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VARIATIONS IN SOCIOECONOMIC DEVELOPMENT BY REGION

Economic Dynamics of Russian Regions: Crises and Ways to Restore Growth

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Abstract—The article considers the main features of the economic crises of 1998, 2009, and 2015; analyzes the dynamics of the main indicators of regional socioeconomic development in crisis conditions and at its terminal stage. It is shown that all crises are caused by structural factors: imbalances in the sectoral structure, weak financial sector, and weak institutions. An export-oriented model of the economy has proved unstable to external shocks. In all cases, the crisis-related decline began with the regions that most dependent on the external economic situation, with metropolitan areas and oil and gas producing regions. However, a deeper decline in production and slow economic recovery were observed in regions oriented toward domestic Russian demand. After the 2009 crisis, the range of fluctuations in growth rates decreased in all federal districts. The decline in production during the crisis has become smaller; however, the subsequent rise has not been high. The article assesses the impact of national trends and regional features of the production structure on regional economic dynamics. It is shown that crisis conditions amplify interregional differentiation of growth rates and the value of regional factors increases. The contribution of regional factors determines the stability of the economy to crisis-related shocks. The shares of the distribution of income between households and businesses are considered, since a change in these determines consumer and investment demand dynamics. It is shown that revenue redistribution in favor of business is not a factor in investment growth. The regional structure of investment demand is not directly related to the regional structure of business revenue. A peculiarity of the 2015 crisis is that adaptation of final demand to external shocks and depreciation of the ruble after devaluation occurred by contraction of both investment and consumer demand. The real sector of the economy shows the greatest resilience to the crisis; precrisis industrial indicators in 2018 were exceeded in all federal districts.

Keywords: economic crisis, economic recovery, regional growth, household income, business revenue, consumer demand, investments

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In the post-Soviet period, the Russian economy experienced three economic crises: the 1998 crisis, which completed the transformational recession of the economy, the 2009 crisis, which was superimposed on Russia by the global crisis of 2008–2009, and the crisis that began at the end of 2014. The latter was triggered by external circumstances, although the conditions for it had developed within the Russian economy. These crises were distinguished by external and internal factors, adaptive mechanisms by which the economy adapted to the crisis and which it used to overcome it, and economic policy.

Features of all three economic crises and macroeconomic policies at the federal level are analyzed in detail [1, 2, 4, 12, 15, 16, 22]. The 2014–2015 crisis spurred a new wave of publications examining the mechanisms and specifics of crises of the Russian economy as a whole.

The literature analyzes the regional aspects of transformational recession of the Russian economy [18], the 2008–2009 crisis, and anticrisis policy in this period [3, 5]. The regional projection of economic crises is examined from the aspect of how the employment, production, revenue, and expenditure parts of regional budgets are formed [6, 8]. Less attention is paid to analyzing the influence of macroeconomic conditions on the shaping of regional dynamics. This article considers precisely these aspects of regional economic development during crises and subsequent economic recovery.

COMMON FEATURES OF RUSSIAN CRISES

The 1998 crisis was the lowest point in the decline of the Russian economy accompanying economic reforms. The volume of Russian GDP in 1998 was 57.5% of the 1990 level. The transformational recession of the 1990s was due to internal causes: the break-

down of the previous economic system, as well as the accumulation of structural problems in creating a market economy—simplification of the sectoral structure, deindustrialization, the outsized development of the trade and commercial services sectors, an increase in the share of mining industries in GDP to the detriment of manufacturing, a weak financial sector, and weak institutions incapable of creating a favorable investment climate.

The events of 1998 were seen primarily as a result of the financial imbalance of the Russian economy, when the problems of the Asian crisis were superimposed on the state financial crisis, which led to default. The economic recovery after 1998 and subsequent economic growth based on the export–raw materials model exacerbated existing imbalances. Nevertheless, under the current external conditions, for Russia, the export–raw materials model allowed rather high economic growth rates and an outstripping stable growth of household incomes: in 2008, GDP increased 1.9 times compared with 1998, and real incomes increased 2.2 times. Despite the high growth rates, the 1990 GDP level was achieved only in 2007, at the peak of the economic recovery in 2008 it exceeded the 1990 indicators by 12.9%.

An export-oriented model of the economy proved extremely unstable to external shocks. Such a shock was the global crisis of 2008–2009. The fall of the Russian economy was not as catastrophic as in the 1990s, in 2009, GDP fell by 7.8%, pre-crisis indicators were reached already in 2011. However, none of the structural problems noted above were resolved, which prepared the ground for the next crisis.

