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EVALUATION OF INNOVATIVE DEVELOPMENT OF UKRAINIAN ECONOMY AND DETERMINATION OF THE MECHANISMS OF ITS SUPPORT

Надано оцінку економічного розвитку та інноваційної активності України й окремих країн світу. Визначено чинники, що перешкоджають інноваційній діяльності в Україні. Досліджено закордонний досвід успішного використання механізмів державно-приватного партнерства. Запропоновано стратегічні напрямки структурної перебудови економіки України. Обґрунтовано створення Агентства регіонального розвитку, як інструменту формування інвестиційного середовища.

Ключові слова: *деіндустріалізація, фінансування інноваційних процесів, державно-приватне партнерство, інституціональна інфраструктура регіонального розвитку.*

1. Introduction

The strengthening of globalization processes and socio-economic relations at simultaneous existence of glocalization and regionalization is connected first of all with the changes of the ways of organization and technology of industrial production as a result of scientific-technical progress and intensification of competition between producers at the national and world markets. Intensification of innovative activity accelerates the changes in the structure of world production. Scientific-technical progress in developed countries and the world financial system, built by them according to their interests conditioned the changes in international division of labor. The developed countries, having took on themselves the innovative-commercial and financial functions of new product creation, left the functions of direct production to less developed ones.

2. The object of research and its technological audit

The dynamic development of innovative processes under conditions of world economy globalization conditions the elaboration of approaches to the formation and functioning of innovative infrastructure, taking into account the national features and socio-economic condition of different countries. The problems of innovative development of economies of different countries were studied for the formation of the recommendation of new that favors Ukrainian infrastructure development [1–4].

The special attention in these works is given to the methods of the management and evaluation of the importance of innovative infrastructure as the main instrument of support of high rates of innovative development of countries economy under conditions of post-industrial society establishment.

The financial-economic crisis of 2007–2009 negatively influenced the state of Ukrainian economy. Integration in EU as an instrument of overcoming crisis will accelerate the structural-innovative changes, directed on modernization of Ukrainian industry [5]. But let's note that realization

of the Agreement on association between Ukraine and European Union will not essentially influence the innovative development of Ukrainian economy according to the global modern technological cycle. The practice of innovative activity of economically developed countries testifies that the solution of problems of structural deformation of Ukrainian economy must be overcome by the support of reproductive processes proportionality [6].

3. The aim and objectives of research

The aim of the research is the elaboration of recommendations as to the support of economic development and formation of Ukrainian infrastructural environment, favorable for innovations.

To achieve this aim, the following tasks are defined:

1. To carry out the analysis of Ukrainian economy development and substantiate the necessity of industrial policy realization under conditions of global competition.
2. To trace the tendency of changes in economy of the world leading countries, to offer the directions of Ukrainian new industrial policy realization under conditions of formation of the new type of economy.
3. To offer the institutional infrastructure of regional development as to the involvement of foreign investments and transfer of advanced technologies into Ukrainian industrial sector.

The solution of following tasks favors the aim realization:

- evaluation of the factors of investment attractiveness that provide realization of innovative model of countries development, especially Ukraine;
- study of the advanced experience, possibilities of using the mechanisms of state-private partnership and offering propositions as to formation of Ukrainian investment environment.

4. Research of existing solutions of the problem

Despite the fact that innovative development is a subject of scientific study of many authors, the analysis of recent

publications [7–9] persuasively testifies that the questions of elaboration of the optimal mechanism of support of Ukrainian investment-innovative project remains urgent.

Fixation of the innovative model of Ukrainian economic growth is the necessary condition of its further dynamic development and integration into the world economic space. That is why more and more attention is paid to creation of the favorable conditions for innovative processes deployment [10].

The questions of innovative development, the sources of formation and support of investment attractiveness are considered in important number of scientific works of the native and foreign researchers [11–21].

Thus, according to the [11], the real sector must provide activation of investment activity in the agreed directions of structural reconstruction; financial sector – to support stability of national currency and provide acceptable crediting of the priority directions of economic development, and house economies – to activate the funds accumulation for investment.

As it is noted by the [12], «...Ukrainian innovative business and its infrastructure still weak, insufficiently capitalized, feels serious credit and demand limitations...». Credit «pumping» of economy (first of all, commercial banks), having been realized in Ukraine since the end of 2008, must be attended by taking innovative duties by aforesaid subjects and also by the support of innovative infrastructure.

In the opinion of [13], the state innovative policy of the country must be directed on «...attainment of organic interaction between all stages of innovative cycle, when all subjects work in coordination for the final result in the mode of continuous feedback between presented stages. ... Ukraine urgently needs the improvement of existent state innovative policy by the development of the mechanisms of cooperative interaction of universities, state and business by the model of «triple spiral of innovative cycle».

«...The innovative activity in industry has less harmonious financial support comparing with scientific-research organizations that realize HTTP...Introduction of innovations in production is at the low level, comparing with the number of elaborated innovations» [14].

