

State Economic Safety in the Conditions of Innovative Economy Formation

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Abstract—Innovations and innovative activity get the increasing value for successful financial and economic activity of the countries and regions. The level of innovative sphere development determines place of a country or a region in world economy and forms a basis of steady economic growth. This article is devoted to different aspects of organization of the national economic safety in the conditions of innovative development, its problems, risks and threats. Economy can be considered as aspiring for transition to innovative way only with finding of economic safety: financial independence, power stability and technological progress. There are statistical indicators, defining the level of economic security and factors, threatening economic safety of the state. The research is based on the analysis of factors and indicators in conditions of innovative development. The paper is illustrated by the examples of possible estimated system of the economic safety level.

Keywords—Economic safety, innovative activity, innovative development, innovative economy

I. INTRODUCTION

INNOVATIONS and innovative activity get the increasing value for successful financial and economic activity of the countries and regions. The level of innovative sphere development determines place of a country or a region in world economy and forms a basis of steady economic growth. For successful integration of the country into the world economy it is necessary to be in a progressive phase of development and to be based on the advanced scientific developments and new technologies. That's why innovations and innovative activity can be considered as one of the major factors, capable for influence on ensuring of national economic safety in the conditions of globalization. The importance of economic safety in the conditions of innovative economy formation for many countries cannot be underestimated. The economy can be positioned as applying for transition to innovative way only with finding of economic safety by means of financial independence, power stability and technological progress [1]. Economic safety assumes national economy ensuring at that step of development, which ensures economic growth and is capable to counteract influence of external and internal threats.

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One of criteria of economic safety is the estimation of resource potential, possibilities of its development and level of efficiency of resources use.

Problems of economic safety ensuring draw to themselves more and more attention of politicians, scientists and society as a whole. Scales of threats, which can damage economic safety of the country, make the named problems the most actual for modern economy.

II. THE PROBLEMS OF FORMATION OF INNOVATIVE ECONOMY

Studying of innovative economy was began not so long ago and nowadays it attracts a lot of attention of modern scientists, researchers and experts. Some researchers, for example, E.Toffler, F.Fukujama, D.Bell, J.Naisbitt and others, consider that for the majority of the developed countries in the modern world the innovative economy ensures the world economic superiority of the country. Besides, leaders of such developed countries, as the USA, Finland, Israel, Sweden etc. are engaged in development of innovative economy.

For the first time talking about development of innovative economy have been started in the USA by American futurologist E. Toffler, who describes the beginning of its formation in the following way: «The first symbolical indicator of disappearance of economy of chimneys of the Second Wave and a birth of new economy of the Third Wave: «white collars» numerically have surpassed factory workers and «blue collars» [2].

In the work of the American sociologist and publicist D.Bell «The Coming of Post-Industrial Society» such transformation of economy is described at which the superprofit is created not at the expense of manufacture, but at the expense of the organization of the new markets. The innovative economy is the following economic formation, which comes in the stead of industrial economy [3].

In the beginning of XXI century developed countries have embarked on a path of creation of absolutely new, postindustrial economy, economy of knowledge. The innovative economy is the economy of a society based on knowledge, innovations, on friendly acceptance of the new ideas, new machines, systems and technologies, on readiness for their practical realization in various spheres of human activity. It allocates a special role of knowledge and innovations, first of all, scientific knowledge. In innovative economy under the influence of scientific and technological knowledge traditional spheres of production of goods are transformed and considerably change the technological basis, because the manufacture which is not based on new knowledge and innovations, become nonviable in the conditions of innovative economy [4].

Also the innovative economy can be defined as the type of the economy based on a stream of innovations, on constant technological perfection, on manufacture and export of hi-tech

production with very high added value and technologies [5-6]. It is supposed that basically the profit is created by intelligence of innovators and scientists, information sphere, instead of industrial economy and concentration of the finance (capital) [7].

Base systems of innovative economy are the information technology, the computerized systems and high industrial technologies.

Innovative economy should have following signs:

- presence of the modern and advanced information technology and the computerized systems and processes;
- presence of the developed hi-tech infrastructure;
- the accelerated computerization and automation of all spheres of the manufacture;
- creation and adoption of innovations in practice;
- presence of preparation and retraining system of the a qualified specialists;
- presence of the developed financial system, capable to support a constant stream of investments into innovations.

Besides, innovative economy should be based on a special innovative infrastructure and institutes of support of innovative process:

- the legislation regulating the relations in the sphere of innovations (intellectual property protection, patents, etc.);
- the innovative centers directing researches, analyzing the innovative supply and demand, coordinating efforts of developers;
- the centers of commercialization of technologies and developments, which could help an innovation go through a long way from idea to the end-product;
- financial institutions (state and private), giving a support of innovative activity by grants and credits;
- the educational centers, institutes and schools on which base engineer, scientists and other experts will be prepared [8].

