



Research of strategic directions of Russian economy's innovative development

Investigación de direcciones estratégicas del desarrollo innovador de la economía rusa

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ABSTRACT:

In the article, the authors research innovative development of Russia's present-day economy. On the basis of the study of the main directions of development of Russia's economy conducted by the authors, trends in the development of Russia's economy as a whole and in the context of individual sectors are shown. The study examined various scenarios for the development of Russia's economy, depending on changes in macroeconomic indicators, rates of development of the world and national economies. The study concluded that it was necessary to improve the processes that ensure the transition of Russia's economy to an innovative development model, formation of a new technological structure, creation of favorable conditions for the development of the national economy, and active development of Russian science.

Keywords: economic systems, innovative development, national economy, public policy, innovative activity

RESUMEN:

En el artículo, los autores investigan el desarrollo innovador de la economía actual de Rusia. Sobre la base del estudio de las principales direcciones de desarrollo de la economía de Rusia realizado por los autores, se muestran las tendencias en el desarrollo de la economía de Rusia en su conjunto y en el contexto de sectores individuales. El estudio examinó varios escenarios para el desarrollo de la economía de Rusia, dependiendo de los cambios en los indicadores macroeconómicos, las tasas de desarrollo del mundo y las economías nacionales. El estudio concluyó que era necesario mejorar los procesos que aseguran la transición de la economía de Rusia a un modelo de desarrollo innovador, la formación de una nueva estructura tecnológica, la creación de condiciones favorables para el desarrollo de la economía nacional y el desarrollo activo de la ciencia rusa.

Palabras clave: sistemas económicos, desarrollo innovador, economía nacional, políticas públicas, actividad innovadora.

1. Introduction

The current stage of development of the world economy is characterized by a slowdown in the economic growth of national economies of most of the leading and developing countries, an increase in global competition in the main markets, active development of basic and applied science aimed at ensuring scientific and technological development. Growth of national economies of the highly developed countries of the world is largely determined by the state policy in the field of innovation, contributing to the realization of state interests, the interests of national capital and the scientific community as a whole.

A special factor in the innovative development of national economies is the innovative activity of economic entities. The competitiveness of individual industries and organizations, the pace of

development of individual sectors of the economy and the national economy as a whole depend on the innovation activity of participants in the innovation process.

The challenges facing the modern Russian economy, as well as the dynamics of its macroeconomic development indicators, predetermine the further development of the national economy based on the formation of a fundamentally new economic system that has all the necessary parameters for stable development and improving its competitiveness.

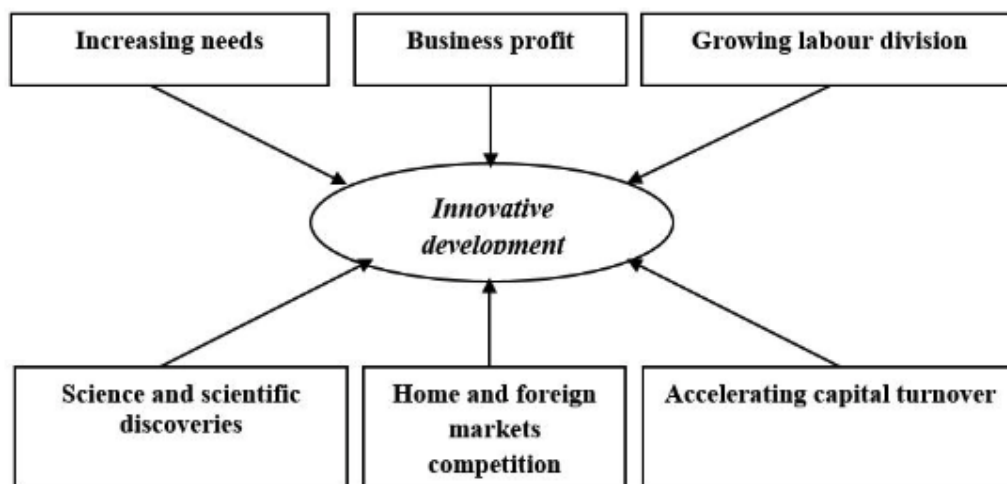
The economy of Russia in recent years demonstrates high rates of development. Modernization of production facilities is ensured, production of Russian goods is increasing. This is due to the restructuring of the national economy due to the provision of national security, development of strategically important industries based on the construction of modern systems, use of modern technologies, and an active process of innovation.