According to the source [15], «... Ukraine faces the problem of ineffective use of cluster approach for providing economic development of regions... at the primary stage of cluster model formation in Ukrainian economy it is expedient to use both instruments of direct state support of clusters (financial, organizational and so on) and indirect methods, using which the favorable physical, innovative, financial infrastructure and also infrastructure of enterprise must be formed in economy...».

According to the [16], the Enterprise Europe Network activities directly contribute to the overall Europe 2020 objectives of smart and sustainable growth, aiming at a competitive environment and stimulating the innovation capacity of businesses, especially SMEs. The expected results are: increased number of SMEs linked with other entities across Europe for cross-border business cooperation, technology and knowledge transfer and technology and innovation partnerships, higher rate of European SMEs exporting outside Europe.

In [17] opinion, the message seems to be that both small firms and large firms make significant innovations that keep the economy moving and growing, although

small firms may be more efficient at innovation. Small firms are the great innovators in some industries, while large firms are the great innovators in others. Moreover, small and large businesses interact in innovative activity.

The author [18] suggests that «...less developed regions require assistance, but we should clearly understand the boundaries of opportunities and mechanisms to choose, even if a country has the financial resources for large scale redistribution. This means that the key to solving problem of regions modernization is finding and developing competitive advantages of average and less developed regions of the country supporting also the regional policy».

It is represented that «Governments now stimulate co-operation among firms and between firms and research institutions, with a view to fostering synergy effects and better exploiting their economies' innovation potential. Co-operation has many potential benefits, including an increased scale and scope of activities, cost and risk sharing, an improved ability to deal with complexity, learning effects, and greater flexibility, efficiency and speed» [19].

Commercial innovation creates value and high-quality jobs across the economy. Innovation-focused jobs tend to be high paying and drive job growth for the middle class. These jobs have a very high «multiplier effect» – meaning they create more indirect jobs across all income groups, such as lawyers, doctors, retail workers, etc.

In author [20] view, the Council recommends the government focus on catalyzing «innovation marketplaces» with the goal of achieving national and globally significant scale in key sectors and technologies.

Marketplaces are centers of technology and industry activity that are developed and driven by the private sector. An innovation marketplace brings together researchers and entrepreneurs with public and private customers around a common business challenge. These marketplaces match innovation demand from corporations and governments with innovation supply from researchers and entrepreneurs. This matchmaking strengthens supply-chain relationships and the flow of information, thereby fueling further innovation.

It is reported that multinational corporations (MNCs) operate today within an interconnected and complex web of activities, geographic locations and strategic partners, as they seek to optimize value in a global economy. There is significant potential and capacity for further FDI growth globally, as MNCs regain confidence and turn accumulated cash holdings into new investments [21].

But the questions, connected with formation of the institutions of Ukrainian economic development that effectively act in anticrisis conditions still ineffectively considered that conditioned the choice of the topic of research.

5. Methods of researches

The following methods were used for the solution of set tasks: system, theoretical generalization, comparison, graphic presentation of the research results.

6. Research results

Intensification of innovative activity accelerates the changes in the world economy structure. The influence of scientific-technical progress in industrially developed countries forms the model of economy, based on knowledge, where 75–90 % GDP is provided by scientific-technical

sphere and intellectualization of the main factors of production.

Economically developed countries determined their branch priorities long ago and gave strategic initiative to the knowledge-based and high-technological types of economic activity, at which expense they receive the main part of GDP, created in industry, strengthening the base for the transfer from industrial type of development to post-industrial one (Fig. 1).

According to the figure, the contribution of developing countries in creation of gross added value by world industry for the period from 1990 to 2014 decreased in 2.18 times – from 17.64 to 38.61%, whereas in the countries with transitional economic formation the rate of gross added value had a tendency to decrease from 3.94% in 1990 to 1.04% in 2000 in general structure of world industry. The received data testify to the present condition of deindustrialization of economies and ineffectiveness of reforms in industry of aforesaid groups of countries.

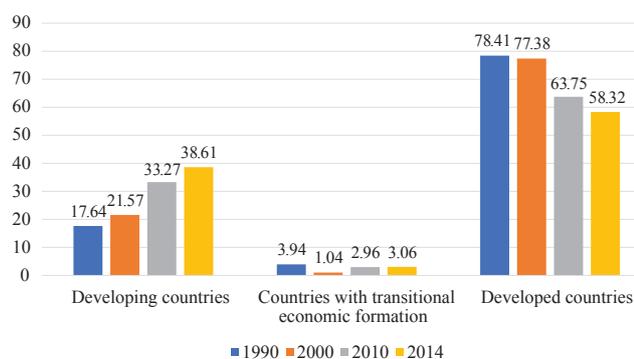


Fig. 1. Distribution of gross added value by the groups of world countries in 1990–2014 years, in % to the sum [22]

Among the studied countries the results of Ukrainian economy development are the worst ones. The reduction of the share of industrial production in GDP prove the negative tendencies of deindustrialization, characterized by extensive character of production restoration by intensification of exploitation of existent raw material, material-technical resources and old technologies without qualitative renewal of productive apparatus (Fig. 2).

