FORMATION OF A NEW SOCIAL AND ECONOMIC POLICY AS A BASE FOR INNOVATION DEVELOPMENT IN CONDITIONS OF EURO-INTEGRATION

Petro Mazurok
Prof., DSc, Kryvyi Rih Economic Institute of Kyiv National Economic University named after Vadym Hetman,
e-mail: mazurok_pp@kneu.dp.ua, orcid.org/0000-0002-5413-5408, Ukraine

Volodymyr Musienko
Associate Professor, PhD, Kryvyi Rih Economic Institute of Kyiv National Economic University named after Vadym Hetman,
e-mail: musienko_vd@kneu.dp.ua, orcid.org/0000-0002-7377-8820, Ukraine

Olha Hura
BA, Kryvyi Rih Economic Institute of Kyiv National Economics University named after Vadym Hetman, e-mail: o.gura21@ukr.net, orcid.org/0000-0001-6957-1336, Ukraine

Daryna Lytvynenko
BA, Kryvyi Rih Economic Institute of Kyiv National Economics University named after Vadym Hetman, e-mail: darinalitvinenkoo@gmail.com, orcid.org/0000-0002-0600-1472, Ukraine

Abstract. In the conditions of economy formation, the main object of analysis becomes an individual, his/her potential development and its realization. This causes substantial changes in the structure, direction and mechanism of formation and realization of social policy in conditions of setting up innovation economy as a form of realizing human potential through the mechanism of innovation social policy.

Keywords: social policy, Euro-integration, innovation economy, innovation development, differentiation of incomes, demographic situation, gross domestic product, incomes policy, indicators of European Union Innovation scoreboard.

DOI: http://dx.doi.org/10.23856/2505

Introduction

Innovations are the main moving force of social and economic growth from which competitiveness of any country to a greater extent depends on. The experience of the developed countries shows that up-to-date innovation model of social and economic growth, plays an important role in solving social and economic problems, that is why it is necessary to form a new economy model of Ukraine that would be based on the rapid acquisition of contemporary knowledge and the use of information technology that improves the process production and facilitates solving social and economic problems of the country.

Formation of a new social and economic policy as a base for innovation development in conditions of Euro-integration

In the center of innovation economy, innovation development there are system creating inter-dependent chains of development – an individual, knowledge, economy. The imperative of the modern development does not demand special explanations because a human being is the main condition and the basic factor and the leading participant and user of the
development results. The historical experience of the most economically developed countries show that the most important factor of the development becomes an individual activity based upon the knowledge. Thanks to the fact that the generating function of the knowledge is the sole human being’s function it means that increasing role of an individual in the development becomes quite objectively determined. Today, economy remains the main sphere of activity where the imperative of the development may be realized. An innovation tendency of the development is adequate to challenges of the global transformations of the XXI century. These transformations are based on production, knowledge usage and distribution and are realized by direct and active participation of an individual. In the conditions of transition to innovation development there is a need for a radical rethinking of the role of an individual as well as local communities and organizations in the process of the development in the conditions of globalization when acute competition struggle stipulates increase in uncertainty, acceleration of scientific and technical, technological and social changes that makes it more pointed actualize the problem of accumulation and efficient realization of human potential. An increase of human potential importance is linked also with formation of intellectual knowledge-based communities.

In spite of the number of problems existing among the new members of EU the implementation of structural reforms has completely changed their national economies and directed them to the way of intensification. The effect of the reforms performed is tremendous. Before joining EU Poland, the Baltic republics and Slovakia from unstable countries transformed into the states include into the tenth-rate of the most rapid developing European economies. New EU residents’ income has been doubled. Only in 2008 (four years later after joining EU) GDP of the three Baltic countries reached 100-150% related to 1989.

The present Ukrainian society level of living is not high comparing to the standards of Europe. In accordance with economic theory it is determined as an aggregate of living conditions relevant to the achieved level of economic development of a country. At the same time social and economic indicators of standards of life of the population reflect the total consumption (and possibilities of such consumption) of material benefits and services by the population and characterize individual aspects of the population’s welfare.

