Structural Transformation Issues in Regional Economy*

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Abstract. The paper systematizes areas of structural research in economic theory. We analyze structural shifts and proportions in regional economy using the data on the Vologda Oblast for 1995–2016. We consider regularities in the Oblast's socio-economic development at the level of the economy as a whole and its sectoral structure at all the key stages of the reproduction process: production, formation and use of income. We reveal the presence of significant transformation in the structure of output of products, expressed in the reducing share of commodity production and growing share of services production. We register a decrease in the overall efficiency of the Oblast's economy caused by the increase in the intensity of the output of goods and services. We highlight the trend of raising the wages of employees and reducing business income in the structure of the economy. We conclude that social reproduction in the Vologda Oblast is managed poorly, and there remain certain problems in the sectoral and reproduction structure of GRP, in the structure of investments, final consumption and savings; these problems

constrain modernization processes and do not contribute to the improvement of the quality of life. We propose the following directions for structural economic policy to improve the quality of economic growth in the region: to stimulate the modernization of production in order to increase the income of all economic agents and their further use to diversify the structure of the economy; to promote domestic consumer demand; to stimulate investment activity and increase fixed capital accumulation rate. The theory of national accounting is used as a methodological basis for our research. In the course of our analysis, we use classical procedures of macroeconomic and macrostructural analysis, and mathematical statistics techniques. Reliability of our conclusions is ensured by the use of general scientific methods (system approach, data analysis and synthesis, induction and deduction, analogy) and special methods of economic research (generalization of economic facts, grouping, comparison, structural analysis of economic indicators).

Key words: region, structural transformation, structural economic policy.

1. Introduction

Market reforms that have been implemented in recent decades, and the dynamically changing external environment are radically changing the economic structure of Russia and its regions. The structure of production, accumulation, distribution and use of income is changing. It is impossible to improve the quality of management decisions without an in-depth analysis of the volume, structure and dynamics of the resources that regional socio-economic systems have, the sources of their formation and directions for their use. One of the possible ways to improve decision-making mechanisms in the field regional economy management is to substantiate economic policy on the basis of comprehensive structural studies that reflect economic processes at the level of the economy as a whole and its sectoral structure. This makes it possible to describe in detail the ongoing economic processes and assess the effectiveness of economic policy.

The fact that the structural factor is now taken into account in the management of the economy can be considered a consensus reached by the expert community and political circles in discussing the ways to promote economic growth in Russia. The need to implement structural reforms has been

repeatedly stated by representatives of the economic authorities of the country such as Minister of Economy M.S. Oreshkin[1], Chairman of the Government D.A. Medvedev[2], Chairman of the Central Bank E.S. Nabiullina[3], Chairman of the Board of Sberbank of Russia G.O. Gref[4], etc. The issues of economic restructuring are also discussed on the pages of leading

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[1] "We focus on the structural limitations to economic growth and on measures that remove such limitations ... The Ministry of Economic Development should formulate the changes that will help overcome these structural limitations" (source: It is possible to make a serious step forward to the growth of the share of the formal economy. *Kommersant*, 2017, January 8. Available at: https://www.kommersant.ru/doc/3186798)

[2] "It will not be possible to restore normal growth rates only at the expense of monetary and budgetary policy; serious structural reforms are required, although we have been talking about this for the last 15 years" (source: Structural reforms are required to restore the growth of the Russian economy. *Komsomolskaya pravda,* 2017, January 12. Available at: https://www.kp.ru/online/news/2624661)

[3] "If the price of oil is higher, then we can grow a little faster, but nevertheless, at any price, our assessment is as follows: without structural reforms we will stabilize at the level of 1.5–2 percent" (source: Nabiullina called for structural reforms for the sake of economic growth. *Lenta.ru*, 2017, April 5. Available at: https://lenta.ru/news/2017/04/05/reform)

[4] "Everyone, in my opinion, came to the conclusion that the crisis in which we are now, is not cyclical, but structural. And in general, it is necessary to fight it with a completely standard set of measures. Today, there is no other means but to finally engage in structural reforms" (source: The rise of GDP is replaced by the talks about structural reforms. *Nezavisimaya gazeta*, 2017, April 5. Available at: http://www.ng.ru/economics/2017-04-05/1_6967_vvp.html)

scientific journals [1−9]. The challenges facing the Russian economy are discussed; scenarios and strategies for growth, opportunities for budget maneuver are put forward, etc. At the same time, the regional level remains virtually untouched. In this regard, the goal of our study is to analyze structural transformation of the regional economy and to work out the directions for structural economic policy on its basis.

2. Structural studies in the economic theory

The issues of studying structural characteristics of economic development in one form or another were reflected in the works of physiocrats and representatives of the classical political economy school. For example, F. Quesnay (mid-18th century) tried to describe the reproductive structure of the economy by establishing the balance between the natural and cost-related elements of production [10]. A. Smith (late 18th century) in the theory of absolute advantages showed that in terms of the overall effect on the economy, its sectoral structure should be built depending on the cost-effectiveness, i.e. goods should be produced where costs for their production are lower. When justifying the optimal specialization of countries in international trade, D. Ricardo (early 19th century) assumed that specialization in production was beneficial even to a country that did not have an absolute advantage in the production of a product, if the country had a comparative advantage, i.e., if it spent fewer resources on the production of one commodity than it does on the production of another. Structural parameters of the economy were considered in the works of J.S. Mill (mid-19th century) in the analysis of production of goods, their distribution and exchange.