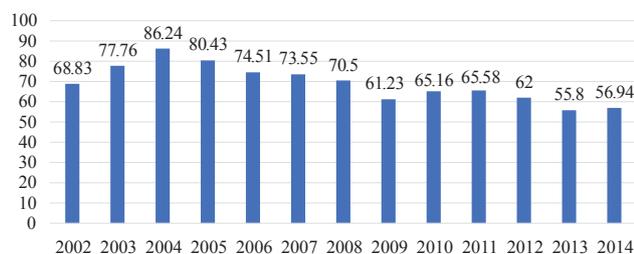


Fig. 2. Share of rerolling industry of Ukraine in GDP [22]

Thus, in Ukrainian economy the share of rerolling industry in gross added value by activity types in 2014 decreased by 7.83%, whereas in Bulgaria, Czechia, Hungary, Poland and Slovakia this index had a tendency to increase – by 4.45%, 5.51%, 6.75%, 7.78% and 11.36% respectively [22].

The dynamic industrial growth in aforesaid countries during 2010–2015 took place due to the correction in fi-

ancial sphere, review of industrial and external trade policy, giving essential budgetary allocation for restructuring and modernization of industrial enterprises in the period of overcoming financial-economic crisis of 2007–2009 (Table 1).

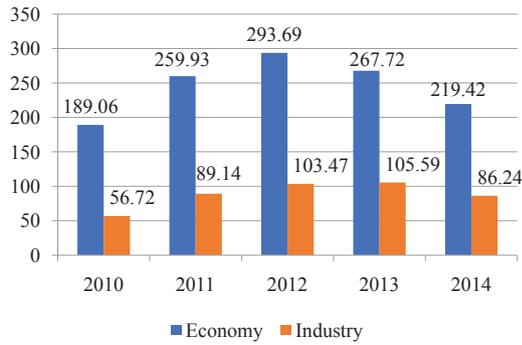
Table 1

Index of industrial production in separate countries in 2010–2015 years, % till the previous year [22]

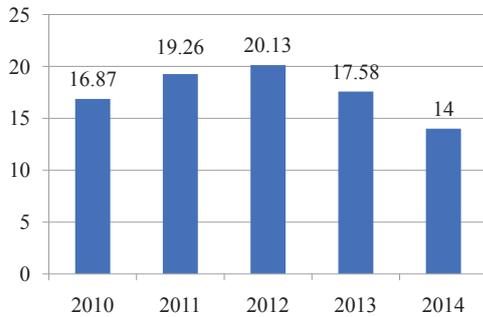
Country	2010	2011	2012	2013	2014	2015	Mean for 2010–2015
«G – 7» – most developed countries							
Great Britain	103.0	99.0	97.0	99.0	101.0	101.0	100.0
Italy	107.0	100.4	94.0	97.0	99.01	102.0	99.8
Canada	105.0	105.0	100.0	102.0	104.0	99.0	102.5
Germany	111.0	107.0	99.0	99.9	101.0	101.0	103.1
USA	105.0	103.0	103.0	102.0	103.0	100.3	102.7
France	104.0	103.0	98.0	99.0	99.0	102.0	100.8
Japan	115.0	97.0	101.0	99.0	102.0	99.0	102.2
Developing countries							
Brazil	110.0	100.4	98.0	102.0	97.0	92.0	99.9
India	108.0	103.0	101.0	99.9	103.0	102.0	102.8
Turkey	113.0	110.0	103.0	103.0	104.0	103.0	106.0
Transitional economic formations (second world countries)							
Group of advanced countries							
Poland	111.0	108.0	101.0	102.0	103.0	105.0	105.0
Slovakia	108.0	105.0	108.0	104.0	109.0	107.0	106.8
Slovenia	107.0	101.0	99.0	99.0	102.0	106.0	102.3
Hungry	111.0	106.0	98.0	101.0	108.0	108.0	105.3
Czechia	109.0	106.0	99.0	99.9	105.0	105.0	104.0
CIS countries							
Kazakhstan	109.6	103.8	100.7	102.5	100.3	98.4	102.5
Latvia	115.0	109.0	106.0	99.0	99.0	104.0	105.3
Ukraine	112.2	108.0	99.3	95.7	89.9	87.0	98.68
Estonia	124.0	120.0	101.0	104.0	104.0	100	108.8

Recognition of the difficulties of Ukrainian economic growth, manifested in decrease of growth rates of industry (Gr 2010–2015 – 98.68%), decrease of volumes of investment in fixed capital (Gr 2013–2014 – 81.67%), especially the share of investments in fixed capital in GDP (Gr 2012–2014 – 69.54%), caused by the low norm of accumulation and competitiveness of native enterprises under conditions of open markets, prove the necessity of further development of Ukrainian industry (Fig. 3) [23].

