

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
TERNOPIL NATIONAL ECONOMIC UNIVERSITY

**MODERN TENDENCIES
OF FISCAL POLICY
IN EUROPEAN
ECONOMIC SPACE**

Monograph

*Scientific editorship by
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The monograph deals with modern trends in fiscal theory. Financial policy of ensuring sustainable development is substantiated. Theory and practice of budget decentralization are explored. Dominants of development of household finance under modern conditions are presented. Peculiarities of functioning of international business under conditions of tax harmonization are analyzed. Strategic guidelines on formation, functioning and expansion of fiscal space of the state are outlined. Prospects for improvement of fiscal administration in international and national context are highlighted. Global challenges are revealed as well as fiscal aspects of modern trends in finance of business entities are outlined.

For researches, lecturers, postgraduates and students, government officials, economics practitioners, and everyone interested in issues of fiscal policy.

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INTRODUCTION

The development of Ukraine, as well as other countries of the world, including the European Union member countries, is defined by the growing civilizational, exogenous and endogenous challenges and threats, the existence of which actualizes the search for effective mechanisms and instruments capable ensuring the dynamic progress of the state in the global economy. In this context, the priorities of fiscal policy reforming this monograph is devoted to, becomes extremely important.

The main objective of the monograph is to reveal the essence and problems of implementing fiscal policy, define approaches and strategic priorities for reforming the tax systems of Ukraine and the EU members. The general logic and structure of the monograph, which contains eight interrelated sections, is defined by this goal.

The first section is devoted to contemporary trends in fiscal theory development, in particular phenomenology and conceptualization of the essence of fiscal space of the state, the theoretical basis for determining tax competition, the conceptual foundations of the state budget policy, the impact of state loans and taxes as tools for balancing the state budget. It also defines the theoretical aspects of the dominance of fiscal regulation of financial flows.

The second section outlines the main conceptual framework for the implementation of financial policy for ensuring sustainable development. The chapter examines the prerequisites for increasing the efficiency of the public procurement system in Ukraine, analyses the current state of the state debt and the impact on its volume and dynamics of fiscal imbalances and the social aspects of mortgage lending, and also the model of financing and development of higher education in Ukraine and the impact of budget investments on the level of implementation of social programs.

The theory and practice of budget decentralization is the subject of the third section. Here the authors focus on analyzing the priority areas of fiscal policy reform at the local level, on the current trends and new approaches to execution of local budgets, on the nature of the budget relations transformations in the context of decentralization. A particular attention is paid to the specifics of the implementation of local tax policy and taxes as sources of income of rural communes in Poland, e.g. the agricultural tax.

The fourth section deals with the domains of household finance development in today's conditions, their tax burden, the role of tax breaks in pension savings increasing, existing in the world practice of models of implementation of investment

strategies of households, pragmatic management of their investment portfolio and the possibilities for financing housing.

In the fifth section, based on the analysis, the significance of tax aspects of international competitiveness, the impact of economic sanctions on economic activity and the possibilities for the countries of Central and Eastern Europe to increase the national competitive advantages by using labor taxes as a tool for attracting direct foreign investment, the principles of development of international entrepreneurship via tax harmonization were considered.

The sixth chapter outlines the strategic preconditions for the formation, operation and expansion of the fiscal space of states. In this context, we analyze the specifics of tax revenue mobilization under current conditions of management, determine prerequisites for taxation of residential real estate for increasing social standards, and defined criteria for expanding fiscal space by ensuring a high level of financial security of the national banking system. A special attention was paid to issues of bank taxation in the EU countries, and to the tax specifics in special economic zones in Poland.

The subject of the authors' attention in the seventh section is the national and international aspects of fiscal administration and the priorities of its reforming. Here, we discuss the paradigm of customs administration in Ukraine, the current state and development of institutional combating of tax evasion, define principles of tax culture formation in the context of tax practice for Ukraine on the example of the USA and other countries. We describe social responsibility of taxpayers in Poland with various models of tax behavior. Based on that, we define strategic directions for improving the administration of property taxes, their stimulating effect on the economic development of the region is determined, and the peculiarities of taxation of agricultural producers are analyzed.

In the final eighth section, we identify global challenges and current trends in the financing of business structures, in particular, for the development of the financial intermediary institution in Ukraine. We determine and analyze the problematic aspects of the functioning of the life insurance market. The emphasis is done on the tax risks in the whole system of enterprise financial risks, the role of banks as the main intermediaries in the financial market, realities and perspectives of intellectual and innovative development of Ukraine, and the motivation of the primary public placement of corporate rights in the stock market in the context of global and national development trends.

In general, the theoretical, methodological and analytical results of the research presented in the monograph, can be interesting for both scientists and practitioners dealing with the problems of fiscal theory and practice. The monograph contains a list of practical recommendations for strengthening economic and financial efficiency of fiscal management.

CHAPTER 1.

Modern Trends in Fiscal Theory

1.1. Theoretical basis for determining tax competition in the fiscal space of the state

Competition is just fine, as a result, we are getting stronger. In any case, visitors vote by their feet: if they come, then they voted for us.