During 25-year period Ukraine underwent a lot of changes, far from the good, hence not all the processes are the results of the policy of the said years. In the final analysis, all the economic, political, organizational processes in the state affect social and demographic situation: life-span, life quality, sentiments and preferences of the people. In its turn, social situation, social sentiments are important component of the state’s security policy, since nothing else threatens existence of any democratic state as social confrontation does. Extremely important significance for creating social climate has the policy of incomes the results of which concern an individual as well as a community and a society as a whole. However, the system transformation of social policy failed to be implemented during the said years – there were separate actions connected with the necessity of periodic extinguishing periodic flames: money shortage in the Pension Fund, budget deficit, protests of some groups of the population.

The major problem remains the absence of the balanced and systematic incomes policy that would stimulate the population for active behavior at the labor market and would provide at least the minimal acceptable standard of living for working persons as far as wages are concerned and for the non-working at the cost of social transfers. In our opinion the practice of mass providing social aid (in the form of poverty aid, subsidizing housing and communal services or facilities) is not logical. From one side, too many social aid recipients indicates
ineffectiveness initial incomes policy, in particular the absence of duly stimulus for effective labor. From another side, impossibility of exact calculation of all types of social aid received extremely complicates the mechanism of the budget expenditures compensation to their givers, that is, in practice social aid often changes into concealed budget expenditures compensation to definite structures. At the same time very important remains provision of the acceptable correlation between a wage and social transfers, because any social transfer including pension must be lesser than a wage. In other conditions quite possible is rejection of labor activity by major part of employable population, legal at least, and corresponding increasing economically passive contingents (Libanova, 2016).

The minimal wage in Ukraine introduced from January 1st, 2017 (equals to UAH 3200 per a month), in any case, does not corresponds to real minimum subsistence level that must include the cost of minimal accepted nutrient budget, medicines, the required needs for cloths and shoes, durable goods, for the necessity of receiving basic public services - medical treatment, education, social aid, house-keeping, etc.

Extremely low incomes of the population, of the working people in particular, specify very archaic structure of consumption. If in the developed countries the expenditures for food do not exceed a quarter of the population’s incomes, thus in Ukraine they amount to 50-60%, and taking into account pressing payments (payments for housing and communal services, purchasing medicines and paying for medical services) the share of the “obligatory payments” accounts to 80%. In such a way not only minimal but even average incomes do not provide buying household appliances, visiting theatres, going to concerts, cinemas, travelling, etc.

An effective incomes policy envisages also their grounded, limited, understandable and human-transparent for the society differentiation. In general, various forms of differentiation have different origin, and thus, different possibilities of decreasing and different social perception. The present world community conceives inequality as the evil. Experts of the World Bank assert that if economic growth results are distributed unfairly it has much worse influence upon situation than its absence. So, the government’s purpose is to diminish inequality with the help of, primarily, incomes policy. Usually higher incomes are imposed by more heavily taxes, poor people receive aid, the whole population’s (irrespectively of their place of residence) access to the basic social services within the standards is provided at the cost of the nationwide financial resources.

Undoubtedly it is not a question of absolute equality – it is but not less harmful, because it does not stimulate for active behavior neither local authorities nor territorial communities, nor any individual. So called wage-leveling opposes to economic activity including the activity at labor market, obtaining a competitive profession (specialty), it often provokes a desire to provide increased incomes at the cost of their shadowing.

Due to the lack of possibilities to provide equitable distribution of economic results, and thus incomes, the government has to decrease extra disparity with the help of their redistribution. The most obvious form is tax redistribution, first of all, with the help of a progressive scale of taxation: the well-to-do people pay higher percentage of their income than poor ones. Adequately, the first “more generously share with the society”, invest more into financing public services, and the second get additional benefits - owing to higher affordability, bigger scope of aid, etc. Hence, the comparison of Ukrainian indexes with analogical ones in the USA, which economy model envisages minimum intrusion of the state in social and economic processes, testifies to considerably less the state’s tax regulation of disparity in Ukraine. In both states the contribution of the well-to-do part of taxpayers exceeds the contribution of the poor one. But if in Ukraine the rich pay 63.7% of total amount of the
population’s income tax, then in the USA – 97.8%, and the poor 36.3% and 2.3% accordingly; the richest 10% taxpayers in Ukraine provide 20.2% of total amount of revenues from the population, but in the USA – 70.5%. But the most impressive contrast – for 1% contribution of the richest: in Ukraine it makes up 4.4% of total revenues and in the USA – 36.7%. There are many reasons for that but among the principal ones is widely-spread practice of evasion tax payment and absence of a really progressive scale of taxation (Mazurok, 2017).