One of the most important signs of innovative economy is receptivity to innovations. Various changes in working processes of different sectors of economy can cause a resistance to innovations. Such problem takes place in many organizations and in the society as a whole, because people feel more confident and comfortable in the conditions, which are not changed and their behavior tends to be stable. Absence of innovative culture of a society is one of the main reasons of innovative stagnation.

That's why, the key problem of innovative development is creation of conditions for formation in people's mind a right attitude to the innovation and aspiration to the competent innovative activity, in other words - formation of «the innovative society» as the main subject of all innovative transformations.

Key competences of innovative society should become:

- Ability and readiness for continuous formation, constant perfection, training and self-training, professional mobility, aspiration to something new;
- Ability to critical thinking;
- Ability and readiness for reasonable risk, creativity and spirit of enterprise, ability to work independently and readiness to work in a command and in competitive environment;

- Foreign language skills as communication tools of effective participation in globalization processes, including ability to free everyday, business and professional dialogue in English.

Building up such competences is a long and difficult process including necessity of adaptation not only of simply separate directions of the social and economic policy (first of all, politicians in an education sphere) for these purposes, but also the public environment as a whole, "climate" formation in a society [9].

Forming of the receptivity to innovations should include several directions:

1. Creation of an innovative culture in a society and increase of the level of prestige of innovative activity. Forming of innovative culture and its cultivation should be realized purposefully since the childhood, gradually based on the new technologies, focused on changes, innovations, science, strengthening of collective spirit, development of cooperation. At the level of organizations and enterprises, as a rule, decisions about adoption of innovations accept at top levels of business, without having prepared for changes the employees. Thus, the understanding of importance of changes should have not only the heads of business, but also all personnel. Enterprises that introduce innovations in the activity, must develop the innovative policy, if they want to avoid resistance to changes.

2. Also, a good opportunity for forming of innovative receptivity can become involving of young people like students or graduates, in innovative processes. It's important to make them be interested in the developing of science, create indispensable conditions for it and encourage young people for their scientific activity. Creation of stimulation system of innovative activity of youth by different competitions, forums, meetings, the Olympic Games, and also by special programmes and courses in leading high schools with application of modern network forms of communications. An effective way to make young people interested in innovations is a guarantee of commercialization of their ideas and developments. New ideas and projects should have possibility to be realized.

3. Besides, one of the tools of stimulation of innovative processes is an organized system of support of innovative activity. Costs of a creation of innovations are often so high; therefore, innovative projects can't be repaid. So, it's necessary to encourage an innovative activity. The forms of encouragement can be in the form of various awards, grants and other payments or letter of commendation, etc.

4. The innovative nature of education. Forming of innovative thinking and innovative receptivity should begin, as it was noted, from childhood. It is necessary to develop system of uninterrupted education according to requirements of innovative economy. Besides, scientists, innovators, managers and other interested in innovations people should have an opportunity to receive and additional education.

5. Forming of innovative infrastructure. Innovative infrastructure is a complex of the interconnected structures serving and providing realization of innovative activity. The centers, technological incubators, technoparks, educational and

business centers, innovative clusters can form an innovative infrastructure of a country or a region [10].

The basic concepts of innovative economy are innovation, innovative activity, an innovative infrastructure. Innovations, innovative activity, innovative processes - the concepts having now various and wide interpretations. According to the international standards the innovation is the eventual result of the innovative activity in the form of a new or perfected product or technological process used in practical activities, or in the new approach to social services [11].

Indispensable characteristics of an innovation are their novelty, economic validity and it necessarily should satisfy needs of consumers [12].

Terms "innovation" and «innovative process» are close, but not identical. Innovative process is connected with creation, development and distribution of innovations. Founders of innovations – innovators are guided by such criteria, as life cycle and economic efficiency of a product. Their strategy is directed on surpassing competitors, having created an innovation which will be recognized as unique. Scientific and technical researches and innovations act as intermediate result of a research-and-production cycle and it turn to scientific and technical innovations in process of practical application – eventual result [13].

Innovative activity is the complex of the scientific, technological, organizational, financial and commercial actions directed on commercialization of store knowledge, technologies and equipment [14]. Results of innovative activity are new goods and services or goods and services with new qualities.

In the conditions of formation of innovative economy the role of highly skilled specialists is very important.

