

L. Yo. Sytar, I.I. Hrybyk  
Lviv Polytechnic National University

## MODERNIZATION OF THE SOCIAL SPHERE FIXED CAPITAL AS A FACTOR OF UKRAINIAN ECONOMY DEVELOPMENT

ã Sytar L.Yo., Hrybyk I.I., 2014

The nature of such concepts as “a social sphere” and “a social infrastructure” is investigated. The analysis of conditions and processes of investing fixed capital into the social sphere of Ukraine is done. Based on the analysis, the main objectives and the expected results of the social sphere fixed capital modernization are identified. The qualitative criteria of the modernization efficiency are outlined.

**Key words:** social sphere, fixed capital, social infrastructure, investments, depreciation rate, modernization.

Л.Й. Ситар, І.І. Грибик  
Національний університет “Львівська політехніка”

## МОДЕРНІЗАЦІЯ ОСНОВНОГО КАПІТАЛУ СОЦІАЛЬНОЇ СФЕРИ ЯК ЧИННИК РОЗВИТКУ ЕКОНОМІКИ УКРАЇНИ

ã Ситар Л.Й., Грибик І.І., 2014

Досліджено суть понять “соціальна сфера” та “соціальна інфраструктура”. Виконано аналіз стану та процесів інвестування основного капіталу соціальної сфери України, на його основі визначено основні завдання та очікувані результати проведення модернізації основного капіталу в соціальній сфері. Окреслено якісні критерії ефективності її проведення.

**Ключові слова:** соціальна сфера, основний капітал, соціальна інфраструктура, інвестиції, коефіцієнт зносу, модернізація.

### Problem statement

New modernization development strategy, introduced in Ukraine in 2010, defines a number of basic priorities, which include the creation of a modern competitive state, developmental humanization, the introduction of a progressive model of development, foreign policy of national interests' statement in a globalized world [7]. To speed up the process of humanization, and thus to increase social investment in human capital as well as to build modern sustenance infrastructure and provide quality services it is necessary to upgrade the fixed capital of the social sphere.

### Analysis of recent research and publications

Key aspects of the modernization of social economy are investigated in the work of T. Kachala, E. Libanova. and O. Bogomolov. The problem of social sphere modernization explore in their works A. Garashchuk and V. Kutsenko. Research on social infrastructure upgrades highlight in their writings I. Kinash. V. Novikov, I. Syniavska. To some of the aspects of modernization of social services are dedicated publishings of K. Dubych, K. Pawliuk. (modernization of social protection), A. Vitchenko, O. Drugov, N. Batechko, A. Yaroshenko (modernization of education), A. Shypko, O. Bobrovska, I. Hozhylo, P. Levin, I. Kutsyn, H. Gerasymenko, (modernization of healthcare), H. Lifintseva, M. Kichurchak, O. Antoniuk, N. Maksymovska. (modernization of cultural sphere), N. Kushnir, L. Kravchenko, A. Terebukh (modernization of tourism industry). However, despite the large number of

scientific papers devoted to this subject, the state of the fixed capital and social modernization is left unattended by scientists.

### **Objectives**

To define the main tasks of modernization of fixed capital, types of economic activities relating to social services, and the expected results of its implementation.

### **Materials**

The main objectives of regional policy in the State Regional Development Strategy of Ukraine for the period until 2020 include *preservation of cultural heritage and tourism development, modernization of education system, enabling formation of a healthy population and socio-cultural development* whose implementation is impossible without modernizing fixed capital of the social sphere.

Social sphere is one of the most important spheres of society that embraces interests of all segments of the population, conditions of their work, life, health and recreation. The meaning of term “social sphere” as any other category is quite multifaceted and complex phenomenon. However, it has relative autonomy, specific patterns of its development and operation. That is why there’s a need of its clarification considering already accumulated material.

G. Slezinger treats the category of “social sphere” as a combination of different types, functions and organizational forms of social activity with a common goal of protection of health and lives of people, improving their housing and living conditions; giving them equal rights and opportunities for education, suitable employment and fair wages; involvement of modern social and cultural development; financially secure and dignified retirement which is possible by creating and passing to consumers the relevant social security, products and services [12, p. 10].

