Bogdanenko A. I.


In the monograph the theoretical identification of concepts and categorical series of state regulation of investment-innovation processes are investigated; the directions of optimization of the state policy of innovation and investment development management in Ukraine are determined; the organizational and legal principles of the state regulation of development of intellectual potential of the population are substantiated; the areas of development and improvement of the national innovation system as an object of state policy are highlighted and assessed.

The monograph will be interesting for scholars, lecturers, doctoral and graduate students, and will also be useful to practical politicians, journalists and media workers and a wide range of readers interested in investment and innovation activities.
# CONTENTS

**INTRODUCTION** .................................................................................................................. 5

**Section 1. THEORETICAL AND METHODOLOGICAL GROUNDS OF GOVERNMENT REGULATION OF THE INVESTMENT AND INNOVATION PROCESSES** .................................................................................................................. 9

1.1. Theoretical bases of definition of the concept and categorical range of government regulation of the investment and innovation processes ................................................................. 9

1.2. Substantiation of the nature of investment and innovation policy as an object of public administration .................................................................................................................. 15

**Section 2. MECHANISMS OF FORMATION AND IMPLEMENTATION OF GOVERNMENT REGULATION OF INNOVATION AND INVESTMENT ACTIVITY** ........................................................................................................... 23

2.1. Directions for optimization of the state policy on regulating the innovation and investment development in Ukraine ........................................................................................................ 23

2.2. Organizational and legal bases of government regulation of development of the intellectual potential of the population of Ukraine ........................................................................... 30

2.3. Development of the national innovation system as an object of state policy .......................................................................................................................... 38

**Section 3. DIRECTIONS OF IMPROVEMENT OF GOVERNMENT REGULATION OF INNOVATIVE AND INVESTMENT POLICY** ................................................................................................................. 45

3.1. Current state and problems of political and legal, regulatory and organizational control of innovation and investment activities .................................................................................... 45
3.2. Competitive strategy of investment business: 
an institutional approach ......................................................... 53

3.3. The role, place and tasks of the technology transfer 
for innovation modernization ................................................. 61

CONCLUSIONS ........................................................................................................ 69

REFERENCES ........................................................................................................... 73
INTRODUCTION

At present, the economic development of investment activity, namely, its efficiency is mainly related to the ability of the financial and credit markets of our state. The reformation of the system of investment activity, at the moment, is considered one of the most relevant tasks of the state policy. At the same time since the beginning of the development of investment activity, there have been many changes in the investment sources due to the fact that budget sources gradually ceased to play a major role in this process. Instead, the significant place in the financial system now belongs to the extra-budgetary sources, mainly to investments of private investors. As compared to various foreign models, the development of a system of domestic investment activity depends on direct private investments, but not on credit resources. Thus, the main problems in the sphere of investment activity are limited budget resources, the low-income level of the population, credit system imperfection, high interest rates on loans provided by various financial intermediaries, and so on.

The monograph examines the theoretical aspects of investment activity in Ukraine and abroad, its essence and main problems. The revealed forms of investment relations made it possible to define their specific features. The influence of the level of investments in the development of the economy is estimated and the long-standing need for improvement of financial mechanisms for implementation of investment activity, in particular, based on processes of decentralization of the state authority powers is proved.

It is determined that the current situation in the market of investment activity shows the importance of searching for new methodological approaches to the formation of sources of financing the economy. One of the main factors slowing the economy in Ukraine down is the shortage of long-term investments. Instead, one of the important stages of development and successful operation of investment activity is the optimization of sources of financing.
The theoretical and practical grounds for development of modern investment activity methodology are scientific developments concerning explanations of certain principles of the government regulation of the economy by J. Keynes, concerning the research of the economic growth factors by A. Smith, D. Ricardo, investment theory of the cycle by A. Pigou, theory of investment pulses by A. Spiethoff, institutional model of competitive advantages by M. Porter, model of national competitiveness and other scientific theories, as well as, the international experience of regulation of investment processes in the economy.

The methodology for research of investment activity in Ukraine, which is used to identify, compare and substantiate the alternative management decisions, is accompanied by the project analysis. The practical and theoretical issues of the project analysis of the investment activity development are discussed in the works of both Ukrainian and foreign scientists. The works of national researcher-scientists determine, in a classical way, direct and indirect (state financial policy, monetary policy, fiscal policy, etc.) methods of government regulation. The main methods of the state management of investment activity determine the ways of the state’s influence on the business sector, market infrastructure and non-profit sector of the economy, in order to create conditions for their effective functioning, according to the directions of the state economic policy.

To achieve the objectives and tasks defined in the monograph, a complex of interrelated general scientific, interdisciplinary and special methods, in particular, systemic; historical; comparative; dialectical, logical and semantic methods; method of logical generalization; analysis and synthesis; induction, simulation, etc., was used. The use of classification method along with systematized method made it possible to generalize the scientific literature and legal documents.

The theoretical bases of investment activity were developed in the scientific works of V. Berens, L. Gitman, P. Samuelson, J. Honko, I. A. Blank, A. D. Dibrov, I. Y. Dorosh, M. I. Kysil, M. Y. Kodenska, I. V. Lipsits, O. V. Mertens, A. A. Peresada,
G. M. Pidlisetskyi, A. M. Plotnikov, P. S. Rogozhyn, Y. O. Romanenko, P. T. Sabluk, V. P. Savchuk, O. Y. Starikov, T. S. Khachaturov, V. M. Khohta, I. V. Chaplay, V. Y. Shevchuk and others. The project development is a multistage, complex and painstaking process that includes technical, organizational, institutional, management, environmental, commercial, financial and social analysis that is recommended to be considered in the incremental and iterative manner.

Each aspect has its own characteristics that are specific to the economy. The main elements of the project analysis are based on local indicators reflecting the objectives of investment activity projects. At the stage of investment research, the conditions meeting the requirements of investors and end users are substantiated. The organizational analysis substantiates the selection of ways to establish the interaction between participants of the investment project. At the stage of investment research, the project concept reflects the cooperation of the participants’ relations. When designing the project strategy, the objectives and tasks of the organizations’ participation in the investment project are defined. The organizational analysis is based on the competitive system for the selection of the investment project participants. The selection of participants is determined by the project nature, complexity and scope, number of applicants, requirement for a prompt solution of issues and so on. The social analysis substantiates the consistency of the investment project objective with the public and population groups concerned. At the stage of investment research, the influence of the project on the public interests is determined, the social examination of the investment project is performed. During the social analysis, the impact of the investment project on the change of educational, medical, cultural and transport services of the population of the surrounding area is studied.

The institutional analysis reveals the basic rules of administration, management, and extent of the assistance of organizational and legal conditions for implementation of the investment project. At the stage of investment research, political, legal and administrative factors (regulations, laws, normative documents) are stu-
died. At the stage of contractual relations, the operating procedure of actions of the investment project participants is established. The institutional analysis reveals the extent of economic freedoms of investors, customers and other participants in terms of selection and implementation of activity strategy and tactics. The institutional analysis serves as a restriction condition for acceptability of the investment project implementation. The management analysis is an audit of potential investment project participants for the creation of a strong project team and its interaction with other project participants. The environmental analysis determines the changes and potential environmental damage caused by the investment project and serves for substantiation of measures for human life support in the future. The commercial analysis assumes the substantiation of the most profitable methods for promotion of products to the end user. At the investment stage, the marketing research is conducted and the national strategy is developed, demand and supply are studied. At the stage of detail design and contractual relations, the interaction with the buyers of products is considered. During the creation and implementation of construction products, the changes in the market conditions are determined and prompt state measures for the organization of the marketing process are taken.

Taking into account the relevance, complexity and diversity of the problem solved by the author, the obtained scientific and practical results are significant. The monograph is written at the high scientific and theoretical level, it summarizes rich theoretical and practical materials. Its style meets the requirements for scientific and logic nature as well as consistency.

Prorector of the Interregional Academy of Personnel Management, Doctor of Science in Public Administration, professor, Honored Lawyer of Ukraine Ye. O. Romanenko
Section 1
THEORETICAL AND METHODOLOGICAL GROUNDS OF GOVERNMENT REGULATION OF THE INVESTMENT AND INNOVATION PROCESSES

1.1. Theoretical bases of the definition of the concept and categorical range of government regulation of the investment and innovation processes

The system of national economy management in any country is carried out by means of main forms, methods and levers of use of economic laws as well as the development of main productive forces, formation of human needs, creation of incentives and alignment of social and economic interests of main social groups. The main subsystems of the entire system of the economic mechanism are government regulation, corporate balanced development and market self-regulation. In modern conditions, the government regulation of the economy is the dominant subsystem of the system of economic mechanism. The optimal combination of subsystems and appropriate forms, methods and levers provides a possibility of balanced and proportional development of the national economy.

At the same time, the experience of developed countries confirms that the key role in enabling the innovative development and formation of the national innovation system belongs to the state that establishes strategic objectives, provides resource support, in particular, budget financing, tax incentives, crediting, etc. [1].

The world countries “assumed” the critical importance of innovations for the society, and with it the intensive type of economic development in general, during the “cold” war, under conditions of the confrontation of two world powers — the USSR and the USA — when the accelerated researches in the sphere of armament gave the opportunity to consider the innovations as the indicator
of technical idea, creative abilities and ability of the country to intensively develop. At the moment the USA and other western countries began transitioning to the fourth (it is characterized by an increase in the number of electrical appliances, including for household purpose, creation of global communication network based on telephone and radio communication, development of the petrochemical industry, initiation of space exploration) and then to the fifth technological mode. Herewith, the resource industries no longer play a defining role in the economy of this country. Today the world economic literature notes that the “technological” economy will be and is already being replaced by the “informational” economy, or the knowledge-based economy. In this regard, the states, mainly concentrate on the creation of strategic plans for the development of the territories. The ratio between production and high-technology industries changes, the innovation activity of industrial enterprises becomes more intense. Therefore, today the innovation type of economic development is the ground determining the economic power of the country and its place in the international differentiation of labor [2, p. 62]. This also applies to modern Ukraine. That is, science and innovation activity are the main factors of the stable economic development and social reliability. The scientific and technical potential of the country is created by efforts of national and technical organizations and due to the world scientific and technical achievements [3, p. 138].

The analysis and assessment of scientific and technical potential make it possible to draw the conclusions on the level of economic development of the country and its branches, level of its scientific and technical independence, possibilities of economic, scientific and technical cooperation. The search for new technologies, new methods of consumer satisfaction, that is, search for innovations, is the key factor of the technological mode of development. The significance of innovation activity for the economy of a certain country consists in its participation in the process of formation of the gross national product. This is the ability of the country to receive the intellectual rent from the foreign trade, while simultaneously improving the efficiency of its own production base, which has pro-
pelled many industrial countries to the top of the world market. The innovation-based economic system is based on the following principles: economic self-identification of the individual; ownership; equality of economic rights; economic freedom; pricing discretion; existence of labor markets, goods markets, capital; government regulation of the economy.

At the present stage of the development of the world integration processes in the Ukrainian economy with its rapid scientific and technical needs, the timely and full supply of financial resources for innovation activity is of particular importance [4]. Thus, investments are one of the basic factors of stable functioning of the national economy.

The investment process promotion and improvement of investment activity management under conditions of establishment of business market relations are of primary importance for ensuring the economic growth of the country. The investment processes in Ukraine take place by means of interconnected government and non-governmental, financial and non-financial institutions.

The activation of investment processes in the national economy is directly related to the condition of the institutional environment, which is a set of economic, political, social and legal rules creating the basis for national economy-wide production, exchange and distribution. The main role in the creation of such rules, making its basis, belongs to the state.

Today, there is no country in the world that would refuse the government intervention in the economic processes. For this purpose, the state uses powerful instruments of influence on economic growth.

The investment and innovation activity is one of the components of real investments, which can also be represented only by innovation activity or investments of intensive development. The effective investment in the innovation process is the main factor of economic growth. They provide the economic restructuring on new scientific and technological base and promote the improvement of its competitiveness. The innovation activity can be financed due to private investments with the variable nature of pub-
lic funds that are insufficient, while the innovative development of the country requires systematic capital investments.

The investment and innovation industry is a very important component in the development of any state. However, this sphere cannot develop independently in an effective way without effective regulation mechanisms, therefore, the state influence levers, which should provide enough opportunities for introduction of innovation and implementation of investment processes, play a significant role.

