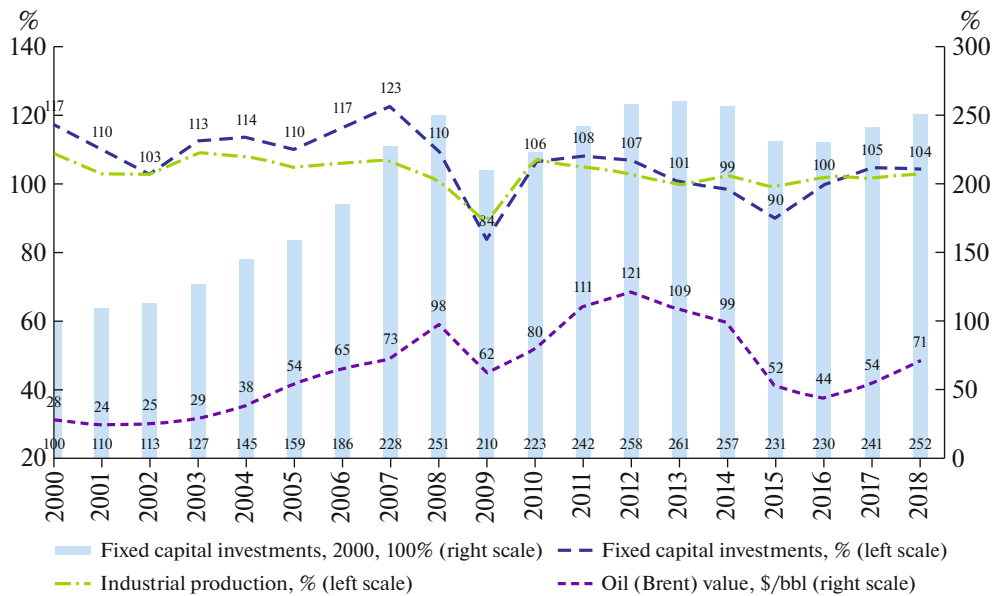


Fig. 1. Growth rates of fixed capital investments, %. *Source:* Russia in Figures 2008, pp. 35, 36; Russia in Figures 2010, pp. 35, 36; Russia in Figures 2017, p. 423; Russia in Figures 2018, p. 186.

tionally small and has an extremely weak upward trend) and budgetary funding (although its downward trend is clearly observed) but owing to a reduction in the budget item “Other Borrowings,” which has traditionally been in the periphery of economic analysis. This item, which recollects the past traditions of Soviet statistics, when it was almost the largest of all items (which corresponds to the case under consideration), includes “investments from funds received from higher level organizations (including funds allotted free of charge by higher level holding and share companies, as well as by industrial–financial groups)” [2]. This item was reduced by 2.3 percentage points in 2012. Reductions continued in subsequent years (Table 1). Considering the stability of most main sources of fixed capital investments, the sharp decrease in the intensity of investment programs in the Russian economy was due to changes in the investment policy of industrial–financial groups.

The reduction of the considered item since 2013 is easy to explain: the prices for oil started to decrease, and the budgetary limitations of industrial–financial groups became more rigid. However, the reduction of “other fixed capital investments” began as early as 2012. Apparently, here the economy faced serious limitations set by the current economic model. Indeed, the oil prices reached the maximum level in 2012, leaving two more years before restrictive measures in relation to the Russian economy, and the GDP growth rates began to decrease without visible reasons (–0.8 percentage point to the 2011 level), entailing a reduction in the demand for investments.

Let us consider the absolute level of the domestic investment program. According to Rosstat, fixed cap-

ital investments in all types of economic activities across the entire range of organizations in 2017 were $\text{P}15.966$ trillion.¹ Is it a lot or a little? In terms of the GDP structure, it is more than the GDP of the United States, Russia’s main geopolitical competitor. Russia’s share of gross accumulation in fixed capital in the GDP in 2016 was 21.4% (21.7% in 2017); the United States’ share was 19.5% [3]; however, the volume of Russian investments is small in absolute terms.

How should we compare Russian and American indicators? At first sight, Russian and American fixed capital investments are calculated identically: the investment pattern in the United States and in Russia accounts for residential buildings; nonresidential buildings; land improvement costs; machinery; equipment, including other tools and other facilities; and intellectual property items. However, in 2017, the cost of intellectual property items in the total fixed capital investments was 27%² in the United States and only 3%³ in Russia. This significant difference in cost depends on institutional factors (intellectual property rights in Russia and the United States are traditionally protected differently), as well as on organizational and methodological factors: most Russian companies either do not allot an intellectual component at all or do it formally when investing.

¹ Calculated using the Central Statistical Database (CSDB), www.gks.ru. Cited September 15, 2018.

