EVOLUTION OF CENTRALIZED AND DECENTRALIZED INDUSTRIAL GOVERNANCE IN THE USSR AND MODERN RUSSIA: HISTORICAL AND ECONOMIC ANALYSIS

EVOLUÇÃO DA GOVERNANÇA INDUSTRIAL CENTRALIZADA E DESCENTRALIZADA NA URSS E NA RÚSSIA MODERNA: ANÁLISE HISTÓRICA E ECONÔMICA

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Resumo. Ao longo das últimas três décadas de desenvolvimento da Rússia, o modelo de mercado da economia demonstrou falta de eficiência. Problemas como dependência de matérias-primas, deficiências na estrutura de agências, desequilíbrios sociais, altas taxas de inflação e outros ainda são atuais no país. As reformas conduzidas resolvem principalmente problemas de curto prazo e abordam apenas alguns sectores da economia ou grupos populacionais. Estas circunstâncias exigem uma reavaliação da história económica nacional, uma análise da teoria e da prática de construção de uma economia socialista e a identificação dos seus pontos fortes e fracos. Este estudo visa analisar histórica e economicamente a evolução da governança industrial centralizada e descentralizada na URSS e na Rússia moderna. A metodologia do estudo baseia-se nos princípios, métodos e ferramentas do conhecimento científico. Além disso, foi preparado um questionário especial e realizado um inquérito sociológico para identificar o significado prático das conclusões dos autores. Tendo em conta os resultados, a centralização total pode levar ao isolamento dos órgãos de gestão da realidade, ao crescimento das desproporções nos sectores da economia, ao crescimento da escassez de todos os tipos de produtos e ao surgimento de uma economia paralela, corrupta e de escambo.

Palavras-chave: sistema de governança, indústria, centralização, descentralização

Abstract. Over the last three decades of Russia's development, the market model of the economy has shown a lack of efficiency. Such problems as dependence on raw materials, deficiencies in the branch structure, social imbalances, high inflation rates, and others are still topical for the country. The conducted reforms mostly solve short-term problems and address only some sectors of the economy or population groups. These circumstances require a re-evaluation of the national economic history, analysis of the theory and practice of building a socialist economy, and identification of its strengths and weaknesses. This study aims to historically and economically analyze the evolution of centralized and decentralized industrial governance in the USSR and modern Russia. The methodology of the study is based on the principles, methods, and tools of scientific knowledge. Moreover, A special questionnaire was prepared and a sociological survey was conducted in order to identify the practical significance of the authors' findings. Given the results, total centralization can lead to the isolation of management bodies from reality, the growth of disproportions in the sectors of the economy, the growth of shortages in all types of products, and the emergence of a shadow, corrupt, barter economy.

Keywords: governance system, industry, centralization, decentralization

INTRODUCTION

Presently, the economy of Russia is undergoing a rather difficult and contradictory stage. The transformation of the command economy into a market economy went in the worst-case scenario and did not lead to the expected social and economic effects inside the country. Moreover, the international prestige of the state was affected negatively (Bodrova & Kalinov, 2022).

It would be impossible to understand the reasons behind the problems and contradictions encountered without a comprehensive analysis of the processes and phenomena that took place in the country throughout the twentieth century, largely those related to the evolution or modernization of the industry (Foa, 2022). It is important to note that the governance system of domestic industry served as one of the factors that affected the specifics of the Soviet economic structure and influenced the further course of the state development. The overall efficiency of industrial processes in many respects depended on the quality of governance. In this regard, it is of high importance for historical science to provide answers to the questions related to the essence of the organizational unity of the economy with the governance system as its main part (Chuvashlova et al., 2021; Plotnik, 2021). The questions related to the formation and evolution

of this institution as well as the disclosure of its distinctive features, functions of the whole mechanism at particular stages of its development influenced by both external and internal political, social, economic and other factors should be answered with historical and economic comprehension (Bodrova & Kalinov, 2022; Donoso et al., 2022).

In modern conditions, these issues have become highly relevant. The global changes are associated with the following events: coronavirus pandemic, deglobalization, the development of remote forms of education and employment, the digitalization of social and economic activity, the increasing competitive pressure of some countries on others, increased competition for natural and financial resources, the sanctions of unfriendly countries and even the activation of local military conflicts (Shurygin et al., 2021). The above mentioned factors condition the necessity of understanding the interchanging centralization and decentralization processes in the new conditions. The government serves as the main subject of the wave-like governance of the economy; it can both directly and indirectly influence economic subjects. Depending on the degree of external and internal threats, the government has to either strengthen or weaken centralization of governance (Dudukalov et al., 2022). We would like to highlight that centralization and decentralization have both advantages and disadvantages under various circumstances. The decision on the application of the economic governance type must be made considering the combination of all factors, goals and available resources. Nevertheless, describing the theoretical and methodological basis for the application of centralization and decentralization processes in the new conditions is extremely relevant, which is the main objective of this study.

METHODS

Up until recently, Soviet and Russian scientific research was based on a well-established concept of the elemental and sequential development of socio-economic processes taking place in the world. This approach was largely based on the K. Marx's views on the stages of socio-economic development. However, recent studies have significantly evolved from this approach and began to focus on the systemic and cyclical development of social, political and economic institutions. Modern researchers distinguish a wave-like development of socio-economic processes in the context of the world and national economies.

At the same time, we think that these two approaches do not exclude, but rather complement each other within the combined concept of social development, individual processes and phenomena in a spiral progression. This can be clearly traced within the considered topic. On the one hand, we discuss the evolution of industrial governance by state, its improvement at each historical stage. On the other hand, we focus on the wave-like alternation of centralized and decentralized economy models.