An important prerequisite of economic, innovation, intellectual and political development of any country is a demographic factor as an independent component of the foundation on which the society is based.

According to the official estimate from January to June 2016 the population reduced almost by 87 thousand persons, and for the latest half a year – more than by 250 thousand persons. Ukrainian statisticians show that at present the country is populated by 42 million and 670 thousand citizens. According to the official data for the last 25-year period the number of Ukrainian population has reduced by 9.5 million persons.

From the beginning of 2016 the Ukrainians become less in number at the average rate of 15 thousand persons a month (Fig.1)

Fig.1. The population size of Ukraine in 1990-2016

According to demographers’ estimate Ukraine is expected to have stronger demographic decease in future, and to say more exactly – a real demographic gap. As unbiased statistics shows Ukraine has already stared its forward movement to the demographic bottom: from the beginning of this year Ukrainians are diminishing by 15 thousand persons a month.

Negative tendency of demographic processes and decrease in manpower potential makes a threat to the national security of the state and demands to take urgent systematic actions to prevent from it as well as to take pre-emptive measures in order to neutralize destructive consequences. Any delay in solving the above mentioned problems brings a
danger of weakening political, economic and humanitarian influence of Ukraine in the world, makes it possible redistribution of Ukraine’s national resources and national potential in favor of other states.

An important tool for evaluating and rating of European countries innovation development is innovation table (Innovation Union Scoreboard). It presents a system of scientific and technological and innovation activity indicators on the basis of which the consolidated index of innovations (Summary Innovation Index) for every European country and also for possible competitors are calculated.

The major purpose of creating a system of European innovation scoreboard indicators is to work out EU rational strategy for harmonization of science and innovations in the framework of “united Europe” based on the data analysis for each individual country. It envisages further international cooperation within EU and working out new forms and methods of interaction between individual scientists, research organizations, industrial and service companies. On the basis of the obtained information analysis the measures of practical aid to those countries that have low indicators are being developed. They are finalized in the form of specialized programs for cooperation and rendering designated financial aid from the EU budget. Ukraine badly needs such advices and aid (Yegorov, 2016)

The technique of indicator values collecting and calculating of the indication scoreboard is based upon application of the unified procedures used for thoroughly elaborated statistic data samples calculated on the basis of statistic information received from national statistic institutions or international organizations. They are systematized in 10 groups for each of them the corresponding summarized value is computed. On the basis of the obtained data a country’s status out of the four possible is determined: an innovation leader (innovation efficiency (IE) is more than 120% of the average EU indicator), an active innovator (IE is from 90% to 120% of the average EU indicator), a moderate innovator (IE is from 50% to 90% of the average EU indicator), a forming innovator (IE is below 50% of the average EU indicator) and a corresponding rating is composed (see Fig.2). At present Ukraine has not been included into the list of countries that are estimated by the help of innovation scoreboard on permanent basis. It is estimated within benchmarking of innovation productivity of EU non-member countries.

Taking into account Euro-integrating orientation of Ukraine’s economic development it is necessary to study the position of our country among EU country-members. The consolidated index of Ukraine’s innovation development as well as EU countries and possible competitors and their status for the year 2016 is shown in Fig. 2.

The experts point to the potency of Ukraine’s innovation system for the influence upon employment, manpower and economic effects. Relatively weak aspects can be found in the links, research systems and intellectual equities.

In 2016 Ukraine got the “Forming Innovator” status with the value of consolidated index 0.142 and held the last place. We lag behind the leading countries more than 4 times. In general, the consolidated index value is three times less than that of the average indicator for EU countries (0.503).

The data availability for Israel and for Ukraine is lower than 75%.