² Calculated using <https://www.bea.gov> Table 1.5. Investment in Fixed Assets and Consumer Durable Goods. Cited December 20, 2018.

³ Calculated using http://www.gks.ru/wps/wcm/connect/ross-tat_main/rosstat/ru/statistics/enterprise/investment/nonfinancial/#. Cited December 20, 2018.

Table 1. Fixed capital investments by funding source (net of small businesses and total investments not observed by direct statistical methods) in de facto prices, % of the total

Indicator	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017
Fixed capital investments, total	100	100	100	100	100	100	100	100	100	100
including:										
Equity	47.5	44.5	41.0	41.9	44.5	45.2	45.7	50.2	50.9	52.1
Borrowings	52.5	55.5	59.0	58.1	55.5	54.8	54.3	49.8	49.1	47.9
including:										
Bank loans	2.9	8.1	9.0	8.6	8.4	10.0	10.6	8.1	10.4	10.9
Borrowings from other organizations	7.2	5.9	6.1	5.8	6.1	6.2	6.4	6.7	6.0	5.1
Foreign investments						0.8	0.9	1.1	0.8	0.7
Budgetary funds	22.0	20.4	19.5	19.2	17.9	19.0	17.0	18.3	16.5	16.4
State nonbudgetary funds	4.8	0.5	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.2
Funds from organizations individuals raised for shared construction	0.0	3.8	2.2	2.0	2.7	2.9	3.5	3.2	3.0	2.7
Other investments	15.6	16.8	21.9	22.3	20.0	15.6	15.8	12.1	12.2	12.0

Source: Russia in Figures 2018, pp. 189, 190.

Nevertheless, direct comparison of Russian and American data yields a distorted idea of the positioning these countries relative to each other. Thus, fixed capital investments into US manufacturing in 2009, according to 2010 data, when intellectual property items were not yet allotted, were \$205 bln. According to a retrospective calculation (2018 data), the considered value was already \$357.8 bln (including intellectual property) and “only” \$149.3 bln without it. We see that the “old” data are quite far from both boundaries obtained within the new accounting method. Then, direct comparison (Russia’s fixed capital investments to US fixed capital investments) understates the real Russian level of investments but, on the contrary, overstates it when the Russian investments are compared to the US investments without intellectual value. It is natural to assume that an adequate-for-reality evaluation is between its extreme options.

A second pitfall in comparing Russian and American investment indicators is how to convert rubles to dollars? The use of the market rate is not correct here. The fixed assets in use—domestic or imported machinery and equipment (about one-third of the fixed capital investments of Russian enterprises in 2017)—are tradeable goods purchased at market prices. Here the use of the exchange rates of currencies is justified. This approach is unacceptable for the liability side of fixed assets—buildings (40–45% of total investments). In fact, this circumstance predetermines the necessity to calculate a purchasing-parity power (PPP) indicator.

Rosstat systematically presents PPP data for the GDP in general. By individual categories of goods, particularly investment goods, PPP information is

episodic. The data for 2002, 2005, 2011, and 2014 are available. There is no information for the subsequent years. In addition, in 2015–2017, the Russian economy had to adapt to fundamentally new functioning conditions: low oil prices and the consistent toughening of political and economic sanctions. It is impossible to assess investment PPP over these years without robust statistical comparisons, but it is possible to make some justified assumptions. Indeed, no matter how much the nominal ruble-to-dollar rate has changed, the GDP PPP-to-investment PPP ratio has been sufficiently stable over the past ten years. Let us assume that the 2014 GDP PPP-to-investment PPP ratio (the last year for which official data are available) did not change in 2015–2017. Then the investment PPP would be $\text{P}/\$33.02$ in 2015, $\text{P}/\$33.94$ in 2016, and $\text{P}/\$34.58$ in 2017. These values will guide us in our calculations. We also take into account the fact that the US population is 2.2 times larger than the Russian population, predetermining the difference in gross values. Therefore, we will consider both gross and relative (per capita) indicators.

Analysis of Russian investment dynamics (see Fig. 1) through the comparison of domestic and American investment achievements graphically reveals the destruction of the current Russian economic model. The data given in Table 2 and Fig. 2 clearly show that the Russian indicators quickly catch up with the American indicators in the first decade of the 21st century. However, “something broke” in the second decade: the positions won did not survive, and a noticeable backslide occurred.