In connection with this it is necessary to emphasize that the objective requirement of innovative economy demand development of the new concept of a professional training. In its basis, according to authors, such principles should be put:

- Formation, development and self-realization of the creative person;
- Constant focusing on generation of perspective scientific and technical innovations and research of ways and methods of their practical realization;
- Focusing on preparation of highly skilled and highly intellectual specialists and system managers of innovative activity;
- Creation of a system of training and improvement of professional skill of the specialists, integrated into system of innovative production;
- Cooperation of universities and other high schools of region with the enterprises realizing innovative projects and their joint activity in the development of training programs [15].

There are many forms of innovative activity: interpartnership, small innovative firms, venture firms, technoparks, business incubators etc.

Interpartnership represents the simplest in-house form of innovative-enterprising activity when the initiative creative specialist (interpartner) has a possibility to realize an innovation.

It allows to realize new forms of business activity, creates possibilities for in-house realization of ideas; the further updating of organizational structures for support of innovations.

The small innovative firm is the small team of professionals operating independently or as a part of the large organization, specializes on a narrow direction of innovative activity and has a possibility of fast reorientation. This mobility is especially important in such spheres, as electronics, new constructional materials, the biotechnology, connected with the high risk [16].

The venture firm is created by scientists and the inventors who have left large firms, scientific institutions or universities. Their activity is often financed by the large companies, which don't dare to realize an innovation, but aspire to supervise them. In case of success they receive finished scientific and technical achievement.

Technoparks are the structures created on the basis of the higher educational institutions or on the basis of scientific research institutes with the purpose of use of scientific potential of these high schools and commercialization of the developed technologies of the small innovative enterprises taking place on a territory of the technopark. More often technoparks are created in the large university centers. Their creation and support demand considerable means.

The purpose of creation of technoparks is the organization of subjects of the innovative activity, which are a components of an innovative infrastructure of the country, providing effective realization of process of use of scientific researches and development results directed on perfection of industrial activity, economic, legal and social relations.

Business incubators can operate as independent structures, and as a part of technoparks. Usually the incubator is created by municipal administration or by large companies for a period of 3 years for realization of the innovative project. The main purpose of business incubators is to ensure the steady functioning of the small enterprises which are in its territories.

The technological centers. The innovative-technological centers are created, as a rule, on the basis of scientifically - research institutes and centers. Purposes of the innovative-technological centers similar to the purposes of technoparks; the difference is that in the innovative-technological centers more attention is paid to commercialization and transfer of technologies to corporations, capable to realize the given technologies [17].

The innovative infrastructure is the basic mechanism of innovative economy, it is capable to rise national economy on very high level. The innovative infrastructure is a set of the interconnected, complementary technological systems, the organizations, firms, which are necessary for effective realization of innovative activity and innovations [18]. Purpose of an innovative infrastructure — to promote innovative activity, beginning from inception of the idea to commercial use of the created innovation. The innovative infrastructure implies geographical concentration and closeness of key participants of innovative activity for ensuring of constant and active interaction [19].

Experience of the developed countries of the world confirms that in the conditions of a global competition in the world market the country, which has the developed infrastructure of creation and realization of innovations and owns the most effective mechanism of innovative activity inevitably wins [20].

One of the major elements of innovative economy is the innovative potential. Innovative potential can be defined as ability of various branches of a national economy to realize high technology production which is meeting the requirements of the world market [21].

The most suitable definition within the limits of a studied problem is the following: the innovative potential represents set of the innovative resources in the form of a product of innovative activity in industrial sphere, it includes commercialization of scientific and technical developments. Innovative potential is a set of scientific, technical, financial, personnel, institutional and other resources of the country or region that can be used for innovative activity [22].

Innovative potential of a region represents the characteristic of development of innovative processes which can mention:

- Different aspects of innovative activity;
- The resources providing realization of innovative activity of region;
- Ability and readiness of region for conducting innovative activity [23].

Innovative potential is closely connected with industrial-technological, scientific and technical and financially-economic potentials.

The innovative economy develops with formation of the new markets. In the new markets of ideas, developments, intellectual property, innovative products, old structures of economy are transformed in the new quality. Such organizational forms, as technoparks, the corporate educational centers, innovative clusters, business incubators, the centers of transfer of technologies, special trading platforms are used [24].

III. FUNCTIONING OF ECONOMIC SAFETY SYSTEM IN THE CONDITIONS OF INNOVATIVE DEVELOPMENT

In the one of the basic classifications of innovative In the conditions of formation and rapid development of innovative processes one of the most important problems of the countries became the development and realizing of effective *state's security ensuring system*. In connection with economic, technological and political changes, which take place in the conditions of transition of economy to innovative way of development, aspiration of the country to develop and remain the leader in the world arena stimulate the state to adapt quickly for these changes and to prevent possible threats of economic safety.