However, the works of the founders of political economy did not take into account the dynamics of economic systems and their structural characteristics [11]. Economic science did not immediately realized the need and was able to study structural changes in the economy. A significant step was K. Marx's theory of expanded reproduction (second half of the 19th century), which represented the first attempt to describe dynamic structural interactions between the elements of the economic system and its agents.

Further development of structural studies took place against the background of world wars (1914−1918 and 1939−1945) and the global economic crisis (1929−1939), which required greater state participation in the regulation of the economy. The classical self-regulating economic model has actually stopped working. The growing need for an adequate assessment of the economy led to the development of appropriate *methodological support and methodological tools*. The beginning of the 20th century, witnessed the emergence of works that analyzed specific features of the formation of structural relationships in the economy. A great contribution to this direction of economic thought was made by Russian researchers. In 1904, V.K. Dmitriev's *Ekonomicheskie ocherki* (Economic essays) were published, in which he tried to formulate (both substantively and mathematically) the relationship between total labor costs and the system of inter-sectoral relations in the economy [12]. In 1923−1924, the Soviet Union developed and tested the input-output methodology of the national economy for the purposes of control and planning of production, distribution and consumption, and for studying inter-industry linkages. And although in the future those works in the Soviet Union were suspended (until the 1960s), the idea was picked up by W.W. Leontief who developed it in the United States and worked out the methodology of input-output models.

Since the 1930s, approaches and methods to the preparation of statistical information for the analysis of economic processes began to

develop. In the 1940s, under the leadership of R. Stone, a system of national accounts (SNA) was created, which linked all indicators of economic activity [13]. At about the same time, Leontief formulated basic requirements for the formation of national input-output tables, which combined the parameters of production and use of products and described the structure of final consumption and income generation [14]. In the 1950s, Leontief's input-output tables have been integrated into the SNA standard. In the future, the system of national accounting has been repeatedly improved (in 1968, 1993, and 2008); and since the 1960s, it has been recognized as an international standard for calculating economic activity indicators. Since the 1990s, regional studies have become one of the areas for application of the SNA methodology. The SNA-93 notes that regional accounts are particularly important for countries with significant interregional differences in economic and social development [15].

With the emergence of macroeconomics that studies the functioning of the economic system as a whole, and Keynesianism (1930s), *analysis of the structure of the economy is put in mathematical models*. There emerge one-factor models of economic growth by R. Harrod and E. Domar (1940s), multi-factor neoclassical models based on the apparatus of production functions by R. Solow (1950s). In the 1950s—1970s, input-output models that take into account the production of interaction became widespread. Since the mid-1950s, they began to be applied at the regional [16, 17, 18], interregional [19] and multi-regional [20, 21] levels, which made it possible to analyze inter-sectoral and interregional relationships in the economy and assess the impact of changes in the spatial structure on various macroeconomic indicators. Since the 1960s, input-output

models have been able to take into account the institutional structure of the economy; the development of social account matrices (SAM-matrices) has begun [22]. This made it possible to study the interaction between economic agents (state, population and companies) in the process of income formation and distribution.

The formulation of theoretical ideas about *state regulation* through the formation of appropriate tools of economic policy became the logical development of structural studies [23]. For example, structural reforms were considered as a way out of the great depression (1930s—1940s) by representatives of the Harvard School of Economics (J. Schumpeter, A. Hansen, W.W. Leontief, E. Chamberlin, P. Samuelson, J.K. Galbraith, S. Kuznets). According to their "structure — behavior — result" paradigm, the sectoral structure of the economy determines the behavior of sellers and buyers and determines the result of development. It is possible to influence the structure by changing the operating parameters: improving technology, stimulating demand, etc. In the 1940s, in the development of economic policy, J.M. Keynes focused attention on the structure of final consumption, the ratio of investment and savings in it [24]. A great contribution to the study of structural transformations and the analysis of interdependence between economic, social and institutional processes was made by G. Myrdal (1950s—1960s). In the context of the development of structural economic policy, it is necessary to note the works of the following Soviet scientists (1950s—1980s) on the optimal allocation of resources and planning of economic development: L.V. Kantorovich, N.N. Kolosovsky, N.N. Nekrasov and B.I. Nemchinova (study of the rational organization of territorial economy), A.I. Notkin and Ya.A. Kronrod (research on the changes

in the structure of national wealth), A.I. Anchishkin and Yu.V. Yaremenko (development of the problems of scientific and technological progress and changes in the field of equipment and technology, as well as forecasting of socio-economic and technological development) [11].

In the 1990s, against the background of the growing income differentiation between developed and developing countries, the theoretical direction of "structuralism" (or "structuralist macroeconomics") was formed; it explained this inequality by the imperfection of the structure of economy in developing countries and proposed economic policy measures to change it (in particular, industrialization and import substitution) [25, 26]. In continuation of this trend, the concept of the new structural economy emerged in the 2000s [27]. According to its provisions, the structure of factors of production at each stage of economic development is different. This determines the differences in the parameters of capital intensity in industries, in the scale of production, market size, operating costs, etc. As a result, each industrial structure requires its own ratio of production and non-production spheres [27]. At that, the government should play an active role in promoting structural change, coordinating investment and mitigating external factors.