Note that there is no point in overstating the importance of Russian achievements in 2008–2011:

Table 2. Russian and US fixed capital investments

Indicator	2002	2005	2008	2011	2014	2015	2016	2017
Russia, bln rubles	1762	3611	8782	11036	13903	13897	14640	15966
Russia, bln dollars	56	126	354	376	366	229	219	274
Russia, bln dollars of PPP investments	107	188	383	395	461	421	431	462
US, bln dollars (including intellectual property (IP) assets)	2329	2967	3116	2912	3530	3666	3731	3939
US, bln dollars (net of IP assets)	1796	2341	2368	2105	2615	2714	2731	2883
Russia, PPP dollars for per capita investments	740	1307	2680	2767	3210	2877	2944	3145
US (including IP), dollars per capita	8097	10039	10247	9347	11078	11420	11535	12094
US (net of IP), dollars per capita	6243	7923	7788	6754	8209	8455	8446	8852

Calculated by www.bea.gov Table 1.5. Investment in Fixed Assets and Consumer Durable Goods; CSDB, www.gks.ru; Russia in Figures 2018, pp. 521, 522. Cited December 20, 2018;

http://www.cbr.ru/currency_base/daily.aspx?C_month=07&C_year=2000&date_req=01.07.2000. Cited September 10, 2018;

http://www.cbr.ru/currency_base/daily.aspx?C_month=06&C_year=1995&date_req=30.06.1995. Cited September 10, 2018.

the investment activity in the United States decreased notably during the global financial crisis. Later the American investment process picked up movement again, but the Russian economy came under a double strike: petroleum started to depreciate since 2013, and the sanction pressure started to grow since 2014. Thus, the exchange rate was 31.8 rubles per dollar in 2013, but it was already 66.9 rubles per dollar in 2016. The ruble growth of investments did not compensate for currency losses even considering the smoother dynamics of the investment PPP indicator.

The above data show that, on the one hand, Russia made a great leap forward over 15 years: regardless of accounting methods, Russia's investment lag behind the United States dropped many times. On the other hand, the lag remains extremely high and, which is

even worse, tends to stabilize at an unacceptably low level. It is totally unclear how to resist pressure from the economic investments which exceed Russian investments at least 6.2 times (an optimistic estimation without intellectual property items, 2017) or, more realistically, 8.5 times (including intellectual property items). The Russian investments appear especially insignificant if we consider their absolute level: in 2017 they grew by \$31 bln (PPP) against 2016, and the American investments, by \$208 bln. Domestic per capita investments are 3–4 times smaller than American investments.

We noted the investment thrust of the Russian economy in the early 2000s. A more steadfast analysis of the quality of this growth proves again a well-known truth: the visible part of a phenomenon seldom

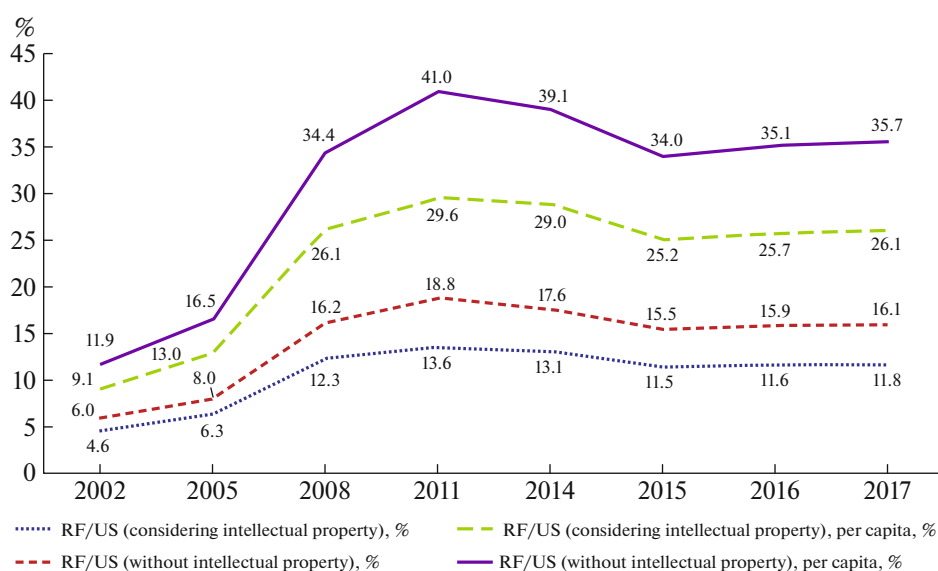


Fig. 2. Ratio of Russia's fixed capital investments to US fixed capital investments, %.