Economic safety is a component of national safety, it is a state of the economy at which high and steady economic growth is provided; effective satisfaction of economic requirements; state control of use of national resources; protection of economic interests of the country at national and international levels. The objects of economic safety are the economic system as a whole and its elements: resources,

production and non-production funds, *immovable property*, financial resources, human resources, economic structures, etc [25].

In the conditions of innovative development it is necessary to include in concept of economic safety two interconnected and complementary subsystems:

1. A subsystem of objects of innovative safety: a science and personnel, technics and technology, goods and services, realization and commercial use;
2. Serving subsystem: investments, management, marketing [26].

Also economic safety can be considered as dual structure. On the one hand it represents a difficult system consisting of various subsystems; scientifically-technological, energy, financial safety, etc. In modern conditions of formation of innovative economy a priority role among them plays scientifically-technological and resource safety.

On the other hand, economic safety is a special steady condition of the national economy, which is characterized by constantly developing set of its properties and abilities, allowing it to perform social and economic in constantly changing environment [27].

The importance of economic safety in formation of innovative economy for many countries is very big. Only with finding of economic safety, financial independence, power stability and technological progress, the economy can successfully become innovative and acquire such advantages, as:

- economic independence, which means possibility of the state control of the national resources, achievement of high level of efficiency and quality of production which improve its competitiveness and allows to participate in the world trade;
- stability of national economy including protection of property, creation of reliable conditions and guarantees for successful enterprise activity, struggle against criminal structures in economy, a non-admission of serious ruptures in distribution of the incomes, threatening to cause social shocks etc.;
- ability to self-development and progress that is especially important in the modern world. Creation of a favorable climate for investments and innovations, constant modernization of manufacture, increase of professional, educational and cultural level of workers become important for stability of national economy [28]. According to the studied problem, it is necessary to stop on the third aspect of ensuring of economic safety.

Ensuring of economic safety is a priority problem for the state which stimulates innovative development and aspires to be integrated into the world economic space.

Problems of ensuring of economic safety of the state attract a lot of attention of politicians, scientists, and society as a whole. Scales of threats and losses which can have economic safety of the country, make the problem of state economic safety in the conditions of innovative economy formation one of the most actual for modern economy.

In the transition of the state to innovative type of economy some kinds of threats of economic safety are increased greatly. So, it is possible to allocate following threats:

- economy monopolization
- the outflow of capital abroad
- reduction of internal investment activity
- inflation
- a great influence of the multinational corporation on the market [29].

Innovations and innovative activity can be considered as one of the major factors, capable for influence on ensuring of national economic safety in the conditions of globalization. Fully-fledged use of innovations for national development is possible only with formation of innovative policy spent at the state level.

The state innovative policy is a component of a social and economic policy which shows the relation of the state to innovative activity, defines purposes, directions, forms of activity of the state power in the field of a science.

The basic pivot of the state innovative policy should become competent and effective innovative strategy, which in some countries is absent or only develops. Absence of well-developed innovative strategy on which realization of national economic interests of the country depends, impedes achievement and ensuring of effective functioning of innovative sphere of economy that can negatively affect on ensuring of economic safety of the state. Safety of innovative activity is a basis of national safety, it allows to reach stability in economy, to accelerate economic growth, to depart from the raw-material economy, than to raise competitiveness of the goods and services [30].

Also one of the major problems with which the state can be faced at formation of economic safety system in the conditions of innovative development is insufficient use of innovative potential of the country. The basic difficulties in realization of innovative potential can be connected with shortage of money of the organizations, limitation of budgetary and off-budget financing, including the loan proceeds and obtained funds. Setback in production, cash shortages do not leave resources for innovative activity. Thus low level of innovative activity of the industry as a whole in the country also influences on realization of innovative potential. Especially low level of innovative activity is typical for the branches of industry, which are focused on satisfaction of requirements of internal market: light and food industry, the industry of building materials. Such factors as low competitiveness of domestic goods and intensive import intervention continue to remain considerable. Changing of the developed tendency is possible only on the basis of activation of innovative activity in appropriate branches of national economy.

IV. SYSTEM OF AN ESTIMATION OF LEVEL OF THREATS TO ECONOMIC SAFETY

The system of threshold parameters helps to predict and quantitatively identify threats of economic safety. From all set of indicators of economic safety level threats it is necessary to allocate what really shows critical "painful" points of the economy development. The system of the indicators defining level of threats of economic safety of the state in the conditions of innovative development, for each country is individual and is formed depending on features of its economy.

These indicators can be volumes of investments, expenses on scientific researches, expenses on education, a share of hi-tech production in export, a share of foreign investments in innovative projects, etc [31]. Also a system of an estimation of the indicators and their threshold values exists, developed by scientists of Institute of economy of the Russian Academy of Sciences.