The choice of the innovation path of development of national economies is usually due to the need to build a highly efficient economic system, as well as to improve the economic mechanism to ensure the innovation process. In Russia, the innovative development of the economy is due to a number of circumstances, among which, the most important are the following areas: strengthening of economic security; preservation of economic, social, political freedoms; maintaining the competitiveness of products; overcoming a technological lag.

The construction of the modern Russian economy is based on the active use of new technologies, modernization of production processes, development of the economy, construction of an innovative economy. In our opinion, an innovative economy is an economy where technological and innovative capital prevails. The main goal of such an economy is technological development. At the same time, the basis of the national economy should be innovation-oriented production. The innovative development of Russia's economy in modern conditions is influenced by a number of factors, among which it is necessary to single out the main ones (Fig. 1).

In the modern Russian economy, although the opportunities for innovation have expanded, there are still a number of barriers that are significantly holding back innovation development. The main ones are: lack of strategic motivation in the majority of the subjects of the national economy; emergence of significant resource constraints in a number of industries; reduction of the creative component in human activity due to the change of values.

Figure 1
Factors affecting the innovative development
of national economies, authors' development



Of modern Russia is that so far the role and place of the state in ensuring the innovation process has not been fully defined. It is the state innovation policy that should fix the general directions and ways of solving the existing problems of initiating innovation activity. These include: elimination of informal methods of technology transfer; overcoming the complexity of financial and legal relations; removal of systemic constraints generated by a disintegrated economic system and their overcoming by the accelerated creation of integrated and convergent economic structures; creation of specialized instruments for financing innovation projects; and development of communication channels providing communication of the subjects of innovation processes.

Currently, the concept of the long-term socio-economic development of the Russian Federation for the period up to 2020, adopted in the country, as the conceptual basis for the development of Russia's economy (Order of the Government of the Russian Federation of November 17, 2008 No. 1662-p), defines strategic guidelines and prospects for the development of the national economy. And one of the key goals is the dynamic development of Russia and strengthening of its position in the global economy. At the same time, the basis for the development of Russia's economy should be the transition from the

raw materials export to an innovative development model. The strategic directions of innovative development of modern Russia are the development of human capital, creation of a highly competitive institutional environment, structural diversification of the economy, consolidation and expansion of Russia's global competitive advantages, strengthening foreign economic positions, transition to a new model of spatial development of Russia's economy (Fig. 2).

Figure 2

The main strategic directions of innovation development of Russia's economy, compiled by the authors on the basis of data (Order of the Government of the Russian Federation of November 17, 2008 No. 1662-p)



The adopted Strategy for the Innovative Development of the Russian Federation for the period up to 2020 (Order of the Government of the Russian Federation of December 8, 2011 N 2227-p) also defines targets for the further development of the national economy, as well as challenges and threats to Russia's economy in modern conditions. In accordance with this strategy, three options for the development of Russia's economy are identified. The first option provides for inertial development, which implies the absence of significant efforts aimed at innovative development; the emphasis is on maintaining macroeconomic stability, low costs for science and innovation. The second option is based on the local technological competitiveness of using more foreign technologies. The third option implies Russia's achievement of leadership in leading scientific and technical sectors and basic research. Each of the options developed involves the implementation of costs associated with achieving the targets. The third option is the most costly, because it requires more financial resources than the first and second options. However, the economic effect that is potentially possible is much higher than in the first two options. In our opinion, the third variant of development is expedient in those branches of Russia's economy where already now there are leading positions in the world (biomedicine, software, energy management, etc.).

The work of many Russian scientists is devoted to the problem of the development of the national economy and its various segments. Analysis of scientific works of leading Russian economists, such as Grachev I.D. (Grachev and Nekrasov, 2011), Dyatlov S.A. (Dyatlov and Selishcheva, 2009), Kalenov O.E. (Kukushkin and Kalenov, 2014), N.I. Kuznetsov (Kuznetsov et al., 2017), Kuzyk B.N. (Kuzyk and Yakovets, 2005), Novichkov V.I. (Novichkov, 2013), N. Sukhanov (Sukhanova and Sysoev, 2015) and others, testifies to the high importance of this problem, its relevance and timeliness.

The goal of the research is to study the contents of the economy's innovative development, definition and scientific rationale for the process of formation of its economic mechanism. Another subject of the research is analysis of Russia's present-day economy development and its strategic directions which

encourage the growth in the level of innovative activity for key sectors and competitiveness of the economy as a whole.

The object of the research is the process of formation of elements of innovative development economic mechanism, integral reciprocity of which put a spin on new qualities to the economic mechanism and innovative orientation to social and economic system development.