Big dictionary of economics defines social sphere as a set of industries, organizations and business enterprises that are directly related to each other and determine the way and quality of people’s lives, their welfare and consumption [1, p. 675].

According to V. Skurativskiy, O. Palii, E. Libanova, social sphere is a sphere of human society, where interests of classes, social groups, ethnic and national communities are being implemented; a sphere that covers an extensive range of social space – from working conditions, life and health to social class, ethnic and family relations [11].

V. Kutsenko and Y. Ostafiychuk. consider the social sphere as a sphere of human activity, which results in services that meet the needs of society and its individual members and are related to the creation of value added [6, p. 340]. It is characterized by specific processes of interaction and reproduction of human, personality, social groups and population in general, the relationship arising on reproduction of human potential and the formation of social justice in society.

As the area of material resources consumption, social sphere is the source of creation of intangible benefits that manifest itself in the physical and spiritual abilities of people and become an important factor for the entire national economic activity that carries out long-term effect on economic growth [10, p. 566].

Social sphere development should be seen as an important factor in accelerating economic development, predetermined by the influence of such factors as: social changes in society that cause population income growth, transformation of lifestyles, increasing of overall demand in business development trend that contributes to the growth of requirements to the quality of services; state policy, which may manifest itself in strengthening control over pricing in the social sector, passing laws that help to activate the development of the latter; development of information technologies and their introduction into manufacturing, resulting in the integration of computer and telecommunication technologies, in more active use of computers and the Internet, emergence of new services; internationalization and globalization of social services, which are closely related to the activation of association and absorption processes at the international level, enterprises entry into new markets, as well as the emergence of a large number of strategic alliances, increased activity of multinational service companies; development of scientific and technological progress, which leads to the entry of a wide range of innovative services related to information technology, computerization and new ways of communication [5].

In the economic literature “social sphere” category is quite often identified with social infrastructure, although the latter is its main component, together with social sphere individuals and social institutions (fig. 1). As the capital is part of the means of production used in the long-term manufacturing (more than one production cycle), depreciate and transfer their value to the value of the finished product in parts [4]. The modernization of fixed capital is the improvement of existing facilities in order to prevent the feasibility of aging and improving the technical and operational parameters to the level of modern requirements. Thus, modernization of social capital is actually reduced to upgrading its infrastructure, which according to fig. 1 has all the material and technical base of the social sphere.