The purpose of government regulation of investment and innovation processes is to completely ensure the implementation of programs of social development in the social, economic, scientific and technical spheres, as well as state protection and investment support.

Now there is no effective organizational and economic mechanism of investment and regulation on innovation in Ukraine, and the existing one does not properly meet modern requirements.

Direct state influence on investment and innovation processes in Ukraine can be seen in the organization of certain activities with the definition of strategic tasks and priorities, the development of thought-out principles of investment and innovation policy, the introduction of state programs with the necessary funding, etc. Investment and innovation processes in the regions are based on the coordination of interests and the union of the efforts of such entities as the state, region and investor.

According to M. M. Petrychko and S. V. Prokhorchuk, “the mechanism of state influence on providing favorable investment and innovation climate and implementation of the policy of technical re-equipment consists of three vectors: creation of special financial mechanisms for support of such activity, formation of the corresponding investment and innovation infrastructure, use of indirect methods of support” [5, p. 222].

According to Art. 11 of the Law of Ukraine “On Investment Activity”, “state regulation of investment activity is carried out with the purpose of implementation of economic, scientific and technical and social policy, based on the goals and indicators of economic
and social development of Ukraine, state and regional programs of economic development, state and local budgets, in particular, the investment funds provided by them” [6].

State regulation of investment activity is aimed at managing not only state investments but also regulation of investment activity conditions and monitoring of the actions of all investors and participants of the investment process.

According to the current legislation, public investment management is carried out directly by state authorities and includes the planning process, the definition of conditions for the carrying out and implementation of obligations on investment of budgetary and extra-budgetary funds.

The mechanism of state regulation of investment activity in Ukraine is carried out as follows [6]:

- provision of financial assistance in the form of grants, subsidies, subventions, budget loans for the development of individual regions, industries, manufacturing;
- development of state norms and standards;
- implementation of measures for the development and protection of the economic competition;
- denationalization and privatization of property;
- determination of the conditions of use of land, water and other natural resources;
- regulation of pricing policy;
- state expert examination of investment projects;
- other measures.

The Law of Ukraine “On Innovation Activity” defines the legal, economic and organizational foundations of state regulation of innovation activity in Ukraine, sets out the forms of stimulation of innovation processes of the state and is aimed at supporting the development of the Ukrainian economy in an innovative way. The main goal of the state innovation policy is to create social and economic, organizational and legal conditions for the effective reproduction, development and use of the country’s scientific and technical potential, ensuring the implementation of modern environmentally friendly, safe, energy and resource-saving technologies,
production and the realization of new types of competitive products” [7].

The Law of Ukraine “On Priority Directions of Innovative Activity in Ukraine” defines legal, economic and organizational principles for the formation and implementation of priority areas of innovative activity in Ukraine.

The purpose of the law is to provide an innovative model of economic development by concentrating the state resources on priority directions of scientific and technical renewal of production, on increasing of the competitiveness of domestic products in the domestic and foreign markets” [8].

The mechanism of state regulation of innovation activity is carried out by [2]:

• identification and support of priority directions of innovation activity;
• formation and implementation of state, sectoral, regional and local innovation programs;
• creation of a regulatory framework and economic mechanisms to support and stimulate innovation activity; protection of the rights and interests of entities of innovation activity;
• financial support for the implementation of innovation projects;
• stimulation of commercial banks and other financial and credit institutions that lend money to the implementation of innovative projects;
• establishment of preferential taxation of entities of innovation activity;
• supporting of the operation and development of modern innovation infrastructure.

The mechanisms of state regulation of investment and innovation processes should flexibly combine all levers, both economic and administrative. Under certain conditions, depending on the strategic changes, the instruments of state influence should also provide for certain tactical changes.

Today, the legislative and regulatory framework for the regulation of investments in Ukraine includes more than 100 different
normative documents (laws, orders, decrees, instructions, etc.), among which the laws of Ukraine “On investment activity”, “On the regime of foreign investment”, “On Leasing”, “On Innovation Activity”, “On Securities and the Stock Market”, which create the legal basis for investment activity, should be highlighted as top. Separate provisions of these and other documents, however, are ambiguous and contradictory, and the changes and additions to this database often even worsen the conditions for foreign investors.

Despite a large number of regulatory acts, the imperfection of legislation today is one of the main reasons hindering the development of investment activity in Ukraine.

1.2. Substantiation of the nature of investment and innovation policy as an object of public administration

Given the lack of investment resources in the real sector of the national economy, the limited possibilities of state investment and the availability of a number of risks to continue the rising trend of investment activity, the state needs to use a wide array of mechanisms and instruments aimed at stimulating investment activity of the corporate sector, attraction of domestic and foreign investment resources and the creation of an effective investment management system.

The economic basis of scientific and technical and innovation policy is the state’s attitude to the scientific, technical and innovation spheres of the national economy, to the associations of people engaged in scientific, scientific and technical and innovation activities, as well as to the results of scientific, scientific and technical and innovation work. This state’s attitude is reflected in the knowledge and understanding of the role and significance of science, products of scientific and scientific and technical and activity in the state economic system of the government machine, as well as the ability to effectively direct all existing and potential opportunities of the scientific and technical and innovation spheres to achieve
tactical and strategic goals of the social and economic policy of the state.

As part of an integrated policy of economic growth, public investment and innovation policies are closely linked and interact with other social and economic policies (industrial, structural, financial etc.). For other policies, investment and innovation policies in the modern environment are the basis, because the results of investment and innovation activity are the driving force in all spheres and sectors of the economy.

State investment and innovation policies are largely implemented through other policies of social and economic orientation, being their integral parts. Therefore, when developing the concepts and mechanisms for implementation of these policies, the consistency and coordination of activity of all social and economic policy subsystems and authorities, the activity of which is aimed at its development and implementation, take an important place. The clear delegation of tasks at all levels of the implementation of social and economic development strategy is required.

The state investment and innovation policies have higher priority among other policies in the economic sector, but they are formed and implemented mainly by priorities: branch, technical and technological, scientific, innovation, etc. The investment and innovation priorities depend on the status and priorities of production sector, and the others - on social priorities, the hierarchy of total human needs that change dynamically.

At the meso-level, the innovation and investment system should ensure balanced implementation of the state policy in the region, own II policy in the region as well as should provide interregional innovation and investment cooperation.

At the microeconomic level, the innovative products are developed and released, the services for ensuring the innovation and investment policy by means of creating relevant structures (professional self-regulated organizations of entrepreneurs, etc.) are detected, the interests of interacting industrial enterprises are coordinated, the innovation and investment projects are created and implemented.
According to the objectively dependent trend of expanding the scope of authority of regions of Ukraine, the state level and, as a result, the state innovation and investment system take on priority importance in scientific and technical, and IT sector. The activity of the state in the sector of science, technology, as well as innovation and investment activity, depends on its interests and capabilities and allows to solve the part of the tasks related to using and development of scientific and technical, and IT potential of the region. Not less part of duties and responsibility for the solution of these problems is laid upon the regions [9, p. 118].

It is also necessary to single out the high level of influence of the institutional factors being formed at the state level on the investment and innovation policy. The state-level institutional standards can regulate the investment and innovation policy by reducing the uncertainty, promoting the coordination and cooperation of participants of these processes.

The market demand is the essential property of innovations. Therefore, the innovations should possess not only the novelty both for the whole society and in relation to the particular organization, but also satisfy the market demand, that is, to have the market potential as an indicator of operating efficiency of the enterprise, realization of its innovative potential.

The common feature is that all EU countries promote the provision of incentives concerning investments into the development of innovative technologies and research and development (R&D). The incentives include granting the credits on preferential terms and reimbursement of expenses for the creation of new technologies from the state budget. In general, these preferences include research and development support in three directions: fundamental researches, production researches and commercial developments. The maximum share of their budget support amounts to 100, 50 and 20 percent, respectively [10]. The EU countries apply special incentive innovations and corporate taxes. In particular, Great Britain maintains a low level of taxation for corporations, considering that this is the powerful incentive for risk technological changes.
The low rates of basic taxes in Germany, Spain and Italy are supplemented by special incentive systems for implementation of risk projects. In France, the other combination is applied: high taxes for all and other special incentives in the innovative business. The special attention is paid to support of private innovative solutions and broad involvement of small companies in the mentioned process.

The changing nature of national scientific and technological policies that concentrate on the dissemination of new knowledge in the economy also increased the importance of the regional aspect of innovation policy. As a result, the regional policy is increasingly becoming a structural rather than a redistributive one.

The main place in this activity is given to the Forum of Innovation Regions (FIR) and Innovation Relay Centers (IRC).

The FIR networks are their national and transnational associations in the sphere of development and exchange of experience on innovation strategy. The Innovation Relay Centers have the status of independent consulting organizations in the sphere of technology and business receiving the assistance from the European Commission for Entrepreneurship. They provide assistance to innovative business in the following directions: technology transfer; commercialization of R&D results, including intellectual property issues; development of company’s adaptation possibilities to new technology, including searching for and bringing together potential partners of cooperation; implementation of transnational innovation incentives; dissemination of information on EU innovation policy.

A special role in the regulation of the EU investment complex is played by special agencies promoting foreign investments. These institutions are responsible for providing the information and planning the investment activity, carrying out the marketing and advertising companies, organizing the negotiations and presenting the incentive packages for investors. The investment agencies grant the investors permission for their activities, settle the conflicts and facilitate the accelerated implementation of the investment projects. Their branches are in many countries of the world.
Each EU country has a multiple system of investment institutions. For example, in Finland among the main institutions dealing with financial and organizational issues of national and foreign investment, the following should be mentioned:

- Finnish Bureau of Investment — facilitates making contacts with foreign investors, provides foreign companies with information on Finnish law, taxation, workforce, economic situation, infrastructure and investment environment in Finland. The Bureau has representative offices in the United Kingdom, Germany and the USA;
- AT Fide, Government corporation/State Joint Stock Company, which assumes the risks associated with changes in interest rates on credits granted to foreign customers or financial institutions for the implementation of individual projects;
- Nordic Investment Bank — created to increase the export capacity of constituent countries: Denmark, Iceland, Norway, Finland and Sweden, grants credits for joint projects of industrial companies in these countries as well as grants credits for projects of specified countries in other countries;
- Finfand, Investments and Industrial Cooperation Fund — promotes the investment activities of Finnish companies and encourages the creation of joint ventures worldwide;
- Sitra, Finnish National Research and Development Fund — created to introduce the advanced technologies and support new, modern and advanced productions at Finnish enterprises.

There are special rules for state assistance for certain competition-sensitive economic sectors (ferrous metallurgy, coal mining, textile industry, shipbuilding and automotive industry, manufacture of synthetic fibers) and quickly growing industries (telecommunications, computer technologies). It is assumed that this assistance may also include direct government subsidies. The purpose of the specified assistance is to promote the competitiveness of industries and acceleration of development and implementation of modern technologies.

As a result of joint government decisions of the EU member states, the number of institutions providing direct support to the
innovation process was formed in Europe: European Investment Bank, European Investment Fund, Initial Capital and Eurotex Capital projects, as well as a special program for small business support [11, p. 156].

The provision of financial assistance to the enterprises and the entire sectors from the EU centralized funds, which is combined with the means of national support for each individual EU country, is one of the main instruments of the EU investment policy. At the same time, the European Commission requires the strict reporting on the targeted use of the assistance from the member countries and individual enterprises. The economic sanctions are applied to the countries that use assistance not according to the intended purpose.

The important element in the EU investment and innovation system is the “Framework Programs for Scientific and Technological Development”, which are the main instrument for the implementation of the EU scientific and research policy. HORIZON 2020, the Eighth Framework Program (FP8) that is for seven years from January 1, 2014 to December 31, 2020 is in operation now.

The European Union’s economic policy pays special attention to the development of small and medium-sized enterprises (SME), which play a key role in the European economy.

About 25 million SMEs provide up to two thirds of workplaces and generate about two thirds of GDP in Europe. Therefore, it is not surprisingly that SME is a key element of the policy of research and innovation assistance. In addition, SMEs usually are more flexible and inclined to use new opportunities and innovations in full, than to confront persistent social, environmental and economic threats. The traditional contribution of the EU for industrial participating enterprises covers 50 % of the total budget of the project. This contribution was increased in the Eighth Program for SME. Such a decrease in financial burden will lead to greater interest and involvement of SMEs in the European programs.

