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THEORETICAL APPROACHES TO THE MANAGEMENT OF INVESTMENT RESOURCES OF SOCIAL ECONOMY BASED ON STRUCTURAL DEFORMATIONS IN THE MARKET ENVIRONMENT ON THE BASIS OF PROJECT ANALYSIS

Abstract

The paper proposes a project analysis of ways to improve current economic situation in Ukraine. A crisis bordering on severe necessitates serious consideration, both scientific and practical, of actions that will boost the ailing economy. The author puts forward several formulas that may contribute to the resolution of these problems.

Statement of the problem

The state of social economy in Ukraine is characterized by instability and remains extremely difficult. Negative trends in socio-economic development of Ukraine are the result of political instability, lack of a balanced strategy for economic transformation, not always consistent economic policy, etc.[1] Over the past few years there has been a loss of real impact leverage on the dynamics of economic processes that led to the deepening of structural deformation, delay of social benefits, etc. Therefore,

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[1] AM Golovnya, *The influence of the government on the structural transformation of the socio-economic situation of Ukraine in a socially oriented economy*, "Efficient Economy", 2010, № 12 [electronic resource]. Mode of access:
http://www.economy.nayka.com.ua/?op=1&z=431.

the government should actively intervene in the social activities of enterprises and clearly define its role in this process.

Recommendations from the state must take into account social resources (facilities, equipment and reserves held by the society which may be needed in various spheres of social life and work[2] and structural deformation in the market environment. The problem of reducing the structural deformations market can be solved by the means of effective implementation of investment projects of social direction.

The analysis of recent research and publications

In literature,[3] there are three approaches to the description of the social economy:

1) ochlocratical (characterized by the fact that this economy operates mainly in the lower layers of society);
2) oligarchical (associated with a focus on the interests of the higher layers);
3) democratic (intended to support the middle class). If the middle class emerges, it is exposed to a significant innovation potential and, affecting different areas of social development, it demonstrates the patterns of behavior for the lower layers of society and is an example for them. The middle class concentrates the most valuable intellectual and professional capital of the society: knowledge, culture, skills, creativity, energy, and so on. Democratic orientation of the social economy, if supported by the state, helps develop and strengthen the middle class with a simultaneous concern about the poor segments.[4]

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[2] EV Mamontov, *Place symbolic resource in the social resources of the government* [electronic resource]. Mode of access:
http://www.rusnauka.com/7._DN_2007/Gosupravlenie/20571.doc.htm.
[3] TI Zaslavskaya, *Economic Sociology: Formation and prospects*, "Region: economy and sociology", 2007, № 3, pp. 132–150.
[4] Ibidem.

The basis of social economy is its ideology which is rooted in two fundamental assumptions:[5]

1) human rights, the essence of which is that all men are born with equal rights and the task of the society is to create mechanisms for their implementation;

2) the only source of wealth is labor. Thus, the higher the level of distribution of generated material and cultural wealth for labor is, the more just is its social and economic system. The ideology of social economy determines its basic direction associated with the welfare of people.[6]

The analysis of the papers[7] indicates the importance of investment of firms, including social resources and structural deformations in the market environment, such as asking questions in economic practice, contributing to economic growth and the strengthening of Ukraine as a European country with advanced technologies.

In view of this, it is possible to predict, using analysis of the project to ensure suitable conditions for the effective functioning of the investment activity of enterprises, and to consider social resources and structural deformations in the market environment at a regional level.

The purpose of this study is structural analysis of the theory that will make it easier for social activities of the state as a whole and individual companies to consider investment resources and structural deformations under uncertainty and risk, taking into account the principles of project analysis.

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[5] The subject of the course "Social Economy" [electronic resource]. Mode of access: http://buklib.net/books/22283/.

[6] Ibidem.

[7] TI Zaslavskaya, *Economic Sociology: Formation and prospects*, "Region: economy and sociology", 2007, № 3, pp. 132–150; The subject of the course "Social Economy" [electronic resource]. Mode of access: http://buklib.net/books/22283/.

The main material of the study

The main objective of this study is to identify a set of factors (parameters) with which you can create the following value (criteria) for processes in the economic environment that are able to take control of investment resources (cash and all other assets of the entity that can be used for investment activities)[8] in social economy with the use of project analysis.