The 2014–2016 crisis was also triggered by external factors, economic sanctions and the drop in oil prices, but stagnation of production and a decline in investment began back in 2012. The prerequisites for the new crisis, related to the exhausted potential of the export–raw materials model and growing structural imbalances, developed within the Russian economy [10, 11, 20, 21]. The peak decline in production occurred in 2015; the signs of economic recovery that appeared in 2016–2018 more likely indicate its stagnation than the beginning of economic growth.

All three crises have a similar sequence of events characterizing disruption of macroeconomic equilibrium and its subsequent restoration to a new level. In all cases, the external shock consisted of some events in the global economy, the result of which was a decrease in hydrocarbon prices. Due to its raw material export specialization and structural imbalances, the Russian economy is very sensitive to the external economic situation. External shock led to an imbalance in the financial system, and this imbalance via the mechanisms of anticrisis macroeconomic policies and actions of all market players responding to changing external economic conditions developed into a general economic crisis. Thus, all three crises began with a fall in oil prices, accompanied by a reduction in output, depreciation of savings, and the redistribution of value added between households and businesses.

The intensity of these processes is specific to each of the crises, but their sequence is the same. The restoration of equilibrium at a new level occurs through the redistribution of income between institutional units, via change in demand and relative prices. A change in the shares of income distribution between businesses, households, and the state also changes spatial shares.

REGIONAL PRODUCTION DYNAMICS

Depending on the characteristics of the regional economy, primarily the structure of production, regions reacted differently to shocks coming from external conditions, macroeconomic policies, and the system of anticrisis measures taken at the federal level. Analysis of the economic dynamics in federal districts reveals the general and developmental features of large geographical areas in Russia.

Published statistics cannot trace the regional dynamics for the entire post-Soviet period; therefore, we consider Russian regional economic growth from the lower point of the transformation crisis, 1998, when after the relative stabilization of 1997, Russian GDP fell by 5.3%; the decrease in the total volume for Russia's GRP was even higher, 6.5% (Table 1)[1].

The 1998 crisis dealt the most severe blow to the economies of the industrial Volga, Siberian, and Far Eastern federal districts, whose economic growth rates after the crisis also remained below the national average. In the 2009 crisis, the maximum contraction of production occurred in the Central and Ural federal districts, the economies of which were most dependent on the external economic situation. After the 2009 crisis, there was a decrease in the range of growth rate fluctuations, crisis-related declines were smaller, but the subsequent rise has also been low, and the dynamics have become more "viscous." The same is also characteristic of other federal districts.

The economic dynamics of the Central Federal District and the depth of its decline in production are determined by the situation in Moscow. Similarly, the dynamics of the Northwestern Federal District is strongly influenced by St. Petersburg's economy. Metropolitan agglomerations proved the most sensitive to external shocks; the features of their economies, including their dynamics during crises, are analyzed in detail [7, 9, 13, 14].

[1] In Table 1 and in the text, the indicators characterizing the crisis are given for the year in which the minimum values for a given period were noted, or the maximum in the case of an increase. Thus, the crisis really began back in 1997, but the lowest point in the decline in production came in 1998. The situation is similar to the 2008–2009 crisis: despite the fact that it started in 2008, 2009 was cited as a crisis. In the 2014–2015 crisis, the decline in production occurred only in 2015.

Table 1. Average annual GRP growth rates in federal districts, %

Federal district	1998	1999–2008	2009	2010–2014	2015	2016	2017	2016–2017	1999–2017
RF	–6.5	7.2	–7.6	3.2	–0.6	0.8	1.8	0.7	4.3
CFD	–5.4	8.4	–10.8	2.8	–0.7	1.3	1.9	0.8	4.6
NWFD	–4.4	7.4	–5.1	3.1	1.5	1.7	0.5	1.2	4.6
SoFD	–5.9	8.1	–7.2	4.3	–0.5	1.3	3.0	1.3	5.1
NCFD	–4.9	9.1	1.2	4.3	–0.2	0.9	1.1	0.6	6.0
VFD	–8.1	6.2	–7.5	4.1	–1.3	0	1.4	0.0	3.9
UFD	–6.5	6.7	–8.0	2.8	–1.2	0.3	3.0	0.7	3.9
SFD	–7.8	6.1	–4.1	3.2	–1.2	0.3	2.3	0.5	3.9
FEFD	–7.6	5.4	1.5	2.3	0.7	0.3	–0.2	0.3	3.5

Abbreviations: RF—Russian Federation; CFD—Central Federal District; NWFD—Northwestern Federal District; SoFD—Southern Federal District; NCFD—North Caucasian Federal District; VFD—Volga Federal District; UFD—Ural Federal District; SFD—Siberian Federal District; FEFD—Far Eastern Federal District. Source: author's calculations based on Rosstat data.