One of the effective mechanisms to promote the development of innovative technologies in the EU is technological development centers — technological parks. The European model of the func-
tioning of technological parks is characterized by significant state economic and organizational support, broad regional cooperation as well as elaborated programs and business plans, which enables to manage their development more qualitatively and efficiently.

The European technology parks tend to rely on large research centers and provide a kind of a bridge for technology transfer between the scientific and industrial sectors. The clients of technological parks in Europe are a large number of enterprises, both of state and private ownership.

The most part of financing from the state is received by technology parks of Great Britain — 62 %, Germany — 78 %, France — 50 %, Netherlands — about 70 %, Belgium — almost 100 %.

The European Union pays significant attention to the cross-border cluster technological cooperation. One of the best known cross-border clusters is Biovalley, the biopharmaceutical cluster established in 1996 in the valley of Upper Rhine river (territory of France, Switzerland and Germany). About 250,000 people or 10 % of the total population of this region are involved in the biopharmaceutical industry that includes well-known scientific institutions (universities, research centers, headquarters of such known global pharmaceutical companies as Novartis, Roche, Siba, branches of large pharmaceutical companies as Johnson & Johnson, Pfizer, Sanofi-Aventis). Medicon Valley (territory at the border of Denmark and Sweden around Øresund strait); Biotechnology cluster (Øresund region, Denmark — Sweden); German-Dutch cross-border cluster (Twente); German-Dutch network of regional clusters of suppliers, technical agencies and innovation institutions around transnational corporations Oce and Nedcar (Venlo), Dommel Valley (Belgium and Netherlands) is also equally well known [12, p. 64].

The global experience shows the ambiguity of PTT influence on the economic development of recipient countries that are associated with the possibility of negative effects as a result of the implementation of investment strategies by foreign investors that may inconsistent with national interests of the country [13]. The destruction of the fundamental base for ensuring structural reforms in
the economy on the innovative principles is an extremely ominous trend. The domestic industry has a significant innovative potential capable to ensure the structural transformation of the national economy and high level of scientific and technological development of the country as a whole. At the same time, the productive capacity reserves that were not used during the crisis period and favorable external economic conditions still were the prevailing sources of growth in the industry in Ukraine.

The reasons of recessionary trends in the investment and innovation sector in Ukraine are both traditional risks of investment activity in Ukraine associated with institutional factors and low efficiency of state policy, and the current aggravation of political and economic instability (when due to these factors the companies have to refuse or postpone the implementation of investment projects). The delay in the introduction of decisive measures of industrial policy on promoting the investment and innovation changes in the industry is unacceptable, as it can slow down the processes of recovery and development of the industrial potential of Donbass destroyed during the armed confrontation, expand the technical and technological gap of Ukraine with the developed countries and slow down the processes of post-crisis stabilization. The implementation of the initiated reforms aimed at deregulation and simplification of business dealing conditions, development of favorable investment environment, protection of investors’ rights and development of public and private partnership will give a certain push to promote the investment activity in the industry.
Section 2
MECHANISMS OF FORMATION AND IMPLEMENTATION OF GOVERNMENT REGULATION OF INNOVATION AND INVESTMENT ACTIVITY

2.1. Directions for the optimization of the state policy on regulating the innovation and investment development in Ukraine

Taking into account the leading world trends, the necessity of inclusion of Ukraine in the world economy based on sovereign partnership and mutual benefit is an objective prerequisite for further innovation development of the country, and this is the reason why the questions of determining the place of Ukraine in the structure of the world economy today and in the future are placed on the agenda. Consequently, Ukraine’s integration into the geo-economic space represents a major direction of development of a long-term character, which consists in choosing an evolutionary path oriented on a global civilization model of innovation development, the realization of which is intended to promote the inclusion of the Ukrainian state in the global market of financial capital, to ensure balanced development of the national industry with a gradual an increase in the share of high-tech innovative products in the domestic and foreign markets, liquidator her artificial barriers to the dissemination of knowledge and information, access to new ideas, science and technology with the aim of welfare and quality of life of our country.

Thus, integration of Ukraine into the geo-economic space is a major direction of long-term development, which involves selecting the evolutionary path focused on a global civilization model of the innovation development, the realization of which is intended to promote inclusion of Ukraine in the global market of financial
capital, ensuring balanced development of the national industry with gradual increase in the share of high-tech innovative products in the domestic and foreign markets, elimination of artificial barriers for dissemination of knowledge and information, access to new ideas, scientific and technical achievements for the purpose of welfare and quality of life of population of our country.

For example, in 2012, the German government approved an action plan of High-Tech Strategy 2020, aimed at securing Germany as a leading supplier of scientific and technical solutions in such spheres as climate and energetics, health and nutrition, mobility, safety and communications [14].

The development of systems for management of competitiveness of microeconomic systems is also impossible without considering the specified factors. In the developed countries, understanding of the role of innovations by business led to an increase in the volume of non-state financing of science and increase in the innovation activity of enterprises and corporations (50–80 % of the total). The sales of companies belonging to the top 10 world leaders in the innovation activity grow annually by 45–54 %, and the profitability of sales is at the level of 70 % [15].

Modern Ukraine rapidly loses its competitive positions in the world markets in the innovation sphere. The deep decline in industrial production in general and in knowledge-based industries of investment direction, in particular, leads to the degradation and deindustrialization of the national economy. The industrial sector share in GDP structure is reducing steadily. For a long time, the role of the processing industry in creating the country’s GDP decreases, indicating the signs of economic decline and technological backwardness. The raw materials extraction productions, as well as low-tech productions, prevail in the structure of the industry. In the world markets for industrial goods, the country is represented mainly by raw materials and low-tech products.

According to the data from 2016, the total export of goods from Ukraine was about 70 %, the rest 30 % was accounted for services. The reduction of export revenues with simultaneous reduction of export of agricultural products was the trend of 2012–2016. How-
ever, despite the general negative trend, the export of non-agricultural products is reduced more rapidly than the agricultural one. At the same time, in 2016, for example, the increase in the export of agricultural products was observed. The similar trend continued in 2017. For the first half of 2017, the export of agricultural products amounted to 8.7 billion US dollars, which is 28.1% more than for the same period in 2016.

Against the background of declining total export revenues, the share of agricultural products is growing. The share of agricultural products in the structure of Ukraine’s export revenues has increased from 26% in 2012 to 42% in 2016. During the first half of 2017, the share of agricultural products in the structure of Ukrainian export was 42.2%. However, it should be noted that the basis of agricultural export is still the export of raw materials, namely, plant products — wheat, corn, barley and soybeans. For January-June 2017, the total share of plant products in the structure of agricultural export of Ukraine amounted to 49.3% [16].

Operationally, the competition in the world markets for goods and services has two dimensions:

1. Commodity and economic dimension. It is characterized by quantitative indicators such as volumes, dynamics, commodity and geographical structure of export and import, etc. It is obvious that, after all, these indicators will depend on the quality of goods, the technological level of production, etc.

2. Technological dimension. This refers to the technology of provision of goods and services to the counterparty (logistics), procedures of export and import operation documentation (that is, the technology of export and import operations). The commodity and economic dimension of the external trade of Ukraine can be characterized as follows (see Table).

In the regional dimension, the export to the European countries in general and the EU in particular, Africa and Australia, has increased. It should be noted that in 2016 the largest market for Ukrainian goods was Asian countries (35.0%), followed by Europe (32.6%), including the EU (31.9%), while the specific share of CIS was only 17% (including the Russian Federation — 9.3%).
This can be explained by changes in positions of certain regions in the international division of labor, geographical reorientation of Ukrainian manufacturers, Russian aggression in the Crimea and East Ukrainian, etc.
The largest exporters to Ukraine in 2016 were the European countries (39.8 %) — the EU (36.9 %), while CIS, including the Russian Federation (24.8 %), took the second place, and Asian countries — the third one (20.3 %). At the same time it should be noted that import from CIS countries (Russian Federation) in 2016 was reduced on the year-to-year basis, while deliveries from Europe, the EU, Asia and America has increased [17].

On a threshold of the fourth technological revolution, unfortunately, about 60 % of Ukraine’s products account for the third technological mode — ferrous metallurgy, metalworking, construction materials, woodworking, as well as pulp and paper industry, and 36 % of products — for the IV mode. Currently, according to the production indicator, V and VI technological modes in Ukrainian regions amounts to about 4 %, of them VI — less than 0,1 %. The similar trend is traced in the future, as 70 % of the financing of scientific and technological developments gives direction to IV technological mode and only 23 % — to V [18]. Ukraine needs to overcome a considerable gap on the level of the innovation activity of enterprises as compared to the developed world countries, and especially with the EU countries.

The most significant features of the innovative state of the country were noted in the report “Innovative Ukraine 2020” prepared by the National Academy of Science of Ukraine in 2015. During 2006–2015 three surveys of innovative activities (first — 2006–2008, second — 2008–2010 and third — 2010–2012) were conducted in Ukraine. The sector of information and communication technologies (ICT) in Ukraine is a branch of the national economy that is developing dynamically. According to the State Statistics Committee, the share of information and communication technologies in GDP was 1,42 % in 2014. The main indicators of development show a positive dynamics in the number of enterprises, the number of employees and the volume of sales of information and communication technologies subsectors [19].

The main characteristics of the current stage of the innovation process in the agricultural enterprises of Ukraine are defined as
follows: a sufficiently high level of innovation activity of enterprises (57% in crop production and 30% in animal breeding); limited use of own innovative developments by agricultural enterprises (both in terms of resources and technologies). The domestic agricultural producers are now mostly users or adjust developments of foreign specialized organizations to their conditions.

The breakthrough technology as an integral unity of material resources, ideas and original management solutions played the structure-making role in the management systems of economic development of these countries. Its characteristics are defined by the objective and directness of action.

The organizational framework provides the ranking, evaluation and selection of priority of scientific and technical programs, complex coordination of organizational and socio-economic measures.

The formation of the organizational structure requires the creation of a single authority in Ukraine, which would be responsible for the coordination of works in the selection of strategic directions of innovation and technological breakthrough as well as the definition of promising enterprises and productions.

The functional framework ensures coordination and implementation of all stages of the innovation process — from planning (design) to market consumption of the innovative product. In total, three frameworks of the innovation module management system provide monitoring, identification of priority directions, technology of innovation breakthrough, implementation and control of the implementation of breakthrough strategy up to the world level of competitiveness.

Analysis and generalization of world experience of incorporating of advanced technologies into the mechanisms of synthesis of national competitiveness control systems is the evidence of their immediate effect and a significant performance. Thus, the Second World War had a devastating impact on the economy of Japan, but in 1968, that is, 20 years after the war, the country took the third place in the world after the USA and the USSR in terms of gross national product. The German government, which implemented breakthrough reforms of L. Erhard, needed only 12 years to triple
the country’s gross domestic product (GDP) in 1950–1962 [20, p. 35].

A modern example of the use of breakthrough technologies, investment and innovation breakthrough module for achieving the world level of competitiveness by a particular region is the creation of a technology park in Kechnec village of Košice Region in Slovakia.

Slovakia and Ukraine have very similar past. The country’s independence was proclaimed in 1993, but Slovakia overcame most of the difficult process of transition from a centrally planned economy to a market one and was able to shift to the western market in a very short time (2002–2005). Now it is an industrial and agricultural country, which occupies the second place (after Poland) in the dynamics of economic growth among the EU countries.

According to the study of the German Chamber of Commerce, about half of German investors see Slovakia as the best place for investments. At the time of the collapse of Czechoslovakia (the early 1990s), there were no production facilities on the territory of Slovakia but one Bratislava factory, which produced parts for Czech cars Škoda in Bratislava. In the late 1990s and early 2000s, the state took serious measures to attract investment through tax incentives and assistance to investors, which has led to the construction of automobile plants by large foreign multinational corporations on the territory of the country. The country has gradually become a leader in attracting foreign direct investment in the automotive industry among the countries of Central Europe.

According to the recommendations of the European Commission on the elimination of regional differences, Slovakia pays special attention to the construction of technology park (an element of innovation infrastructure), especially in Eastern Slovakia, where the social and economic situation is much worse in comparison with one of highly developed EU regions. In developed countries, technology parks, universities-incubators and diversified scientific zones are becoming more common. Each of them is a powerful scientific and technical complex that processes innovative ideas and projects that are rapidly introducing innovations.
The technology park in Kechnec is considered as the one, which is the most prepared for the attraction of investors in Slovakia in regard to the fulfillment of all conditions that are necessary for entrepreneurs. 19 companies (15 foreign and 4 domestic ones) are located in the technology park in Kechnec, among them there are: American companies MOLEX, GETRAG FORD Transmissions, Crown Holdings; German company HANDTMANN; Austrian company Schelling Anlagenbau GmbH; Belgian company GILBOS; Swedish company SWEP; Italian company Padovani Group and others [12]. Most of the investment resources attracted to the technology park were placed in the technological sectors of the manufacturing industry [21].