George Alan Cohon
*is an American-born Canadian
businessman senior chairman
of McDonald's*

The specificity of the existence of the modern world lies in the dynamism of the transformations of social, informative, economic and financial interactions, as the result, they occur intensive global competition as a process of interaction and the search for the most profitable and optimal models for functioning of the fiscal space in the state. The actions of the authorities to ensure the competitiveness of the country, combined with the most controversial trends, are accompanied by changes in the whole paradigm of development of society. In this case, there is a need for a detailed study of all aspects of the relevant fiscal relations both in the international plane and the outline of the latest strategies of the internal reform, from the creation of fundamental ideas of the national ideological basis to the intensive search for pragmatic, maximally beneficial economic relations.

Spreading of competition in the modern fiscal space is accompanied by numerous economic phenomena and processes generated by market mechanisms for the improvement of national economic systems at the basis of uneven development of territories. As a result, the efforts of some countries to increase their importance in the course of world economic development becomes higher. Taxation, one of the main functions of the state, is an integral part of this process, which has a significant impact on the formation of the corresponding fiscal space and the interaction of its components, creating special conditions for the operation of taxpayers – natural and legal persons, fiscal authorities and states generally. However, the negative impact of

various political and economic crises, the escalation of terrorism and local military conflicts have a significant impact on the pace of social development of some countries, which, in particular, exacerbates the struggle for fiscal impacts and enhances the search for effective methods to protect its own economic interests on a global scale. One of the important synergistic effects of such changes is tax competition. The dynamics of distribution, as well as the likely risks of its amplification, cause controversial discussions in the academic circles; at the same time, practice points to conflicting results for all taxpayers. Attempts to unify and synchronize the tax components of the market mechanism through the formation of various economic unions, the ratification of international agreements and the introduction of the latest norms of international economic law are accompanied by unpredictable consequences for some unexpected results for others. In such circumstances, tax competition becomes more and more relevant features, and the study of its impact on the activities of tax actors requires detailed study and substantiation.

The analysis of theoretical and practical issues of tax competition combined with subjective experience of the functioning and development of national economies, scientists and economists devoted a lot of scientific works, but challenges of the modern world confirm the importance of their detail study. A significant contribution to the development of the fundamental theory and methodological basis of the tax competition functioning was made by foreign classics of financial theory: J. Keynes, K. Marks, A. Marshall, John. S. Mill, M. Porter, *Schumpeter J. A.*, A. Smith, Stiglitz J., Szafoni M., C. Tiebout, J. Wilson, Geprge R. Zodrow and modern sopecialists: Jelinski B., Kireeva Ye., Kulawczuk P., Maiburov I., Mieszkowski P., L. Orędziak, H. Wnorowski, Pinskaya M., Pohorletskyi A. and their scientific works became the basis of the research. At the same time, our attention was attracted by works of domestic scientists who thoroughly studied certain aspects of tax competition in the functioning of the fiscal space of the state: Ivanova Yu., Merkulova T., Taranhul L., Ped I., Serebrianskyi D. and others.

Competition is a rather complex, controversial and multifaceted economic category. The term «competition» has a Latin origin (in the Middle Ages, Latin «Concurrentia», from the Latin «concurro», «competitio» - I coincide, I encounter [25 p. 405]). The most used equivalent of this term in foreign literature belongs to the English analogue «comoetition» – I encounter [5, p. 266]), but there are other less common versions: «Wettbewerb» (German); «La compétition» / «la concurrence» (French) [42, p. 68]; «De competencia» (Spanish) and others.

The issue of appearing and expansion of competition received a considerable significance a long time ago, because due to its existence it is the intensive development of national economic systems in the world market. Appealing to the fundamental foundations of the knowledge of the studied category, first of all, it is important to explain the main ideas that outline the logic of the process of key concepts examining, their interaction during the study of the mentioned problem and points to the gnosiological problems of its further development in the modern fiscal space.

For the first time, the theory of competition was concertized and systematized by A. Smith (1723–1790) in the well-known scientific work of the author «The study

of the nature and wealth of people» (1776). The scientist outlined the content of the investigated category by the principle of the «invisible hand» as a key factor in the impact on the main market mechanisms, denying any meaningful control over the relevant processes. Especially a free market, as a perfect self-regulated economic system under the influence of competition, in the sense of A. Smith, is the key to the prosperity of the nation [21, p. 442–443.]. Combining the concept of competition theory and taxation in his work, the scientist created the basis for studying the socio-economic development of the state, where the taxes themselves were identified as one of its main attributes, and competition became a qualitative characteristic of the market.