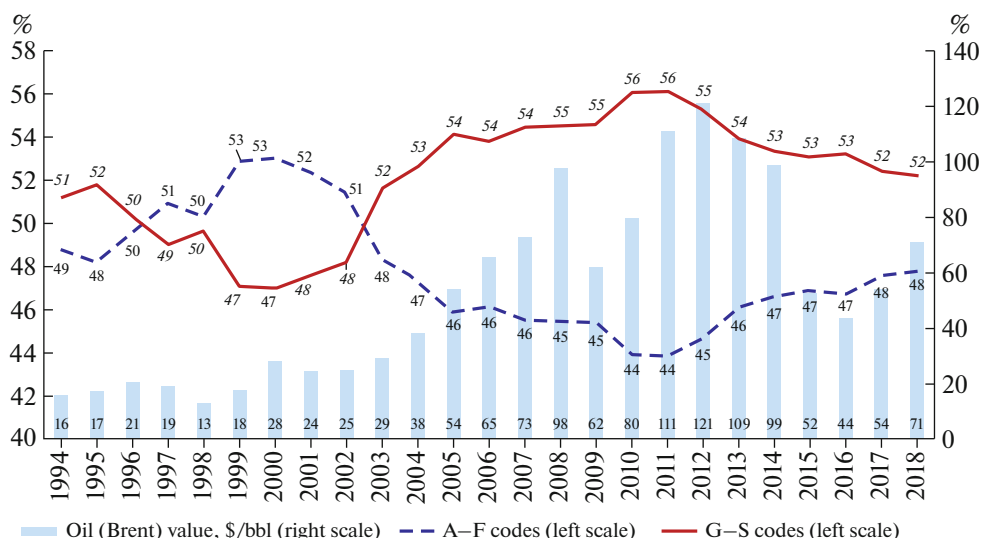


Fig. 3. Fixed capital investment shares in types of economic activity throughout all organizations, %. Code OKVED2. (A) Agriculture, forestry, hunting, fishing and pisciculture; (B) mineral extraction; (C) manufacturing; (D) electricity, gas, and stream supply; air conditioning; (E) water supply, sewerage, waste collection and utilization, contamination cleanup; (F) construction. Code OKVED2. (G) Wholesaling and retailing; motor vehicle and motorcycle repairs; (H) transportation and storage; (I) hotels and public catering; (J) information and communications; (K) finances and insurance; (L) real estate transactions; (M) professional, scientific, and engineering activities; (N) administrative and related additional services; (O) state control, military, and social security; (P) education; (Q) health care and social services; (R) health care and social services; (S) other services. *Source:* Russia in Figures 2017, pp. 430–432; Central Statistics Database (CSDB), www.gks.ru. Cited January 20, 2019.

reflects its essence. In fact, solutions to strategic problems of the country’s development require not so much investment growth as investment quality. The growth rates of investments into the domestic economy were very high until 2008 (see Fig. 1). However, if this growth until 2001 was primarily ensured by investments into material production (sections A–F), from 2002 until 2011, it was ensured by services (sections G–O) (Fig. 3). Note also the relation between the nature of investment growth and the dynamics of oil prices: the more expensive the oil, the relatively fewer investments are channeled into material production and, consequently, the more, into services, and vice versa.

Are the present investment priorities justified in terms of long-term national development? There is an opinion in the literature that economic growth based on rental incomes from the selling of natural resources is very specific [4, 5]. The strengthening of a national currency due to a high inflow of foreign currencies and special measures of the Central Bank of a recipient country raises the value of labor, adversely affecting the competitiveness of manufacturing. Investments begin to be redistributed into extraction (currency income generator) and services (primarily nontradable). Manufacturing becomes less competitive due to investment hunger, which contributes to technological inferiority. The circle closes. As a result, the country gets a comparatively developed extraction sector of the economy, gradually weakening and eroding manufacturing, and a service sector blown out of proportion of its real production potential. Note that common non-

tradable services grow in the first place under such a scenario. The material basis is not created for the development of complex, highly skilled services for high-tech industries, large-scale engineering, and complex technological projects. The related services are not developed either.

Was the development of the Russian economy geared to this theoretical model? The data (see Fig. 3) show that investments into services grew in reality faster than those into production. It would be logical to assume that investments into extraction increased faster than those into manufacturing and agriculture. Is this so?

Yes and no. Indeed, the growth rates of investments into extraction always seemed higher than into manufacturing. However, they were comparable until 2008. Manufacturing began to lag beginning in 2009, and the investment trajectories of extraction and manufacturing have drifted apart since 2015: investments into extraction continued to grow, and those into manufacturing began to decrease sharply (by 10 percentage points a year). Investments into agriculture went well but at different paces. They began to lag explicitly behind the growth rates of investments into extraction only since 2014 (Fig. 4).