The low level of innovation development in Ukraine compared to EU countries is explained by conservative out-of-date structure of production that restrains innovation economic development. Just the very transition to producing of more innovation products will cause increase in demand for innovation results, creation new and more favorable jobs conditions and wages rise.
Fig. 2. Consolidated Index of innovation development of EU countries, Ukraine and possible competitors for 2016

The substantial differences in Ukraine’s indicators comparing with those of European Union are a low per capita GDP, lower and negative GDP growth rate, lower and negative population growth rate, and much lower population density.

To provide innovation development the world countries spend considerable finance resources. We will consider the unit weight of expenditures for scientific researches and development % (percentage) of GDP in 2010 - 2016 for Ukraine and the average value in EU28.

For the full picture it is necessary to evaluate percentage of GDP for carrying out research and development (Fig.3).
According to the data of State Committee for Statistics Ukraine spends less than one percent of GDP for performing research and development. We can see that this indicator has the tendency to decline.

Generally, EU innovation policy envisages expenditures for research and development by 2020 will be at the level 3% of GDP.

For Ukraine it is necessary to work on the issue in order to borrow efficient European practices and implement them in Ukrainian conditions. In this case for us is very important participation in the European frame programs that facilitate Ukraine’s integration into innovation processes in Europe. Let us consider Ukraine’s participation in the program “Horizon 2020” which is the biggest EU program for financing science and innovations with total budget about euro 80 bln, intended for the years 2014 – 2020.

Ukraine takes part in “Horizon 2020” program as the associated member from March 2015 and has the same access to all components of the program as EU member-countries. Ukraine is recognized as one of 11 leading world countries with considerable scientific potential and it was also given the status of the key strategic EU partner in “Horizon 2020” program. As a whole “Horizon 2020” is aimed at improving life of member-states citizens.

In 2017 from the beginning of Ukraine’s participation in “Horizon 2020” program 429 Ukrainian organizations have taken part in the program submitting projects for euro 270 mln. Among them there are 69 winner-projects obtained financing for about euro 12 mln. Most projects received financing for such directions as environment and information and communication technologies. Ukraine’s level of achievements in “Horizon 2020” amounts to 9%, EU’s – 15%. It is not a bad result, but these figures are rather modest comparing to EU countries – Great Britain, Germany and Spain which receive hundreds millions of euro from the program.

To one of the winner-projects belongs a Ukrainian “Passiv Dom”, autonomous house self-provided with electricity, heating, ventilation, water-supply and sewerage system and its frame structure is printed on a 3D printer for a day. Modern super-strong materials guarantee their properties for more than forty years and its heat-saving walls would not lose their properties during the mentioned period. It was included in Guinness Book as the warmest house in the world.

In spite of such brilliant projects of “Horizon 2020” program Ukrainian participants, experts state that Ukraine has not used its potential yet. For the time of Ukraine’s joining “Horizon 2020” in 2015 only 6 national companies received Instrument grants supporting innovations of small and medium business (Yegorov, 2016).

The main reasons of Ukrainians’ low activity are poor information awareness and the lack of proper preparedness for the competition: Ukrainian companies should pay more attention to commercial aspects of a product, to think over a business-model and clearly estimate the markets.

EU countries’ experience in relation to applying instruments for stimulating innovation activity is rather interesting: state guaranteed loans, privileged crediting of innovation entrepreneurship, tax allowances, bank lending Regionalization of innovation development of EU economies is worth mentioning as a positive experience for Ukraine, in particular, setting up regional centers of science development – technological park structures, technopolises.

At present over 200 technological park structures are functioning in Europe: in Great Britain – 40, in France – 30, in Central and Eastern Europe countries above 100. The most well-known is the Cambridge technological park in England, “Sophia Antipolis” in Nice, “Il-
de-France” near Paris (France), “Novus Ortus” in the south of Italy, “Silicon Glen” in Scotland, “Izar-Welli” in Munich (Germany). This trend was considered for Ukraine too.

These very innovation centers are engaged in implementing their research developments into high-tech technologies and science-consuming productions and are pointed on economic expansion in regions.