Despite the different scales of decline and economic recovery, in general, over the period, the average annual growth rates of GRP in the Central, Northwestern, Southern, and North Caucasian federal districts were higher than the national average; in the Volga, Ural, Siberian, and Far Eastern federal districts, they did not reach the average Russian indicator. The lag of districts in Russia's East accumulated throughout the post-Soviet period and caused a shift in production and population from East to West.

Regional dynamics are influenced by two interrelated factors: national conditions, including macroeconomic policies that determine the national trend, and regional conditions that characterize the features of individual regions, including production structure, production and human potential, infrastructural limitations, regional market size, and agglomeration processes. Calculations of the contribution of national and regional factors to the GRP dynamics, carried out by the method of structural shifts, show that on the whole for 2004–2017, for which statistical data are available for analysis, the dominance of national factors is absolute in all federal districts.

Compared to the average Russian growth rate, the North Caucasian, Southern, and Northwestern federal districts grew from the contribution of regional factors. In eastern districts, the contribution of the regional structural factor, which characterizes the ratio of rapidly growing industries in the region and the country as a whole, is negative. Since value added in the commercial services sectors—trade, real estate, and the financial sector—grew at the fastest rates, the high share of industry in large industrial centers was the factor that determined the negative contribution of the industrial structural factor and lagging behind the average Russian pace[2].

Since in crises conditions external shocks and macroeconomic policies create national conditions, the stability of regional economies to crisis-related shocks is determined by the contribution of regional factors, which is confirmed by the high share of regional factors in the gross value added (GVA) of the Southern and North Caucasian federal districts. It is characteristic that in periods of low growth, when the contribution of the national component is small, differences in regional growth are completely determined by the contribution of regional factors.

The pattern becomes more diverse when considering dynamics at the level of federal subjects, since each federal district had successful and problematic regions.

The 1998 crisis spread throughout the country; GRP growth was noted only in nine of the 79 federal subjects under consideration[3]. Their influence on Russia's overall growth rates is insignificant; their share in the total GRP was 3.8%. People's real

[2] The main idea of the method is to decompose the incremental regional indicator into three components: $\Delta = NS + MS + RS$ where NS is the national component; MS is the industrial structure component (sectoral shift); RS is the regional component (regional shift). For the features of using the structural shift method to assess the contribution of national and regional factors to economic growth, see [23, 24]. The calculation results for periods of high and low economic growth rates are presented in [17].

[3] Data for the Nenets Autonomous Okrug are included in the data for Arkhangelsk oblast; for the Khanty-Mansi Autonomous Okrug and the Yamalo-Nenets Autonomous Okrug, in the data for Tyumen oblast; the Chechen Republic was excluded from analysis.

incomes fell by 16%; a positive dynamics was noted in the only region, Samara oblast. The situation in industry was better; a positive industrial production growth index was noted in 27 regions. Economic recovery and subsequent growth also enveloped the entire country. The GRP index in 2008 exceeded the 1998 indicator in all regions with a strong differentiation of rates; GRP in the Republic of Dagestan increased 3.4 times; in Magadan oblast, by 3.5%.

The overall Russian dynamics was shaped due to rapidly growing, mainly large federal subjects, which subsequently occupied leading positions in the economy. The share of 25 regions in which the rates exceeded the national average accounted for more than 54% of GRP, while their share in the population was 45.5%. In this period there was a tendency for GRP to be concentrated in the largest regions, largely due to the growth of nonindustrial sectors: trade and real estate.

The 2009 crisis spread almost everywhere; the positive GRP dynamics were retained only in 14 federal subjects, whose influence on the average Russian indicators was insignificant. However, in 58 out of 79, the situation was better than the national average: the decline in GRP production was less than the national average; i.e. the overall drop in production was due to the largest federal subjects, including Moscow and the Khanty-Mansi Autonomous Okrug, which showed the least resistance to external shocks.

The anticrisis policy carried out in 2009 made it possible to avoid a decrease in people's real incomes as a whole throughout the country; however, in half the regions, people's incomes fell and the extent of the decline in some regions was significant.

The precrisis GRP level was restored in almost all regions in 2011, but people's real incomes continued to decline in 34 federal subjects; investment in fixed assets, in 10 regions. In 2012–2013, the most prosperous in terms of people's real incomes, GRP dropped in 12–14 regions; in an even larger number of regions, investments contracted. In contrast to the 1999–2008 dynamics, recovery and economic growth were not widespread; in a fairly large number of regions, the crisis continued against the backdrop of nationwide growth.