Thus, the three largest sectors of Russia’s real economy (agriculture, extraction, and manufacturing) reacted similarly to the changes in global oil prices and differently to the sanctions in terms of their investment strategies. Why? Here is our assumption. By 2014, the Russian economy had firmly integrated into the global

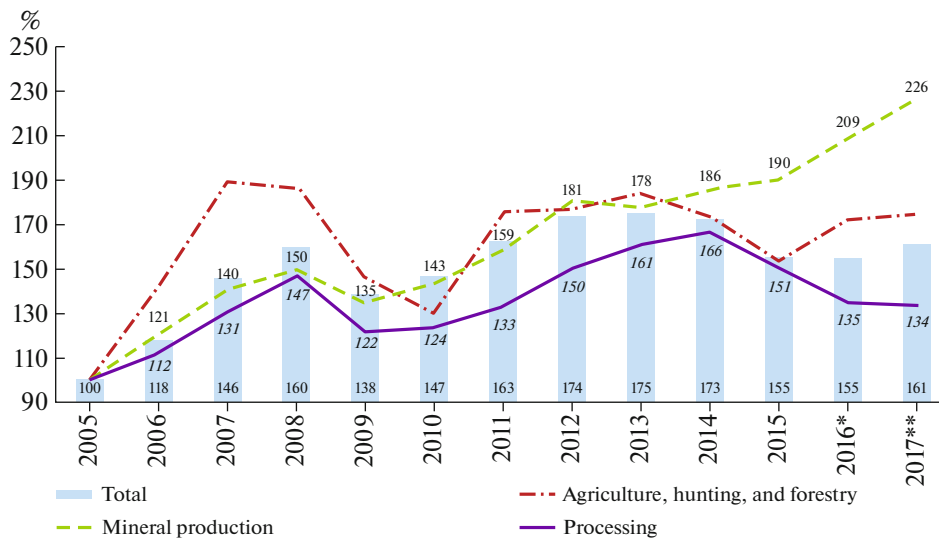


Fig. 4. Dynamics of fixed capital investments in Russia by type of economic activity (2005 values are 100%). *Updated using annual reports and final calculations of total investments not observed through direct statistical methods. **Harmonized with the Russian Classification of Economic Activities OKVED2.

economy, importantly, as a periphery specializing in raw materials. Whether global prices on natural resources go up or down is immaterial for this model. Extraction is the main source of foreign currency supply. Therefore, market changes have little effect on the level of investments here.

The case is entirely different with agriculture and manufacturing. Investments in agriculture are low compared to extraction and manufacturing. Even a comparably small increment/drop in investments creates significant volatility.

The investment situation in manufacturing is more interesting. At first sight, the existent economic model, at least before 2008, ensured not only its stable growth but growth comparable with investments into extraction; this does not agree with the above assumption on the nature of integration of the Russian economy into the global economy. Later, this growth began to slow down, but real problems with investments into manufacturing began right after the price and sanction shock of 2014. The key word here is “after” and not “due to” the shock. The investment recession in manufacturing was a logical consequence of the previous investment buildup.

Indeed, of 74 investment positions for which Rosstat provides data, only 51 (69%) had a physical volume of investments in 2016 that exceeded the 2005 level. This is a serious symptom. After 11 years of talks about industry 4.0, a digital economy, the elaboration of the Concept of Long-Term Socioeconomic Development of the Russian Federation [6] and the Strategy of Innovative Development of the Russian Federation until 2020 [7], and state and federal target development programs [8], investments of almost one-third of

the largest investment positions in 2016 turned out to be smaller than in 2005.

What are these positions? The drop in investment activity hardly affected the extraction of natural resources; the production and distribution of electricity, gas, and water; construction; trade; the hotel and restaurant business; financing; and education. Investments dropped in communications, water transport, and several services. However, the main blow came on manufacturing: almost half (48%) of falling positions were there. There were only 20% of such positions in 2014, before the introduction of sanctions (which is also not insignificant).

Thus, the nature of investment activity in the Russian manufacturing sector confirms the point that integration into the global economy without sufficiently rigid state control (through the mechanisms of the long-term socioeconomic development strategy) leads to its fragmentation, increased dependence, and the threat of manufacturing collapse if ties with the global economy are severed. Therefore, the disruption of ties with foreign suppliers, which occurred in 2014 as moderate sanctions, was a tough time for Russian manufacturing. The destruction of the relative integrity of the domestic manufacturing sector, which has been going on over the past two decades under the questionable theoretical justification “may the best win,” has led to the loss of reliability of the existent technological system as a whole. A consequence of small but mass failures in its sustainment brought, if not paralysis, at any rate, a stupor in development. This conclusion correlates well with production output data. Thus, the output (sampling 700 product items) decreased in 20% of product items in extraction, 33% in manufacturing, and 40% in

Table 3. Share of fixed capital investments by economic activity types throughout all organizations (manufacturing), %