In the world practice owing to increasing the role of innovations state’s financing one can observe the growth of science-consuming products amounting to 35% in EU, 25% in USA, 11% in Japan, 7% in Singapore, 4.5% in Korea, 2% in China, 0.13% in Russia. In Ukraine it makes up only 0.05% of GDP.

In other words, in Ukraine the government does not create favorable climate for the development of innovations. Basically research development is carried out at cost of national businessmen while the world practice shows quite opposite results. For instance, Poland demonstrates rather high level of development that was reached for the similar period of time (Musienko, 2013).

Ponderous advantages of innovation sector in Poland are: a great number of intermediary organizations (over 300) supporting innovation activities and rendering services in educational sphere, consulting, handing over technologies; distribution of intermediary structures taking into account concentration of scientific and research potential: availability research departments at the majority of innovation firms; delegating responsibilities for realization of regional innovation programs to the local organs of self-government (Borras, 2004).

Conclusions and suggestions

So, Ukraine has heavy problems as to using human potential, quality of research infrastructures, formation of permanent interlinks between the elements of national innovation system as a whole and poor integration in international science and technical and innovative cooperation. It is necessary to work out and implement the targeted science and technical and innovation policy, to bring it to conformity with entrepreneurial activities, to make real steps toward realization of the required structure changes in the economy and science.

Such situation demands implementing innovation social and economic policy by way of:

- efficient structure reconstruction of the economy, restructuring, modernization of enterprises, innovation development of production;
- increasing output volumes of products through introduction of new technical equipment and technologies and increasing labor productivity;
- fixing an amount of minimum wage at real minimum subsistence level;
- employing economically grounded and legally adopted socially just differential wages.

Forming and using a new social and economic policy and qualitative system of social standards and guarantees that would correspond to the European level.

The rise in the social standards can be reached through principally larger efficient governmental investment-innovation policy irrespective to the existing state programs of restructuring and modernizing the economy.

It is necessary to form a new model of economy that would be based upon rapid new knowledge acquisition and application of information technology that improves production process and facilitates solving the country’s social problems. The states attempting to enter
the world economic system increase the volume of investments in science and technology, the number of technology parks and zones of technology development.

References

Bieńkowska, E., Moedas, C. (2017). European Innovation Scoreboard 2017. [Electronic resource]. Retrieved from https://www.rvo.nl/sites/default/files/2017/06/European_Innovation_Scoreboard_2017.pdf. [in English].

Borras, S. (2004). Introduction to special issue on a European system Of innovation. Guildford: Science a publ. policy, vol. 31, No. 6, 422 – 424. [in English].

Demographic, social and economic statistics. (2017). State Statistics Service of Ukraine. [Electronic resource]. Retrieved from http://www.ukrstat.gov.ua/. [in Ukrainian].

Expert assessing of Ukraine’s system of researches and innovations. (2016). Program support «Horyzont 2020». [Electronic resource]. Retrieved from http://www.iop.kiev.ua/assets/files/audit1.pdf. [in Ukrainian].

Libanova, E. M. (2016). Income policy in Ukraine. Ekonomika Ukrainy, No.8, 62-77. [in Ukrainian].

Mazurok, P. P., Trohymchuk, V.V., Kravchenko, N.V. (2017). Economic power in transforming society. [Monograph]. Kryvyi Rih: Private editor – Chernyavskiy D.O. [in Ukrainian].

Musienko, V. D., Molozina, N. A., Terletskyi, E. V. (2013). Technoparks activities as a guaranty of effectiveness of innovation processes development. Formuvannya rynkovyh vidnosyn v Ukraini, No.6 (145), 82 – 86. [in Ukrainian].

Science, Research and Innovation Performance of the EU. (2016). European Commission, [Electronic resource]. Retrieved from https://rio.jrc.ec.europa.eu/en/file/9083/download?Token=LCOIWLRI. [in English].

Statista (2017). The statistics Portal. [Electronic resource]. Retrieved from https://www.statista.com/statistics/420958/gross-domestic-expenditure-on-research-and-development-gdp-germany. [in English].

Yegorov, I. Yu. (2016). Innovation EU Scoreboard and determining the place of Ukraine in it. Bulletin of the National Assamidy of Ukraine, No. 5, 87 – 91. [in Ukrainian].