In the 2015 crisis, the total GRP by region decreased by only 0.6%. The crisis was not deep, but it enveloped the whole country, the GRP decreased in more than half the federal subjects, and the decline in incomes and investments became widespread. In 2016, GRP growth recorded throughout the country was within the statistical error (0.8%), GRP continued to decline in 30 regions, and the situation with household incomes continued to deteriorate. The crisis did not deepen; however, there were no clear signs of recovery. Real economic recovery began in 2017, when the 2014 level was restored in the Volga Federal District, and in all other districts, the level was exceeded, albeit only slightly.

The noted features of the regional dynamics are the result of deeper processes of the formation and distribution of income between institutional units that determine potential growth resources, as well as consumer and investment demand.

SHARES OF RECOVERY AFTER THE 1998 CRISIS

The 1997–1998 crisis was a sharp drop in production in 1998 not preceded by any noticeable economic growth. The Russian GDP index had been declining since 1992; positive dynamics was first recorded in 1997 (+1.4%), but it was followed by a sharp drop in 1998. Therefore, the macroeconomic shares of 1998 can be regarded as a certain result of transformational decline, after which recovery began.

For the Russian economy as a whole, the 1997–1998 crisis led to a redistribution of business revenue in favor of households. In 1996, the share between wages, gross profit, and mixed income (hereinafter referred to as business revenues) was 48.5 and 51.5%, respectively; in 2002, for which regional data are available, the share was 55.6 and 45.4%. For Russia's total GRP, this share in 2002 was 40.3 and 59.7%[4].

Due to the specific features of the transformation period and changes in the sectoral structure of the economy, regions were in radically different conditions in the shaping of reproduction resources. The share of household income in total income generated (registered) in the Central Federal District in 2002 was the smallest among districts, 33.7%, respectively; gross profit and mixed income accounted for 66.3% (Table 2). Comparable shares existed only in the North Caucasian and Ural federal districts; in all the rest, the share of household income exceeded 40%. Thus, the part of the GVA most sensitive to changes in external conditions and macroeconomic policies—gross profit and mixed income—were concentrated in the Central (more precisely, in Moscow, 36.9%) and the Ural (in Tyumen oblast, 15.8%) federal districts. Only the share in gross profit and mixed income of the Volga Federal District (16.4%) was comparable with the latter.

The scale of concentration of people's primary incomes was less; they corresponded more to the population distribution. However, as a result of interregional income flows, consumer demand was concentrated in the Central Federal District (in Moscow),

[4] When calculating for the economy as a whole, as wages, Rosstat takes into account wages and mixed income unobserved by direct statistical methods that are not distributed by regions, which is explained by the inverse proportion between household incomes and business revenue, which is recorded at the regional level. The data on the distribution of the total GRP are incomparable with the data for Russia; however, they are comparable regionally.

Table 2. Territorial structure of revenue generation and final demand in 1998–2008, %

Federal district	Employee wages				Gross profit and gross mixed income*		Retail turnover			Fixed investment		
	Share in GVA, 2002	Share in GVA, 2008	Structure 2002	Structure 2008	Structure 2002	Structure 2008	2008 to 1998	Structure 1998	Structure 2008	2008 to 1998	Structure 1998	Structure 2008
RF	40.3	41.0	100.0	100.0	100.0	100.0	259.1	100.0	100.0	314.7	100.0	100.0
CFD	33.7	35.6	27.8	34.3	36.9	43.0	187.4	41.6	31.9	282.3	30.4	25.8
NWFD	49.2	46.9	12.2	11.7	8.5	9.2	256.1	9.2	9.7	457.5	8.5	11.9
SoFD	41.5	39.7	6.1	5.9	5.8	6.3	323.6	6.4	8.5	230.2	6.7	8.0
NCFD	36.4	38.6	1.8	2.1	2.1	2.4	395.2	2.5	4.1	140.8	2.2	3.0
VFD	42.5	42.4	18.0	16.0	16.4	15.1	260.1	17.0	18.1	314.8	19.0	16.9
UFD	37.9	46.6	14.3	12.8	15.8	10.2	355.8	7.4	10.7	371.6	17.2	16.9
SFD	48.0	44.8	13.2	11.5	9.7	9.8	273.9	11.5	12.9	418.3	10.9	10.8
FEFD	48.3	49.8	6.6	5.7	4.8	4.0	224.0	4.4	4.1	529.1	5.1	6.7

* The table shows the share of wages and gross profit and mixed income in their total.
Source*:* author's calculations.

which in 1998 accounted for 41.6% of total retail turnover.