The strengthening of structural deformations in Ukrainian economy as a result of faster growth of raw material branches led to the decrease of industrial technological development level, increase of inter-branch and territorial disproportions. Many years of advanced increase of import comparing with export caused the reduction of native production under conditions of acute deficit of investment resources (Fig. 4).



a



b

Fig. 3. Volumes of investments in fixed capital in Ukraine for 2010–2014: a – economy, industry in actual prices, bil. hgn.; b – in % of GDP

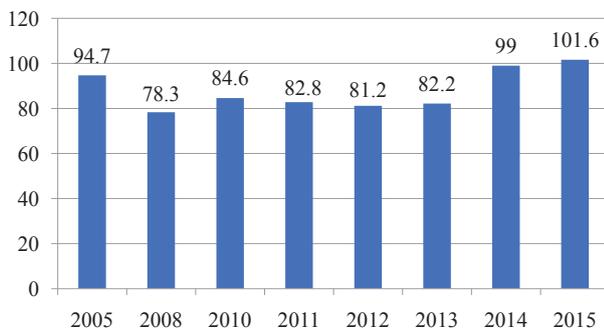


Fig. 4. Import-export ratio in Ukraine [24]

It favors the loss of competitive advantages by the national economy on global markets. Based on it, Ukrainian development is impossible without modernization of native production. The node task of structural-innovative transformation of economy and industrial complex of Ukraine must be the growth of the role of knowledge-based and high-technological activity types with high level of technological processing and as a result with high share of added value.

Industrial enterprises that correspond to these signs create today the innovative image of economies of developed countries. Their structure includes near 60 % of innovations that have advanced importance or embody essential technological achievements.

Industrially developed EU countries such as Sweden, Denmark, Germany, Netherlands provided the leading positions of innovative development due to the active state innovative policy, continuous increase of costs for scientific-research work and also strengthening of regulation, stimulation and coordination of science and technology financing by all participants of innovative process (Fig. 5) [25].

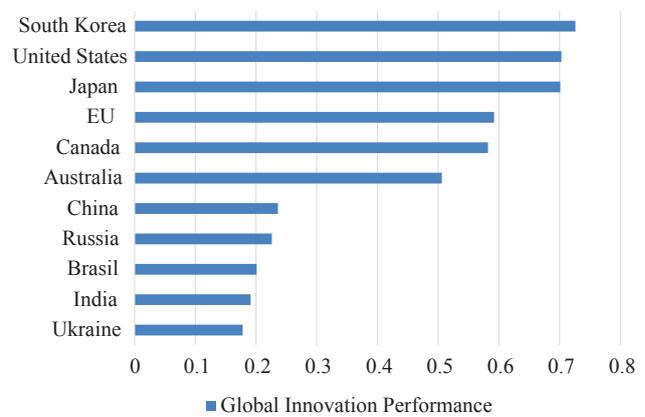


Fig. 5. Generalizing (settled) index of countries innovative activity according to European Innovation Scoreboard 2016

Having proclaimed the course on innovative development model, Ukraine has rather low threshold value of innovative level and is referred to the Modest Innovator group – countries-innovators that are forming (Bulgaria, Latvia, Russia, Romania and Turkey). Ukrainian innovative development during 2008–2015 had a tendency to decrease and was 34 % [25]. Ukraine is inferior to EU countries in innovative development by practically all indicators.

Thus, in Ukrainian economy such institutes of industrial policy as firms, corporations are indifferent to innovations as a way of their competitiveness increase.

The main factors that hinder the innovative activity in Ukraine include: *financial* (deficit of own assets of enterprises, big costs for innovations, insufficient financial support of the state, absence of costs in clients), *institutional* (imperfection of legislative base, economic risks, long term of payback), *informational* (deficit of information about target markets, about new technologies, absence of possibilities for cooperation with other enterprises and scientific organizations, lack of demand for production), *scientific-technical* (lack of qualified staff and so on) [26].

At the importance of institutional and informational factors and scientific-technical potential the leading role in activation of innovative processes is played by financing, from our point of view. It must provide creation of necessary preconditions for the development of scientific-technical potential of the country, fast and effective introduction of innovations in all spheres of its national economic complex, guaranteeing its structural-innovative reconstruction.

The determinative tendencies of innovative activity financing is a limitation of own financial resources of its subjects and sources of assets attraction. The main source of self-reproduction financing (support/widening of main activity) of native enterprises is own assets, bank credits and assets of population for dwelling building (Fig. 6).

According to the data, presented on the Fig. 7, own assets are more than a half of total volume of financing of industrial enterprises capital investments that for the end of 2014 reached 72.1% (in 2012 – 59.7%). For 2010–2014 the increase of the share of own assets of enterprises was attended with simultaneous reduction of the share of bank credits and state budgetary assets in 1.52 and 8.28 times (from 12.3 to 8.1% and from 5.8 to 0.7% respectively).