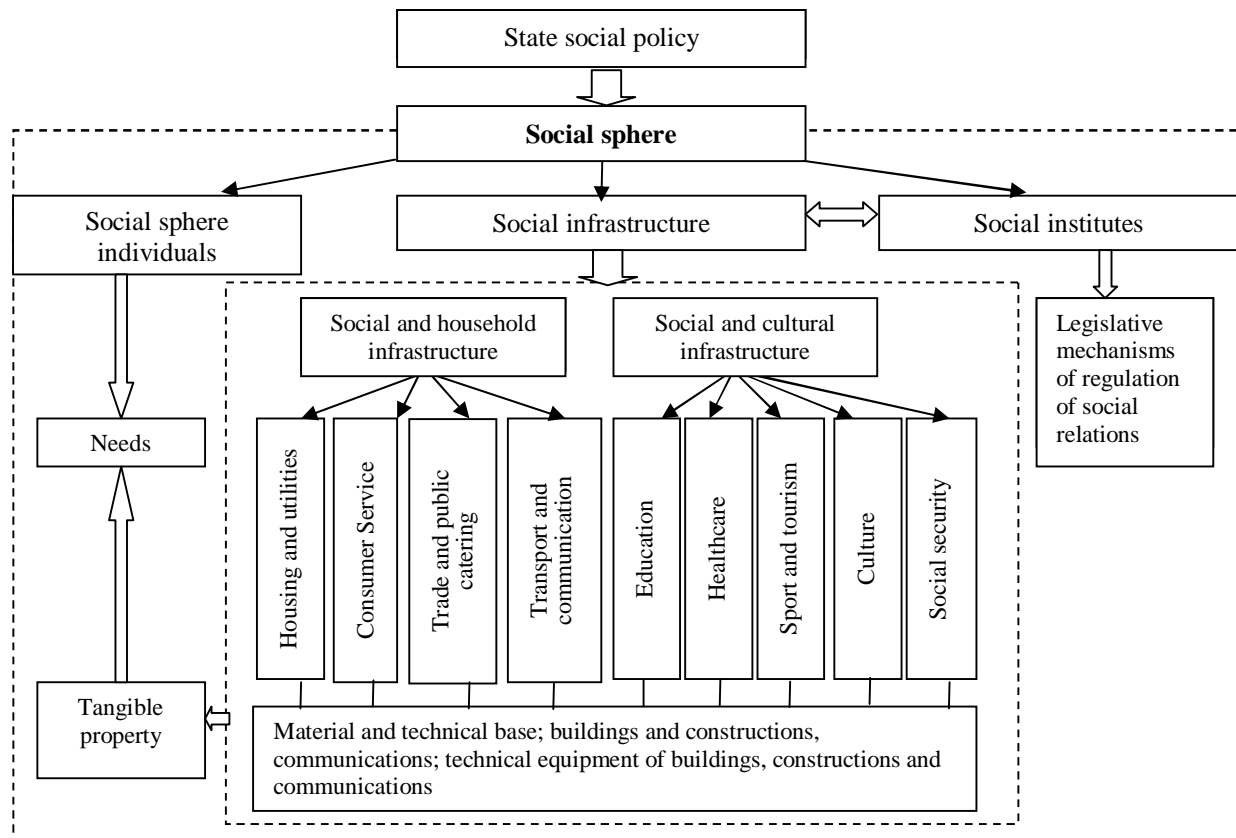


Fig.1. Scheme of interaction of the social sphere elements  
Source:[9]

The term “infrastructure” (from Latin infra – “under” and structure – “building”) is used starting with 20s of the 20th century. It’s been treated as a set of roads, bridges, communication lines and public works that are required for the functioning of the industrial economy as a whole and its separate components [14].

Economic theories grew out of research of infrastructure of imposed social capital which has been understood as the difference between the cost of the capitalists and much higher social spending for goods production. It was noted that imposed social capital (or infrastructure) covers the power, without which the functioning of the manufacturing sector of the economy, and includes all public services, including jurisdiction, protection of public order, education, health, cultural services and other [3, p. 5].

As economics developed, the approaches to infrastructure classification changed. At present, the total complex of infrastructure is traditionally divided into two main components - production and social one [2].

Objects of production infrastructure should serve the main types of material production and social should meet material and spiritual needs of man. In their writings, scientists B. Danylyshyn and V. Kutsenko define social infrastructure as “a set of objects that create general conditions of social production and life of the population, the formation of physically and intellectually mature, socially active individual” [3, p. 4-5].

At present, most of the fixed capital of economic activities relating to social sphere is in critical condition, as evidenced by performance of technical and economic condition of fixed capital (table 1).

Table 1

**Indexes of state, movement and efficiency of the fixed capital (FC)  
of economic activities relating to social sector of Ukraine in 2010\***

Types of economic activities	State indexes of FC			Movement indexes of FC		Indexes of FC expenditure efficiency	
	Depreciation rate, %	Investment capacity rate, %	Fund capacity rate, UAH/UAH	Update rate, %	Disposal rate, %	Capital intensity, UAH/UAH	Profitability, UAH/UAH
<b>Total in economics</b>	74,90	3,58	2,21	1,84	0,44	0,45	0,010
Trade; repair of motor vehicles, household goods and personal use items	32,10	19,13	0,35	8,77	1,16	2,86	0,144
Hotels and restaurants activity	43,40	5,16	1,31	3,11	0,59	0,76	-0,019
Education	62,50	2,74	0,83	3,19	1,05	1,20	0,001
Health care and social assistance	50,80	3,77	1,02	5,80	0,65	0,98	0,000
Providing public and personal services; culture and sport activity	7,40	1,84	6,46	0,66	0,20	0,15	-0,012

\*Source: calculation based on [8]

As shown by the statistics, among economic activities belonging to the social sector the best fixed capital state in 2010 was observed in trade, repair of motor vehicles, household goods and personal use items. In this area rates of fixed capital state, except for investment capacity, are normal (according to the method of calculating the level of economic security of Ukraine depreciation rate should not exceed 35%, investment capacity rate must be between 6–12 %, and the rate of capital intensity of the economy should not exceed 1.15 UAH/UAH). However, the trade sector shows the highest values of the basic capital movement and its efficiency, which is significantly higher than the values of these rates for Ukraine's economy by and large.