The level of investment and innovative activity can be considered as one of criteria of an estimation of economic safety level, thus as threshold values the following values are accepted:

- a share of expenses for a civil science in gross national product—2%;
- investments into basic capital, in % to gross national product—25%;
- a share of innovative production in total amount of the shipped industrial output - 15%;
- relative density of machine-building kinds of activity in volume of all shipped industrial output-25%.

It is necessary to emphasize that during studying a condition of innovative safety of the state, it is necessary to analyze its components in strict conformity with stages of an innovative cycle [32].

In modern world practice there is a considerable number of the various indicators estimating a level of development of innovative activity: from estimation of the human capital, the indicators of knowledge, scientific and technical progress to separate indicators of stock market. The various international organizations develop own systems of the indicators showing level of innovative potential of the country (region).

For example there are;

1. An index of scientific and technical potential as a component of an integrated indicator of an estimation of level of country's competitiveness.

According to a technique of experts of the World economic forum, possibility of achievement of steady economic growth in intermediate term and long-term prospect depends on three categories of variables: macroeconomic environment, state institutes and technology.

In the long-term period economic growth is impossible without scientific and technical progress. For the countries – «innovators" (including the USA, Japan, Korea, Canada, etc.) the share of an innovative component according to calculation of an index of growth of competitiveness is 1/2, while for the others – only 1/3. The index of scientific and technical potential is calculated on the basis of such data, as number of patents for 1 million population; level of the country in technological development, the contribution calculating on foreign investments to innovative activity of small firms; number of users the Internet calculating on 10 000 persons etc.

According to researches of the World economic forum, Russia during the period of two years (2003 and 2004) is on 70th place (in 2002 – 65), among 104 considered countries on indicator of growth of competitiveness. In 2004-2005 Russia occupied 67 place on an indicator of scientific and technical potential index.

2. System of indicators of an estimation of innovative activity of the Commission of the European communities, used

for the comparative analysis of an estimation of development of innovative activity in the countries of the European Union, and also the comparison of these indicators of the USA and Japan.

The system of innovative indicators includes some indicators divided into four groups:

- 1) human resources;
- 2) generation of new knowledge;
- 3) transfer and use of knowledge;
- 4) financing of innovations, results of innovative activity.

The estimation of innovative activity by this technique allows to compare successes of the various countries.

3. Annually published by the Organization of economic cooperation and development the indicators characterizing level and dynamics of development of innovative economy in developed and developing countries.

In system of indicators following indicators are presented:

- Relative density of hi-tech sector of economy in production of manufacturing industry and services;
- Innovative activity;
- Volume of investments into sector of knowledge (public and private), including expenses on higher education, researches and development;
- Development and release of the information and communication equipment, software products and services, etc.

The presented systems of indicators are directed mainly on an estimation of innovative potential of the developed countries. The complex estimation of innovative potential of a region or a country assumes, first, existence of the well-founded and scientifically verified system of indicators; secondly, presence of statistical base [33].

V. ENSURING OF ECONOMIC SAFETY OF RUSSIA IN THE CONDITIONS OF INNOVATIVE DEVELOPMENT

Necessity of transition of economy of the Russian Federation on an innovative way of development is a recognized point of view among intellectual and imperious elite. Perspective to become a raw appendage of world economy is not good for Russia. Oil and gas remain the key articles of the Russian export providing the basic inflow of currency in the country and taxes in the budget. This fact doesn't allow to speak about the generated system of economic safety and possibility of a getting more essential positions in world space.

The Russian Federation occupies low position in the world markets of hi-tech production. Threshold value of an indicator of economic safety of the country – the share in export of highly technological production – in world practice is 10-15 %, for Russia value of this indicator is about 1%. Relative density of the country in a total volume of world export of the hi-tech production is 0,2-0,3% that is like such countries, as Czechia and Portugal. The share of russian products such air and space vehicles is 0,6% of world export, – pharmaceutical products - less than 0,1%, products of the biotechnical industry - 0,01%; the telecommunication equipment - 0,% [34].

In such situation activation of innovative activity of a national economy, its branches and the basic managing

subjects becomes a necessary condition of realization of national interests of Russia in a system of economic safety. Already during last twenty years Russia moved by the way of the radical economic transformations connected with transition from planned system of housekeeping to market that requires the maximum openness of national economic system – and it means vulnerability for various internal and external threats. Big influence on the economic development of the country also has globalization, which requires from reforming of its economy from the country, full and effective realization of a intellectual potential, the newest technologies, increase of innovative activity.

Innovations and innovative activity can be considered as one of the major factors, capable to influence on ensuring of national economic safety in the conditions of globalization. High-grade use of innovations for national development is possible only with the formation of right innovative policy. This problem is especially actual for Russia having considerable innovative potential which is used insufficiently. Competent and effective innovative strategy which in Russia should become the basic pivot of an innovative policy of the state.