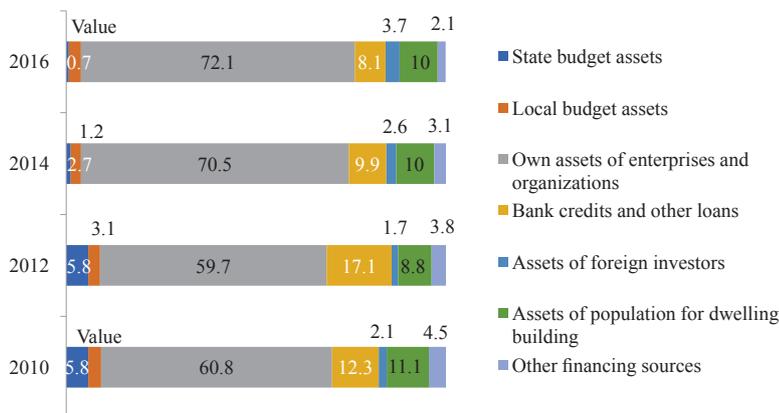


Fig. 6. Structure of investments in fixed capital by financing sources, % [26]

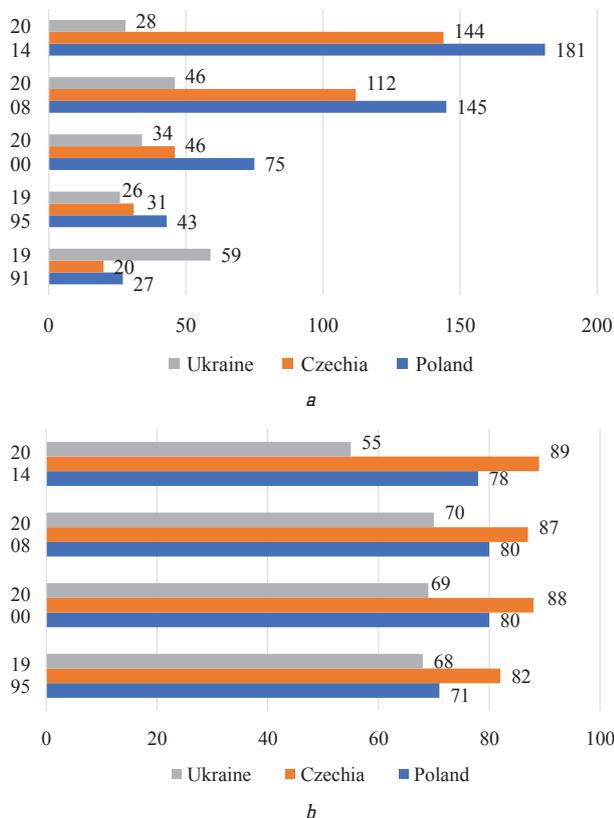


Fig. 7. Volumes of export and share of rerolling industry goods in goods export of Ukraine, Czechia, Poland, bill dollars [22]: a – export, bill dollars; b – goods of rerolling industry, % in industrial export

In Ukrainian economy the deficit of long-term investment resources that is partially covered by assets of foreign investors becomes more acute. The share of assets of foreign investments in the structure of investment sources in 2010–2012 was the least one comparing with other and in 2013–2016 had a tendency to increase. If in 2010 it was equal to 2.1 %, in 2016 increased to 3.7 %. For 31.12.2016 Ukraine received 43.37 bill USA dollars, especially 4.4 bill dollars of foreign investments [27].

According to the rating assessment of investment attractiveness International Business Compass, Ukraine occupied 89 place in 2015 (2014 – 109 place) by the rates of economic, political and socio-cultural conditions and entered to the list of countries, demonstrated the best growth per year on a level with Byelorussia and Latvia [28].

The further improvement of Ukrainian investment climate needs the structural reconstruction in correspondence to the innovative model of economic development. The achievement of positive tendencies as to formation of reproducing proportions on this base is a long and capital-intensive process. Strategic directions of the structural reconstruction must be realized in system of three stages:

1. Creation of institutional, infrastructural and economic bases of structural-innovative transformations: normative-legal and organizational support.

2. Formation and accumulation of scientific-technical, innovative and intellectual potential of structural-innovative changes, guaranteeing their integration in reproducing process of economic (market) base.

3. Guaranteeing of economic industrial development at the expense of realization of large-scale structural-innovative changes at the expense of multiplier effect from modernization of economic technological base and formation of new favorable environment on the base of development institutions activity.

Development institutions are the one of instruments of the state policy, directed on innovative processes stimulation and infrastructure development using the mechanisms of state-private partnership.

The institutes of economic development are a catalyst of private investments in priority sectors and branches of economy and create conditions for infrastructure formation that guarantees enterprises access to the necessary financial and informational resources.

Creation of infrastructure, favorable for innovations in Ukraine, according to the author, must be based on successful experience of functioning of economic development institutes, including: *export-credit agencies, state development banks, industrial parks, agencies of small business support and state-private partnership.*

Export-credit agencies. Export-credit agencies are created as private or state companies that realize the support of exporters at state account and under state control.

Financing, given by export-credit agencies, can be both long- and short-term (in some counties a loan term can be up to 15 years), and usually covers from 85 % to 100 % transaction costs. Financial guarantees of export-credit agencies cover 75–95 % of the general sum of set export agreement [29]. Totally there are more than 70 agencies in the world.

The practice of export-credit agencies creation is noted in Austria, Denmark, Spain, Italy, Germany, Poland, Slovakia, Slovenia, Hungary, Turkey, France, Sweden and Czechia.