The research is conducted on the example of separate economic fields and analysis of its development factors.

2. Methods

Theoretical ground for the research is theories and concepts represented in main Russian and international Economics scientists' works. The authors take advantages of various approaches and methodologies used in study of formation of elements of innovative development economic mechanism. The research is provided taking into account the laws of Economics: law of value and marginal utility, supply and demand, growth and internationalization of wants, economy of time and adjustment of economical patterns to quickly changing environment.

The methodological basis of the research was a dialectical method. Based on the components of this method, a study of the innovation development of economic systems was built within the framework of a systematic approach, which made it possible to identify the main trends in the development of the national economy, to establish measures and the timeliness of their use to activate or contain innovation processes. And the use of the reproduction approach has become the basis for identifying complex relationships and interactions for the development of technological and innovative capital, a mechanism for their safe functioning, and ensuring continuity of technical and technological changes. In conjunction with the civilization approach, substantial elements of innovation policy have been established, which are to be implemented and supported in order to intensify the steps taken, which meet the goals of the development of the modern Russian economy.

The conceptual provisions of the study are the theoretical justification of the existence and functioning of the economic system that uses the path of innovative development and substantiating of the process of forming the economic mechanism of innovative development of the socio-economic system. The content of the concept includes: system of views on innovative development, the basis, driving forces, objective and subjective prerequisites for its provision; correlation of innovative changes in the economy with its structural changes; a methodology for determining the economic mechanism of innovative development, the allocation of its elements, the features of their action. The use of a system-functional methodology and reproductive approach made it possible to establish that ensuring the innovative development of the national economy is mediated by the action of three groups of structural elements of the mechanism of innovative development: factors of the formation of an innovatively integrated economic structure, ways of forming innovative production, methods of developing an innovation-oriented market, which, being economic processes, act as elements of a double action, because they are realized under the influence of a number of economic measures.

3. Results

The scenario approach of the innovative development of Russia's economy is actively presented in the Forecast of the development of the long-term socio-economic development of the Russian Federation for the period up to 2030 (Forecast of the long-term socio-economic development of the Russian Federation for the period until 2030). The forecast provides for three scenarios for the development of the national economy: the first scenario assumes inertial import-oriented technological development, the second one is based on catch-up development and local technological competitiveness, and the third one is a forced leadership scenario in leading scientific and technical sectors and basic research.

Table 1
Dynamics of the main indicators characterizing the innovative development of Russia's economy, calculated by the authors based on the data (Russia in figures)

Indicators	2013	2014	2015
Russia's standing in World bank's range (Doing Business)	92	62	51
Gross domestic product, bln RUR	71,017	79,200	83,233
Proportion of organizations implementing innovations from the total number of organizations, %	10.9	10.9	10.6
Cost of technological innovation, bln RUR	746.8	762.7	735.8