Industry	1994	2000	2008	2014	2016
Section D. Manufacturing	14.52	16.3	15.0	15.0	14.51
Foods, including beverages, and tobacco	2.71	3.77	2.21	1.81	1.66
Textiles and clothing	0.39	0.17	0.11	0.15	0.06
Leather, leather goods, and footwear	0.05	0.02	0.03	0.06	0.02
Woodworking and woodware	0.40	0.59	0.55	0.36	0.41
Pulp and paper; publishing and printing	0.48	0.79	0.58	0.36	0.46
Chemical manufacturing	1.25	1.36	1.54	1.88	2.81
Rubber and plastic products	0.29	0.32	0.36	0.32	0.28
Other nonmetallic mineral products	1.05	0.84	1.72	0.98	0.55
Metallurgy and finished hardware	2.34	3.08	3.30	1.78	2.32
Machines and equipment (net of weapons and ammunition)	—	—	0.86	0.74	0.68
Electric, electronic, and optical equipment	0.77	0.60	0.46	0.54	0.58
Office equipment and computers	0.00	0.00	0.01	0.04	0.04
Electric machines and equipment	0.37	0.26	0.22	0.18	0.15
Electronic components; radio, television, and communications equipment	0.20	0.15	0.10	0.13	0.13
Medical products; measuring, monitoring, controlling and testing instruments; optics, photo, and film equipment; clocks and watches	0.20	0.18	0.14	0.19	0.25
Transport vehicles and equipment	2.14	1.41	1.11	1.64	1.39
automobiles, trailers, and semitrailers	1.43	0.85	0.74	0.87	0.64
Ships, aircraft, spacecraft, and vehicles	0.72	0.56	0.38	0.78	0.76

Calculated by: CSDB, www.gks.ru. Cited October 9, 2018.

machinery and equipment over the 16 years of this new century [9, p. 103].

The noted animation of the investment program in production agriculture resulted in the opening (creation) of a market for domestic producers by ousting foreign producers from this market (within the “anti-sanction” program). The “suddenly” emerged massive solvent demand, which was stimulated by state support for agricultural producers and the absence of noneconomic investment restrictions, showed that commercially attractive projects raise money easily.

The conclusion, logically derived from the above data, that it is necessary to create a production system relatively independent from the rest of the world needs additional substantiation. As was shown above, investments into manufacturing grow, although at rates far from desired. Let us consider this growth not as a whole but in terms of real priorities in Russian economic development.

Investments into manufacturing: ever-falling? Note that the share of manufacturing investments in the total fixed capital investments in 2016 was even lower than in 1994, one of the hardest years in recent Russian history, when it was “not up to investments” (14.51% and 14.52%, respectively). The situation is even more serious in individual manufacturing industries. Over 22 years, of 18 consolidated industries (with

data available) only five (!) had their investment shares increased in their total volume in 2016. Investments relatively (not absolutely) decreased in 70% of the considered industries. Nevertheless, the investment pattern’s behavior over the past 25 years gives no grounds for rosy expectations that the Russian economy is gradually evolving toward an innovative economy. Yes, the share of chemical production grew notably in the total investments. The share of investments increased into the production of medical products; measuring, controlling, monitoring, and testing instruments; optical devices; photo and movie equipment; clocks and watches; ships, aircraft, spacecraft, and other means of transportation; woodworking; and wood products. Investments into the production of office equipment and computing devices became noticeable (in 1994, their share was negligibly small). However, the share of many other positions decreased significantly in the total investments. There is no talk about any accelerated development of basic industries that ensure if not a technological breakthrough at least an upgrade.

In 2000, the share of manufacturing investments in the total fixed capital investments grew slightly (see Fig. 3). However, the main beneficiary of this growth was food production, woodworking, the pulp-and-paper industry, and metallurgy. It is hard to believe,

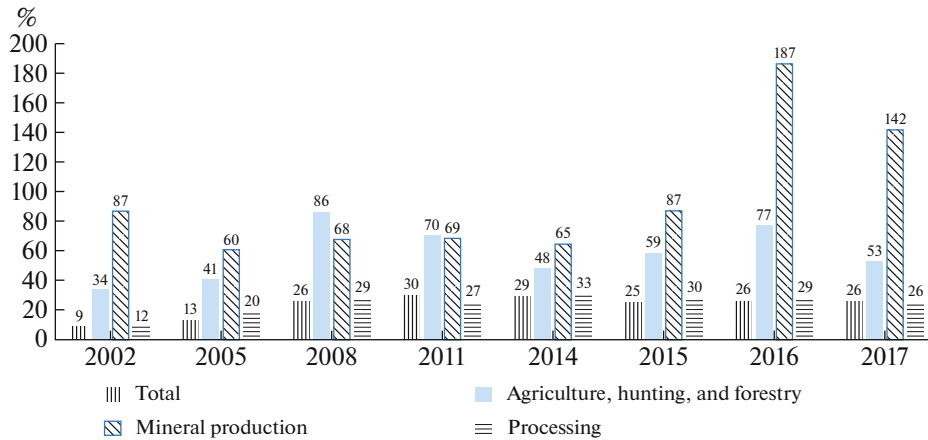


Fig. 5. Fixed capital investments by economic activity types, Russia-to-US, per capita fixed capital PPP (including intellectual value), %.