We would like to mention Afanasiev's scientific work "The Method of Economic Duality" (Afanasiev 2005), which is necessary for a better understanding of our research. This work explains the dual nature of economic categories and phenomena, such as a buyer and a seller, price and expenses, concrete and abstract labor, the law of supply and demand, exchange value and use value. It becomes possible to understand and effectively apply economic laws for the country's development only by analyzing the dual nature of economic categories and phenomena. This approach is of high interest in the context of our study. Centralization and decentralization processes are the core of the dual nature of national economic governance (Shurygin et al., 2021; Andrews, 2019; Dudukalov et al., 2022; Chuvashlova et al., 2021; Plotnik, 2021). The extent of centralization or decentralization processes' application can vary as it depends on many factors and tasks of the national economy. The conclusion from a method of economic duality is as follows: centralization and decentralization should be considered as interconnected ways of governance. They are applied for achievement of a common purpose, which is increasing efficiency of the national economy.

The methodology of the study is based on the principles, methods and tools of scientific knowledge (). During the preparation of the materials, the authors relied on the principles of historicism, objectivity and consistency. When characterizing any phenomenon or process, we applied their sequential study and studied the peculiarities of their development under the influence of various internal and external factors. The criteria of civilizational theory were partially used when characterizing some analyzed processes. The application of the civilizational theory made it possible to expand the coverage of the factors determining the development of Soviet society and its system of administration. Within the context of the presented approach, the theory of modernization stands out, as it pays special attention to reforms. This allows us to trace the effectiveness of transformations in the industry.

The interdisciplinary historical and economic approach allowed us to draw some general theoretical conclusions and show the major transformations in the country's governance system.

A special questionnaire was prepared and a sociological survey was conducted in order to identify the practical significance of the authors' findings. The principle of wave-like change of centralization and decentralization in governance of the national economy was used as a basis for designing this questionnaire. In this case, the time vector has a wave-like pattern. In order to reveal the essence of the changes taking place and to draw up recommendations for the improvements in governance, it is necessary to identify the causes, consequences and prospects of applying centralization and decentralization processes in the Soviet and Russian economy. Thus, the research framework for the formulation, analysis, and interpretation of the surveys is presented below (Table 1).

Table 1. Authors' research methodology of centralization and decentralization processes Soviet Economy Russian Economy

	Soviet Economy	**Russian Economy**
Causes (the past)	1… 2… 3…	1… 2… 3…
Consequences (the present)	1… 2… 3…	1… 2… 3…
Prospects (the future)	1… 2… 3…	1… 2… 3…

A questionnaire was created in order to fill this research framework (Table 2). A total of 1,000 questionnaires were prepared and sent via email to the addresses indicated in the official sources. No private rights were violated. Researchers and practicing economists engaged in the questions of historical and economic development of Russia and the Soviet period were chosen as experts. A total of 287 responses were received and processed. The completed questionnaires were analyzed using licensed Microsoft Word software. In order to summarize the data, calculate the average values and build graphs we used licensed Microsoft Excel software.

Table 2. The content of the questionnaire on the centralization and decentralization processes

Task	**Points for evaluation**
1. On a 5-point scale, evaluate the causes of alternating centralization and decentralization processes in the Soviet and Russian economies (5 being the most important, 1 being the least important)	1. Increase in quantitative indicators of economic growth 2. Growth of social tension 3. Renewal of the governance system personnel and introduction of organizational innovations 4. Actions of unfriendly countries and competing transnational companies 5. Necessity to accelerate the implementation of scientific and technological innovations
2. On a 5-point scale, evaluate the consequences of alternating centralization and decentralization processes in the Soviet and Russian economies (5 being the most important, 1 being the least important)	1. Increase in local economic activity 2. Increase in the degree of meeting the population needs 3. Improvement of the investment activities quality 4. Improvement in the sectoral and technological structure of the economy 5. Consolidation of the power hierarchy, national culture and ideology
3. On a 5-point scale, evaluate the prospects for alternating centralization and decentralization processes in the Soviet and Russian economies (5 being the most important, 1 being the least important)	1. Provision of a high quality living standard 2. Increase of global competitiveness in enterprises and industries 3. Support for the expanded reproduction of innovations 4. Consolidation of the cultural and ideological foundations of society 5. Development of the financial system and transition of the ruble to the world's reserve currency

Therefore, the authors applied a methodological approach based on the principle of interconnection and interdependence of historical and logical knowledge. This approach allowed a better understanding of the dual nature of the wave-like changes between centralization and decentralization. Comparing the causes, consequences and prospects of centralization and decentralization in the Soviet and Russian economies

allowed us to identify a range of factors influencing the decision on increasing centralization or decentralization. Taking into account external and internal challenges and development trends makes it possible to define an economic policy on the sustainable application of centralization and decentralization in economic governance.

RESULTS AND DISCUSSION

In order to objectively assess the indicators used in Russian or Soviet historiography and to evaluate the significance of the Soviet economy, materials from Western researchers are cited. We consider it important to introduce them into the scientific discourse. Due to the fact that these works were not used by domestic scientists for a long time, the objectivism of science was lost and an ideologies unipolar scientific model was built.

We have evaluated the works of Western researchers on the efficiency of the Soviet economy and governance system and divided them into several groups depending on the chronology of publications. The early group of works belongs to the post-revolutionary times and the first years of the Soviet period. At the time, the majority of scholars such (Rozov, 2022; Shariati et al., 2013) did not have the confirmed facts and full image of the processes taking place in our country and tried to give them an interpretation. As a result, they presented post-revolutionary changes as a certain social and economic experiment and made assumptions about its further spread. In the first half of the twentieth century, more elaborated analytical works (Amirova et al. 2022) devoted to the functioning and organizational structure of the Soviet economy were published.