Nowadays there are 71 operating industrial parks in Slovakia, the following industry branches became developed: automobile manufacturing, electronics, engineering, chemical industry, pharmaceuticals, information technology.

Among the largest new enterprises in Slovakia, there are Samsung Electronics (electronics), Sony (electronics), Mondi Business Paper (paper), Hydro Aluminium (production of aluminum) and Whirlpool (household appliances).

Thus, the example of this country shows that the use of management technologies of an economic breakthrough in conditions of the attractive investment climate makes it possible to make a technological “leap” and increase the competiveness of the national economy in conditions of extremely limited financial and time resources.

2.2. Organizational and legal bases of government regulation of development of the intellectual potential of the population of Ukraine

The intellectual potential is a set of abilities, creative talents, skills and motivations of individuals, their educational, ethical and cultural level that enable them to use intellectual means to learn and create new knowledge, which is suitable for application in a
particular sphere of social reproduction, contribute to the growth of productivity and production efficiency and thereby influence the growth of income of a certain individual in the future [22, p. 292].

European integration processes should be balanced. The desire to build target reference points for the development of society with a focus on European social norms and standards can have negative consequences when there is no resource basis for their implementation, which will cause a negative attitude towards the process itself. At the same time, other threats occur when European standards of the consumer society are applied without the desire to create and implement a national rational culture of consumption.

The inner world of Ukrainian society is characterized by unity, the desire for solidarity. These features are to be preserved, cultivated, spread and developed. But the preference is given to the borrowing of individualist social relations that prevail in families, households, regions and the state.

The development of intellectual potential is a priority for the state, as in the present conditions neither the wealth of subsoil nor the fertile lands or the ideal climate or tourism attractiveness cannot be compared with the power and social importance of potential of the human mind.

The basis for the formation of an innovative type of development in Ukraine, which is based on intellectual and information technologies of production, is the development of human capital.

At the same time, the innovative capital of the enterprise should take into account the financial, intellectual, organizational, management, information and methodical potential of the enterprise, which, in turn, will affect the motivation of labor, the culture of production, creating favorable conditions for changes in social relations both in the state and at the enterprises in particular.

There are many objective and subjective obstacles in the way of reconstruction and further development of intellectual potential in Ukraine, these obstacles are caused by two groups of factors: inherited from the command and administrative system and those that arose after the Declaration of Independence of Ukraine.
The first group includes a resource approach to the person when the working-age population is considered as a necessary resource. At the same time, the main attention is paid to its quantitative characteristics, even without taking into account the age, gender and national characteristics that affect the professional qualities of the employee.

The scientific and technical factors influence the level of novelty and the update rate of the product, improvement of technical means and technologies. Due to the negative trends of the transition period, scientific production in Ukraine almost stopped — the conduct of scientific and technical works reduced compared to the Soviet era by more than 10 times.

The economic factors primarily determine the level of development of the labor market. That is why society intellectual potential is mainly recovered through the labor market.

The legal factors characterize the legislation of Ukraine concerning legal support of the intellectual economy. The scope of intellectual property is regulated by the following basic laws: “On Copyright and Related Rights”, “On Protection of Rights to Marks for Goods and Services”, “On Scientific and Technical Information”. The most important problem in the legal support and regulation of intellectual property sphere is the ineffectiveness of legislative acts and the weak implementation of the proclamation of the orientation to the innovative development model in Ukraine.

The social and cultural factors in the context of the formation of the knowledge economy are revealed in the trends of development of education and science.

The organizational factors solve a fundamental problem: the existence of applied science outside of the production sector. Today, the first financial and industrial groups are being formed, which are based on mutually beneficial investment relations between science and business.

The environmental factors are characterized by an increase of the strength of their effect in modern conditions of social production. Most often they act as limitations on the use of raw materials [23, p. 60–62].
The main factors that negatively affect the formation and development of Ukraine’s intellectual potential today are:

1) poorly developed innovation infrastructure;
2) lack of incentives for innovative projects;
3) insufficient funding of science;
4) underdeveloped intellectual property market;
5) elderly age of scientists.

The significant obstacles to the development of the human potential of external nature increase significantly in conjunction with internal factors that restrain the formation of certain conditions and possibilities. They are numerous and include:

- the systemic crisis in the state, the dependence of the economy on politics, the struggle for power and resources within the state, the lack of strategies (programs) of anti-crisis direction;
- lack of opposition to external interference in the internal affairs of Ukraine, inability to defend national interests in all areas of national security;
- non-formedness and non-realization of the model of the social state of Ukraine, uncertainty of social responsibility of the state for the quality and standard of living of the population, strengthening of social inequality, loss of human and intellectual capital, etc;
- decrease in opportunities to promote demographic development, to increase the level of health service, to implement the standards of a healthy lifestyle;
- deterioration of conditions for the modernization of the national education system;
- underdevelopment of institutions of civil society, lack of democratization of governance, subject-subjective relations between the government and the public;
- high level of shadow relations in labor and social spheres;
- low level of trust in the system of public relations;
- underdevelopment of system of legal, political, economic, social, production, innovation, corporate culture;
loss of value references, destruction of spiritual and moral norms, behavior stereotypes, non-formedness of new values, inefficiency of the old ones;
• underdevelopment of system of social responsibility of the person, society, business, state;
• underdevelopment of system of monitoring, prevention and minimization of social conflicts, social risks and dangers;
• growth of internal migration movements related to military operations, protection of life and health, own beliefs, employment prospects, conduct of business, etc;
• increase in unemployment and crime activities;
• intentions and further steps to reform local self-government and territorial organization of power in the conditions of systemic crisis.

The modernization of public administration with regard to human development requires consistent action to fulfill international obligations and national needs in this area. First of all, it requires the provision of legal status to Eighth framework (FP8), which was adopted by Ukraine, Horizon 2020, their development and implementation at the state and regional levels; overcoming of the differentiation of human development at the regional level; development of the system of state social guarantees and state social standards, ensuring the achievement of social equality and equal starting opportunities for education, health service, employment; creation of equal conditions of access to social services, social and housing services; ensuring the decentralization of social policy; justification and qualitative differentiation of social functions of the state and regions in respect of powers, duties and responsibilities for human and social development; increase of efficiency of activity of authorities of state and regional government concerning the formation and implementation of social policies; improving the assessment of activity of bodies of state and regional authorities in relation to human and social development; maintaining balance between development of market economy and ensuring social justice through fiscal, tax, pricing policy as well as credit and monetary regulation; conformation of social and labor legislation with the requirements of effective so-
cial control; ensuring a balance between the reforming of the economic mechanism and reforms in the social sphere, creation of institutional conditions for ensuring the transfer of knowledge from the university environment to the industry. For example, there is a need for conditions that will enable enterprises to use ideas and technologies, which developed in universities, under license;

1) ensure closer communication between the teaching, research staff of universities and employees of specific companies, so that researchers have a more realistic idea of the problems faced by the industry and practitioners have access to scientific knowledge. This can be achieved by using the Cape town approach, according to which the teaching staff of the University is working closely with managers-practitioners;

2) enterprises should not strive to be experts in everything, they can choose a fairly narrow industry, in which they will have competitive developments and possibilities. And of course, these small companies should closely cooperate with universities and research departments of large enterprises, making a contribution to the common cause with their knowledge from the sphere, where they are really high-class specialists [24].

The mass communication system, as a component of influential factors, should also manifest itself with a significant effect in the development of the intellectual potential of the employed population. Creative work differs from non-creative work mainly in that it does not allow to churn out the production of standard items: the product of creative work exists in one copy and is marked by the individuality of the manufacturer, his worldview, understanding of life — intelligence as a whole.

The line between “creative” and “non-creative” is variable, it depends on the status of the profession, the level of scientific development of society, education of the performer of the work. It is becoming increasingly clear that the search for and use of information are becoming a matter of technological education. A number of processes can have a purely creative character and other processes may be technologized, “churn out”, go to the sphere of production. If at the early stages, social development communication was of an
exclusively behavior nature and was determined by the vital needs of people, acting as an instrument of uniting people into groups, now, together with social development and the transformation of communication into a system of conscious, purposeful actions, communication in the field of employment is increasingly gaining the character of the creative process, when the reaction of the communicant to a certain degree (sometimes in full) is predicted by the communicant.

With the advent of the Internet, mobile communication itself turns into a “production pipeline”: the structure of professional mass communication includes elements of the production process associated with virtualization, remote control, propaganda, manipulation of people’s actions both in everyday life and in the process of their professional activities. Therefore, the consideration of communication as a production activity means that it should be dealt with as an element of the employment process, which proceeds with the use of certain technologies and it is reasonable to consider the employed ones as an intellectualized subject of communicative production [25, p. 195].

The government of the state must create a favorable political, legislative, social and economic environment in close interaction with the business entities.

Ensuring the commercial implementation of the results of intellectual activity should be carried out through the formation of special complex structures that would become direct participants in the process of creating of legal object of intellectual property, carry out an expert assessment of their commercial attractiveness, including an indicative assessment of the value of intellectual property right, study the market situation and would have the opportunity to provide effective marketing and financial support for innovative developments [26, p. 54].

Therefore, in Ukraine, it is necessary to create a mechanism to support insurance companies that specialize in insurance of innovative risks: simplification of taxation of such companies, provision of loans on favorable terms, creation of state insurance companies that would specialize in insurance of innovative risks.
The main task of the innovation market is to solve the problems associated with the lack of finance, personnel and information in innovation systems, as well as the creation of a mechanism for insurance of innovative risks.

1. To determine the sources of financing, creation and functioning of innovative systems of the regions of the state. At the initial stages of the formation of such systems, active support of the state is very crucial, it can be carried out through the creation of regional structures (innovation centers), the purpose of which would be the most effective use of public funds.

This will provide an opportunity to finance region innovative projects, which have been assessed by appropriate specialists, preferably even foreign ones. The improvement of financial support for region innovative development may be achieved through the creation of a system of venture capital and the formation of a single base of projects and programs. This will increase the investment attractiveness of the regions, achieve a significant increase in investment in innovation projects, attract private and public capital to finance research and development, mobilize domestic financial resources of the regions for the development of scientific and innovative activities.

2. To create mechanisms of insurance and compensation of possible risks of scientific and innovative activity and additional insurance of deposits of the population, as innovation is traditionally associated with high-level risks and only 10% of the implemented developments have commercial success.

3. To ensure the functioning of the regional network of innovative consulting, because the lack of integrated information and consulting network significantly hinders the creation of the innovation market in the regions. This will make it possible to form an integrated system of information support for the development of scientific and innovative activities. At the initial stage of creation of this network, it is reasonable to create and maintain a specialized website in Internet computer network. This site should meet the modern requirements of information system security in the field of electronic commerce. It is possible to create legal advice centers on
protection issues concerning intellectual property; specialists of such legal advice centers will provide legal support for the registration of scientific developments and projects as well as the examination of contracts for the transfer of intellectual property rights.

The unified information and consulting system of the region will ensure the accumulation, constant updating and exchange of information on innovation development and its services will help to solve issues related to the commercialization of the results of scientific and technical developments and transfer them to production.

4. To improve the system of training of specialists for the main high-tech industries, which, in particular, is associated with the training and education of young people to address the issue of staff provision for innovation systems [22].

2.3. Development of the national innovation system as an object of state policy

Currently, only the separate elements of the national innovation system in Ukraine are established and operate, the cycles of the innovation process are poorly coordinated with each other and not linked, so the returns from innovation activities remain low.

Low funding of research and development is evidence of the lack of developed recovery mechanisms of investment in the national innovation system of Ukraine and that is the main obstacle to its formation and development and does not allow the enterprises to deploy effective scientific, technological and innovative activities. The current mechanism of regulation of the innovative activity of business entities not only does not contribute to the expansion of financing sources of innovation development but also counteracts the attraction of extra-budgetary funds and excludes the possibility of formation of special, including departmental, innovation finance funds.