Rapid recovery growth was governed by a number of factors macroeconomic in nature. The devaluation and depreciation of wages reduced the costs of enterprises and increased their competitiveness. The increase in oil prices made it possible to pay off state debt and direct a portion of export revenues to increase domestic demand.

The main driver of growth was consumer demand generated by the increase in people's incomes. Despite the increase in the accumulation norm, the inclination of Russian business to invest remained low, a significant part of profits was siphoned in the form of taxes and left the country [19].

Increasing business competitiveness led to equalization of relative production costs in federal districts, the share of wages in the Central and Ural districts increased, and the share of gross profit and mixed income decreased accordingly. For the largest industrial centers, the situation was the opposite: the share of gross profit and mixed income increased. Despite this, the concentration of income in the Central Federal District took on outsized shares; in 2008, the Central Federal District recorded 43.1% of total profit and mixed income (30.3% in Moscow).

The growth of household incomes led to diversified consumer demand. By 2008, the share of the Central Federal District in the total indicator decreased by 9.6 percentage points and began to correspond approximately to its share in the population and household incomes.

Unlike consumer demand, the distribution of investment demand between federal districts is more diversified, despite the overconcentration of profits in the Central Federal District. The profit recorded in the Central Federal District, on the one hand, fed capital flight from the country, and on the other hand, through investment, profit returned to places hosting real production. For all federal districts, except the Central, the share in investments was higher than in business revenue. By 2008, in the structure of investment demand, the shares of not only the Central and Ural, but also the Volga and Siberian federal districts decreased in favor of the Northwestern, Southern, and North Caucasian federal districts. Nevertheless, 24.3 and 18.6% of investments accumulated over the period were invested in the economies of the Central and Ural federal districts, respectively.

A peculiarity of the 2009 crisis is the retention of positive dynamics of people's incomes, which in 2009 increased by 1.8%. With growth of incomes in the country as a whole, in the Ural Federal District in 2009, people's real incomes fell by 4.3%; in the Siberian Federal District, by 5.8%.

Despite a more even distribution of household incomes by federal districts, the dynamics of consumer demand in 2009 replicated the situation in 1998. The maximum decline in retail trade was observed in the Ural and Siberian federal districts, although the reasons differed. The Ural Federal District is characterized by a significant outflow of revenue from autonomous okrugs; in the Siberian Federal District, an outstripping drop in incomes led to the fact that by 2009, even nominal average per capita

Table 3. Territorial structure of revenue generation and final demand in 2009–2014, %

Federal district	Employee wages				Gross profit and gross mixed income		Retail turnover			Fixed investment		
	Share in GVA, 2009	Share in GVA, 2014	Structure 2009	Structure 2014	Structure 2009	Structure 2014	2014 to 2009	Structure 2009	Structure 2014	2014 to 2009	Structure 2009	Structure 2014
RF	43.8	42.6	100.0	100.0	100.0	100.0	129.4	100.0	100.0	124.9	100.0	100.0
CFD	39.8	42.3	33.6	35.1	39.6	35.5	131.3	32.4	32.3	136.6	24.2	25.6
NWFD	48.4	49.9	12.0	11.8	10.0	8.7	126.4	9.7	9.4	114.6	11.7	10.1
SoFD	43.7	40.7	6.4	6.7	6.4	7.2	136.8	8.5	8.8	142.9	8.9	10.0
NCFD	39.6	37.6	2.3	2.4	2.7	2.9	142.3	4.6	5.0	145.6	3.3	3.6
VFD	45.4	41.9	15.8	15.3	14.8	15.7	133.1	18.2	18.6	139.5	16.0	17.2
UFD	44.9	35.8	12.0	11.5	11.5	15.3	121.0	10.2	9.8	138.8	16.8	17.0
SFD	48.0	46.9	11.8	11.4	10.0	9.6	123.8	12.1	12.0	137.6	10.5	10.7
FEFD	48.8	45.8	6.2	5.8	5.0	5.1	127.1	4.3	4.1	91.9	8.6	5.8

Source: author's calculations.

incomes lagged significantly behind the average Russian ones.

The structure of investments in crisis conditions barely changed at all. The slight increase in the share of the North Caucasian and Far Eastern federal districts was due to budget investments.

The spatial structure of the postcrisis economic recovery in 2010–2014 differed from the growth pattern in the early 2000s. The potential for extensive economic growth of metropolitan areas due to the growth of commercial services sectors was largely exhausted; as a result, after the decline in GRP in 2009, the GRP growth rates in the Central and Northwestern federal districts were lower than the Russian average. The composition of growth leaders changed: the economies of the Southern, Volga, and Siberian federal districts grew at a faster rate, where industrial production, which was largely renewed after the crisis, was the growth driver.