Transfer of economy of Russia to an innovative way of development is an actual question for discussion in the scientific literature. Some experts in general have pessimistic estimate of the new Concept of a social and economic development of Russia. For example Glazyev believes that many points of the Concept are notable for indistinctness and allow to state following facts.

- Speaking about expenses on a social sphere it is possible to notice, that the budget of Russia will get closer to the world standard. According to the Concept 2020 expenditures for education at the expense of the state and private sources will be 5,5% of gross national product, for public health services – 6,3%; expenses for researches and development – 3,5-4%. Also state will invest money in the educational system - 4,5% of gross national product, in public health services – 4,8%, in a science sphere - 1,3%. Nevertheless, level of state financing, planned for 2020 on reproduction of human potential and social and economic development remains below level of the developed countries [35].

- Measures of creation of internal mechanisms of crediting of economic growth are postponed. Taking into account isolation of export and import in raw branches it means that the next three years the state monetary and credit policy will keep economy within the inertial scenario, interfering the country to develop innovative economy.

- The government continues a course on the advancing growth of tariffs for gas and the electric power. Increase of tariffs for base energy more than in 1,5 times in the next decade will lower the competitiveness of manufacturing industry. The large scale of lifting of the prices of key energy resources will lead to ruin of many enterprises and of energy-intensive industry.

- In the Concept elimination of the tax barriers, which interfere the transition to an innovative way of development isn't planned. It is a problem, first of all, of abolition of the

VAT which, oppresses advanced manufactures with long cooperation chains.

- Measures in sphere of manufacture and consumption of new technics are incompatible. The trajectory of development of perspective high technology branches is formed under the influence of lobbyists of foreign competitors, that's why scientific and technical potential, created earlier, depreciates and its most qualitative components are absorbed by foreign competitors. It is the most actual problem for branches of electronics, the aviation and space-rocket industry.

All allocated problems allows to tell about imperfection of the Concept of social and economic development of Russia till 2020 regarding an innovative component of economic growth and development.

The state has taken a number of steps for innovative modernization of Russian economy. The Russian system of institutes of development and number of the state hi-tech corporations are created. The project "Skolkovo" is developed and is realized, which is directed on the big inflow of private investments and investments from abroad. The financial institutions of development focused on support of innovations and development of hi-tech branches are created. Set of technoparks is generated.

Practice has shown that powerful state financing of such projects without active regulation and control of the state is not productive with the big share of a corruption component, in connection with this, some state corporations have been transformed in the form of joint-stock companies.

Efforts of the state on development of innovative activity haven't brought serious positive changes in the basic properties of national economy, including its competitiveness.

The problem of ensuring of economic safety of the state in the conditions of transition to innovative economy is not enough developed in scientific researches, but the interest to its separate aspects began to be shown in the scientific literature from the middle of 70th of XX century.

Transition of Russia to an innovative way of development requires carrying out of structural modernization of national economy, technological re-equipment of manufactures, struggle against shadow economy, criminalization and corruption, development of new legislation in the sphere of economic and innovative activity. The scientific and educational sphere should become the main resource for all technological and modernization transformations to innovative and economic spheres of Russia. Thus it is necessary to give attention deconcentration of scientific and educational activity, instead of its concentration (Skolkovo, Zelenograd) as it is done now by the governments.

Also we can define such category as innovative safety [36]. The category of innovative safety is complex and should be considered as system. At the same time is possible to analyze each component separately (as making element). Innovative safety is a state of protection of economy which would ensure competitiveness of research and development results and production on the internal and world markets, ability of economy to ensure a sustainable development and to appose the negative factors which are taking place on the global markets.

Nowadays it is necessary to formulate threats to its national safety, to identify safety threats in innovative sphere. It is possible to use the statistical data and various indicators to estimate level of innovative safety in Russia: for Russia it will be indicators of a state of a science sphere (basically financing of scientific researches and developments), investments into fixed capital, use of results of research and development in economy [37].

So it is necessary to analyze sphere of a science and scientific service.

Assignments from the federal budget on fundamental science do not reach even 0,5% of gross national product. A share of expenses on research and development have been started to grow in 2004 (1,15% from gross national product), and then decreased, having fallen in 2008 to 1% of gross national product (fig. 1 see) [38].