In the second half of the twentieth century, Western researchers started studying the Soviet economy and its governance system (Pogosyan, 2021; Kaya, 2021; Leslie et al., 2021). This can be explained by the high rates of domestic economic growth. In many respects, the purpose of the activities of Western researchers was to provide useful recommendations for their governments in relation to the Soviet Union. Significant contribution to the development of this field was made by the Sovietologists such as Gregory and Stuart (1990). The greatest influence on the formation of the country's image in the eyes of the Western public was made by Heleniak (1990) and Foa (2022). It should be noted that in the Soviet Union these authors' works were regarded mainly as erroneous and substituting the true processes taking place in the country. Attitudes toward these works depended on how close their conclusions were to the assessments established by Russian historiography.

The reformatory activities of the second half of the twentieth century received both positive and negative reviews by the foreign researchers. It should be highlighted that negative evaluations were made more often. Such researchers as Foa (2022) and Davies (1981) noted the inability of the new system to move beyond the centralized model, increased isolation of the regions, increased role of party officials, etc.

Another wave of scientific interest in the governance of the Soviet economy and individual industries was shown by foreign researchers Bodrova and Kalinov (2022) and Williams (1987) at the turn of the 1980s-1990s. This was, on the contrary, explained by the command economy crisis and the search for the reasons behind it. A special place in the discussions was given to the USSR authoritarian governance features, which began to form in the first years of the Soviet period. Besides, the cause-and-effect relations of the activities carried out were studied and analogies with subsequent historical periods were made.

The problems of the USSR are reinterpreted in the modern works of Foa (2022). According to the authors, these problems are the inability of the system to adapt to new industries related to the use of computer technology, the exhaustion of labor resources, etc. Last but not the least of these reasons is the mistakes of the authorities. Let us examine the main events taking place during the times of the transitional economy and the formation of the modern Russian economy. As it will be demonstrated, there was a wave-like change of centralized and decentralized modes of governance in various areas of the national economy both during these periods and the Soviet times. Naturally, the period of the formation of the Russian economy can be characterized with a significantly limited role of the state (in comparison with the Soviet era). The situation is explained by a transition towards pure market laws and an extreme degree of decentralization (Ferrer et al., 2022; Panova et al., 2021; Filipovic, 2022; Yemelyanov et al., 2019). However, as the negative effects of the emerging market conditions of capitalism started to enhance, the state-owned, centralized institutions of economic governance began to strengthen. Over recent years in the Russian economy, as well as in the Soviet economy, we can observe an alternation of different modes and methods of economic governance with varying degrees of state or market involvement.

First of all, it should be emphasized that the beginning of the independent development of the Russian economy in the post-Soviet era was characterized with the ultimate decentralization and withdrawal of the government from the direct economic relations (Gaidar, 2006). The state was in charge of military-defensive functions, social functions by means of tax and fiscal policy, and coordinating functions by means of monetary and budget policy. In the decentralized economy, the following changes had to take place in 1992-1994:

- Liberalization of prices for 80% of all goods, except for socially important ones such as bread, milk, etc.;
- Privatization of Soviet enterprises (including raw material-producing, oil, gas, and defense industries), which were to be placed under the control of a new class of private owners;
- An agricultural reform transforming state farms and collective farms into efficient private farms;
- financial stabilization aimed at reducing government funding of the economy, caused by boosting private investment and a positive foreign trade balance;
- Reduction of military and scientific expenditures, restructuring of the military-industrial sector and transition to new principles of financing scientific research activities.

In reality, these decentralization measures led to the economic collapse (Gaidar, 2006; Jamalpour & Derabi, 2023). Price liberalization resulted in hyperinflation. In 1992, inflation reached 2,500%. With the depreciation of people's savings, incomes, and assets, privatization led to the selling of Soviet enterprises for a reduced cost. At the same time, the owners of the enterprises were the persons who utilized unfair bail auctions and were closest to the government. Afterwards, the work of enterprises solely enriched their owners. Payments to the state budget were made with infringements or were totally lacking. Newly established farms became bankrupt because of high inflation, decreased state investment and a significant rise of primary raw materials costs. Enterprises of the military-industrial sector were also unable to adapt to the market, as they were gradually deteriorating and losing their qualified workforce amidst the declining state military procurement. So far, Russia has not created a system of research and development as effective as the Soviet one. Many scientists, technicians, engineers, and inventors were forced to emigrate. Consequently, this led to the loss of a number of high-tech industries and an increase in Russia's external technological dependence for many years. All this happened as a result of the uncontrolled decentralization of the economy.

Beginning from the 2000s, a turning point in the understanding of centralization and the role of the state in the economy was initiated. The state began to increase indirect methods of supporting the market economy by means of targeted federal and sectoral programs. Later on, direct methods of state participation in the market economy were also adopted. This was manifested in the establishment of a network of state corporations in key industries: space exploration, nuclear power, oil and gas production, venture capital industry, aircraft and shipbuilding, financial and foreign trade spheres. In order to support the scientific and educational sphere, networks of federal and research universities were created (Yemelyanov et al., 2018; Jamalpour & Verma, 2022). Anti-monopoly legislation was strengthened to control inflation and the monopolistic effects of the market. The tax system and the investment sector were as well subjected to reform. Moreover, the domestic and foreign financial operations were placed under control. All these measures resulted in greater centralization of the economy. The power hierarchy, the state's control, coordinating and stimulating functions were strengthened.