In general, we can say that the number of theoretical and empirical studies devoted to the analysis of the impact of structural processes on the development of the economy is growing. Representatives of various economic schools assessed the importance of multi-vector structural policy in economic systems. Economic crises constantly fueled interest in the issues of economic balance [28]. However, the whole concept of the significance of structural factors for economic dynamics has not been developed yet. Insufficient attention

is paid, in particular, to the regional level and mechanisms of influence on the structure of the regional economy. This complicates the development of effective economic policies aimed at using structural factors to create sustainable economic dynamics and the overall growth of people's welfare.

3. Research methodology

The methodological basis of the research is the theory of social reproduction and national accounting. According to these theories, production is the basis of economic resources *(Fig. 1)*. In the process of production, on the one hand, goods and services are created in their natural form, on the other hand – their value and added value are created, to which the primary incomes formed in production correspond. These primary incomes are as follows: wages of employees, net state taxes on products and the gross profit of the economy. Primary incomes after their distribution and redistribution form disposable incomes of economic entities (institutional units, economic agents) and are spent on final consumption and gross accumulation, forming final demand [29]. The difference between national production and final use in the economy as a whole, product groups and individual products is balanced by exports and imports.

Accordingly, we understand the structure of the economy as the functional relationships between individual elements of the national economy, which determine the quantitative and qualitative characteristics of its development at different stages of reproductive process.

We use classical procedures of macro-economic and macrostructural analysis, and mathematical statistics methods to analyze the main structural shifts and proportions of the regional socio-economic system. The methodological approaches are based on the materials of the UN (1993 SNA Guide),

Figure 1. Simplified scheme of formation and use of gross value added in the economy
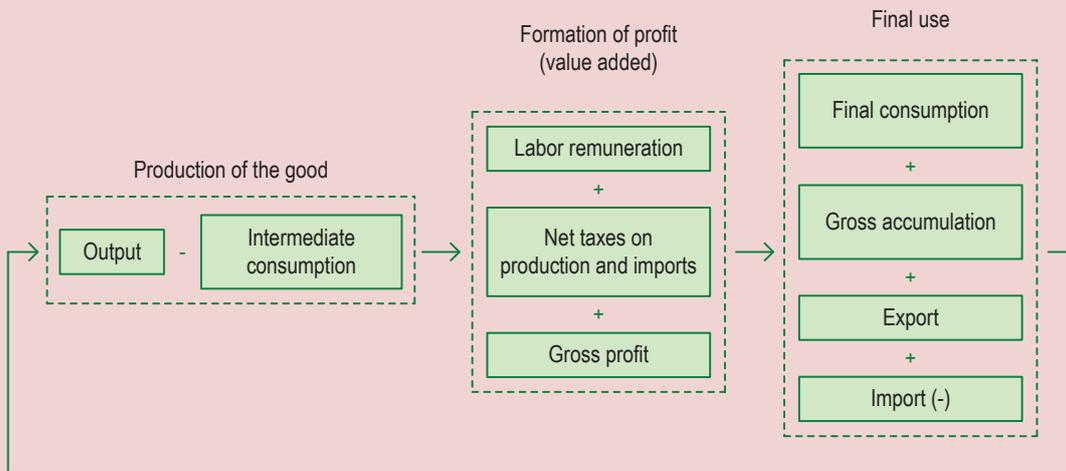
Source: based on the materials of Rosstat and [29].

Figure 2. Dynamics of GRP of the Vologda Oblast in 1995–2016, in % to 1995
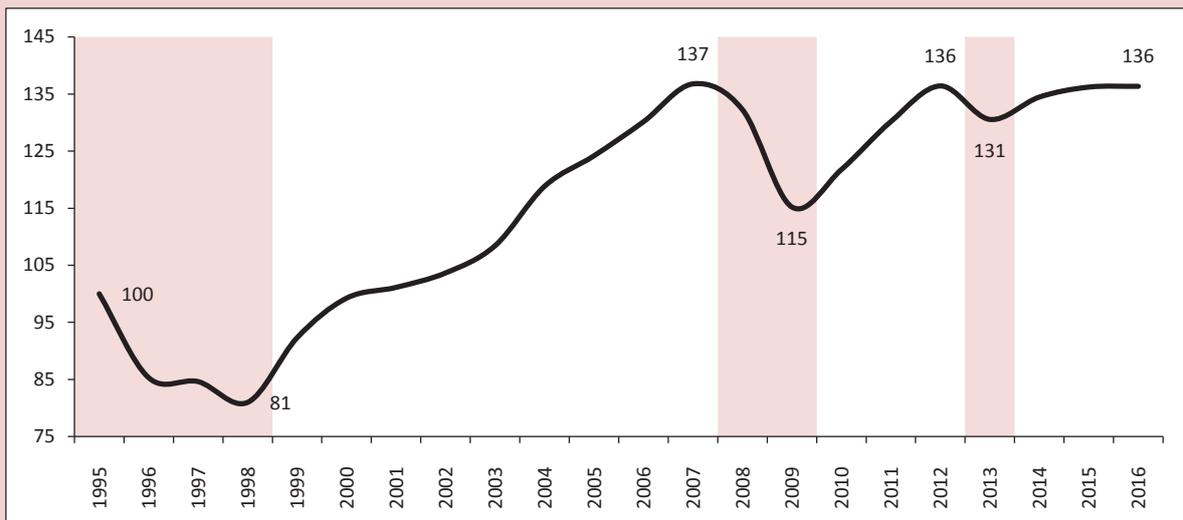
Source: based on Vologdastat data.
Note: here and further, the periods with negative GRP dynamics are highlighted.