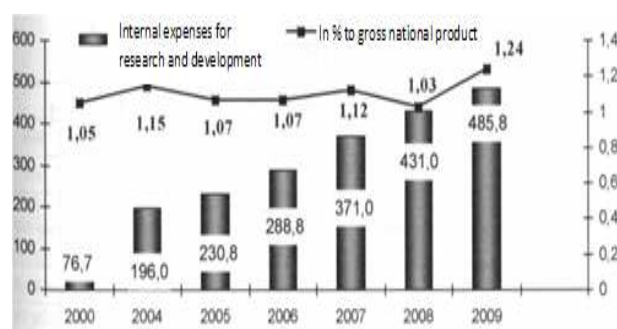


Fig. 1 Internal expenses for scientific research and development in Russia in 2000-2009 years (in established prices, rub bln.; %)

Patent and license work is conducted, mainly, in the field of registration of trade marks: from all patent application in 2009, share of trade marks is 51 %, and as at 01.02.11 it was already 61 % (fig. 2).

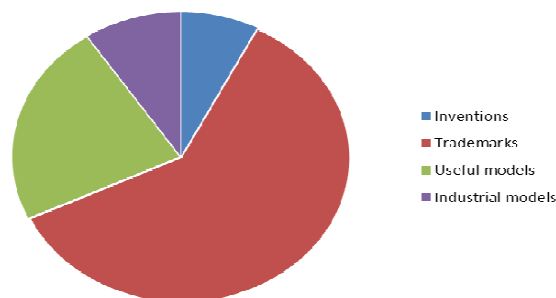


Fig. 2 The structure of patents and licenses in Russia in 2011

By analyzing export and import transactions in the field of researches, workings out and technologies (on number of agreements) it is possible to come to condition that basically export of results of scientific researches and import engineering services prevails [39]. Besides, high relative density of export of scientific researches results attracts attention, in 10 times exceeding import. Trade of the objects of intellectual activity is ridiculously small for Russia (see Table I) [40]. The analysis of sphere of manufacture of innovative production has given the following result.

On the average relative density of the organizations which are carrying out technological innovations in total number of the organizations, didn't exceed 10% during 2005-2008, and the organizations of manufacturing activity (this level has risen with 11 to 12%) were in the lead here, and the share of such organizations in extraction of fuel and energy minerals was too small, having fallen from 8 to 5,5% [41].

The relative density of innovatively active organizations which were realizing technological innovations present in fig.3 (%) [42].

TABLE I

TRADE IN TECHNOLOGIES WITH FOREIGN COUNTRIES IN 2004-2009 (NUMBER OF AGREEMENTS)

Export			The name of objects	Import		
2009	2008	2006		2006	2008	2009
1766	1863	1900	In all	1675	1733	1649
5	5	6	Patent for the invention	16	24	15
34	22	17	Patent license	40	51	84
29	14	-	Know-how	36	40	32
8	17	20	Trade mark	52	68	89
1	8	3	Industrial sample	3	2	1
712	795	692	Engineering services	969	992	1021
672	637	652	Scientific researches	95	111	67
294	337	486	Others	463	437	336

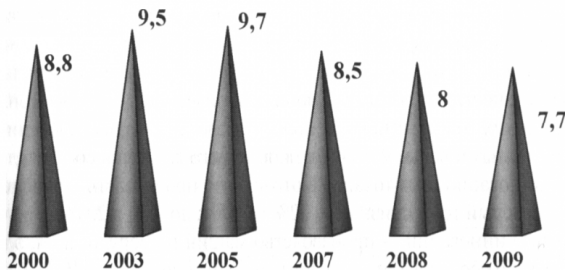


Fig. 3 Relative density of innovatively active organizations which were realizing technological innovations, %

The third sphere which it is possible to estimate, is use of innovative production.

First, the quantity of created advanced industrial technologies in 2009 has slightly exceeded level of 2003, relative density of the technologies leaving on level of world novelty has sharply increased: about 7 % in 2003 from 16 % to 2009. Still, a great bulk of technologies (71 % in 2003 and 84 % in 2009) remain new only in our country (see Table II) [43].

TABLE II
THE CREATED ADVANCED INDUSTRIAL TECHNOLOGIES

Years	Amount of technologies	New for Russia	Essentially new	Created with use of patents
2003	821	582	56	312
2004	676	589	52	340
2005	637	538	60	338
2006	735	642	52	410
2007	780	653	75	401
2008	854	738	54	449
2009	897	757	140	550

Secondly, quality of used technologies decreases every year: if in 2005 the technologies based on inventions were 2%, in 2009 they have decreased to 1% from all used technologies (see Table III) [44].