Currently, Russia has all the possibilities to ensure the growth of gross domestic product in the near future. This can be explained by the established balance between centralization and decentralization processes. According to some experts, once the sanctions against the Russian financial system were exerted by the International Monetary Fund, the transfer of Russia's oil and gas profits to the budgets of unfriendly countries has been as well eliminated. (Panova et al., 2021; Tightiz & Yoo) The Russian economy has all the required natural, labor and investment resources to ensure its modernization and a next-generation economic growth.

We would like to highlight that the phenomenon of "centralization-decentralization" already exceeds national borders. In other words, the competitiveness of other countries and global companies must be also taken into account. In this regard, increasing centralization processes serves as one of the ways to protect national interests and the domestic economy.

Theory of wave-like industrial governance system

Wave-like Character of the Centralized and Decentralized Industrial Governance System in the USSR

The successful modernization of the Soviet economy was largely based on the effectiveness of the national and regional governance, conducted both separately and to a greater extent in their connection. The correct organization of the governance process was of large importance for the functioning of the entire governance system. On the contrary, the mistakes committed at the national level were counterbalanced with great difficulty at the local level.

The historical record of the USSR industrial governance system construction showed a clear sequence of the way all-union and regional elements and mechanisms of the system form. On the level of individual republics, an identical model of governance recreating elements of the state governance system was built. This copying was largely explained by the possibility of facilitating control over functionally similar central and regional governance bodies. Often the importance of the region was lost, which was explained by the subordination, for example, of the People's Commissariat of Heavy Industry of the republic to a similar Commissariat of the national level. As a result, we can assume that the republican (or regional) model of governance represented a scaled-down copy of the all-union model. The regional governance models served as parts of the national administration by subordinating to the requirements of the central governance bodies.

It should be taken into account that modernization reforms are impossible without the participation of the regulator, which has the power and ability to impact all subjects of economic governance. Undoubtedly, only the state could serve as such a regulator. It functioned as a supervisor of many managerial and economic processes. This phenomenon predetermined the emergence of so-called "revolution from above" concept, according to which the entire initiative for the state actions belonged to the party authorities, while other governance levels served as executors of their directives and orders.

We believe that the alternation of centralized and decentralized governance elements became an important factor for accelerating modernization rates in the period of reforms. It allowed to enhance or diminish the impact of the central authorities on the system, when necessary. In fact, a centralized command industrial governance system was built; it was characterized by the dominance of centralization or, on the contrary, decentralization tendencies at different historical stages (Figure 1). These changing modes of governance were often driven by objective external and internal political and economic processes. At the same time, stagnation of one of the modes led to a decline in general economic performance, acting as an obstacle for industrial production growth.

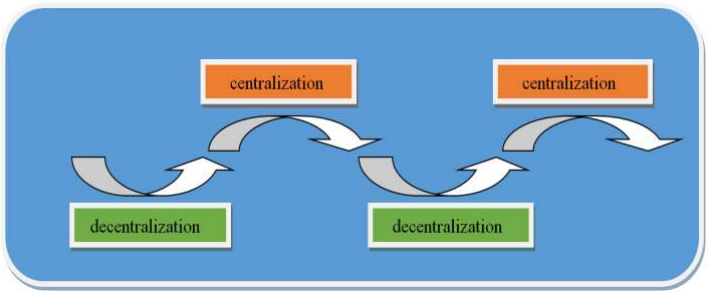

Figure 1. Model of the cyclical transformation of the command industrial governance system in the USSR.

Centralization resulted in an increase in the degree of centralized governance system, minimizing the time between the adoption of an administrative decision and its implementation. However, at specific stages of the development of statehood, tendencies towards decentralization of governance emerged. Decentralization was conditioned by a number of objective and subjective factors and was conducted in accordance with a legally established procedure. Externally, decentralization manifested itself in increasing power of decentralized governance system elements, the extent of which was described in a particular legal document (Amirova et al. 2022).

An important difference between centralized and decentralized modes of governance in the USSR was that centralization was based on subordination, while decentralization was based on the principle of coordination. Another point to note is that some elements of the decentralized model of governance could act from the position of a centralized or centralized-decentralized system. For example, under the conditions of so-called sovnarkhoz transformations during the second half of 1950 - early 1960s, ministries

that represented the principle of centralization also existed within the framework of decentralized governance.

Undoubtedly, internal (and with some influence also external) factors had a determining influence on the cyclicity of changes between centralized and decentralized modes of governance. The internal factors influencing the change of the state policy in the field of industry include transition to a new technological framework; economic recessions forcing changes in organizational forms; shortcomings of the existing forms of industrial governance; orientation to accelerated industrial development; expansion of production volumes; changes in the branch and territorial structure of industry; acceleration (or, conversely, delay) in development of individual regions; internal political competition in the country. At the same time, the so-called "regional interest" became an important factor ensuring the decentralization of governance at some stages of the country's development.

External aspects could not help but influence the improvement of the economic governance system under conditions of a certain isolation of the country almost throughout the entire period of statehood, and, as a consequence, attempts to maintain its political, technological and economic security. These include the beginning of a new round of scientific and technological revolution in the mid-20th century; international tensions throughout the existence of the USSR and, accordingly, the strengthening of the military industry; the backlog of industrial production in competition with the West.

In our opinion, not the least of these factors were the foreign policy ambitions of the country's leadership, especially after World War II and the successful nuclear bomb test, when the country became an equal rival to the United States, as well as the socialist ideology, concepts and attitudes of the party.

The interaction of these factors is represented graphically (Fig. 2).