Rosstat, the Bank of Russia, as well as research works of the Institute for Macroeconomic Research, RAS Institute of Economic Forecasting and other leading research centers. Reliability of our conclusions is provided by application of general scientific methods (system approach, data analysis and synthesis, induction and deduction, analogy) and special methods of economic research (generalization of economic facts, grouping, comparison, structural analysis of economic indicators).

4. Structural deformations in the regional economy

The object of our analysis is the Vologda Oblast – an industrial export-oriented region of the European part of Russia. The dynamics of its economic development in 1995–2016 are shown in *Figure 2*.

The transition of the Vologda Oblast economy to a market economy in the 1990s was associated with crisis phenomena and decline of production. A positive trend in the development of the economy began only in 1999 and then it became stable. According to the Federal State Statistics Service, gross regional product grew by 69% between 1999 and 2007. However, the global financial and economic crisis, which affected the Vologda Oblast economy in the second half of 2008, lead to its sharp decline, aggravated social problems and made its prospects uncertain. By the beginning of 2009, the recession began, accompanied by the depreciation of the national currency, increasing unemployment, and suspension of a significant part of investment programs. The decline in economic activity was possible to overcome only in the first quarter of 2010. The post-crisis recovery took three years and ended with a new recession in 2013, after which the Oblast's economy is still in a state of stagnation. In fact, by 2016, it only reached the level of 2007; the average annual growth rate of GRP in 2014—2016 was 1.5%.

The dynamic processes we described were accompanied by significant structural changes, which largely determine the quantitative and qualitative characteristics of economic growth. Let us consider the structural deformations in the economy of the region that we find of major importance.

4.1. Reducing the role of commodity production in the economy

At the end of 2016, output[5] in the Vologda Oblast exceeded (in basic prices) one trillion rubles. Its structure is dominated by industries producing goods (primarily manufacturing and construction)[6]. They provide more than 2/3 of the output. The remaining third of the output is provided by the production of services (including market services — 26%, non-market services — 8%). During the period from 1995 to 2016, the output structure went through a significant transformation, which affected the structure of intermediate consumption[7] and, consequently, the sectoral redistribution of gross value added (GVA) *(Fig. 3)*. In the end, the share of manufacturing in GVA in the region fell by more than 21 percentage points — from 74 to 53% (including in the industry — by 16 percentage points — from 57 to 41%). The proportion of production services rose from 26 to 47%, respectively. Such structural disparities indicate the necessity to upgrade material production.

The change in the sectoral structure has a negative impact on the overall economic efficiency of the Oblast's economy. Under these conditions, we observe an increase in the resource intensity of output (for comparison: in Russia as a whole, there is a slight decrease in this indicator; *Fig. 4*)[8].

Resource intensity of production characterizes the ability of the economy to increase the generation of income (value added) while reducing the consumption of resources per unit of output. The increase in resource intensity leads to a reduction in the production capacity of the economy and makes it difficult to

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[5] Total cost of goods, works and services produced.

[6] We should note that the industries that produce goods can also produce services, but their share in the output is small. Thus, according to the input-output tables of the Russian economy, services account for only over 3% in the structure of industrial output.

[7] Expenses of economic entities on the acquisition of material resources and services for current production purposes.

[8] In [29] we analyzed the reasons for the high resource intensity of the economy of the Vologda Oblast and its negative dynamics.