The rate of economic recovery after the 2009 crisis was lower than in 1999–2008; however, the dynamics of people's incomes was positive as a whole throughout the country up to 2014. The fall in 2014, as in all previous cases, began with the Central and Ural federal districts. Incomes also fell in the Siberian Federal District, where Krasnoyarsk krai and Kemerovo oblast, which depended heavily on export earnings, set the tone.

The policy of devaluing the national currency once again made it possible to increase the competitiveness of Russian enterprises, which, together with the initial growth in prices for raw materials and export revenues, changed the shares of the distribution of value added in favor of business. By 2014, the share of wages for employees decreased in all federal districts, except for the Central and Northwestern. The maximum growth in the share of profit and mixed income was achieved in the Ural Federal District. In the structure of the distribution of gross profit and mixed income, the shares of the Ural and Volga federal districts increased, which, in contrast to previous periods, led to an increase in their shares in investments. The increase in the share of investments in the economy of the Central Federal District occurred against the background of a decrease in its share in business income. The situation in which business income recorded in the Central Federal District was weakly related to investments in its economy was again replicated. The increased share of investments in the Central Federal District was determined by budget investments in the Moscow economy (Table 3).

2015–2018 DYNAMICS

Stagnation in the economy began back in 2013; therefore, the 2015 crisis occurred as a specific structural crisis caused by the impact of sanctions and the significant drop in oil prices. Adapting final demand to external shocks and the declining ruble exchange rate occurred by via contraction of both investment and consumer demand. The fall in people's real incomes, together with a decrease in consumer lending, led to a decrease in retail sales and housing demand. The decline in investment activity began in 2014 and occurred at a pace that outpaced the decline in household incomes. Unlike the previous crisis, people's real incomes contracted both due to lowered wages and social transfers.

Table 4. Dynamics of socioeconomic development indicators of federal districts in 2015–2018, %

Federal district	Industry		Manufacturing		Real income		Retail turnover		Fixed investment	
	2015	2018 to 2015	2015	2018 to 2015	2015	2018 to 2015	2015	2018 to 2015	2015	2018 to 2015
RF	–0.8	7.4	–1.3	7.9	–4.1	–6.1	–10.0	–0.8	–10.1	9.1
CFD	0.3	16.3	2.5	18.1	–4.3	–7.9	–11.9	1.7	–5.9	16.5
NWFD	–1.9	8.0	–3.8	12.5	–2.6	–6.9	–7.4	3.5	–9.2	24.3
SoFD	12.2	16.5	13.3	13.7	–3.6	–2.8	–7.6	3.0	–14.4	–7.0
NCFD	5.2	13.5	6.1	20.4	–3.9	–6.8	–4.1	–5.5	–12.5	–2.5
VFD	0.4	7.1	0.4	8.3	–4.5	–11.1	–12.9	2.1	–6.9	–11.6
UFD	–1.3	10.4	1.0	11.1	–6.0	–11.6	–11.7	–4.3	–10.3	14.1
SFD	0.6	8.7	–0.1	3.3	–3.8	–10.0	–11.4	–1.0	–16.6	6.3
FEFD	5.5	14.1	–4.4	11.1	–1.0	–8.4	–1.5	2.6	–1.1	12.3

Source: author's calculations.

The share of wages and salaries in total household and business income in 2015 decreased by 1.1 percentage points compared to the previous year, while in the Ural and Siberian federal districts, by 2.5 percentage points, and in the Northwestern, by 2.3 percentage points. The redistribution of income in favor of business did not lead to increased investments; their decline continued in 2016. Positive dynamics persisted only in the Northwestern and Ural federal districts due to the continued implementation of large investment projects that had been launched earlier. Recovery in the investment sector began in 2017. The volume of investments increased significantly in the Southern Federal District due to Crimean projects; in the Central Federal District, where investments in the Moscow economy provided for growth; and in the Far Eastern Federal District, due to investments from the budget and from state-owned companies. In the Volga Federal District, the drop in investment that began in 2015 continued in 2016–2018 (Table 4).

In 2018, investment demand was restored to 2013 level in the Central, Northwestern, Ural, and Far Eastern federal districts. Meanwhile, in the Volga and Siberian federal districts, investments in 2018 decreased compared to 2013 by 17.6 and 12.1%, respectively; investment demand in the Southern Federal District fell by almost a third, but this is a statistical effect, which took place amid colossal investments in 2010–2014.