TABLE III

TRADE IN TECHNOLOGIES WITH FOREIGN COUNTRIES IN 2004-2009 (NUMBER OF AGREEMENTS)

Years	Number of technologies	Less than 1 year	1-3 years	4-5 years	6 and more years	Number of inventions in used technologies
2005	140983	31932	57596 (1-5 years)	24588 (6-9 years)	26867 (10 and more.)	3072
2006	168311	31417	75049 (1-5 years)	30720 (6-9 years)	31125 (10 and more)	2168
2007	180324	29951	54172 (1-5 years)	46163 (6-9 years)	50038 (10 and more)	1373
2008	184568	22846	57 377 (1-5 years)	37707 (6-9 years)	66638 (10 and more)	2463
2009	201850	19771	58918 (1-5 years)	43974 (6-9 years)	79187 (10 and more)	1344

The statistical analysis shows that backlog of innovative sphere even from the accepted threshold values is still great, different threats of innovative safety continue to be actual. Besides, for more in-depth analysis it is required to involve not only quantitative, but also the quality standards characterizing position in innovative management, in marketing of innovations, in formation of an infrastructure of innovative sphere [45]. The infrastructural aspect is very important for realization of innovative activity. Analyzing innovative activity of regions of the Russian Federation, experts the Center of researches and statistics of a science have considered a group of the indicators connected with an innovative infrastructure and an innovative climate. It is necessary to note, that Moscow and St.-Petersburg haven't got to the twenty of regions-leaders in 2008, but these cities were in the first ten according to other factors — innovative potential and productivity of innovative activity, formation of an infrastructure of innovative sphere [46].

On the basis of statistics, it is possible to define the basic threats of Russian economic safety in the conditions of innovative development. In the research of the Russian innovative system presented by the Ministry of Education and Science of the Russian Federation in the Base report (2009) there were defined the following threats:

- preservation of technological backlog in some important monopolized sectors of economy;
- degradation of the quality of the human capital and other components of innovative potential;
- sharp decrease of expenses on researches and developments in the conditions of financial and economic crisis and increase of technological backlog of Russia;
- strengthening of tendencies of protectionism in the conditions of financial and economic crisis;
- nationalization of economy and decrease of stimulus for enterprise activity.

So, Russia loses the positions in the Global rating of competitiveness of the countries, taking the 63rd place in

2009-2010 (in 2008 it was the 51 place). Experts of the World economic forum, making a rating, noticed that Russia poorly use the competitive advantages, including high innovative potential of the country.

Priority economic problem of Russia in modern conditions is formation of innovative economy. On the basis of the statistical analysis, and also the analysis of the basic problems of economic safety of the country in the conditions of transition to an innovative way of development, it is possible to offer following directions of economic safety ensuring:

- strengthening of competitiveness of national economy of Russia, its regions, network corporations, the enterprises and strengthening of such important part of economic safety as scientifically-technological safety;
- formation of the favorable innovative environment for enterprise structures development;
- financial ensuring and perfection of the government structure with a purpose of stimulation of the enterprises innovative activity
- formation of conditions for a successful transfer of technologies;
- creation of a network of innovative structures in regions of Russia;
- perfection of structure of support of innovative business;
- active advancement of innovative projects;
- legal support of innovative activity;
- priority strengthening and development of personnel potential that, certainly, will promote increase of economic safety;
- strategic innovative modernization of a hi-tech complex of Russia, including its machine-building subsystem that should help to create a fundamental basis for strengthening of economic safety [47].

Realizing of effective measures will allow to provide an innovative orientation of economy and will create conditions for strengthening of competitiveness and economic safety of Russia.

VI. CONCLUSION

Information and innovative technologies, computerized processes in manufacture and the innovative organization of various spheres of human activity began to play an important role in economy of the developed countries. It is obvious that transition to the new form of the organization of economy - innovative economy should become result of socially-technical revolution.

In the article the analysis of economic safety of Russia in the conditions of transition to an innovative way of development also has been carried out and the basic threats have been allocated:

- preservation of technological backlog in some important monopolized sectors of economy;
- degradation of the quality of the human capital and other components of innovative potential;
- sharp decrease of expenses on researches and developments in the conditions of financial and economic crisis and increase of technological backlog of Russia;

- strengthening of tendencies of protectionism in the conditions of financial and economic crisis;
- nationalization of economy and decrease of stimulus for enterprise activity.

On the basis of researched data, it was offered following directions of economic safety ensuring, which realizing will help the country to develop innovative economy: formation of the favorable innovative environment for enterprise structures development, financial ensuring and perfection of the government structure with a purpose of stimulation of the enterprises innovative activity, formation of conditions for a successful transfer of technologies, etc..

In the conditions of dynamical development of innovative processes in world economy for many countries development and realization of effective system of economic safety ensuring becomes an important problem. Creation of reliable system of economic safety in the conditions of innovative economy formation forms a basis for successful development of the state, for strengthening of its positions on the world scene that allows it to adapt quickly for constant changes in economy and to prevent arising threats.

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