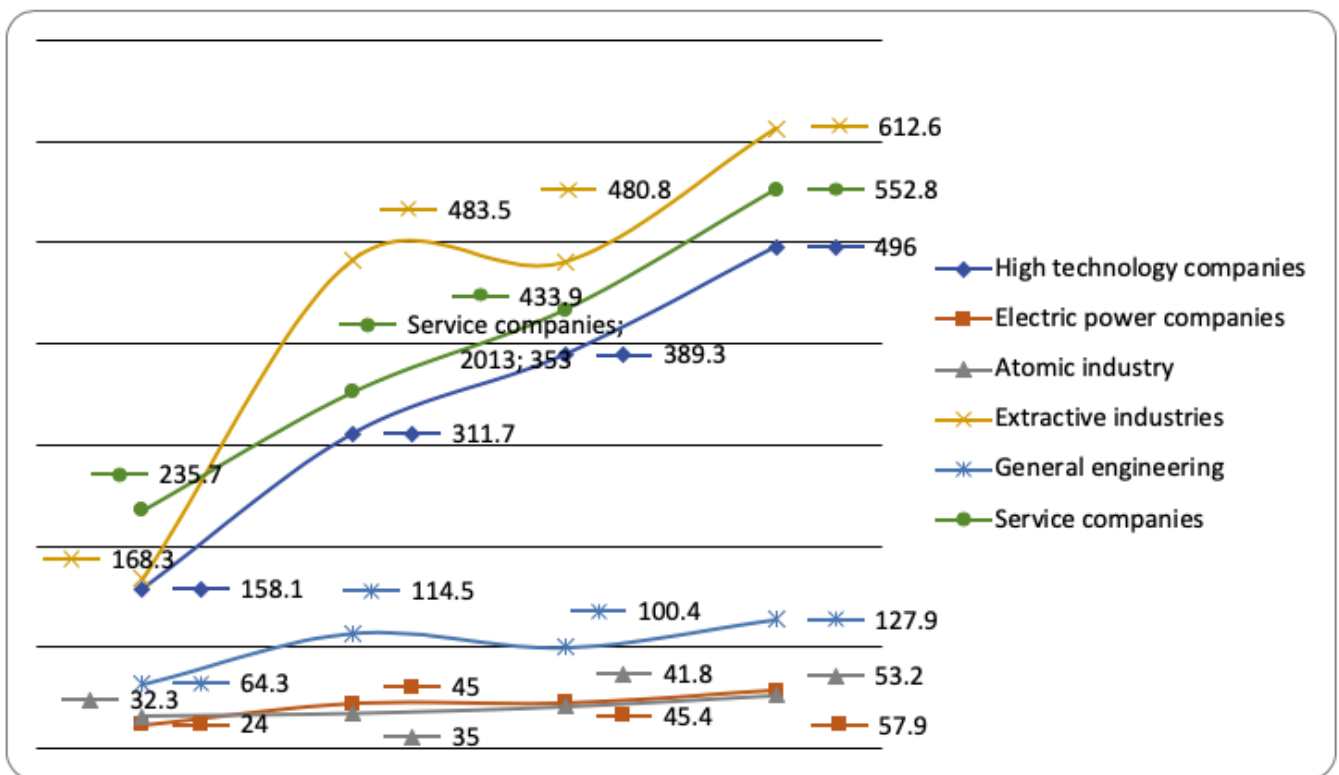
The proportion of the cost of technological innovation in the total volume of goods shipped, work performed, services, %	2.2	2.1	1.8
Volume of innovative goods, works, services, bln RUR	3,072.5	3,037.4	3,258.3
As a percentage of the total volume of goods shipped, work performed, services	8.9	8.2	7.9

The basis for the development of the national economy is the various government programs adopted in Russia in leading industries and sectors of the economy, both at the federal and regional levels. For example, the State Program "Economic Development and Innovative Economy" (Government of the Russian Federation Resolution of April 15, 2014 No. 316), the following areas are identified as strategic objectives: creation of a favorable business climate and conditions for doing business; increasing business innovation; and increasing the efficiency of public administration.

The current stage of the development of Russia's economy is characterized by an increase in the volume of gross domestic product from 71,017 billion rubles. to 83.233 billion rubles (Table 1), while there is a decrease in the proportion of organizations engaged in innovation, as well as a decrease in the money spent on technological innovation.

However, a decrease in the overall level of expenditures on technological innovations in Russia's economy does not affect the volume of production of innovative goods; the growth of this indicator is more than 6%. The total amount of funding for innovation development programs in Russia's economy should increase from 686 billion rubles in 2011 to 2.019 billion rubles. by 2020 (Fig. 3).

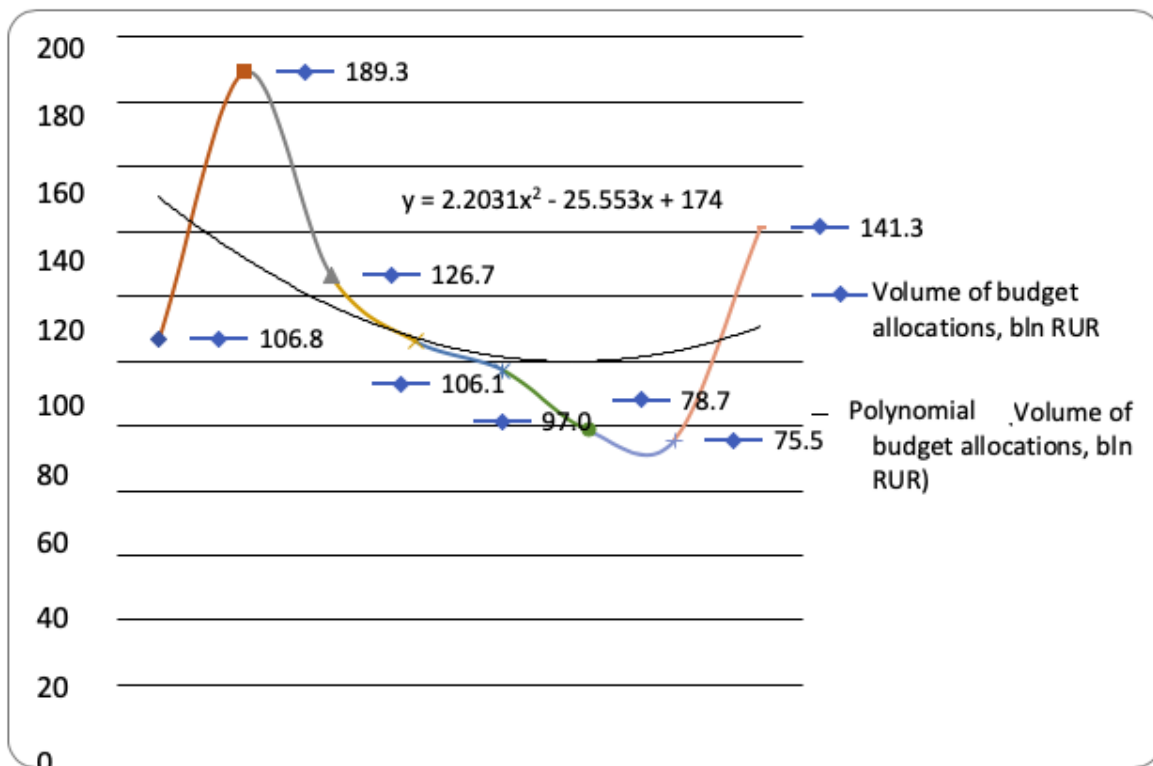
Figure 3
Actual and forecast values of financing innovation development by sectors of Russia's economy, billion rubles,