To solve the problem of optimization of social economy, let's have a look at the macroeconomic productional function with three factors, the principles of which are highlighted in literature.[9] Productional function W (gross output of goods) is a classical type in the first approximation and depends on K (capital), L (labor), T (factor of neutral technological progress (STP))[10] – formula (1):

$$W = W(K, L, T) = T \cdot K^{\alpha_1} \cdot L^{\alpha_2}. \qquad (1)$$

Here α_1, α_2 – elasticities for funds K and labor L, respectively.

Productional function $W = W(K, L, T) = W(x_i)$ is the economic-statistical model of the process of production in a given economic system and expresses a stable law-quantitative relationship between volume indicators of resources and production.[11] In the production function $W(x_i)$ we substitute factors that are responsible for social investment resources, social economy.

The purpose of social analysis is to determine the acceptability of the options of the project from the perspective

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[8] AG Zahorodniy, H. L. Voznyuk, *Financial and economic dictionary*, Lviv Polytechnic Publishing House, Lviv 2005, p. 496.

[9] OP Romanko, *Competitiveness building enterprise: the nature and properties*, Proceedings of the National University "Lviv Polytechnic", Logistics, 2008, № 633, p. 140; SI Nakonechniy, *Econometrics: [improvised]*, [in:] SI Nakonechniy, TA Tereshchenko, TP Romaniuk, *Econometrics*, Vol. 4th, ext. and revised, Kyiv National Economic University, Kyiv 2006, p. 162–182.

[10] Ibidem, p. 175.

[11] Ibidem, p. 165.

of the users of the region where the project is implemented, the development of a strategy of project realization in order to gain support from the population, achieve project objectives and improve the characteristics of its social environment.[12]

Let us detail the parameters that go into the formula (1). The main indicators assign capacity of spending on social projects and programs W, and the factors (xi) – parameters that characterize the effectiveness of social policy (the first group), financial situation (second group), the components of social analysis (third group) that are partially presented in Nakonechniy's paper:[13] x_1 – environmental factor; x_2 – innovative factor; x_3 – rate assessment of the project on the part of the population living in the area of the project, from the standpoint of demographic and socio-cultural characteristics, conditions of residence, employment, recreation and the impact of the project on these parameters; x_4 – factor determining the level of compliance of the project with the cultural traditions of the population in the region; x_5 – the coefficient of establishing the level of impact of the project on the social environment; x_6 – factor in evaluating changes in this social environment: one that will project and others that constrain it; x_7 – factor assessing the impact of social systems on the feasibility of the project and the chances of obtaining the expected results.

Options xi form a vector, which partly characterizes social policy – formula (2):

$$x = (x_i) = (x_1, x_2, ..., x_n), \quad n = 7 \,. \tag{2}$$

The corresponding ratio combined (additive, multiplicative) character macroeconomic production function $W(x_i)$ in the second approximation based on formula (2) is written as formula (3):

[12] *Only trade unions – cannot stop layoffs*, Proceedings of the wording "Korrespondent.net", p. 146 [electronic resource]. Mode of access: http://blogs.korrespondent.net/users/blog/nkpu/a107347.
[13] SI Nakonechniy, op. cit., p. 528.

$$W = W(x_i) = a_1 \prod_{i=1}^{7} x_i^{b_i} + a_2 \prod_{i=1}^{7} x_i^{b_i} + a_3 \prod_{i=1}^{7} x_i^{b_i}, \quad (3)$$

where b_i, a_j ($j=1,2,3,4$) – empirical constants that determine the expert method. In expression (3) components of the productional function are divided into 3 groups and all 7th indices vector (2) included in each of them. Thus, $W(x_i)$ combines indicators of the project environment that meets the investment banking business, which depends on social policy of the enterprises themselves and the state as a whole.

Consideration of the representation (3) is particularly important because virtually every parameter of the production function directly or in combination is an important factor for the evaluation of investment resources of social economy.

Ratio of a mathematical model linking the components of the production function W with the corresponding components of profit P, and the cost of strengthening social capital V is presented as the cited paper by Nakonechniy:[14] formula (4) – (5):

$$\Pi = cW^{r+1} - wL - rK + \lambda(W(x_i) - W) \Rightarrow \max, \quad (4)$$

$$\Pi = d \cdot \Pi + (1-d) \cdot V \Rightarrow opt. \quad (5)$$

Here Π – total income presented in the form of the Lagrangian function, c, r, w – profit function parameters; w characterizes the average wage rate of personnel; L – the average number of employees (in this (current) year); λ – Lagrange parameter; Π_k – function compromise (with corresponding weight coefficients profits that receive, if we consider the production cycle from resources to consumers); d, $(1-d)$ – the weight coefficients that set the expert method. Π components should be changed through taxes and other governmental regulatory mechanisms in the

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[14] Ibidem, p. 143.

interests of general consumers by preventing manifestations of monopoly and providing social benefits and privileges.