Despite the low value of the coefficient of depreciation of fixed capital in hotels and restaurants activity, the rest of the rates of fixed capital state and movement indicates that the capital of this area is in poor condition. Besides that the rate of profitability of fixed capital in the activity of hotels and restaurants is the lowest among the economic activities of the social sphere (–0.019).

In the area of public and personal services; culture and sport depreciation rate of the fixed capital is the lowest among the economic activities in social sphere of Ukraine. However, movement processes in this area are very slow, and the efficiency of the fixed capital usage is extremely low.

At the same time, the state of the fixed capital in education according to the rate of depreciation is in the worst condition. Despite this, it demonstrates relatively high values of the efficiency of fixed capital: capital intensity – 1.20 UAH/UAH, FC profitability – 0.001. These calculation results show the high efficiency of investments in this type of economic activity, since the least amount of investment capital of this area gives the best are the results (table 2).

Table 2

**Investment in types of economic activities in the social sphere of Ukraine**

	Capital investment, m UAH						Foreign direct investment, m USD					
	2010	%	2011	%	2012	%	2010	%	2011	%	2012	%
<b>Total in economics</b>	189061	100	259932	100	293692	100	44708	100	49362	100	54462	100
Trade; repair of motor vehicles, household goods and personal use items	19626	10,4	24358	9,4	24858	8,5	4765	10,7	5193,5	10,5	6003	11
Hotels and restaurants activity	1523	0,8	2225	0,9	2856	1,0	458,3	1,0	463,7	0,9	810,3	1,5

Table 2cContinued

	Capital investment, m UAH						Foreign direct investment, m USD					
	2010	%	2011	%	2012	%	2010	%	2011	%	2012	%
Education	1920	1,0	2185	0,8	1492	0,5	16,8	0,0	9,1	0,0	6	0,0
Health care and social assistance	2478	1,3	2491	1,0	3135	1,1	131,2	0,3	134,4	0,3	120,7	0,2
Providing public and personal services; culture and sport activity	4407	2,3	5313	2,0	5903	2,0	583,5	1,3	607,8	1,2	388,1	0,7

\*Source: [13]

Thus, given the results of the analysis of fixed capital in economic activities relating to social sector, as well as the objectives of regional policy enshrined in the National Regional Development Strategy of Ukraine up to 2020 there is an urgent need for the modernization of the fixed capital in the social sphere. Thus the main objectives of *modernization in this area* include:

- support and development of medical centers with modern technologies;
- optimization of day-and-night stationary network and increasing the number of day-care beds in the clinic;
- building a network of schools to provide equal access to quality educational services;
- filling the educational environment of all the schools with adequate computer complexes with Internet access and supporting schools with modern laboratory and multimedia equipment;
- development and modernization of tourist and recreational infrastructure;
- reconstruction and modernization of the existing hotel base, introduction of new technologies, creating economic incentives for investments in the construction and commissioning of new hotels;
- introduction of resource-and energy-saving technologies in the provision of utility services through modernization of material and technical base of the housing and communal services;
- modernization of local and regional telecommunication networks and providing access to the Internet in schools;
- providing high-speed internet to educational, cultural and health care institutions;
- equipping sport objects with special means to ensure the availability of employment for people with disabilities and adaptation of existing sport objects for the needs of people with disabilities;
- implementation of energy saving with replacement of morally and physically obsolete boiler houses equipment with new high efficiency boilers, including the replacement of natural gas with alternative fuels;
- continuation of replacement of main, street and house water supply systems to reduce water loss during its transportation from wells to consumers as well as modernization of pumping equipment and water pumping stations with the installation of equipment to adjust RPM motors and others.