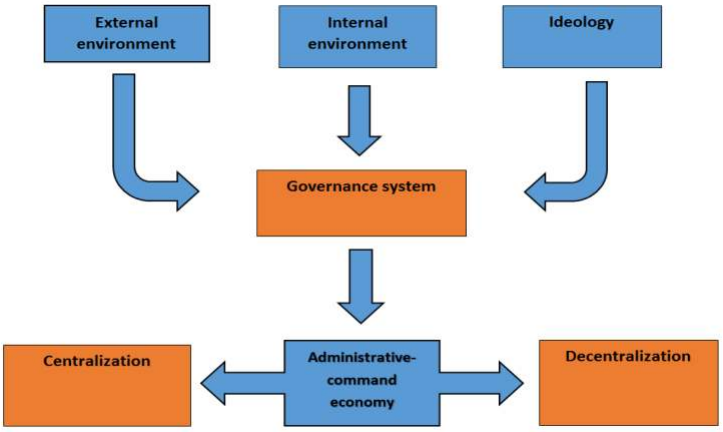

Figure 2. Model of the USSR governance system

The model presented allows us to conclude that cyclic forms of centralized or, on the contrary, decentralized governance were caused by a number of factors of external and internal environment. It can be assumed that some factors were restrained by the counterweight of other factors, and only under the influence of their multiplicity led to the necessity of their alternation. All this, in turn, served as an indicator for the beginning of new transformations in the economic governance system and forced the system to look for more advanced governance ways. The system was sustainable as long as it responded sensitively to these demands. In fact, it is when it ceased to predict the upcoming challenges and became more and more inert and rigid, the crisis of the socialist economic governance system began.

Characteristics of Sectoral governance in the Soviet Economy

The next step in this research is to determine the manifestation forms of centralized and decentralized governance. Under the conditions of the administrative-command system, the process of governance centralization was predominantly executed by sectoral governance bodies. It was them who controlled the industry from the local to the republican and state levels. The industry consisted of interrelated enterprises specializing in the production of certain products or certain types of service and socially necessary functions. Peculiarities of sectoral governance were determined by technical, economic, organizational, historical and other factors of development. The tendencies of decentralization were mostly related to the predominance in the role of territorial governance bodies.

The sectoral division allowed for a unified scientific, technical, organizational, personnel and other policies, which contributed to the growth of labor efficiency. This included union and union-republican ministries, sectoral departments and departments of executive committees of local Soviets, which were to directly manage production within their competence. The managerial ties here most often represented a hierarchical structure as follows: "ministry (narkomat in the pre-war period) - association (trust) - enterprise". In the existing model, it was easy enough to trace the rights and responsibilities of each governance unit. The expertise of ministries as the supreme bodies of branch governance was based on the specialization of branches connected with the production of a particular product. However, in practice many products were produced by enterprises of different ministries, and at the same time one ministry could subordinate enterprises that were diverse in their specialization. For example, in the 1970s, metal-cutting machines were produced at enterprises of 20, centrifugal pumps of 30 and equipment for the food industry of 18 ministries respectively (Fundamentals 1977: 58).

According to the type of subordination, sectoral governance bodies were represented by three groups of ministries (narkomats in the early period): of union, union-republican, and republican subordination. The particular type of subordination depended on several factors - time, place and purpose of the sector in the social division of labor, as well as the total number of enterprises and the output volume.

The industries with all-union specialization, those which manufactured the means of production and formed the technical basis for the development of other sectors of the national economy, were under the authority of the union and were headed by union ministries. Primarily, this included heavy industry, mechanical engineering and others. It was them who were to realize economic progress and provide the branches of the economy with new equipment. Being subordinated to the republic was characteristic for the branches. Most of their products or services did not spread out of the republic and their successful functioning was crucially determined by local conditions. Industry of the republics was represented by fuel and local industries.

Ministers were at the head of the industry system and were personally responsible for the work of the ministry, its subordinate enterprises, and the industry associations. They were appointed by the Supreme Soviet of the USSR, and his deputies were appointed by the Council of Ministers of the USSR. Each ministry also formed advisory bodies: collegiums and scientific-technical boards. The structure of the ministry depended on the scale of the industry and its role in the country's economic development. The structure and the number of employees of the central apparatus was approved by the Council of Ministers of the USSR. The ministry's apparatus consisted of sectoral and functional subdivisions. Sectoral divisions were responsible for the condition and development of the respective sub-sectors, solved many production issues related to the activities of their subordinate enterprises and associations (under the three-tiered system of industry governance, these issues were the responsibility of all-union and republican industrial associations). The functional units performed certain functions assigned to them within the framework of the ministry's entire system (Fundamentals 1977: 93).

An important element in the "ministry - enterprises" structure were intermediate links in the form of main directorates, production associations (plants), trusts coordinating the work of individual enterprises. The number of governance levels shows the structure in terms of its complexity. The presence of links at a certain level of governance depends on the volume of work and the corresponding functions.

In practice, the large number of intermediate links (or multilevelness) frequently served as a hindrance to the normal functioning of the industry. Often the governance of the primary link of (enterprise) governance was carried out by the ministry through four or five, and sometimes six intermediate stages (ministry - headquarter - republican ministry - territorial association or department - plant - trust - enterprise). As a result, the time required for the processing of administrative documents was increased, operational control was worsened and bureaucracy was intensified. These reasons ultimately led to a decrease in overall performance.

The example of socialist system construction showed that the two- and three-tiered systems of governance were the most effective. Thus, according to the 1965 reform, the sectoral system of the Soviet Union shifted predominantly to the construction according to these models. The two-tier system was based on the interaction of all-union or union-republican ministries (departments), production associations (plants), enterprises, as well as republican ministries (departments) of the Union republics, their production associations (plants) and enterprises. The three-tier system represented a hierarchy consisting of all-union or union-republican ministries (departments) of the USSR, all-union industrial associations, industrial associations (plants), enterprises. This also included: a union-republican ministry (department) of the USSR - a union-republican ministry (department) of the Union Republic - a production association (plant),

enterprise; a republican ministry (department) of the Union Republic - a republican industrial association - a production association (plant), enterprise; a republican ministry (department) of the Union Republic - a ministry of the autonomous republic, department of the executive committee of regional (territorial) Council of People's Deputies - a production association (plant), enterprise.