Figure 3. Dynamics of the sectoral structure of GVA in the Vologda Oblast in 1995–2016, in % to the resulting value
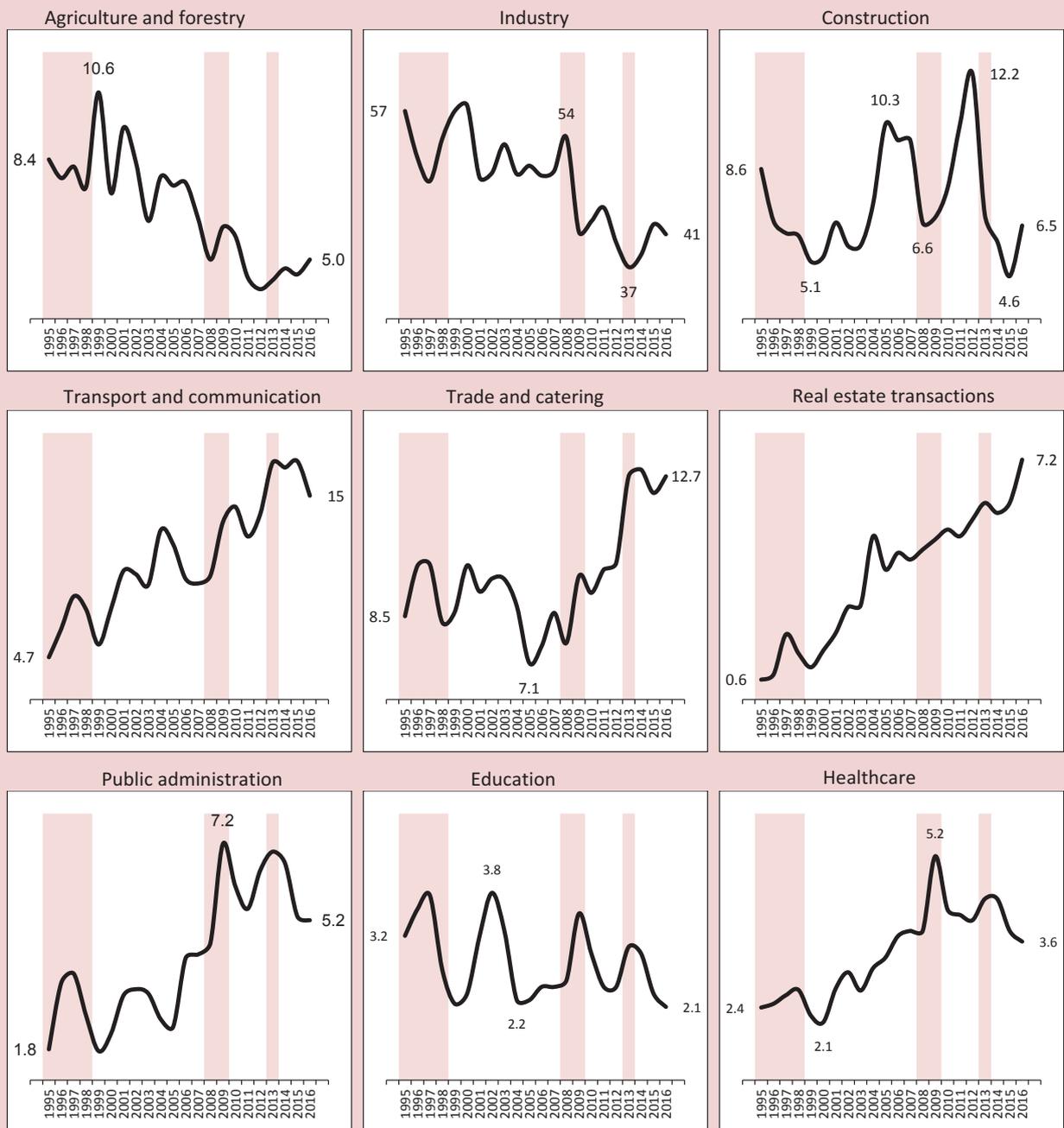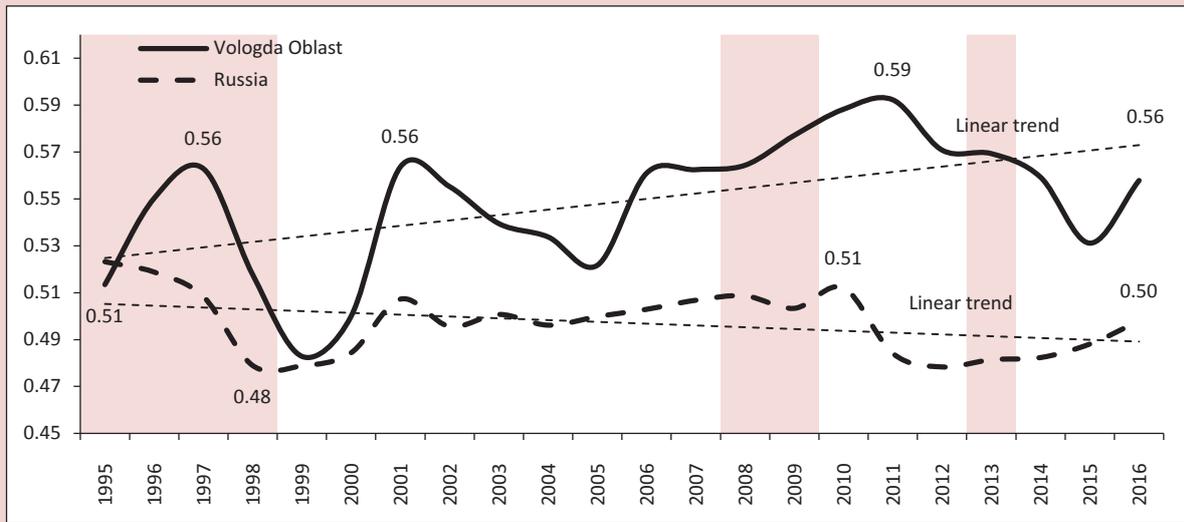
Source: based on Vologdastat data.

achieve its balance due to the greater demand for resources, raw materials, components and energy resources. The decline in the share of value added in output indicates the deterioration in the ability of the economy to generate income. The reduction of income, in turn, leads to a decrease in demand and hinders the development of production [30].

Figure 4. Dynamics of resource intensity* of the economy of the Vologda Oblast and Russia in 1995–2016