Federal ministry of economy and energetic of Germany within external economic policy initiated the international program of managerial staff training «Fit for Partnership with Germany». The aim of the program is establishing of personal contacts with German companies, search for reliable partners and development of managerial skills of participants in the sphere of international cooperation [30]. For the end of 2016 more than 12000 managers (representatives of enterprises with high external economic potential) from 19 countries of the world, especially 1100 from Ukraine took part in the Program.

The bright example of successful functioning of export-credit agencies in Poland (Korporacja Ubezpieczeń Kredytów

Eksportowych, owner – 85 % exchequer, 25 % BGK) and Czechia (Export Guarantee and Insurance Corporation, owner – state) is the increase of export volumes, share of rerolling industry goods in goods export (Fig. 7).

The volumes of export and share of rerolling industry goods in goods export of Ukraine are essentially lower comparing with Poland and Czechia and have tendencies to decrease (Gr 2008–2014 – 60.86 % and 78.57 % respectively). But Ukraine has all preconditions for increase of external economic operations because it has partner relations with 200 countries of the world, especially CIS, EU, Asian-Pacific region, African region, Near and Middle East, Northern and Latin America.

Creation of the Center of export support and Agency of export risk insurance since 01.07.2017 on the base of State export-import bank of Ukraine, according to the Law of Ukraine «On support of large-scale expansion of the export of goods (jobs, services) of Ukrainian origin by insurance, guaranteeing and reduction of prices on export crediting», from author's point of view, must be the one of priority tasks for the government [31, 32]. The aim of creation of aforesaid development institutions is overcoming of the raw material directionality of the native export, state financing of subjects of external economic activity that deal with export of rerolled production with high level of added value [33]. But the project was postponed for several years because of the lack of assets for formation of authorized capital of the Expert-credit agency in the state budget in amount of 200 mln hrn.

State development banks. In world practice the state financial institutions, most of which are the national development banks, are created for guaranteeing of investment resources in sectors, where private capital attraction is complicated. The development bank of is a financial institution (state financial corporation) of bank system of the country, which 100 % capital usually belongs to the state.

The activity of state development banks is directed on the support and modernization of national economy. As a component of anticrisis programs, these development institutions become most important in periods of economic-financial crises, attended with liquidity worsening on the bank market, complication of access and increase of credit resources cost.

Brazil National Bank of Economic and Social Development (BNDES) is the most development bank in the world. The main directions of BNDES sectoral support are risky financing, infrastructural projects, manufacturing industry and minerals mining, support of trade and other expansion of Brazil large corporations, especially the agreements of merging and absorption.

The priority direction of financial support of Kazakhstan development bank is cluster associations (metallurgy, transport logistics, textile and food industry, oil and gas machinery construction, building materials production).

The development banks play the important role in economic development of even such industrially developed countries as: Germany, Japan, Italy, Netherland.

In Germany the function of state development bank is realized by the special credit administration – Kreditanstalt für Wiederaufbau (KfW) that includes 5 banks (4 – structural subdivisions of KfW Bankengruppe and 1 affiliated bank):

- KfW Mittelstandsbank (KfW Bank for small and middle entrepreneurship) – investment of projects of small and middle business;

- KfW Förderbank (KfW Bank of patronage) – financing of dwelling building and infrastructure, projects in the sphere of ecology and education;

- KfW IPEX-Bank – financing of external trade, giving of services on project financing in Germany and other countries;

- KfW Entwicklungsbank (KfW Development bank) is oriented on the support of private enterprises abroad, guarantees financial cooperation with foreign state institutions DEG (German community of investments and development).

As to the infrastructural units that must provide the widening of possibilities of innovative activity financial support, it must be noted that the investment-innovative banks of two levels are the necessary component of Ukrainian bank policy [34].

Ukrainian bank for reconstruction and development was created according to the Order of the Cabinet of Ministers of Ukraine № 655 of 05.05.2003 «Several questions of development of innovative infrastructure in Ukraine and directions of activity of Ukrainian state innovative company in 2003» and registered by the National bank of Ukraine 19.03.2004 [35].

The aim of creation of Ukrainian bank for reconstruction and development (UBRD) as a first level bank is the patronage of innovative activity in Ukraine by giving bank services and products to enterprises that realize it. But UBRD was formed as a usual second level commercial bank that doesn't give it a possibility to realize the special functions on assets accumulation for crediting the projects of economic infrastructure development. The criteria selection of priority investment projects for their financing on special conditions is possible for today within observance of the statements of the Order of the Cabinet of Ministries of Ukraine of 14.08.2013 № 71 «On approval of the Order of selection, acceptance and registration of investment projects in priority branches of economy and requirements to such projects».

17.06.2009 the Cabinet of Ministries approved the decision about creation of the Bank for development on the base of Ukrainian bank of reconstruction and development, directed on stimulation of micro-crediting, which functions are realized in Ukraine by European bank of reconstruction and development and German-Ukrainian group. Ukrainian bank for development (UBD) is a virtual structure and was created by Ukrainian National bank and German bank group KfW [36].