As an exception, the four-link governance system was allowed in some branches of industry in the union-republican ministries by permission of the USSR Council of Ministers: union-republican ministry (department) of the USSR - union-republican ministry (department) of a union republic - republican industrial association (ministry of an autonomous republic, executive committee department) - production association (plant), enterprise (Fundamentals 1977: 60). In addition, the governance in one ministry could be carried out at different levels, i.e. simultaneously based on a two-, three- or even four-link system. The transition of industrial governance to a two- and three-tier system as well as the elimination of multi-levelness also contributed to the eradication of unnecessary intermediate links, increasing the efficiency, clarity and flexibility in the work of the governance apparatus.

As practice has shown, the sectoral centralized governance approach had its shortcomings. For example, it did not allow to fully identify and take into account the territorial integrity of various enterprises with regional specifics. In addition, the use of only sectoral principles of governance within the national economy or a particular region led to imbalances and had a negative impact on the environment, and so forth. As a result, from the early years of Soviet power, territorial bodies of national economy governance began to form. It was these bodies that became the conductor for the decentralized form of industrial governance.

Characteristics of Territorial Governance

The main goal of territorial governance was the economic and social growth of individual administrative-territorial units and territorial-economic formations in the interests of the most effective development of the entire national economy of the country.

Territorial governance can be understood in a broad and narrow sense. In the broad sense, it is the activity of all central and local economic governing bodies for the development of a particular territory. In this way, the economic system is considered as a certain socio-economic integrity with certain elements (population, production, living environment, etc.), historical, natural, national, geographic and other characteristics. In the narrow sense, territorial governance is defined as the activity of local economic governing bodies for ensuring the integrated economic and social development of a given territory, and, most importantly, of specific administrative-territorial units (Fundamentals 1977: 197-198). In our case, we will use the second (narrow) definition.

The necessity to establish territorial industrial governance bodies was conditioned by several tasks, among which, in our opinion, the important ones were: to ensure production growth in the region; to organize a rational territorial division of labor expressed in the planned distribution and use of labor, financial and natural resources throughout the country; to ensure effective inter-branch and inter-territorial governance in the area; to improve interaction between sectoral and territorial governance in the region; to coordinate activities of all enterprises and organizations located in the region; to create conditions for the successful functioning of production facilities in the given territory, to develop industrial and residential infrastructure; to consider local (national) specifics and historical traditions established in the production of the particular region. In the second half of the twentieth century, another important task related to the implementation of control over environmental protection emerged.

The territorial aspect of the national economy's governance made it possible to more effectively regulate the territorial division of labor nationwide, improve the distribution of productive forces across different regions, establish optimal territorial proportions of economic development, and ensure scientifically sound specialization and comprehensive development of all regions (Amirova et al. 2022). The introduction of this approach into the industrial governance system was fruitful due to the vast territorial extent of the USSR.

A vivid example of territorial administration is the Soviets of National Economy, which operated in the country from 1917 till 1932, as well as from 1957 till 1964. Simultaneously with this, the subjects of territorial administration providing a territorial perspective in command governance were the decision-making bodies of the country and the inter-branch (functional) bodies of the USSR Council of Ministers - the USSR Gosplan, the USSR Gossnab, etc. They provided a territorial approach when working out the prospects for the development of the national economy and when organizing day-to-day governance in solving national problems (Organizations 1975: 231-232). A combination of industries in a particular

territory, the economic and production complex that was formed in a given territory regardless of the composition of industries and departmental subordination of associations, organizations and institutions located in a given territory served as the object of territorial governance organization. The set of governance functions performed by local territorial administration bodies towards individual enterprises and organizations was extremely diverse and varied from full subordination of these organizations to local bodies to the implementation of controlling functions by local bodies. Regardless of departmental subordination, all enterprises and organizations located on the territory of the local Council of People's Deputies were under its control in the matters of the use of land, subsoil, forests, water, and environmental protection. At the same time, the activities of local authorities were strictly limited to the boundaries of a particular administrative-territorial unit.

However, the country's historical experience showed that the model based on a fixed centralized-sectoral nature of governance met production constraints at certain periods. Lack of motivation of local authorities, absence of a comprehensive picture of the needs and prospects of individual regions from the central government limited the capabilities of the Soviet economy. These issues became more acute in the middle of the twentieth century, when the process of transition to a new qualitative state of the world economy associated with the fourth wave of innovation started.

All of the aforementioned factors led to an inevitable change in the paradigm of economic governance. In the new conditions, the former model, based on the centralization of sectoral governance, became an obstacle for the development of economic relations. The effective functioning of the system required eliminating excessive centralization and strengthening the impact of economic methods of industrial governance. The centralized system which was being built practically during the entire existence of the Soviet power under conditions of new technological mode formation could no longer serve as a mechanism ensuring high rates of economic growth and competitiveness of the socialist system. The solution to this difficult situation was seen in the weakening of centralized control and the transition to a territorial-sectoral form of economic governance. The new conditions demanded the introduction of some other methods of organizing the production process. These methods had to be no longer based on the strict supervision of the central authorities, nor on a rigid hierarchy of power, but on the division of competencies among local authorities and introduction of broader economic opportunities.