Effective realization of the tasks will enable us to achieve tangible results in the social sphere of Ukraine:

- to provide high-quality and attractive educational environment;
- to increase the level of hotel services;
- to form the optimal primary level network of providing medical care (outpatient family medicine) in urban and rural areas;
- to ensure the computerization of cultural institutions;
- to improve the quality of cultural services;
- to prevent the destruction of the historically formed environment;
- to reduce the consumption of traditional fuels and energy on social sites and others.

The most acceptable qualitative criteria of efficiency of modernization of fixed capital in the social sector are:

- expanding the network of social institutions in underdeveloped districts;

- improving social services;
- improving the quality of services provided;
- improvement of the material base of social institutions;
- improvement of working conditions and recreation.

### **Conclusions**

Thus, further modernization of fixed social capital and its development will be the basis for sustainable development in Ukraine, a key direction of which should be increased efficiency of the population, the investment attractiveness of the region and the efficiency of budget investments, and thus improving the economic situation in the country by and large.

### **Prospects for further research**

Further study of the modernization of the fixed capital in the social sphere of Ukraine should be implemented towards finding sources of funding.

1. Borysov A. *Big Dictionary of Economics*. – 2nd edition revised and enlarged. – K.: World of Books, 2006. – 860 p. – P. 675

2. Vorobyov G. *Infrastructure significance in today's society development* / G. Vorobyov/ [Electronic resource]. – access mode; [www.nbuv.gov.ua/portal/Soc\\_Gum/Vdnuet/econ](http://www.nbuv.gov.ua/portal/Soc_Gum/Vdnuet/econ)

3. Danylyshyn B. *Cultural and educational sphere as a social base of market transformation support in Ukraine (theory and practice aspects)* / B. Danylyshyn, V. Kutsenko. – Kyiv, 1999. – 122 p.

4. *Integrated assessment of region fixed capital (guidelines)* / S. Ishchuk, O. Kushnirchuk-Stavnycha, L. Sytar / *The National Academy of Sciences of Ukraine, Institute for Regional Studies*. – Lviv, 2013. – 28 p.

5. Kinash I. *Social sphere as a resource of sustainable development* / I. Kinash [Electronic resource]. – Access mode: <http://www.pu.if.ua/depart/Finances/resource/file/>

6. Kutsenko V., Ostafychuk Y. *Social sphere transformations in Ukraine: a regional perspective: monograph* / Ed. S. Doroguntsov. – K.: Oriony, 2005. – 400 p. – P. 340.

7. *Modernization is our strategic choice* – [electronic resource]. – access mode: [http://www.president.gov.ua/docs/Poslannya\\_sborka.pdf](http://www.president.gov.ua/docs/Poslannya_sborka.pdf)

8. *Fixed capital of Ukraine for 2000–2010 years* // *Statistical Yearbook / State Statistics Service of Ukraine*. – K., 2011. – 292 p.

9. Pihul N. *Theoretical aspects of formation of social sphere in current economic climate* / N. Pihul [electronic resource]. – Access mode: <http://www.economy.nayka.com.ua/?op=1&z=2506>

10. *Productive forces arrangement and regional economy: textbook* / S. Dorohuntsov, T. Zayats, Y. Pitiurenko and others; edited by Dr. Sc., professor., cor. of NAS of Ukraine S. Doroguntsov. – K.: KNEU, 2005. – 988 p. – P. 566.

11. Skurativskiy V., Paliy O., Libanova E. *Social Policy. Textbook for students and postgraduate specialty “Public Administration”*. – K.: Publisher of UAPA, 1997. – 360. – P. 344

12. Slezinger G. *The Social Economy: Textbook*. – Moscow: Publishing House “Business and Service”, 2001. – 368. – P. 10

13. *Statistical yearbook of Ukraine for 2012* / *State Statistics Committee of Ukraine*; [Ed. G. Osaulenko]. – K., 2012. – 552 p.

14. *Online Etymology Dictionary. Douglas Harper, Historian* [Electronic resource]. – Access mode: <http://dictionary.reference.com/browse/infrastructure>.