* Ratio of intermediate consumption to output.
Source: based on Vologdastat data

Figure 5. Dynamics of income sources of the Vologda Oblast economy
in 2000–2016, billion rubles (in current prices)
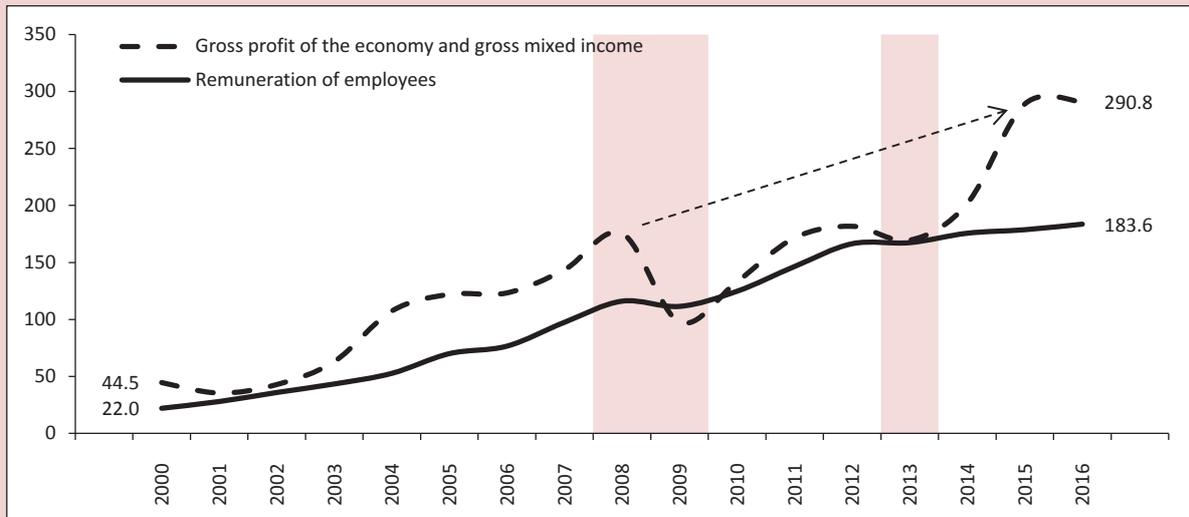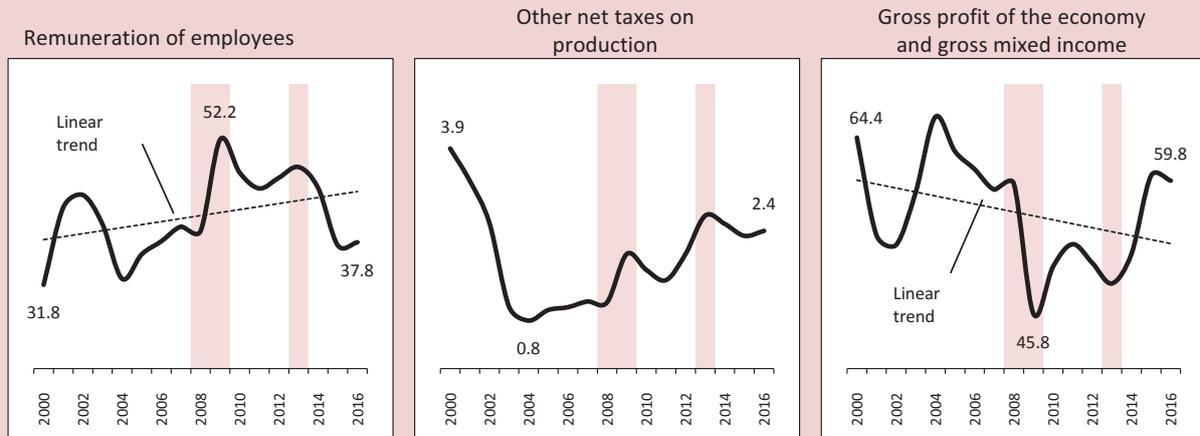

Source: based on Vologdastat data.

4.2. Instability of the structure of education income

The structure of formation of income in the Vologda Oblast economy is dominated by two elements: 1) gross profit of the economy and gross mixed income (so-called entrepreneurial income); 2) remuneration of employees. In the ratio of these two elements, the main structural changes are caused mostly by the decline in entrepreneurial income in crisis periods *(Fig. 5)*.

The general trend in the changes in the structure of income sources of the region's economy in 2000−2010 is the reduction in the share of entrepreneurial income, which

Figure 6. Dynamics of the structure of income generation in the Vologda
Oblast in 2000–2016, % to the resulting data

Source: based on Vologdastat data.

Figure 7. Dynamics of the share of expenditure on final consumption in the
economy of the Vologda Oblast in 1995–2016, % to GRP
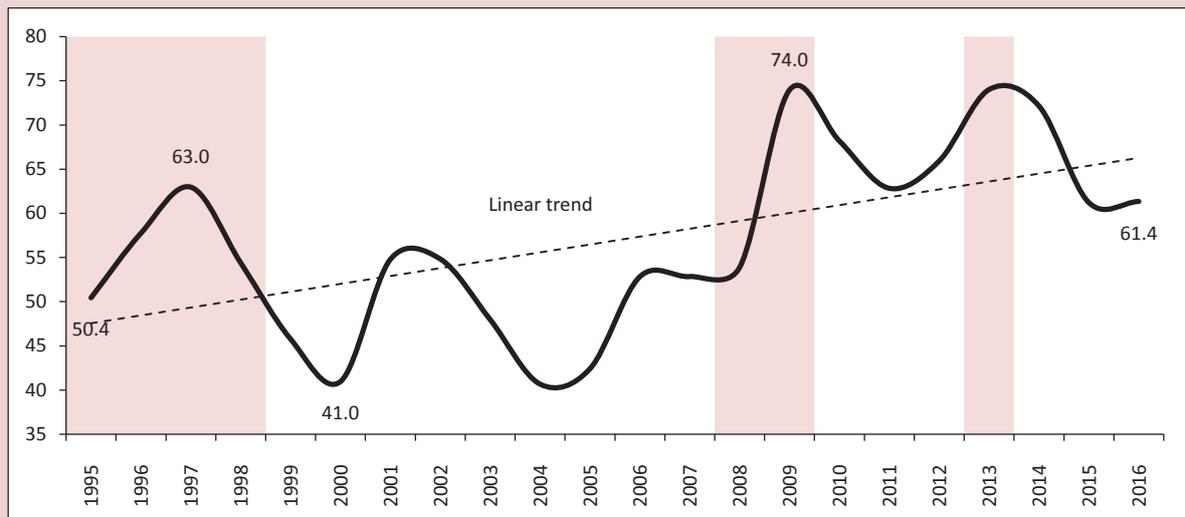
Source: based on Vologdastat data.

increased in 2009−2014 as a result of the impact of crisis phenomena *(Fig. 6)*. In general, for the period from 2000 to 2016, the value of this indicator decreased from 64.4 to 59.8%. The share of employees' wages increased by about the same amount.