In the second half of the twentieth century, the role of territorial governance bodies was steadily increasing. This was due to the development of a powerful production potential of individual regions, which required the intensification of economic relations between different enterprises, territorial complexes of individual administrative-territorial units. However, this model could not fulfill its potential within the framework of the existing command system. Despite the radicalism of these reforms, they did not break the framework of the sectoral economy. In fact, all the transformations of territorial governance remained only a supplement to the existing model of governance.

In addition, the interaction between sectoral and territorial forms of governance sometimes was not coordinated and effective. In a number of cases, sectoral governing bodies disregarded the interests of territorial-administrative units under various justifications, and, conversely, local tendencies emerged at the level of territorial governing bodies; these events hindered nationwide development. Despite this, sectoral and territorial governance in the socialist economic system were closely interconnected, and combining them became objectively necessary. Both models reflected the ideas of the division and cooperation of labor. As the experience of the reforms demonstrated, their effectiveness largely depended on a suitable combination of sectoral and territorial forms of governance, as well as on establishment of the rational boundaries between them.

Characteristics of the wave-like governance system in modern Russia

Let's consider the specifics of the emergence of the wave-like nature of the transitional economic reforms (from administrative-command to market economy) and the modern period, characterized as a model of mixed economy with alternating market and state methods of governance. Considering the state of the sectoral structure of the economy in this period and particularly its industrial-production sector, it is worth noting their partial and, in some places, complete deterioration. On the other hand, the last years of the development of the Russian economy are characterized by the attempts to rebuild and modernize the Russian industry. These attempts were primarily carried out by means of replacement of free market regulation with priority state support and coordination with the help of target programs and anti-monopoly measures. In some cases these attempts were successful and in others they were not. This indirectly reveals

the existence of both centralized and decentralized methods of governance in modern Russia. Thus, we can already see indicators of the wave-like effect of the reforms we have described.

We have studied the effects of centralization and decentralization processes in the Soviet and Russian economies based on a sociological survey of expert economists, and have obtained the following results.

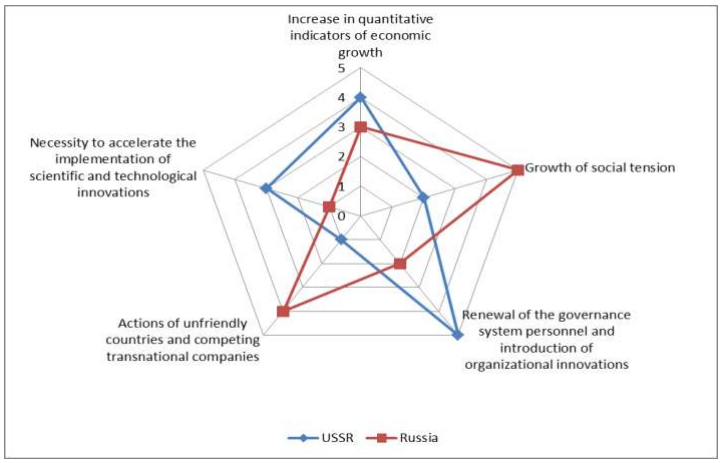

Figure 3. Causes of alternating centralization and decentralization processes in the Soviet and Russian economies.

Figure 3 presents the responses of experts and the rating of the reasons behind the alternations between centralization and decentralization processes in the Soviet and Russian economies. In the Soviet economy, the main reasons were the need for organizational improvements and renewal of personnel. Also the party leadership constantly demanded an increase in economic growth and scientific and technological development. To achieve these purposes, there were experiments in decentralization of industries and enterprises aiming at increasing incentives for economic activity at the local level. The Soviet economy was protected as much as possible from the competitive policies of other countries. Social tensions gradually increased closer to the decline of the Soviet economy.

We can note the maximum level of social tension at the beginning of the independent development of the Russian economy. It was mainly caused by shortages of goods, restrictions on freedom of action, and inequality in welfare. Market reforms of the 1990s were designed to solve the problems of the population. This process was accompanied by decentralization at all levels of government and in all spheres of economic activity. On the other hand, the collapse of both the Soviet economy and the first stages of the Russian economy was associated with certain unfriendly actions of several foreign countries. Trying to ensure high growth rates for the emerging market economy, the Russian authorities entrusted the reforms to young professionals. The speed of establishing market institutions (free prices, private property, competition, and entrepreneurship) was prioritized. Such principles as equitable distribution of assets of the Soviet national economy, stability of savings and incomes of the population, support of social sectors, science, education, medicine, culture turned out to be of secondary importance.

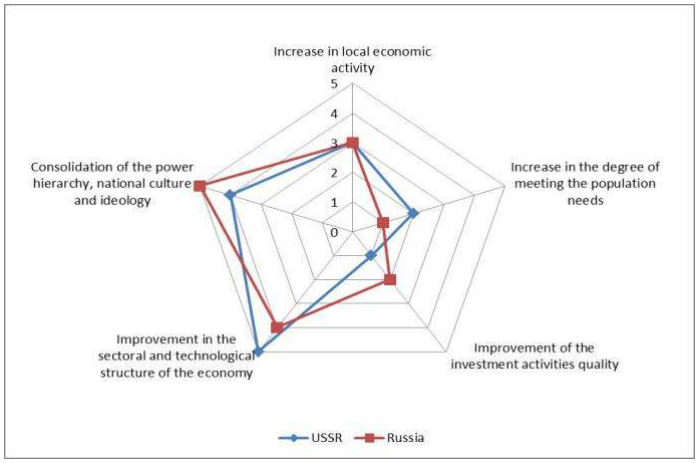

Figure 4. Consequences of alternating centralization and decentralization processes in the Soviet and Russian Economies.