The decline in people's real incomes continued in 2016–2017; some stabilization of real incomes occurred in 2018. In 22 federal subjects, the real income index was positive, but in half of them, the increase was 0.5–1%.

Signs of revitalized consumer demand appeared in 2017. Retail sales increased in all federal districts, except for the Ural Federal District. In 2018, retail turnover grew in all districts except the North Caucasian. Consumer lending remained the main factor determining the growth in retail trade with the decline in people's incomes. Nevertheless, the level of consumer demand in 2013 in 2018 was achieved only in the Far Eastern Federal District. In 2018, retail turnover in the Ural Federal District fell by 16.4% compared to 2013, and in the Siberian Federal District, by 13.5%.

The industrial sector proved the most resistant to the 2015–2018 conditions. The industrial production index in 2015 decreased only in the Northwestern and Ural federal districts; in 2016–2018, industry grew in all districts. The 2013 level was exceeded in 2018 on average in the Russian Federation by 8.3%; in the Central Federal District, by 18.3%.

Mineral extraction was growing at a faster pace. The result of the completion of a number of large raw material projects was an increase in Russian Federation mineral production by 11% in 2018 compared to 2013. In the Southern Federal District, production increased by 68%; in the Siberian Federal District, by 23%; in the Far Eastern Federal District, by 30%. The Russian economy is emerging from the 2015 crisis even more oriented toward raw materials: in 2016, the share of mining in GRP was 9.6%; in 2018, 12.9%. Manufacturing is much more focused on domestic demand. A drop in processing in 2015 occurred in the Northwestern, Siberian, and Far Eastern federal districts; in 2016, in the Siberian Federal District; but in 2018, the 2013 precrisis level was exceeded in all districts. The share of manufacturing in the GDP structure increased slightly: the shift noted above in the structure of GDP in favor of mining occurred due to a decrease in the share of real estate operations.

Thus, it is not yet possible to talk about economic recovery at the 2013-level indicators; people's real incomes and consumer demand have not reached the precrisis level. Investment demand exceeded the 2013 level in the Central, Northwestern, and Ural federal

districts, in which a significant share is made up of investments by state-owned companies and the budget. The medium-range forecasts published to date[5], including the forecast of the Ministry of Economic Development, do not assume any significant changes in the economic dynamics in the next two to three years.

CONCLUSIONS

Spatially, all economic crises were unevenly superimposed, and regions differed from each other in terms of time of entry and exit thereof, as well as in the depth of the decline in production and rate of economic recovery. All three Russian crises stemmed from internal contradictions and imbalances; the export–raw materials model of economic growth that has developed in the country has proved extremely sensitive to external shocks. The crisis-related decline in all cases began with the regions most dependent on the external economic situation: metropolitan agglomerations and oil and gas producing regions. However, a deeper decline in production and a slower economic recovery were noted in regions oriented toward domestic Russian demand.

One adaptation mechanism to crises is change in the shares of income distribution between households and businesses, which are then transformed into consumer and investment demand and determine the dynamics of subsequent economic recovery. The redistribution of income in favor of business due to devaluation and relative contraction in wages that occurs during crises does not lead to a proportional increase in investment in the regional economy. The role of profit as a driver of economic growth is limited by the imbalance between the financial and real sectors of the economy, and the increased tendency of businesses to make foreign-currency investments instead of manufacturing investments.

After the 2009 crisis, economic growth began to weaken, the extent of the decrease in the crisis decreased, and the pace of recovery was also slow. The situation in 2015–2018, when there were small deviations from zero rates in the negative and positive directions, speaks more about the stagnation of production. Therefore, to restore economic growth, an economic policy is needed that offers a way out of stagnation and stimulates growth.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest.

[5] See: *Economic development forecast for Russia for 2018–2024*. December 2018. Institute for Research and Expertise of VEB RF. http://www.inveb.ru/attachments/article/57/Prognoz_2018-12-10.pdf; *Quarterly forecast*. Issue no. 43. INEF RAS, 2018. http://ecfor.ru> publication/kvartalnyj-prognoz-vypusk-43/.