Efficient targeting of social resources in the final version of the state enterprises could lead to an increase in the state's economy as a whole, as social resources meet the creative potential of individuals, social groups, organizations, their capabilities and creative energy.

Social resources contribute to the development of other resources and capabilities, including financial ones. Therefore, the social control is to use the resources of social investment economy more efficiently.

Indicators of structural deformation (deviation) for the above mentioned parameters can be written as (6):

$$\Delta \varPi, \quad \Delta \varPi, \quad \Delta w, \quad \Delta L, \quad \Delta r, \quad \Delta K, \quad \Delta s, \tag{6}$$

The course of recent events in Ukraine (April – May 2013), when the unemployment rate reaches 1.5 million people, arrears of wages is more than 1.1 billion, if new working places aren't created, the social insurance funds do not work for people, social dialogue in the country is not effective, indicates that there is an all-out assault on the rights of working people.[15]

A striking example of structural deformation (negative) of a social policy is the policy of JSC ArcelorMittal Krivoy Rog[16] which despite the protests of union organization, unilaterally continues:

- mass layoffs;
- the reorganization and liquidation of structural divisions;
- refuses to comply with investment duties, etc. The basis of this is the optimizing of enterprise activity, aimed solely at maximizing profits and not on the parameters and criteria of social processes.

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[15] *Only trade unions – cannot stop layoffs*, op. cit.
[16] *Union ArcelorMittal Krivoy Rog asks to counteract the massive downsizing*, Materials Eng. edition of "Radio Free Radio" [electronic resource]. Mode of access: http://www.radiosvoboda.org/content/article/24979606.html.

Findings from this study

Based on the three factors (*T, K, L*) of productional functions of the equations system of mathematical economic models for policy, an analysis of social enterprises has been conducted, taking into account the production and prospects of investment projects. With the help of a given model one can explore the structural deformation in micro- and macroeconomic aspects, taking into account indicators which characterize the prospect of investment projects, social resources and TP (technological progress).

The prospects for further research in the chosen direction. The techniques of constructing the extended system of equations econometric model can focus on optimizing social policy in a macroeconomic scale.

References:
1. Golovnya AM, *The influence of the government on the structural transformation of the socio-economic situation of Ukraine in a socially oriented economy*, "Efficient Economy", 2010, № 12 [electronic resource]. Mode of access: http://www.economy.nayka.com.ua/?op=1&z=431.

2. Mamontov EV, *Place symbolic resource in the social resources of the government* [electronic resource]. Mode of access: http://www.rusnauka.com/7._DN_2007/Gosupravlenie/20571.doc.htm.

3. Nakonechniy SI, *Econometrics: [improvised]*, [in:] SI Nakonechniy, TA Tereshchenko, TP Romaniuk, *Econometrics*, Vol. 4th, ext. and revised, Kyiv National Economic University, Kyiv 2006, p. 528.

4. *Only trade unions – cannot stop layoffs*, Proceedings of the wording "Korrespondent.net" [electronic resource]. Mode of access: http://blogs.korrespondent.net/users/blog/nkpu/a107347.

5. Romanko OP, *Competitiveness building enterprise: the nature and properties*, Proceedings of the National University "Lviv Polytechnic", Logistics, 2008, № 633, pp. 609–613.

6. *Union ArcelorMittal Krivoy Rog asks to counteract the massive downsizing*, Materials Eng. edition of "Radio Free Radio" [electronic resource]. Mode of access: http://www.radiosvoboda.org/content/article/24979606.html.

7. Zahorodniy AG, Voznyuk H.L., *Financial and economic dictionary*, Lviv Polytechnic Publishing House, Lviv 2005, p. 714.

8. Zaslavskaya TI, *Economic Sociology: Formation and prospects*, "Region: economy and sociology", 2007, № 3, pp. 132–150.

9. The subject of the course "Social Economy" [electronic resource]. Mode of access: http://buklib.net/books/22283/