Due to the fact that the source of income in the economy is shifting from entrepreneurial income (i.e., income of organizations and entrepreneurs) to the labor remuneration of hired workers (that is, household income), the structure of the use of these incomes is also changing. In 1995−2016 the trend of growth of the share of final consumption in the structure of GRP use became dominant *(Fig. 7)*. In 2016, it exceeded 61% of GRP.

On the one hand, such a structural shift can be regarded as positive, especially if we take into account the extremely low volume of consumer spending in the region[9] and the drop in real wages of workers by almost 13% in 2014–2016. However, on the other hand, this structural transformation reduces the share of gross savings, which, coupled with a decrease in the share of profits of organizations in the income of the economy leads to a decrease in opportunities for accumulation (i.e. for investment in the development of production).

4.3. The rate of accumulation lagging behind the savings rate

The low level of the accumulation rate (i.e. the share of gross savings in GRP) in the Vologda Oblast economy is also due to the weak development of mechanisms for transforming savings into investments (in the current conditions, it is not profitable to direct savings to investments). According to Vologdastat data, the rate of fixed capital accumulation in the region lags far behind the rate of savings *(Fig. 8)*. In the period under consideration, the gap between savings and accumulation reached almost 50% of GRP[10].

One of the reasons for this lies in the significant withdrawal of funds from the reproductive process; this withdrawal is associated with the withdrawal of capital; such a situation hinders the growth of production and, accordingly, the growth of income and investment in the economy. A significant impact on the formation of the accumulation fund is caused by the deterioration of the global situation, as well as the growth of prices for raw

materials within the country; such a growth reduces the profit of organizations and, as a result, the amount of funds potentially used for investment [29].

In general, the analysis of the main structural deformations leads to the conclusion about the weak regulation of the sphere of social reproduction of the Vologda Oblast. There exist certain difficulties in the sectoral and reproductive structure of GRP, in the structure of investments, final consumption and savings.

5. Directions of structural economic policy

The economy of the Vologda Oblast is in a state of structural and technological imbalance, which restrains stable economic dynamics. The imbalance is characterized by a disproportionate distribution of financial resources and factors of production. In this regard, an important element of economic policy is its component – structural policy. This policy contributes to improving the quality of economic growth and serves as a mechanism for the transition from maintaining economic growth to achieving sustainable economic dynamics and improving the quality of life [2].

Economic science has proved that the targeted impact of the government on the structure of the economy can affect economic dynamics. Thus, the change in the GVA of the economy turns out to be non-zero even with zero change in output (i.e. only with the transformation of its structure) [23]. It is empirically substantiated (on the basis of the data from 26 countries with economies in transition over an 11-year period) that structural policy can even increase economic growth rates in the short term [31].

Finding a solution to the problem of improving the quality of economic growth in the Vologda Oblast is impossible without increasing the accumulation and increasing the final consumption while reducing its growth rate. Technological development

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[9] In terms of consumer spending, the Vologda Oblast ranks last in the Northwestern Federal District and is 1.7 times behind the national average level according to this indicator

[10] It should be noted that the convergence of savings and accumulation rates observed during the crisis years is mainly due to a decrease in savings, rather than an increase in capital accumulation. The dynamics of investments in fixed capital and the rate of accumulation are considered in more detail in [29].

Figure 8. Dynamics of the savings rate and the rate of fixed capital accumulation
in the economy of the Vologda Oblast in 1995–2016, % to GRP
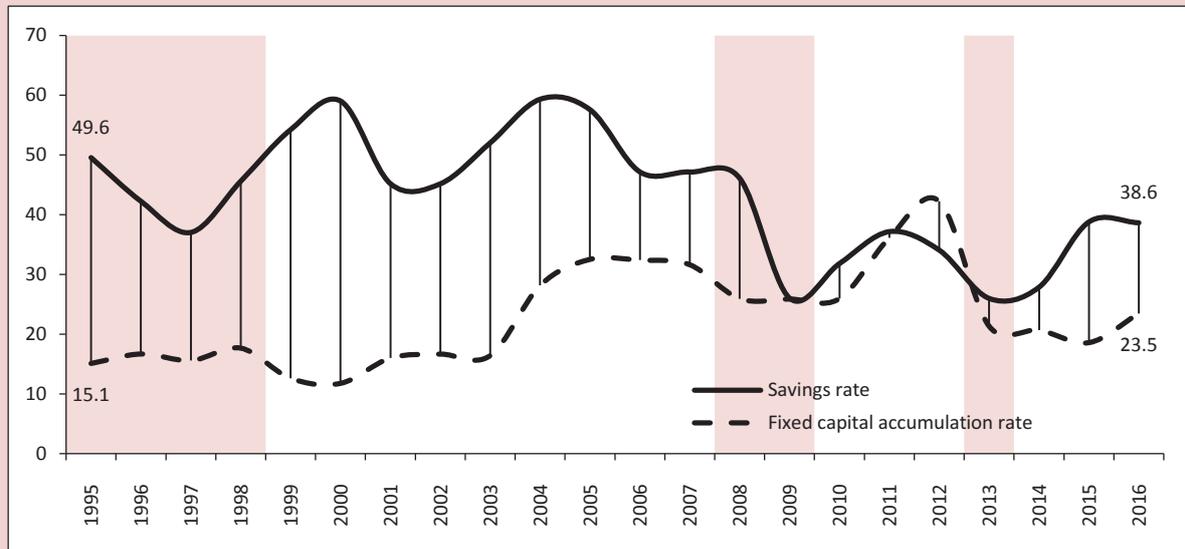
Source: compiled with the use of Vologdastat data.