But let's note that these development Banks don't function in full, because of lack of the mechanism of funding, regulation and control of their activity.

Despite the complications of economic development, the interest of regional development banks EBRD, IFC, BSBTD to realization of investment projects in Ukraine increased. Thus, in 2014 the agreements with general volume 967.17 mln dollars were made. The loans of sovereign financing from IBRD and IDA (grants, technical help) for Ukraine in 2015 were 1.3 bill dollars of the total value. 14.02.2017 the Cabinet of Ministries of Ukraine approved the guarantee on EBRD credit to Ukreximbank in sum 150 mln dollars [37].

Industrial parks. According to the Law of Ukraine «On industrial parks», industrial park is a territory with correspondent infrastructure, within which the participants of industrial parks can realize the economic activity in

the sphere of rerolling industry, scientific-research activity, information and telecommunications.

Since 2013, according to the Law of Ukraine «On industrial parks» the creation of 23 industrial parks have been initiated, 18 were included to the Register of industrial parks [38]. For 14.02.2017 in Ukraine also function 5 private industrial parks, not included to the Register of industrial parks (Fig. 8).

Realization of the arrangement for infrastructure development, especially, support of industrial parks equipment in Ukraine (realization of the Law of Ukraine «On industrial parks») under conditions of the deficit of investment results favors creation of new possibilities of industrial and regional development (work places, intensification of economic activity, socio-economic development of territories), strengthening of cooperation between enterprises, investors, local authorities, economic development institutions and other concerned parties. The most successful use of aforesaid possibilities are demonstrated by Hungary, Poland and Turkey.

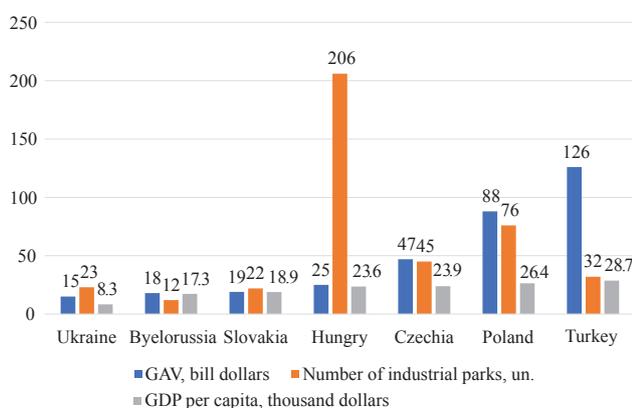


Fig. 8. Industrial parks and main rates of development of countries with transitional economic formations and developing ones, 2014

Agencies for small business support. The agencies for small business support is a special institution that credits small business on preferential conditions, favors its access to the state purchases and gives complex consulting support.

Small business in developed countries is the middle class, which development level determines the degree of state economy development in whole. In the countries of European Union the small business enterprises are near 90 % of general number of enterprises [39]. The policy of state business support is realized by the state activity and special programs, financed from the Structural funds of European Union (Fund for regional development, Social fund).

Let's remind that the index of industrial production of Slovakia in average for 2010–2015 is the one of highest among the countries (Table 1), where the important role is played by the support of middle and small entrepreneurship. Slovak Business Agency (until 28.02.2014 National Agency for Development of SMEs) is a non-commercial organization that supports small and middle enterprises (SMEs) and is a unique platform of public-private sector [40]. Year of foundation – 1993 by initiative of EU and the Government of Slovak Republic. Ownership – state. Main services: micro-crediting (from 6 months to 4 years with interest rate 12.6–9.16 %), risk financing, teaching

of entrepreneurs, business ombudsman, consulting and so on. Since its foundation the Slovak Business Agency has created 3000 new places and kept 5000.

In Ukraine, Moldova, Georgia was started the program of European Union on financial and technical support of small and middle enterprises for strengthening economic development. Ukraine and European investment bank signed 4 agreements with total volume 600 mln euro in the spheres of higher education, energy saving, transport infrastructure and small and middle entrepreneurship [41]. Especially, Ukreximbank and European investment bank 19.12.2016 in Brussels signed the Financial agreement for 260 mln euro for the support of private sector in the context of free trade zone Ukraine – EU.

22.12.2016 The Savings bank of Ukraine and German-Ukrainian Fund signed the Memorandum on strategic cooperation as to credit financing, technological help for bank products development and modernization of credit processes of enterprises of small and middle business [42].

In Ukraine was initiated the Agency for small business support per example of American Small Business Administration (SBA). Since 1953 SBA is being the instrument of support for 28 million of small enterprises. In 2014 the Agency gave credits in volume 805 mln dollars, supported 600 000 work places throughout the country. More than 23 % of state purchases are realized in small business due to the Small Business Administration activity [43].