calculated by the authors based on data (Forecast of the long-term socio-economic development of the Russian Federation for the period until 2030; Report on the implementation of the State program of the Russian Federation).

The state, within the framework of the adopted State Program "Economic Development and Innovation Economy", also directs funds to support the development of the innovation economy of Russia (Fig. 4.).

Figure 4
Actual the volume of budget allocations provided under the state program "Economic development and innovative economy" billion rubles



calculated by the authors based on the data (Government of the Russian Federation Resolution of April 15, 2014 No. 316; Report on the implementation of the State program of the Russian Federation).

The total amount of funds provided by the federal budget of Russia varies considerably over the years from 75.5 billion rubles in 2019 to 189.3 billion rubles. in 2014.

4. Discussion

In the scientific economic literature there is an active discussion on the choice of further directions of development of Russia's economy. This concerns the identification of priority areas for the development of individual sectors and segments of the economy.

In the study by Kuzyk B.N., Yakovets Yu.V. (2005) eight groups of factors have been identified that will determine the further development of Russia - these are cyclicity, demographic, natural-ecological, technological, economic, state-legal, sociocultural, external factors.

The study of Grachev I.D., Nekrasov S.A. (2011) emphasizes that the basis for the further development of Russia's economy should be the active development of science, the improvement of technological development and, on this basis, the formation of a new technological order.

In the study of Sukhanova N.V., Sysoeva A.P. (2015) it is determined that in modern conditions for the innovative development of the national economy, the active participation of public corporations is necessary. According to the authors, it is Russian state corporations that will be the drivers of the innovative development of Russia's economy.

According to Novichkov V.I. (2013) in the innovative development of the national economy, the main role should belong to economic entities as the basis for the growth of innovativeness of the modern Russian economy in the context of globalization.

In the study of Dyatlova S.A., Selischevoy T.A. (2009) it is shown that a special role in the innovation development of Russia's economy should belong to the state as a guarantor of economic stability and security.

According to Kuznetsov N.I. et al., (2017) the basis for the innovative development of Russia's economy should be the active development of the production of high-tech products, the development of Russian science, and the transfer of new production technologies in various sectors.

Kukushkin S.N., Kalenov O.E. (2014) characterize the further innovative development of the national economy on the basis of creating a favorable macroeconomic environment for business development, as well as improving intra-company relations.

5. Conclusion

The study of the directions of Russia's economy development led to the following conclusions. An innovative economy is a special state of the economic system, which is characterized by the presence of creative labor, an innovation process based on the use of the intellectual resources of society.

An innovative economy arises when the necessary conditions are available: the state of society, the need for it, the level of productive forces, the availability of appropriate human resources, the level of development of science and the political system.

An innovative economy has corresponding institutions and opportunities for their development and the formation of new ones. The process of formation and functioning of the innovation economy is more successful, the more effectively it is accompanied by support from the state.

The basis for the further development of the innovation model of Russia's economy should be the formation of a new technological order, the creation of favorable conditions for the development of business structures, the active development of fundamental and applied science.

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