REFERENCES

1. Aganbegyan, A.G., Russian economy: from stagnation to recession, *Den'gi Kredit*, 2016, no. 5, pp. 10–20.
2. Akindinova, N.V., Kuz'minov, Ya.I., and Yasin, E.G., Russian economy: before long transition, *Vopr. Ekon.*, 2016, no. 6, pp. 5–35.
3. Granberg, A.G., Mikheeva, N.N., Ershov, Yu.S., Kuleshov, V.V., Seliverstov, V.E., Suslov, V.I., Suspitsyn, S.A., and Minakir, P.A., The impact of the global crisis on the strategy of spatial socio-economic development of the Russian Federation, *Reg. Res. Russ.*, 2011, vol. 1, no. 1, pp. 2–14.
4. Dubinin, S.K., Financial crisis of 2014–2015, *Zh. Nov. Ekon. Assots.*, 2015, no. 2 (26), pp. 219–205.
5. Ershov, Yu.S., Spatial aspect of the Russian economy and prospects of its development: Before and after the crisis, *Reg. Res. Russ.*, 2012, vol. 2, no. 1, pp. 1–11.
6. Zubarevich, N.V., Crises in post-Soviet Russia: regional projection, *Reg. Res. Russ.*, 2016, vol. 6, no. 2, pp. 95–104.
7. Zubarevich, N.V., Rent of the capital status, *Pro Contra*, 2012, no. 6 (57), pp. 6–18.
8. Zubarevich, N.V., Spatial development strategy after the crisis: from large projects to institutional modernization, *Zh. Nov. Ekon. Assots.*, 2015, no. 2 (26), pp. 226–230.
9. Zubarevich, N.V., Economic and budgetary advantages of Moscow: how are they formed and used? in *Staraya i Novaya Moskva: tendentsii i problemy razvitiya* (Old and New Moscow: Trends and Development), Moscow: IP Matushkina I.I., 2018, pp. 25–36.
10. Ivanter, V.V., Prospective economic development of Russia, *Probl. Prognozirovniya*, 2018, no. 3, pp. 3–6.
11. Ivanter, V.V., Govtvan', O.Dzh., Gusev, M.S., et al., Measures for recovery of economic growth in Russia, *Probl. Prognozirovniya*, 2018, no. 1, pp. 3–9.
12. Klepach, A.N., The lessons of modern crises for economic development of Russia, *Zh. Nov. Ekon. Assots.*, 2015, no. 2 (26), pp. 210–218.
13. Kuznetsova, O.V., Budgets of Moscow and St. Petersburg: comparative analysis, in *Staraya i Novaya Moskva: tendentsii i problemy razvitiya* (Old and New Moscow: Trends and Development), Moscow: IP Matushkina I.I., 2018, pp. 9–24.
14. Kuznetsova, O.V., Moscow as an object of federal regional policy, *Nauchn. Tr. Inst. Narodokhoz. Prognozirovaniya, Ross. Akad. Nauk*, 2016, vol. 14, pp. 606–621.
15. Lyakin, A.N., Three crises in one scenario, *Vestn. S.-Peterb. Gos. Univ., Ser.: Ekon.*, 2018, vol. 34, no. 1, pp. 4–25.
16. Minakir, P.A., Russian crisis: expectations against facts, *Prostr. Ekon.*, 2018, no. 1, pp. 7–15. https://doi.org/10.14530/se.2018.1.007-015
17. Mikheeva, N.N., Macroeconomic effects of structural changes in the regional economics, *Reg.: Ekon. Sotsiol.*, 2018, no. 4 (100), pp. 42–68.
18. Mikheeva, N.N., Regional proportions of economic growth in Russia, *Reg.: Ekon. Sotsiol.*, 2008, no. 2, pp. 225–243.

19. Novikov, A.V. and Novikova, I.Ya., Economic growth and investment activity in Russia: forecasts and reality, *EKO*, 2019, no. 2, pp. 104–122. https://doi.org/10.30680/EC00131-7652-2019-2-104-122

20. *Regional'nye aspekty dolgosrochnoi ekonomicheskoi politiki: Nauchnyi doklad* (Regional Aspects of Longterm Economic Policy: Scientific Report), Moscow: Mezhdunarodnye Otnosheniya, 2018.

21. *Strukturno-investitsionnaya politika v tselyakh obespecheniya ekonomicheskogog rosta v Rossii* (Structural-Investment Policy to Support the Economic Growth in Russia), Ivanter, V.V., Ed., Moscow: Nauchnyi Konsul'tant, 2017.

22. The economic crisis in Russia: expert view, *Vopr. Ekon.*, 2009, no. 4, pp. 4–30.

23. Esteban, J., Regional convergence in Europe and the industry mix: a shift-share analysis, *Reg. Sci. Urban Econ.*, 2000, vol. 30, no. 3, pp. 353–364.

24. Knudsen, D.C., Shift share analysis: further examination of models for the description of economic change, *Socio-Econ. Plann. Sci.*, 2000, vol. 34, no. 3, pp. 177–198.