Figure 4 shows the responses of the experts and the rating of the consequences of the alternations between centralization and decentralization processes in the Soviet and Russian economies. The experts considered this question as the tasks for the country's governance, which were set when determining the strength of centralization and decentralization in the system of management during a certain period of time. For the Soviet economy, such tasks primarily consisted of upgrading the sectoral and technological structures. On the one hand, this task was solved through strengthening the power hierarchy (centralization); on the other hand, it was done through increasing economic activity in the field (decentralization). As a result, the degree of satisfaction of the population's needs was supposed to increase. The issue of investment development in the Soviet economy was not so critical, since the country had a powerful investment potential managed by a single center.

Conversely, the lack of investment and financial resources in the Russian economy at the first stages of building a market economy led to the degradation of the national economy and, subsequently, to the state default. Therefore, after a period of decentralization characterized by an increase in market freedoms and sources of investment, a policy of centralization and a new round of strengthening the power hierarchy was adopted. This stabilized the situation and led to some improvement in the sectoral and technological infrastructure. The entrepreneurial sector began to develop, local economic activity increased, and the degree to which the needs of the population were met increased as well.

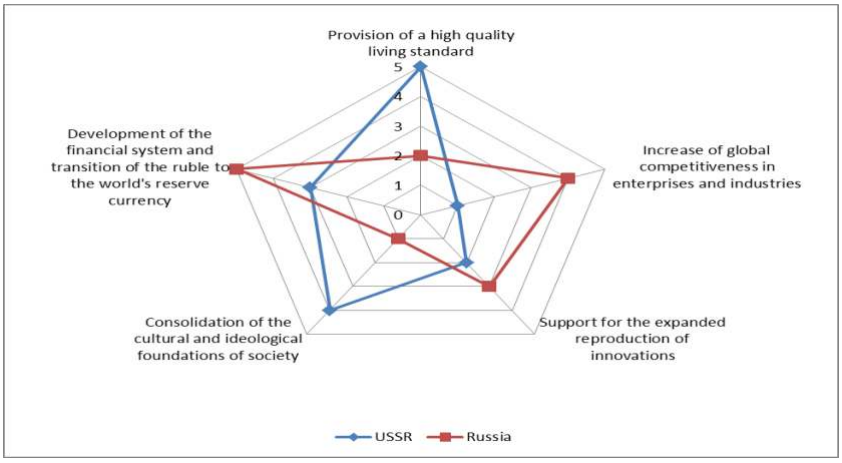

Figure 5. Prospects for alternating centralization and decentralization processes in the Soviet and Russian economies.

Figure 5 illustrates the responses of experts and the rating of the prospects for the alternations between centralization and decentralization processes in the Soviet and Russian economies. The task of ensuring a high quality of living for the population was considered an unchangeable priority in the Soviet economy. The country's leadership saw the solution to this problem in the process of strengthening the cultural and ideological foundations of society. For this purpose, it was necessary to take advantage of the financial stability of the socialist economy and to expand the influence of the ruble worldwide. This plan was partly realized in the countries that signed the Warsaw Pact. Also, considerable attention was paid to scientific and technological progress and increasing the efficiency of Soviet enterprises and organizations. Based largely on the positive experience of the Soviet Union in scientific organization of labor, developed countries, particularly Japan, created the concept of lean production and made their companies the leaders of the world market.

Being influenced by the global changes, the prospects of the Russian economy in the use of centralization and decentralization processes dictate a different approach. As the latest foreign sanctions have demonstrated, the highest priority task is the security of the country's financial system, strengthening the ruble and its transition to the world's reserve currency. This will allow to solve the problems of investment growth for enterprises, their modernization, and the renewal of connections with science and education; consequently, the Russian economy will reach a global competitive level. This is the only way to ensure a high quality of living standard for the population. High economic security of the country will make consolidation of the cultural and ideological foundations of society an easily attainable task.

Thus, based on the author's methodology including historical and logical principles of cognition, the dual nature of a wave-like alternation of centralization and decentralization in the system of economic management was investigated. This allowed to reveal the reasons, consequences and prospects of optimal application of centralization and decentralization for the improvement of the Russian economy.

CONCLUSION

It is possible to conclude that both uncontrolled decentralization and centralization carry significant risks. In the case of decentralization without restrictions, there is a risk of creating chaos. For the economy, this chaos can be manifested in hyperinflation, hyperunemployment, hyperbankruptcy of enterprises and the state, and the collapse of the economy. The total centralization can lead to the isolation of management bodies from reality, the growth of disproportions in the sectors of the economy, the growth of shortages in all types of products and the emergence of a shadow, corrupt, barter economy. As a consequence, such an economy is also close to collapse along the lines of the Soviet administrative-command system.

In other words, the question of optimal rates of centralization and decentralization in the governance system should be resolved on the basis of establishing control mechanisms and institutions. In developed countries and successful economies, the institutions of civil society and the legislative-legal, accounting-revision, ideological-cultural basis of governance serve as such control mechanisms and institutions. The direction of the following research on the issue of optimal usage of centralization and decentralization should be connected with institutional support of development of Soviet and Russian economies.

Another important conclusion is that centralization and decentralization are always used in combination to solve actual problems of the economy. This is because the destructive effects of excessive reliance on centralization or decentralization alone can be moderated when they are applied simultaneously. The failure of market reforms in Russia in the early 1990s was due to excessive decentralization, reduction of the power of state principles, while the collapse of the Soviet economy, on the contrary, is the result of excessive centralization, disconnection from the real problems and needs of the population and enterprises. New Russian economic policy should be based on an optimal balance between the principles of both centralization and decentralization.

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