The effective integration of Ukraine into the global scientific and technological space is possible only on the basis of the develop-
ment of the innovative economy in conjunction with the current trends of global innovation development. In this context, it is reasonable to mention the tendency of increase of contradictions, imbalances and asymmetries in the global innovation space, of gradually changing its functional and structural design. These contradictions include:

1. Contradictions between national and global interests. The interdependence of subjects of different national innovation systems is increasing, leading to the formation of global innovation networks with appropriate mechanisms for self-organization and development. The global processes cause the de facto cancelation of certain state functions and the strengthening of others aimed at the formation of own stable and balanced economic development. The contradiction occurs between the objective processes of globalization of innovation processes with all its inherent features and the desire of national governments to preserve the national state economic system.

2. Increased international competition. At the world markets, competition often intensifies, leading to unfair competition, the emergence of new organizations forms of business organization (in order to obtain additional competitive advantages, firms create strategic alliances, resort to the processes of merger and acquisition, representatives of small and medium businesses join subcontracts, outsourcing, contract works), a more complex system of non-market relations is formed.

3. Current conditions and features of global competition require all market subjects to make advanced organizational and structural changes, but the existing regulatory mechanisms do not correspond to these processes, the system of institutional support of global innovation development is lagging behind the scale and dynamics of global transformations.

4. There are two contradictory trends in the development of the global technology market today. The first is the desire of technology owners to keep trade secrets and full rights to intellectual property. The second trend is in an attempt to commercialize the technology, including through entering the world market.
The existing asymmetries and contradictions of the global integration of the national innovation system, on the one hand, and the failure of the global market fundamentalism to neutralize these asymmetries, on the other, make it necessary to create an appropriate global regulatory system that would ensure the formation of effective mechanisms for the harmonization of national economic interests and policies, ensure the protection of technology owners, the introduction and compliance of countries with generally accepted norms and rules of technological exchange, as well as the adoption of sanctions against those, who violate these rules.

The integration of the national innovation system is an objective process, because the information nature of the modern stage of civilizational evolution and the formation of the fifth and sixth technological modes makes it impossible for any state to compete successfully in the high and medium technology sectors not only at the external but also at the internal markets without entering the world information, scientific and technological space.

The transformation of the national innovation system at the macro level occurs in several interrelated directions:

1. Deepening of the integration of national innovation system determines the transition to the international innovation policy, the essence of which is to create and coordinate the functioning of an integrated interstate innovation space based on international research, science and production cooperation.

2. The formation of a view on innovation as a result of the complex system of interrelations between the elements of economic, scientific, technological, educational, social and cultural systems determines that the government regulation of these processes requires orientation to an integrated system of horizontal and vertical interdisciplinary and inter-ministerial relations, formation of mechanisms for coordination of actions of public authorities.

3. The transition to an open model of innovation process leads to a significant complication of the subject structure of national innovation system, which is manifested in the formation of innovative networks as the basis of the organizational form of the innovation activity. In this context, the policy focus is shifting towards
the regulation of interactions, which is ensured by creating an appropriate institutional environment for the creation, dissemination and use of knowledge.

At the meso-level, the transformation of the national innovation system is manifested in the strengthening of trends of the localization of innovation activities, which can be determined as a process of concentration of all stages of the innovation process in separate national regions, cities, local communities. The result of localization is the creation of new forms of territorial organization of innovative activity: clusters, new industrial countries, innovative cities, science and technology parks and the like. In this context, the understanding of the essence, structure and role of the national innovation system is changing somewhat, because it is, from this point of view, not an integral structure, but a set of interrelated regional innovation systems, and consequently, there is a certain decentralization of the national innovation system with the shift of the main functionality to the regional and local level.

At the micro level, the transformation of the national innovation system is manifested in changes in the model of the innovation process. Modern innovations require a combination of various sources of knowledge and new methods of management, and the spread of global production networks and systems lead to increasing need to search for partners for the production and promotion of its products at markets abroad. In addition, research and development are more often carried out jointly with foreign partners or even conducted in another country, because knowledge and its application are becoming more global in nature and essence as well as the practice of production of knowledge and its applications.

Taking into account the likely global technological changes (the beginning of a new technological wave or its significant delay with the focus on large-scale replication of improving innovations) and possible options for the transformation of national innovation system, three basic scenarios for the development of innovation processes in Ukraine can be considered: progressive, moderate and inertial. The progressive scenario provides for the intensive development of the national innovation system and its forced integration
into the global economy with the implementation of the postindustrial development model.

It is obvious that no other scenario, except for the progressive one, will allow the domestic economy to get out of the technological trap (taking into account the severity of the accumulated problems, the scale of the gap in all indicators characterizing the development of the innovation sphere). This scenario is the most difficult, but also the most promising, in terms of ensuring the long-term competitiveness of the state. The progressive structural changes should have a system character and be implemented in the integral innovative policy and effective state stimulation of the restructuring of the national economic complex, taking into account the global trends of scientific and technological development, organic unity of political, economic, institutional, social, psychological and cultural factors of innovation dynamics. The material, financial and intellectual resources should be concentrated on the realization of innovative development priorities; increase of GDP share, which is invested in research and development. Now there is a need for the formation and implementation of a long-term strategy for the development of intellectual potential in Ukraine, which is aimed at creation of favorable conditions for the development of the intellectual potential of the nation as the basis for the formation of the competitive innovative economy to ensure the growing intellectual needs of the individual and Ukrainian society, adequate response to the systemic challenges of globalization and European integration of Ukraine. Such documents should be developed in accordance with the EU standards and become the effective means of intellectual potential management not only at the national but also at the regional levels.

The main criteria for the implementation of such a strategy in the context of economic security are as follows: the growth of GDP share distributed to higher education, science and science-driven sectors of the economy; increase in the growth of the intellectual services sector in the economy; growth in the volume of funding of research and development work, increase of the number of researchers and organizations engaged in research and development;
growth in the volume of scientific and technical works performed and their share in GDP; the growth of the average education level of economically active population of Ukraine, as well as the number of workers with higher education and mobility of workers of intellectual work; the growth of the quality of education, the formation of the market of educational services and training; ensuring the growth rate of average incomes of workers of intellectual activity.

Today it is necessary to work on the creation of such a strategy and its practical implementation. Therefore, it is necessary that competent authorities would pay special attention to this issue, to determine the terms of the creation of such a document so that it becomes a strategic basis for the development of Ukraine’s intellectual potential. And the main attention should be focused on creating conditions for improving the level of economic security of the state on the basis of intellectual potential, including the use of all possible mechanisms of direct and indirect impact of government regulation, taking into account the real resources for their implementation.

The necessity of Ukraine’s integration into the European and world competitive environment determines the need to create an innovative development model, in which the main source of economic growth is the results of intellectual activity and their practical application. This is the generally recognized way, which not only the highly developed states but also states undergoing transformation use to develop the economy based on knowledge.

The intellectual potential of Ukraine should be aimed at solving not only the problems of state development, economic development and improving the living standards of the population, but also at becoming the basis for ensuring economic security by intellectualization of social processes, implementation of the state’s innovation policy, use of educational, scientific and cultural potential, increasing the role of science and education in the modern development of the state. The formation and implementation of a long-term strategy for the development of intellectual potential in Ukraine will enable the state and society to form a close connec-
tion in the field of intellectual potential management that will significantly enhance the economic and political security of Ukraine.

This approach should provide for: concentration of resources on the priority areas of creating conditions for the growth of intellectual potential and strengthening of its role in ensuring economic security; unity of educational and scientific processes and their focus on economic, social, intellectual and spiritual development of society; optimal combination of government regulation and management of intellectual activity in higher educational institutions, scientific institutions, enterprises and organizations [27, p. 26].
Section 3

DIRECTIONS OF IMPROVEMENT OF GOVERNMENT REGULATION OF INNOVATIVE AND INVESTMENT POLICY

3.1. Current state and problems of political and legal, regulatory and organizational control of innovation and investment activities

At the turn of the millennium, Ukraine was one of the leading countries of the world in terms of the number of researchers, had quite high human development index, and its index of the education level of the population even exceeded the average index of Eastern Europe and the CIS. However, the analysis of statistical sources shows that there is a steady trend of reduction in the number of scientists and organizations that perform research and development works.

The main reasons for the decrease in the number of researchers in Ukraine are: processes of emigration of highly qualified specialists; lack of replenishment of the personnel staff of scientists with young staff; lack of prospects for the implementation of own ideas due to material, economic and other reasons in the state; a large discrepancy between the commercial and state salaries of creative workers [28, p 48].

It should also be noted that the postgraduate education system in Ukraine is not sufficiently developed; postgraduate education does not meet the requirements of innovative development concerning a continuous professional development of all working members of the society. People of Ukraine spend much less time on the increase of qualification level than in innovative and developed societies.

The innovation activity is the purposeful activity of business entities regarding the design, creation, development and produc-
tion of new types of equipment, subjects of labor, intellectual property (patents, licenses, etc.), technologies, as well as the introduction of more advanced forms of labor organization and production management. In the conditions of effective interaction of all elements of the innovation system, the main factors of innovation activity at the macro level are the growth rates of public spending on the development of science and education, rational innovation policy of the state, stimulating tax, credit, depreciation policy [29, p. 48].

In Ukraine, there is a decrease in the innovative activity of enterprises, which indicates primarily the limited domestic effective demand for innovation and the lack of effective incentives for innovation activity. Taking into account the nature of the licenses that domestic enterprises buy, it can be noted that the demand of industrial enterprises for innovations is characterized not only by limited financial opportunities but also by low quality. The continuation of these trends can lead to the preservation of the technological inferiority of Ukrainian industry.

One of the significant factors hindering innovation activity at the enterprise is a long payback period of innovations, as in the conditions of instability it means additional risks. The enterprises refuse to introduce innovations in production due to the high economic risk that, in its turn, hinders the innovative development of the country.

The state of financing of innovative activity, which, unfortunately, is at a fairly low level, is crucial for the development of the innovative environment of Ukraine. And since finances accompany an innovative product through all stages of its creation, it becomes clear what lack or complete absence of financing can cause.

In accordance with the current legislation, namely, the Law of Ukraine “On Scientific and Scientific and Technical Activity”, the innovation development in Ukraine is provided at the expense of financing from various sources. In particular, Article 34 of this law establishes that budget financing is one of the main instruments for the implementation of state policy in the field of scientific and scientific and technical activities [30]. The state must provide
budget financing of scientific and scientific and technical activities (other than defense expenditures) of at least 1.7% of Ukraine’s GDP. However, the actual amount of financing of scientific and scientific and technical activities from the state budget decrease with each year.

In order to solve the problems of increasing the country’s innovation potential, it is necessary to identify the main tasks and potential opportunities for innovation in Ukraine.

Taking into account the above mentioned, one of the main directions in the process of Ukraine’s transition to innovation is an improvement of the investment climate in Ukraine and stimulation of investment in the development of innovative products and technologies [31, p. 23].

The search for external sources of financing not only for innovation but also for other spheres of the economy is the main feature of the current stage of Ukraine’s development [32, p. 162]. Due to the attraction of investments to production, the volume of production is increased, the funds are modernized, and within the country it means that the level of market competition, the balance of payments, and the investment infrastructure are developing.

Historically, a significant part of the foreign direct investment into the Ukrainian economy throughout the period of independence was directed at the acquisition of existing enterprises, their expansion, reconstruction and partial modernization. First of all, it concerned large industrial enterprises. However, direct foreign investments directed to other sectors and sectors of the domestic economy quite often relied on the existing material and technical base, but did not create new innovation centers at the same time. Therefore, it is logical that, with time, when the most attractive objects for business were denationalized and their owners were changed, the rates and volumes of foreign investment in the Ukrainian economy began to decrease. An important place in the innovation sphere is given to investment activity. Investments and innovations are interconnected and interact with each other. Therefore, in order to achieve the economic effect, it is necessary to direct the
main volumes of investments into the innovative sphere of the
economy.

Dynamics of direct foreign investments depends on the invest-
ment attractiveness of the country as a whole, as well as its indi-
vidual regions. As for state support for the development of the in-
ovation sector, one can state the low level of state financing of
innovation activity.

A number of laws and regulations have been adopted in
Ukraine, which should create favorable financial conditions for in-
novation. But most of them either do not act or act in a non-exist-
ent way. In addition to many other conditions, the political will
and coordination of the main centers of economic power in the
state (the Verkhovna Rada, the Government, the President and
the National Bank of Ukraine) are also needed to form an innova-
tive type of development.