of the economy, which the Vologda Oblast needs, requires managing the key parameters of the circulation of industrial capital (rate, proportions), providing the necessary size, technological and product structure of investment and maintaining the proper levels of renewal of fixed assets.

The set of structural economic policy directions, in our opinion, should include the following:

1. Promoting the modernization of production in order to increase the income of all economic agents and their further use to make the structure of the economy more complex.

An important condition for the resolution of existing structural deformations is the accelerated reduction of unit costs in the real sector of the economy — agriculture, industry, transport. The development of production and the increase in its efficiency will reduce the resource intensity of production, which will increase the gross profit of the economy, largely

due to which the gross accumulation is carried out. This can be done through technological and organizational modernization, which reduces costs, increases productivity of labor and capital. The solution to these problems requires the development of economic mechanisms that would help entrepreneurs develop real production, reduce costs and payback periods. The most important condition for the development and modernization of the economy can be formulated as follows: in the Vologda Oblast it should be profitable to produce goods and make a profit on the basis of production development. The commissioning and use of new facilities should be more profitable than the operation of old equipment introduced in the Soviet years. Investments in these sectors can be formed through the development of the mechanisms for redistribution of surplus financial resources generated in the raw materials exporting sphere and in the financial sphere.

2. Promoting domestic consumer demand

A large reserve of economic growth in the Vologda Oblast can be found in promoting solvent consumer demand. The increase in people's incomes and, as a result, the increase in consumer spending also provides an increase in resources for investment, in addition to the increase in profits of enterprises serving the consumer sector (and this comprises more than a third of the output of goods and services).

In this regard, it is important to maintain the level of income of the population and social expenditures of the budget, ensuring at least the growth of wages in the public sector. Another direction of increasing people's incomes is to improve the efficiency and productivity of labor. This task can be solved by promoting social innovation, implementing advanced management and production technologies, improving working conditions at the enterprises, implementing the policy on prevention of emigration of qualified personnel, reduction of diseases and early mortality [32].

3. Promoting investment activity and increasing fixed capital accumulation rate

High-quality economic growth should be provided with the necessary level of investment and the choice of sectoral priorities of investment policy. From the standpoint of the reproduction process and optimization of the volume of goods and services used for final consumption and gross capital formation, the sources of increase in accumulation funds can be as follows [29]: 1) production growth, providing an increase in resources for economic development and final consumption; 2) reduction in the rate of growth of final consumption and increase in the rate of accumulation; 3) reorientation of investments of residents toward national production; 4) attraction of foreign investments; 5) external loans of the state and the private sector,

provided that they are used for the development of production.

Imbalances in the income structure of the Vologda Oblast economy do not contribute to the increase in the volume and share of profits of enterprises, which can be potentially allocated to investment. In this regard, in our opinion, the development of mechanisms for attracting public and budget funds for these purposes is a promising direction to stimulate investment activity. According to the Central Bank of the Russian Federation, as of August 1, 2018, bank deposits of physical persons in the Vologda Oblast contained 146.6 billion rubles. In the neighboring regions of the Oblast, there are nearly 1.2 trillion rubles on the deposits. Perhaps, in the context of declining rates on deposits, it is worth trying to implement the policy of increasing the attractiveness of investment financial instruments for the population. As for budgetary funds, the possible directions of such policy may be the following: attracting federal co-financing for the implementation of large investment projects; improving the mechanisms of tax, financial and economic incentives to attract investment to the territory of the Oblast; reducing interest rates; budget incentives.

It should be noted that the regional government undertakes certain management actions in these fields of structural economic policy. In particular, much attention is rightly paid to the diversification of the regional economy. This problem began to be discussed in 1998, when an integrated package of the vision for the future development of the regional economy was formed, which included the mission, doctrine and a draft concept. In the future, the idea of diversification was reflected in the concept of the strategy (2004) and in the strategy for socio-economic development of the Oblast (2010 and 2016). An investment strategy

has been developed. Population preservation has been chosen as the goal of development of the Oblast; priorities in the sphere of family policy, public health protection, development of physical culture, sports, education, etc. are implemented. The problem lies in the fact that all these measures are not mutually linked; the ongoing and planned structural changes are not taken into account. As we see it, taking into account the structural factor will improve the quality of economic policy.

The novelty of our study, which determines its contribution to the development of science, consists in the disclosure of modern laws of the processes of socio-economic development in the territory under consideration at the level of the economy as a whole and its sectoral structure at all key stages of the reproductive process – production, formation and use of income. The materials of the paper can be useful for decision-makers in the substantiation of economic policy at the regional level.

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