Since 2016 the Program of Competitiveness of Small and Medium Enterprises (COSME), consisted of 25 sub-programs of European enterprises net (EEN), Erasmus for young entrepreneurs, Internationalization of clusters of small and middle entrepreneurship and Facilitation of access to state purchases for the period 2014–2020 years with total budget 2.3 bill euro is being available for Ukraine. European Union and EBRD signed the agreement on allocation of 28 mln euro within the program EU4Business for consulting, informational and educational support of Ukrainian small and middle business [44].

State-private partnership. The partner relations between private and state sectors, universities, scientific-research institutes and other organizations are the node model of interrelations in innovative policy of developed countries.

The author considers state-private partnership as an effective instrument of investment activity intensification in Ukraine, acceleration of realization of capital-intensive projects, receiving a possibility of using experience and professionalism of private sector at keeping state property with access to economic spheres (transport infrastructure, housing economies and so on).

According to the assessments of European expert center of state-private entrepreneurship, in 2010–2015 were realized 473 agreements with the volume of attracted investments 83119 mln euro. The financing of infrastructural projects in European Union for 2010–2015 was realized using the instruments of corporative financing, where the contribution of private partner is realized at the expense of own assets in the volume 100 % (50 % of the total volume of infrastructural projects financing), grant financing within state programs (40 %), project financing with ratio of own assets and the ones, attracted from financial operations 70/30 or 80/20 (10 %).

According to the data of the Ministry of economic development and trade of Ukraine, the local executive agency determined 321 objects of municipal property that

are interesting for the projects realization on the principles of state-private partnership with potential of infrastructural projects realization in sum 100 bill dollars. For 1.08.2016 Ukraine realized 185 projects (153 concession agreements, 31 agreements for cooperation, 1 agreement for state-private partnership were set) on the principles of state-private partnership) [45].

The study of the experience of using mechanisms of state-private partnership in countries throughout the world testifies to their positive influence on population welfare and on the rates of national economies growth.

7. SWOT analysis of research results

Strengths. The strong side of presented study is the fact that on the base of the native and foreign sources are given the comparative data that give a possibility to outline the positions of Ukrainian innovative development and to study the experience of using mechanisms of state-private partnership of industrially developed countries.

Weaknesses. The weak side is the fact that the recommendations as to full value development of Ukrainian infrastructure can be realized only in general context of stimulation of market environment, creation of favorable conditions for market institutions development, introduction of competitive principles in economy.

Opportunities. The opportunity of the further study is adoption of experience of leading countries as to the cardinal change of the income policy, directed on formation of Ukrainian strong middle class, development of the system of production and translation of knowledge (science and education), creation of normative-legal environment, most favorable for innovative-investment activity.

Threats. The threats for the result of presented study is the fact that the structure of Ukrainian economy is formed under the influence of external factors, and the change of its channels and mechanisms needs operative reaction, elaboration of adequate system of parameters of evaluation of the influence of new global economic challenges.

8. Conclusions

1. The necessity of industrial policy in Ukraine is conditioned by the existent needs for regulation of progressive structural changes in industry, coordination of separate enterprises and investments of adjacent productions in creation of added value under conditions of global competition, directed on the support of stable economic development.

2. The formation of new industrial policy, creation of companies of new types in all sectors of Ukrainian economy, realization of priorities of scientific-technological and innovative development on the principles of experience of developed countries need the solution of tasks, connected with creation of stimuli system as to the combination of science, corporative sector and state management such as:

- development of scientific principles of elaboration of socially oriented market economy;
- elaboration of modern technologies and technique for the formation of competitive rerolling production branches;
- formation of knowledge-based production processes, favoring of creation and functioning of innovative structures (industrial parks, incubators and so on);

- elimination of regional imbalance of development (support of investment-innovative projects of transport infrastructure, housing economy, energy saving);

- creation of the Agency of national development as an instrument of stimulation of creation of economic development institutes, especially export-credit agencies, specialized innovative banks, agencies for the support of small and middle business, public-private partnership.

3. The Agency of regional development is a structure that favors creation of partnership between states, private and public sectors of national economy, directed on guaranteeing of coordination of regional, private and local initiatives for stimulation of socio-economic development of administrative-territorial units of the state. Its role of information center on the principles of combination of the functions of economic development institutes as to the programs of financial help, operator of realization and accompaniment of investment programs and innovative projects at participation in international, national and regional programs of development, coordination and cooperation will favor investments attraction, especially foreign ones, directed on improvement of the level of innovative development of Ukraine.

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ОЦЕНКА ИННОВАЦИОННОГО РАЗВИТИЯ ЭКОНОМИКИ УКРАИНЫ И ОПРЕДЕЛЕНИЯ МЕХАНИЗМОВ ЕГО ОБЕСПЕЧЕНИЯ

Дана оценка экономического развития и инновационной активности Украины и отдельных стран мира. Определены факторы, препятствующие инновационной деятельности в Украине. Исследован зарубежный опыт успешного использования механизмов государственно-частного партнерства. Предложены стратегические направления структурной перестройки экономики Украины. Обосновано создание Агентства регионального развития, как инструмента формирования инвестиционной среды.

Ключевые слова: деиндустриализация, финансирование инновационных процессов, государственно-частное партнерство, институциональная инфраструктура регионального развития.

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