A major drawback in determining the volume and structure of
expenditures for financing of innovation sphere is that the forma-
tion of budgetary expenditures in this area is based on the propo-
sals of the ministries and departments, and not on independent as-
sessments of their real needs, which leads to an imbalance between
the need for the financial resources and their availability.

Today, in Ukraine, in addition to external investors, there are
also domestic potential investors. However, for wider involvement
of domestic investment, the mechanisms are needed to attract
shadow capital. In addition, credit resources, property rights and
intangible assets, loans, collateral and other types of financial re-
sources should be included in the financial turnover, since the more
innovative investments there is, the more effective the innovation
system will be. Solving these problems requires the development of
state programs, the introduction of financial motivation and the
development of an appropriate innovation infrastructure.

The creation of such infrastructure is suppressed by the state
policy on the development of innovation activities in the country.
In Ukraine, the legal and regulatory framework for scientific, sci-
entific and technical and innovation activities has a number of dis-
advantages. Legislation that regulates innovation activity is too
broad and diverse. Often, the same provisions may have opposing interpretations, and the adopted development concepts have no specific deadlines, implementers, and implementation mechanisms.

In turn, the legislative base of innovation activity is not perfect. Currently, at the legislative level, there is no adequate protection of intellectual property rights; no legal conditions have been created for the functioning of venture capital as a market institution; procedures for the creation of individual subjects of innovation activity are groundlessly complicated. At the legislative level, the criteria for project innovation and the distinction between investment and innovation projects are not fixed.

Consequently, on the basis of legislation, a favorable legal environment should be created. This environment must ensure a set of rights and obligations of domestic entities or their foreign partners in choosing the types of economic activity, its organizational forms; in the appointment and use of sources of funding, access to resources, the right to own and manage the means of production.

One of the components of investment attractiveness of the country is the domestic investment. To increase them, it is expedient to develop rational terms and conditions for taxation of small and medium businesses, granting benefits for conducting of their activities, which, in turn, will reduce the level of the “black economy”.

The creation of “regional monopolies” is a negative consequence for small and medium-sized businesses, therefore it is important to increase the efficiency of the activity of the antitrust authorities of Ukraine. The low investment attractiveness of the regions of Ukraine leads to a low level of investment in its economy.

Every effort should be made to create a favorable investment climate to attract both domestic and foreign investments. But, unfortunately, the investment rating of the regions of Ukraine indicates the low professional level of state management of investment activity [33, p. 37].

The Ukrainian economy was strongly influenced by the global financial crisis. First of all, it caused a liquidity crisis in the bank-
ing sector, as foreign banks turned their programs down. In addition, the National Bank of Ukraine has made bigger requirements for reserving of resources, which led to an increase in the cost of loans. As a result, the growth rates of mortgage loans have fallen below the growth rates of the total loan portfolio. There was a significant fall in the stock market, also due to the financial crisis and the withdrawal of foreign investors’ from Ukraine because of this crisis.

The separation of savings into organized and unorganized components (on deposits and directly from the population) may be insignificant in developed countries, where the black economy is relatively small. In countries with a transformational economy, the volume of unorganized savings is quite large. These funds, most often convertible into US dollars or euros, are essentially withdrawn from economic circulation. In Ukraine, the amount of free money in the hands of the population is up to 50 billion dollars. The availability of such a large cash array was made possible by the uncertainty of the economic situation, the lack of effective tools for attracting private investment, and the lack of experience in this case [34, p. 132].

Building of positive trends in Ukrainian economics requires the determination of government priorities and the development of mechanisms that will facilitate the activation of innovation and investment activity. A special role should be played by the state tax policy, which is currently not a stimulant, but one of the inhibitory mechanisms of investment support of innovation development.

Stabilization of Ukraine’s economy requires intensified attention to the regulation of investment processes in the regions. At the regional level, it is easier to improve the investment environment and ensure competitiveness as a factor of investment activity.

The investment activity in regions is uneven. Much of the capital investment goes to Dnipropetrovsk, Kyiv, Kharkiv and Odessa regions. Among the cities, the prevailing share of investments is in Kyiv. From the perspective of investors, all benefits for their activities (construction plans are being implemented, developed infra-
structure and skilled personnel are available) are concentrated in Ukraine’s capital. In the structure of the territorial division, there is a slow movement (but all the same it is a movement) from the regions of resource and raw materials specialization to regions with increased innovation, intellectual, consumer and industrial and agricultural potentials. In addition to the above-mentioned regions, high industrial and agricultural attractiveness exists in Zaporizhia, Ivano-Frankivsk, Lviv regions. The lack of domestic funds to solve the tasks of stabilization of the economy requires the attraction of foreign capital, primarily foreign direct investment. World practice shows that the direct investment is a key element in economic development, contributing to the strengthening of economic complex, increase in scientific and technological potential restructuring.

A serious problem is to stimulate the inflow of foreign investment by providing them with preferential conditions. At the same time, however, it is necessary to strive for the creation of a favorable investment environment not only for foreign investors but for your own.

It is considered that improvement of the policy of attracting foreign investors is associated with the solution of the following problems:

• regulation of property issues, especially ones related to real estate and land, in accordance with existing international standards;

• adoption of laws and regulations on issues that concern foreign investment, in a single package;

• development of the concept (program) with a clear definition of the purpose of attracting foreign investment, the definition of priority spheres, the mechanism of implementation of the goals;

• implementation of the policy of protectionism to support domestic producers and protect promising sectors of the economy.

The effective use of foreign investment requires the improvement of government regulation. First of all, it is necessary to clear-
ly define and delineate the powers of the objects of government regulation in this sphere in order to coordinate their activities and avoid duplication of powers.

Besides that, the attention must be paid to the fact that the economy of the country, in which the domestic investor practically does not invest in the production development, cannot be attractive to a foreign investor. The attraction of foreign investments should be carried out taking into account the goals and objectives of the state programs of structural reorientation of production, target programs of inter-sectoral and sectoral development, conversion and development of export potential. It is also necessary to take into account the processes of internal and external cooperation of products for industrial purposes, privatization of state enterprises with the involvement of foreign capital. The expediency of this approach is confirmed not only by foreign experts but also by the experience of some countries, for example, Japan, where the purchase and use of foreign licenses to a large extent contributed to its social and economic development. The economic conditions should be created for the intensification of investment activities at the national level through the use of primarily financial and economic methods of investment control and stimulation, which are typical for the market economy [35, p. 356].

These methods include:
- control of tax rates;
- refinancing;
- establishment of norms of mandatory reserves in National Bank of Ukraine;
- stabilization of the exchange rate;
- reduction/increase of customs duties and the like.

The methods of economic control also include subsidizing of interest on loans to finance investment. This will meet the priorities of regional investment policy and promote co-financing from public and private investment sources.

In addition, in the context of insufficient budgetary funding of the scientific and technical sphere, the need to implement extra-
budgetary incentives for scientific and technological progress is becoming more necessary. Thus, an effective scheme for financing of innovation activities could be a network of specialized non-bank public financial and credit institutions in various sectors of the economy and separate regions for crediting of innovation projects. The difference in the nature of the economic problems faced by certain regions also leads to the need for different approaches to their solution.

Accordingly, the state innovation and investment policy should be formed taking into account regional investment programs. As the investments included in the state program will be implemented, objects will be built on certain territories of specific regions, the economic interests of which should be fully taken into account. Taking into account these interests may be ensured through joint equity financing from state and regional sources, the provision of preferential centralized investment loans under the guarantees of local banks [36].

Thus, innovation and investment potential influence a number of different factors that may contribute or hinder innovation and investment activities.

3.2. Competitive strategy of investment business: an institutional approach

The variety of approaches to the interpretation of investment and innovation strategies, as well as the nature of their interrelations, only distinguishes the diversity of the definition of investment and innovation strategy. The investment and innovation strategy is a specific tool for the implementation of a corporate growth or stabilization strategy through investment in the economic development of the enterprise, simple and expanded reconstruction of means of conduct research and development, development and implementation of innovations that ensure the enterprise resource savings and the formation of competitive advantages in the long term.
At this, an investment strategy can be developed independently from an innovation strategy, but the implementation of an innovation strategy is impossible without the use of investment resources.

Not only the goals but also means of their achievement (that is, the availability of required potential) are the important components of the investment and innovation strategy. Investment resources include own and borrowed funds. The means, which are necessary for the implementation of innovation strategy, are the availability of required productive potential, manpower, information and market potential.

The competitive (business) strategies are subject to the corporate policy, they indicate the ways of achieving of the chosen direction by each strategic business unit and present a plan of winning of strong long-term competitive positions (advantages). These strategies are also called business strategies or competitiveness strategies.

A prerequisite for the development of an effective competitiveness strategy is the definition of the strategic nature and boundaries of the business by the strategist.

To determine the boundaries of business interests within the frame of the development of the competitive strategy of the enterprise, it is necessary, as a rule, to clearly identify and investigate the following factors:

1. The need of consumers.
2. Segments of consumers, that is, to decide on the issue of “where and for whom” the goods are sold.
3. Technological and functional execution, that is, the ways to satisfy the needs of a consumer. The strategic economic management zones are considered as separate segments of an external environment of enterprise (according to the concept of nature of competitiveness intensity by M. Porter: both consumers and resources), which bank system must or needs to enter. The initial analysis provides for selection of the strategic economic management zones and their study out of the scope of existing structure and nomenclature of products and services. This gives the oppor-
tunity to evaluate the possibilities, which are given by certain strategic economic management zone to any competitor concerning possibilities of development, profitability, stability and technologies as well as for determination of the ways the enterprise may compete in this zone with other enterprises.

4. The comprehension of its business by the enterprise evolve as business structures increase their possibilities concerning satisfaction of new needs or interaction with interlinked market segments, develop or gain new technologies, react to changeable consumer expectations or action of competitors in order to be better than them. Most often the comprehension of business is reconsidered when activity indexes are lower than the ones of the competitors or when new competitors appear. But it’s better to determine such evolutions or disadvantages as developing of investment business and make corrections to competitiveness strategy than to wait until difficulties will occur.

Based on the above mentioned, it may be noted that to be maximally effective, the core of competitiveness strategy must contain the following elements:

1. Definition of business and the ways the business structure is going to maintain competitiveness (first of all determination of consumer needs, which are to be satisfied); determination of technologies and resources, which the enterprise needs to develop to satisfy these needs; determination of scope and scale of activity types from the point of view of worthiness chain; determination of limits of the channels, with the use of which it is planned to ensure access to strategic economic management zones.

2. Strategic orientation, which determines the ways, using which the business intends to obtain and maintain competitive advantages.

3. Goals, which the team that conducts business aims to achieve in the future.

The higher level of competitiveness strategy of an enterprise is the mission, that is, key instruction, which indicates the direction of focus of separate tasks, which turn intentions of managers in certain strategic goals and actions needed to achieve them. The
higher level must certainly be general and be developed for long-
term.

The next level of competitiveness strategy of enterprise de-
scribes the strategic direction in more details. More detail descrip-
tion is provided by functional strategies (from research and de-
velopment to production, distribution, sales, prices and etc.) as well
as by programs of development of new products and projects of ba-
sic investment, such as the construction of new plants and mo-
dernization of existing ones. At this level, the basic attention is
paid to specific types of activities related to the expenditure of
time, funds and energy, which significantly affects the strategic di-
rections of business. This may occur only when strategy elements
strengthen and do not contradict each other. So in the wider sense,
the competitiveness strategy should be focused on the unification
of strategic efforts of different functional subdivisions of enter-
prise (purchase, production, research and development activities,
finances, personnel divisions, sales, marketing, etc.) [37 p. 44].

In the world, there is now high competition for investment, and
an increase of position of Ukraine and domestic business struc-
tures in rating is the indicator of its attractiveness for internation-
al corporations. Doing Business is one of the key ratings, which is
considered by investors when they plan to locate their production
in this or another country.

Although Ukraine adopts laws for improvement of business en-
vironment, these laws are not always efficient, and position ana-
lyzed in the ratings does not reflect all the problems, as rating of
World Bank analyses mainly the procedure in Doing Business re-
port, it does not reflect objective situation in the state, because
even, if the government policy seems successful, it is not always
efficient. Confirming this thesis, foreign experts state that im-
provement of positions of Ukraine in Doing Business rating main-
ly reflects that fact that a number a law and government initia-
tives were taken, and this absolutely does not mean that invest-
ment climate in Ukraine was improved in reality.