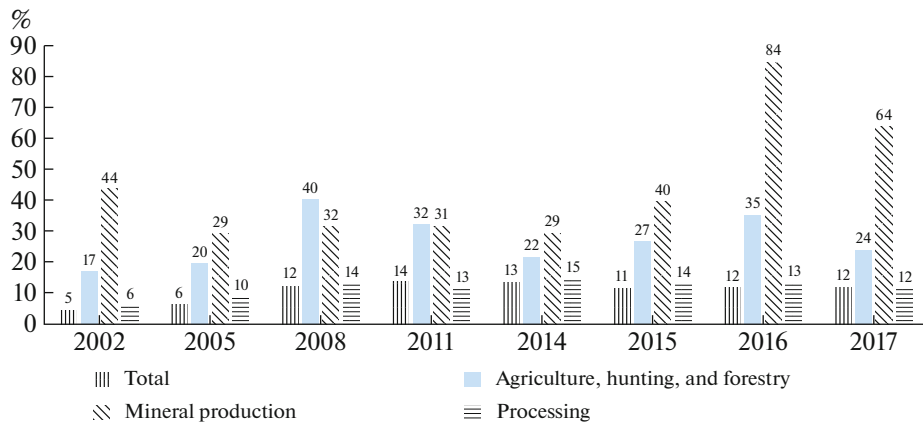


Fig. 6. Fixed capital investments by economic activity type, Russia-to-US, fixed capital PPP (including intellectual value), %.

but drivers of the modern technological system, such as the production of electrical, electronic, optical, office equipment and computing devices; electrical machines; electronic components; radio, television, and communication appliances; medical goods; measuring, monitoring, controlling, and testing instruments; optical devices; photo and movie equipment; clocks and watches, received only 0.6% (!) of the total investments in the year under consideration. It is even harder to believe that this is a record in a sense: the share of these industries in the fixed capital investments decreased in subsequent years.

In 2014, six years after the 2008–2009 crisis, the share of manufacturing investments did not change compared to crisis 2008. A distinctive character of this period is that breakthrough growth (relative to the other industries under consideration) began to show in industries fundamentally important for the development of the domestic production system, such as the production of electrical, electronic, and optical equipment; transportation means and equipment; automo-

biles, trailers, and semitrailers; and traditionally, chemical production.

This growth seems like it should have received a powerful impulse as the program of sanctions against the Russian economy began and oil prices dropped. But, no. In 2016, the share of manufacturing investments, even having reached the historical minimum, was notably smaller than in 2008 and 2014, seminal years for the Russian economy. Consequently, in 2016 (compared to 2014), the share of investments grew only for five subsections of section D “Manufacturing” (11 subsections total). Investments into the production of machines and equipment (net of the production of weapons and ammunition); electrical machines and electrical equipment; electronic components; radio, television, and communication devices; television and communications; transportation means and equipment, including automobiles, trailers and semitrailers, ships, aircraft, spacecraft, and other means of transportation, failed somewhat (Table 3).

Table 4. Fixed capital investments by economic activity type, Russia/US, PPP investments, %

Industry	2002	2005	2008	2011	2014	2015	2016
Finished hardware production (net of IP)	3.0	8.5	10.5	9.4	10.1	10.9	11.0
Finished hardware production (including IP)	2.3	6.3	8.2	7.0	7.6	8.1	8.2
Production of machines and equipment (net of IP)	–	20.8	27.6	15.3	27.8	30.2	29.2
Production of machines and equipment (including IP)	–	10.4	15.5	8.3	13.8	14.4	12.9
Production of electric machines and electric equipment (net of IP)	9.5	20.4	24.0	23.0	22.6	17.5	21.5
Production of electric machines and electric equipment (including IP)	5.2	8.6	11.8	9.6	9.9	8.0	8.4
Production of automobiles, trailers, and semitrailers (net of IP)	6.2	6.7	18.8	11.1	15.0	14.1	14.4
Production of automobiles, trailers, and semitrailers (including IP)	3.0	3.0	9.4	6.0	8.4	7.7	6.4
Production of foods, including beverages, and tobacco (net of IP)	26.7	33.5	39.5	33.5	35.8	30.7	28.4
Production of foods, including beverages, and tobacco (including IP)	21.1	26.8	32.1	26.1	28.3	24.3	22.4
Textile and clothing production (net of IP)	11.7	15.3	27.0	33.0	38.6	23.9	19.9
Textile and clothing production (including IP)	9.5	11.7	20.3	22.0	27.8	16.3	13.3
Publishing and printing, recorded media copying (net of IP)	6.6	11.6	14.7	14.6	11.4	15.2	16.5
Publishing and printing, recorded media copying (including IP)	5.3	9.1	10.8	10.0	7.7	9.9	10.7
Chemical production (net of IP)	7.5	16.4	25.1	23.7	27.3	27.1	32.2
Chemical production (including IP)	2.4	4.3	6.2	6.4	7.9	8.7	9.9
Production of rubbers and plastics (net of IP)	4.4	12.3	17.8	16.7	14.4	17.5	10.6
Production of rubbers and plastics (including IP)	3.4	9.4	13.5	12.0	10.9	12.9	8.1