Modern states, economies of which are built on market princi-
pals, try to develop and implement state regulation to reduce ne-
gative consequences of inabilities of the market. According to inability theory, the states are divided into groups of states, which are symmetric to features of the market and group of states, which require the similar set of instruments for their reduction. That is, the occurrence of any crisis directly indicates the intensifying of certain inabilities of the market or the state. That is why identification and overcoming of inabilities is the prime task on the list within the frame of the reformation of economic system [38, p. 11].

The position of the state in international ratings is the informative index of the efficiency of state policy in different spheres, in particular in an economical one, which is taken into account by the leading international creditors and companies in the implementation of crediting and investment.

1. Global competitiveness index. Within the frame of the global competitiveness ranking, the Competitiveness index determines the ability of an economy to grow in the long-term period. It consists of 114 indicators, 2/3 of which are the results of a survey of business leaders, 1/3 — statistical information. The business survey was conducted in January-March 2015, most of the statistical data is for 2014. Ukraine lost most of its positions concerning the elements of the macroeconomic environment (minus 29 positions, 134th place out of 140 countries) and the level of development of the financial market (minus 14 positions, 121 place). The assessment of “health and primary education” (minus 2 positions) has slightly worsened. Traditionally, Ukraine lags behind in the ranking of elements of the quality of institutions (in 2015, as in 2014, Ukraine is on the 130th place) and the efficiency of the market of goods and services (106th place) [39].

2. Ease of Doing Business index. Ukraine took 83rd place among 189 countries, according to the Ease of Doing Business index in 2015. In General, our country has risen by four steps compared to 2014. The greatest progress is recorded in the sphere of the opening of business, at the same time positions based on the indicators of the fulfillment of the contracts and obtainment of permits for the construction deteriorated significantly [40].
The Ease of Doing Business index is calculated on the basis of ten indicators (which constitute methodology of Doing Business Project): the creation of business, work with construction permits, connection to electricity, registration of property, obtainment of credit, protection of investors, payment of taxes, trade across borders, enforcement of contracts, closure of businesses [41].

3. Global innovation index. According to Global innovation index, Ukraine took the 64th place out of 141 countries in 2015 (–1 position). The Global innovation index covers 7 key elements of the research: institutions; human capital and research; infrastructure; market experience; entrepreneurial experience; knowledge and technology (scientific and practical results) and results of creative activities. If we analyze the position of our state on the index criteria separately, we will get the following result: institutions 98th place; human capital and research 36; infrastructure 112; market experience 89; business experience 78; knowledge and technology (scientific and practical results) 34; the results of creative activities 75 [42].

4. Economic freedom index. According to the annual ranking of states in terms of economic freedom Ukraine took 162nd place out of 178 countries in 2015 (in 2014 it was 155th place). The experts of the American research center The Heritage Foundation define economic freedom as “the absence of government intervention or obstruction of the production, distribution and supply of goods and services, except for the necessary protection and support of freedom for citizens as such.” The degree of freedom of the economy is calculated on the basis of the arithmetic average of ten indicators: freedom of business, trade, financial sector, investment, labor, monetary and fiscal freedoms, guarantees of property rights, the volume of the bureaucracy and the degree of protection against corruption. Thus, the result of “absolutely free” economy should be 100 points, and where there is no freedom in general, respectively, zero.

5. The positions of Ukraine worsened on eight of 10 indicators. The worst situation was with guarantees of property rights, investments, management of public expenditure. Ukraine did not
manage to cope with the old problems: corruption, close connection between the oligarchs and government, the weakness of the legal system. Besides Ukraine, the list of states with “repressive economy” included another 25 states. At the end of the list of this group, there were countries of Africa, Latin America, in particular, Argentina and Venezuela, as well as Belarus and Turkmenistan.

6. The Investment attractiveness index. The investment attractiveness index of Ukraine was 2.57 points out of 5 possible ones in the 4th quarter of 2015. The evaluation of investment attractiveness is performed by the European Business Association and is based on regular monitoring of the business climate by the first persons of companies, which are Association members. 71 top managers took part in the study this time. During the year, the situation was relatively stable, there were almost no fluctuations, as the Index level never exceeded the average value and the whole of 2015 remained in the negative plane (1st quarter 2.51; 2nd 2.66; 3rd of 2.56). It is worth noting that 3 points is a neutral level, and everything below is a negative value. Thus, the main destructive factors in the development of the institutional business environment in Ukraine are:

- low efficiency of state regulatory policy in the sphere of economic activity, non-application of regulatory legislation in practice, in particular in terms of bringing to disciplinary responsibility the heads and officials of central and local authorities responsible for violation of the order of regulatory activity;
- the imperfection of the regulatory and legal support of the struggle with the criminalization of the economy, one of the main shortcomings of the domestic legislation in this sphere is the lack of a system of specialized criminal, legislative, procedural, financial and fiscal measures aimed directly at combating organized offenses in the economic sphere;
- low efficiency of strategic planning and programming of the state policy of entrepreneurship support. As a rule, the programs of support of entrepreneurship at different levels concern only the small entrepreneurship sector and do not form
an integral system of entrepreneurship development, there is no proper continuity of programs, the quality of work on the strategic goals is low and the amount of funding for programs is not always justified;

• low quality of corporate management. In the developed countries, the institutional behavior of the managers of joint stock companies is intended to maximally show the results of activities, which will give the possibility to increase the level of capitalization of the enterprise, but in domestic conditions, the managers and majority shareholders are trying to “hide” financial flows and understate the rates, so the profits may be shared among a limited number of shareholders;

• an imperfect system of technical supervision and standards. Corruption in Ukraine has an extremely significant destructive impact on the formation of an effective business environment. To overcome this phenomenon, firstly, it is necessary for the Ukrainian government to have the political will to implement a system of coordinated and transparent actions to overcome corruption. Secondly, it is essential to radically deregulate many social processes (simplification of property registration procedures, opening and closing of a business, trade regime procedures, customs procedures and security requirements in trade and markets) by reducing the state apparatus and minimization of contacts between officials and business entities. Thirdly, it is necessary to legislate the mechanisms of civilized lobbying of business interests with the parallel elimination of business representatives from public authorities.

The strategy of the decentralized regulation is characterized by more indirect state participation in the investment development of separate organizations and business entities. This means a lower centralization degree of management of investment processes by the state. The state implements its investment policy by creating innovations in the public sector. The state allocates appropriate resources in order to create an initial demand for innovations. The
tax incentives and other preferences for investment activities are provided to implement this strategy.

The strategy of the decentralized regulation provides for the transfer of the initiative to business entities. The state uses tax and other incentives for investment development and creates favorable legal, investment, technical and economic conditions for this activity. This strategy is the most widespread in the US, UK and other countries.

3.3. The role, place and tasks of the technology transfer for innovation modernization

The technological development of any state is impossible without effective functioning of mechanisms of technology transfer as an element of the national innovation system.

The technology transfer plays a decisive role in spreading of objects of intellectual property rights. In a broad sense, the latter means interaction between two or more partners, in cases when at least one of them transfers his technology through know-how, patents and technical assistance to the other partner, who wishes to implement and use this technology for a specific purpose [42, p. 30]. This definition does not consider technology transfer as a commercial phenomenon, as it can serve to increase the amount of knowledge/know-how of one party without any financial transaction. However, the basic rule of technology transfer is that both parties should receive profit from it on a mutually beneficial basis. A technology recipient, for example, can acquire know-how and gain a technological advantage over competitors, and a technology owner can gain some financial benefit from cooperation and develop other technological solutions to improve competitiveness, reduce costs and increase profits.

Ukrainian Institute of science, technical and economic information (UkrINTEL) carries out activities in the field of technology transfer in Ukraine. UkrINTEL activities in the sphere of technology transfer are aimed at the implementation of the operational
provision of necessary scientific and technical information and relevant technical solutions to developers, manufacturers, consumers of high technologies and potential investors, as well as at promotion of the development of partnership relations between Ukraine and the international community.

The dissemination of information on new developments, technologies, know-how, inventions, discoveries, products is carried out by UkrINTEL not only through electronic channels but also through a number of Ukrainian and Russian periodic publications [43]. In order to develop the National technology transfer network and increase the number of its participants, it is necessary to solve the following tasks:

- dissemination of the idea of technology transfer as an important factor in the formation of the innovation environment;
- expansion of information exchange between technology transfer participants (scientists, specialists and managers);
- creation of a database of new technologies and its updating;
- training of specialists in the sphere of technology transfer (including technology brokers) and improvement of their qualification;
- assessment of new technologies, development and implementation of mechanisms for their commercialization;
- provision of consulting services to subjects of technology transfer;
- ensuring interaction between the regional and branch networks (systems) of technology transfer in the framework of the National technology transfer network;
- ensuring the interaction between the participants of the National technology transfer network and international networks.

The concept and methodology of the National technology transfer network are developed in accordance with the methodology and the model of the European network of “relay centers” (Innovation-RelayCenters — IRC network, since 2008 — EEN), the Russian technology transfer network RTTN and Ukrainian technology transfer network UTTN.
The main objectives of the National technology transfer network are:

- transfer of technology, know-how between scientific sectors and industry;
- search for partners and investors for cooperation in the development and implementation of high-tech scientific product both in Ukraine and abroad;
- organization of interaction of NTTN with international technology transfer networks.

The national technology transfer network is built on the principles of:

1. Unity of formats. The technological information that is used for the exchange between the participants of the national technology transfer network is provided in a single format.
2. Compatibility with EEN (IRC) and RTTN. The methodology of the work, as well as the formats for the presentation of technological requests/offers in NTTN should be compatible with the formats and methodology of EEN European network (IRC), RTTN Russian network and UTTN. The unity of the formats of the Ukrainian, Russian and European networks creates prerequisites for effective joint work.
3. Orientation on professional participants of the technology transfer process. NTTN provides for the transfer of the network methodology to the existing subjects of innovation infrastructure. Such organizations already have a customer base to provide technology transfer services.
4. Quality control of incoming information. The quality and reliability of information in technological requests/offers are ensured through granting of the right to enter information into the network database only to certified network members, who are responsible for the content and quality of their data.
5. Openness of network to new members.

The mechanism of technology transfer should promote enterprise managers to become economically interested and to have a need in the continuous large-scale renewal of production on a progressive technological basis. To do this, it is necessary to create
technology transfer departments, which would be engaged in the commercialization of the results of scientific and technical activities of universities and scientific organizations and in the effective management of intellectual property. Their obligations would be to identify and assess the commercial potential of intellectual property, which is created as a result of the research activities of universities, academic and branch institutes, innovation enterprises; to carry out marketing of intellectual property, contract research and consultation services of academic institutions and companies, which are working with new technologies; to carry out research of innovation market, to identify new applications of scientific and technological developments, to develop a strategy to promote technologies on the market; to find partners, investors, to promote the establishment of new business contacts between developers of innovations and consumers of innovations; to carry out the sell and license of intellectual property on behalf of research organizations and enterprises; to provide modern information on the basis of technology; to organize exhibitions, conferences, seminars, presentations.

The overall management of the work is carried out by the National Aeronautic and Space Administration (NASA). The established network has a general federation nature and assists all other interested agencies in the matters of technology transfer. All of this contributes to the activation of development and transfer of technology at all levels. The government does not provide direct financial support for the activities of technology transfer centers (CCS), however, it gives the universities, non-profit organizations and small business firms the right to transfer the license to commercial use of inventions made in the course of the research with the financial support of the government, industrial companies.

The function of technological intermediaries between laboratories and companies in Germany is performed by different scientific companies and joint research associations in the industry. Fraunhofer Society has the leading organizational role. After the unification of Germany, it united 45 research universities, including 9
from the former GDR. Their activities are financed through subsidies from the federal government and the incomes from the execution of contract research. To facilitate access of small firms to its services, the government provides subsidies up to 40 percent of the full cost. Local authorities, in particular, the government, take a great part in the organization of technology transfer. In particular, they make a significant contribution to the creation of scientific and innovation centers, considering this activity as one of the most important spheres of regional development. 4,25 thousand UAH from the special fund was spent for the acquisition of technologies under four strategic priorities (1; 3; 4; 7), of which, the most (19 units, or 54,3 %) was purchased in the sphere 4 Technological renewal and development of the agro-industrial complex, for which the most funds were also spent (2,26 thousand. UAH, or 53,1 %). The transfer of the technologies created with the use of the budget funds was carried out on following strategic priorities of innovation activity:

1. Development of new technologies of energy transportation, introduction of energy-efficient, resource-saving technologies, development of alternative energy sources. In 2016, under this priority, in total 78 technologies (7,3 % of the total number of contracts under strategic priority directions and 3 technologies less than in 2015) were transferred on a contractual basis at the domestic and foreign markets, almost all these technologies (76, or 97,4 %) at the domestic market, in particular, industrial enterprises 24 technologies, or 31,6 %.

As in 2015, transfers were carried out in all three forms (15 units with the revenue share of 19,8 %) and other contracts (61 units with the revenue share of 80,2 %) at the domestic technology transfer market. Know how, agreements on the acquisition (transfer) of technologies are the most popular forms of transfer of 8 units, or 53,3 % and 10,5 % of quantity at the market, 6 of which for industrial enterprises. The revenues volume of this form amounts to 731,90 thousand UAH (13,2 % of revenues at the domestic market), of which 231,20 thousand UAH, or 31,6 % from industrial enterprises.
The smallest share of funds (7,00 thousand UAH, or 0,1 %) came in the form of “licenses, license agreements for the use of inventions, industrial samples, utility models”, of which 4 technologies were transferred, among which 3 agro-industrial for industrial enterprises.

At the foreign market, 2 technologies were transferred to industrial enterprises in the form of “know-how, agreements for the acquisition (transfer) of technologies” and 1272,20 thousand UAH were received.

The average cost of technologies transferred at the domestic market is 72,89 thousand UAH, in the foreign 636,10 thousand UAH.

All the technologies were transferred by priority organizations of the Ministry of Education and Science.

2. Development of new technologies of high-tech development of the transport system, rocket and space industry, aircraft and shipbuilding, weapons and military equipment.

In 2016, under this priority, 16 technologies (1,5 % of the total number of their quantity under strategic priorities) were transferred under agreements that are 33 % less than in 2015 (24 technologies), all these technologies were transferred for industrial enterprises at the domestic market. The volume of revenues from technology transfer amounts to 48728,29 thousand UAH, or 71,1 % (the largest share) of the total volume under strategic priorities and 123,5 % compared to 2015, almost all revenues (48708,59 thousand UAH, or 99,96 %) are received from the transfer at the domestic market. As in 2015, the transfer of technologies at the domestic market was carried out in all three forms and under other contracts, of which the form of “licenses, license agreements for the use of inventions, industrial samples, utility models” is the most popular (825 units, or 91,6 %), this form was also the most profitable (30206,43 thousand UAH, or 62,0 % of the revenues under the priority).

The least number of technologies (16 or 1,8 %) was transmitted in the form of contracts “on exclusive property ownership rights to inventions, industrial samples utility models” (all were transferred
for industrial enterprises), which also were least profitable (296,15 thousand UAH or 0.6 %).

1 technology (0.1 %) in the form of “know-how, an agreement for the acquisition (transfer) of technologies” was transferred at the foreign market, for which the amount of 19,70 thousand UAH or 0.04 % of the total volume under strategic priorities was received.

The average cost of technologies transferred at the domestic market amounts to 54,06 thousand UAH, at the foreign one 19,70 thousand UAH. The technology transfer was carried out by three administrators, among which at domestic market: Ministry of Education and Science (73 units, or 8.1 %, with the smallest volume of revenues 1392,65 thousand or 2.9 %); National Science Academy (the least quantity 16 units, or 1.8 % with revenues volume of 17451,64 thousand UAH, or 35.8 %) and National Academy of Agrarian Sciences (the largest number of transferred technologies 812 units, or 90.1 % and the highest revenue 29884,00 thousand UAH, or 61.3 %).

It should be noted that the results of the monitoring of financing strategic priorities and medium-term national priorities shows that in 2016, as in previous years, the largest share of budget funds were spent on the 4th strategic priority and for its implementation that created favorable conditions for the successful transfer of technologies, which were created on budget funds, for agro-industrial complex.

3. Introduction of new technologies and equipment for qualitative medical care, treatment, pharmaceuticals.

Under this strategic priority, 4 technologies were transferred, or 0.4 % (the last position) of their total number under strategic priorities and it is almost by half less compared to 2015. All of these technologies were implemented at the domestic market (in particular, 1 technology industrial enterprises).

984,01 thousand UAH or 1.4 % (penultimate position) of the total revenue under strategic priorities were received from the transfer of these technologies and it is 41.9 % (or 2.4 times less) compared to 2015, 152,00 thousand UAH (15.4 %) of these revenues were received from industrial enterprises.
All technologies are transferred in the form of “licenses, license agreements for the use of inventions, industrial samples, utility models” by two administrators: Ministry of Education and Science (1 technology and 3,00 thousand UAH, or 0,3 % of revenues) and National Science Academy (3 technologies and 981,01 thousand UAH of revenues, or 99,7 % almost all).

All funds from the transfer of technologies were credited to the special fund.

The fifth strategic priority and its medium-term priorities at the national level traditionally occupy the last positions on budget funding and that negatively affected the transfer of medical technology.

4. Wide application of cleaner production and environmental protection technologies.

It should be taken into account that innovation activity is a venture business. This means that previously no one in our state was engaged in this activity and that the motivation to engage in innovation activities is to obtain high profits.
CONCLUSIONS

The study of theoretical and methodological bases of investment activities, which was made within the frame of the monograph, gave the opportunity to formulate relevant conclusions that have theoretical and practical significance. The theoretical foundations of investment activity in Ukraine were generalized and systematized. It is determined that the methodology of investment activity study, which is used to determine, compare and justify alternative management decisions, is accompanied by the implementation of project analysis, which is a multi-stage, complex and diligent process and includes: technical, organizational, institutional, management, environmental, commercial, financial and social analyses, they are recommended to be considered in a progressive iterative order. It is proved that the main elements of the project analysis are formed according to local indicators, which reflect the main objectives of investment activities.

It is found that to increase the methodological capacity of the investment process, it is necessary to clearly define its main participants (legal or natural persons) on the basis of their functions. It is indicated that the consideration of investment activity only in methodological aspect does not give a complete picture of its nature, since it consists of the results of the influence of many factors and requires the formation of a regulatory system that provides a number of properties, such as efficiency, manageability, compliance with the interests of state development, ensuring economic, social, environmental security, etc. The investment activity is manifested in the form of capital, which can be presented in personal and intangible assets.

It is proved that the methodological basis for the study of investment activities are modern methods of scientific research, which allow to analyze the existing social, economic and environmental situation in our country.
It is found that investment activity is one of the main driving forces of sustainable economic growth of the country, the consolidation of its advanced technical mode, the creation of workplaces etc, as well as an important factor in the establishment of international economic cooperation. The foreign practices of state regulation of investment processes, which are used by such developed countries as USA, Great Britain and which can be borrowed or adjusted to be used in Ukraine, were studied.

It is determined that, in general, the policy of foreign states concerning the investment sphere pursues the following main objectives: the direction of investment on the restructuring of the economy to improve its efficiency; the circulation of savings in the investment of the real sector of the economy; the formation of an effective and controlled capital market; reduction and insurance of investment risks; the improvement of the investment climate for domestic and foreign capital, etc.

The analytical analysis of the formation and development of the investment process is carried out and the evolution stages of problematics of a decrease in the investment attractiveness in Ukraine are considered. It is determined that the list of restrictive conditions for providing the investment procedures is much wider, therefore, there is a need for a detailed analysis of the trends of their current state and development prospects in general. It is determined that the process of investment development in Ukraine should be the beginning of economic growth, the decline in inflation, reduction of the state budget deficit, stabilization of money turnover and strengthening the national currency. The main problem of the investment sphere components lies in the weak theoretical and methodological basis of formation and attraction of extra-budgetary investments.

The key features of development of the investment activity system directly influencing the formation of financial structure of investment projects in general were determined, among them: simultaneous movement of production and financial investments due to the duality of the real estate economic nature; scale of attraction of investment resources, complexity and flexibility of financing
system requiring the development of approaches to the formation of reasonable financial structure of the project at different stages of its formation; uneven cash flows and lack of investment return during all investment cycle, etc.

It is proved that the public nature of the investment process itself requires structuring the investment resources and coherence of the state’s influence on the investment process. The opinion that the mortgage financing system is an effective means for accumulation and redistribution of money, transformation of private savings into the investment resources, creation of instruments for stimulation of development of domestic financial market as well as increase in efficiency of the state economic policy, in general, was substantiated. At the same time, the complexity of market mechanisms of mortgage market functioning, constant transformation of financing processes and ineffective use of legally determined mechanisms of investment and financing determine the relevance for improvement of the mortgage market organizational level, improvement of forms, methods and instruments for its functioning. Thus, the development of the mortgage market in Ukraine is one of the most important problems at the present stage requiring the urgent solution.

It is determined that the growth in prosperity of population and its social and economic safety are the integral indicators of progressive development of the country and powerful factor in its economic and labor potential. The methodology of management of specific and integrated types of risks of investment activity, including planning, identification and risk evaluation, is considered. The planning determines the order, sequence and period for implementation of risk management measures. Herewith, this refers to predictive risks that can be identified and evaluated prior to the project implementation. Such risks will comprise a risk management plan, which includes a list of identified project risks, their evaluation and strategy for processing method.

At the stage of risk identification, the process has subjective nature and is based, mainly, on the own experience of researchers, and it is very difficult to systematize. There is no any standard
classification and methodology. The risk identification process is inextricably linked to their evaluation. The risk research can be conducted by evaluating the qualitative and quantitative parameters. During the qualitative analysis, the risk factors and types are identified, and during the quantitative analysis, the value both of individual risks and risks of the enterprise, in general, is evaluated. The expert risk evaluation methods (surveys, SWOT analysis, “rose” and “spiral” of risks, etc.) allow predicting the influence of risk factors on the entire or certain life cycle of the project. But the main disadvantage of this group of methods is subjectivity. The analog method allows evaluating the risk of investment activity based on past experience, but it does not take into account the individual cases and also cannot be applied in a volatile environment.

Often such decisions become the reason for failure to achieve the planned objectives of investment projects and provoke financial losses by the subjects of investment projects. The application of effective investment risk management promotes identification of weak points at the initial stages of implementation of investment projects. Therefore, for the purpose to avoid the undesirable outcomes, the risk management subdivisions identify the investment risks, analyze and evaluate the consequences of certain risk events and develop measures for minimization of negative impacts of the investment risk event.
REFERENCES


mies in the conditions of global integration: theoretical and methodological grounds and applied aspects]. Donetsk [in Ukrainian].


27. Pshyk B. I., Kopytko S. B. (2016). Rol intelektualnoho potentsialu u zmitsnenni ekonomichnoi bezpeky der-


Ukraine]. Investytsii: praktyka ta dosvid Investments: practice and experience, 12, 35–38 [in Ukrainian].

34. Danylenko A. A. (2008). Aktualni pytannia priamykh inozemnykh investytsii do Ukrainy z YeS (u kontekstiv rozshyrennia Yevrosoiuzu na Skhid) [The urgent issues of direct foreign investment in Ukraine with the EU (in the context of the enlargement of the European Union to the East)]. Finansy Ukrainy Finance of Ukraine, 1, 127–137 [in Ukrainian].


40. Holovko O. (October 29, 2015). Indeks lehkosti vedennia biznesu mih buty y vyshchym [The index of ease of doing business could be even higher]. ukurier.gov.ua. Retrieved from


In the monograph the theoretical identification of concepts and categorical series of state regulation of investment-innovation processes are investigated; the directions of optimization of the state policy of innovation and investment development management in Ukraine are determined; the organizational and legal principles of the state regulation of development of intellectual potential of the population are substantiated.

Science Edition

Bogdanenko A. I.

RESEARCH OF INVESTMENT AND INNOVATION ACTIVITY IN UKRAINE: TRENDS AND PROBLEMS

Monograph

Corrector A. A. Tyutyunnik
Computer layout by N. V. Kovalenko
Covering O. O. Stetsenko

Signed in print 30.07.18. Format 60×84/16:
Conditional drukaski sheet 4,64. Accounting and publishing sheets 3,80.
Edition 300 copies.

Interregional Academy of Personnel Management (IAMP)
03039 Kyiv-39, Str. Frometivska, 2, IAMP

Publisher and manufacturer
ДП «Видавничий дім «Персонал»
ave. Chervonozoryanyj, 119 lit. XX, Kyiv, Ukraine, 03039

Certificate of entry in the State Register
publishing business publishers DK # 3262 of August 26, 2008