Calculated by www.bea.gov. Table 1.5. Investment in Fixed Assets and Consumer Durable Goods, Table 3.7ESI. Investment in Private Fixed Assets by Industry, Table 3.7I. Investment in Private Intellectual Property Products by Industry; CSDB, www.gks.ru. Cited December 20, 2018); Russia in Figures 2018, pp. 521, 522;

http://www.cbr.ru/currency_base/daily.aspx?C_month=07&C_year=2000&date_req=01.07.2000. Cited September 10, 2018;

http://www.cbr.ru/currency_base/daily.aspx?C_month=06&C_year=1995&date_req=30.06.1995. Cited September 10, 2018.

The Russian investment results are especially graphic against the American background. With the great lag from the United States in general investment activity, domestic investments into agriculture and especially into extraction do not appear so bad. The situation with manufacturing is not as bad as in the early 2000s, but is already worse than in the late 2000s. The data (Figs. 5, 6) show again Russia's consistent course toward raw-material and partly agricultural specialization in the global division of labor. Other data (Table 4) show the scale and rates of the buildup of investment problems in terms of the international environment, which has been unfavorable for Russia. Before 2014, Russia was catching up with the United States in total investments into the real sector, not by specific but by gross indicators, but a notable backslide occurred in 2015–2016. The year 2016 was the last year of the Obama administration. To be sure, Russia's

multiple lag in the investment sphere from the United States only increased with the advent of D. Trump.

Thus, the scale, structure, and dynamics of investments give no reasons to speak about not only the beginning of an innovative economy in Russia but even about the creation of serious groundwork for it. It is hard to identify signs that the economy has begun to adapt to growing external sanction shocks through the development of its own technological system.

Institutional factors of the nonadaptive structural transformation of the Russian economy. What are the causes of such weak investment dynamics? In our opinion, the slack investment process, which is inadequate for creating an innovative economy, depends on the nature of integration of the Russian economy into the global economy. A systemic quality of the modern global economy is consistent integration of individual countries into it, accompanied by the elim-

ination of weak national producers [10]. At the end of the 20th century, Russian society enthusiastically took the following message of progressive economic thought: the best option to suggest for the Russian economy under reforms was to set up the game “set the wolf to keep the sheep.” For the strong foreign producer, created under the protectionist theory of “may the best win” (providing equal opportunities for unequal competitors), and using the state’s powerful political support, the Russian market emerged with the then weak national producer. The finale that awaited the latter was obvious.

By now Russia has a developed extractive industry (toward which the global economy orients the country); a service sector, outsized relative to its real production potential (of no interest to the global economy); and a weak, fragmented manufacturing sector.

The dismal results of market development necessitate strengthening of government participation in economic regulation. In fact, the fundamental weakness of the market mechanism in the Russian institutional environment is the narrow planning horizon and, consequently, orientation at solving essentially tactical, not strategic, problems of development. Its strength is the presence of built-in mechanisms to monitor the efficacy of investment decisions made. State economic regulation is in a different situation. The fundamental strength of the state approach is the ability to invest considering long-term strategic interests of national economic development. The weakness, consequently, is in the traditionally low efficacy of implementation of such projects.

Strictly speaking, “the depletion of opportunities for Russia’s economic growth, based on extensive exploitation of primary resources, against the formation of a digital economy and emergence of a limited group of leading countries with new production technologies and oriented toward the use of renewable resources,” was acknowledged at the government level [11].

The above analysis confirms that Russia has no constructive alternative to sharp intensification of the investment process. Several large national infrastructure projects, as well as projects to recover domestic manufacturing on an innovative basis, should be launched in the near future. To guard these projects from transforming into support for foreign producers and to integrate the Russian economy further into the global economy within Russia’s raw-material specialization (as before), it is necessary to provide systems protection for national business in the making as a competitive world-level producer, regardless of how it would contradict the currently dominant liberal market approach in Russian practice. Then, the efforts of the state as guarantor of the large-scale long-term demand for domestic products of Russian companies (including public–private partnerships) and businesses that efficiently use available resources will cre-

ate a productive basis for implementing large-scale national investment programs as a major factor of achieving long-term goals of Russia’s socioeconomic development.

FUNDING

This paper was prepared within project XI.170.1.1. (0325-2019-0007) “Innovative and Ecological Aspects of the Structural Transformation of the Russian Economy amid a New Geopolitical Reality”, 2019 RAS SB IEIE research plan, state registration no. AAAA-A17-117022250127-8.

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Translated by B. Alekseev