Studying the meaning of these two extremely important economic categories which are basic in forming the fundamental foundations of the economic and social life of a human being, it is worth noting that their combination is impossible only while functioning of a free economy, which is dominated by perfect competition in most areas of public life. There are many factors that require state intervention in the relevant processes, as the existence of perfect competition involves various forms of manifestation of the economic law of «struggle for survival». Their extremely dangerous influence can arise during periods of crises and stagnation, as well as during force majeure, various socio-environmental problems, etc. So, such fields as scientific and technological activities, production and consumption of a certain, not widely used, but necessary product, employment of the population, etc. – really need state intervention to ensure the effective functioning of a society built on the principles of democracy and individual freedom.

Certain conclusions on this subject in his scientific work «General Theory of employment, interest and money» were made by a scientist J. M. Keynes (1883–1946), who, without any worries, denied suggestions of Adam Smith and his followers about the unacceptability of state influence on economic processes. According to the author «... classical theory postulates not apply to the general, but only to a particular case, because the economic situation, which it considers is only a limited case of possible equilibrium states» [7, p. 42]. Essentially rejecting the likelihood of effective changes regarding the implementation of the economy in the short term, resulting in excessive competition and destructive impact on overall social development, J. Keynes was convinced that the market economy has lost the ability of automatically rebalance and therefore the scientist gave a particularly importance for public intervention. A state, making a direct impact on regulating these processes for optimal balance of its interests and the interests of society and distribution of its controlled resources, typically uses tax instruments and creates appropriate competitive conditions in the local as well as global dimension.

Economic laws that manifest themselves in causal relations between certain economic phenomena and processes are unbiased in the presence of certain determinants. Thus, the specifics of a market economy in the implementation of product distribution is the interaction of two factors: competition and the manner in which John Stewart Mill was convinced (1806–1873). In his work «Fundamentals of Political Economy with Some Proposals on Social Philosophy,» the author noted the importance of determining the magnitude of the impact of each of them on each other, how the action of one of them changes under the influence of another [13,

p. 308]. At the same time, it should be admitted that «the custom is a barrier, which to some extent should be respected by tyranny, even when people are brought to extreme oppression» [13, p. 309], considering that it (custom – ed.) «successfully keeps its position in the fight against the competition...» [13, p. 313]. Instead, the scientist believed that the competition is «the only regulator of rent, profit, wages, and prices» [13, p. 308], which is an essential stimulus for the development of the economy. Consequently, the custom (in modern interpretation – mentality) is a limiting factor for the expansion of competition and its impact on the development of socio-economic relations in society, as well as the formation of national economic traditions, including fiscal ones.

Studying the *gnosiological* problems of the relationship between wealth and a human being, which, according to fundamental research, reveals their influence on the level of economic freedom, the special meaning of the definition «competition» was given by the author of the treatise «Principles of Economic Science», Alfred Marshall (1842–1924). In his opinion, this term «gives too much flavor of evil, it began to mean a certain proportion of selfishness and indifference to the well-being of other people» [10, p. 61]. Especially this feature of competition, the scientist noted as one of the forms of antisocial features, which are so important for «the maintenance of energy and self-movement and stopping of their actions can hinder the stability of social welfare» [10, p. 63]. In this context, A. Marshall outlined the existence of two types of modern competition: creative and destructive. In general, taking into account the versatility of the studied category, this classification is very exact, because for different subjects of economic relations, under the influence of competition, there may be ambiguous results. Taking into account this one, the use of the term «competition», the scientist considered inappropriate to «characterize the specific features of the industrial life of the modern era» [10, p. 65], as far as he associated it with certain moral qualities that restrict autonomy, predictability, weight and free choice of solutions. Instead, he proposed, in his opinion, a more successful definition is: «freedom of production and entrepreneurship, or, in short,» economic freedom» [10, p. 65]. However, the proposed definition of A. Marshall, in our opinion, goes beyond the scope of the concept of «competition», because they deny the impact of state regulation of economic processes within the existing legal relations, as far as establishing appropriate rules of operation and interaction of participants in economic processes in the form of regulatory and legislative framework, the state has a direct impact on the development of competition.

Taking the laws of dialectics as a basis, Karl Marx (1818–1883) built his own social ideology, where competition was considered as an important factor in the growth of capital and the promotion of technological progress, instead of that, taxes had the role of additional tools for the exploitation of workers [9, p. 164; 228–229; 395–396]. Thus, the scholar's adherence to the progressive form of income taxation is understandable, because the growth of individual capital, according to K. Marx, is due to its accumulation under the influence of competition.

On the basis of the social paradigm represented by Marx, Joseph Alois Schumpeter (1883–1950) developed the theory of economic development, which proposed an innovative approach to the interpretation of the category «competition» in his work «Theory of Economic Development. Capitalism, Socialism and

Democracy». The scientist identified the functioning of competition, which is based on the introduction of certain innovations: the creation of a new product, the use of innovative production technologies, the latest approaches to its organization, expansion of the market, «the creation of a new good that better satisfies the needs which have already existed and satisfied» [26, p. 229–234].

Defining the meaning of the studied category, the scientist reflected its influence on the formation and development of the economic process in the state, where competition is a key aspect of the functioning of the economic system. The author noted that «First of all, in an economic system based on competition, where new combinations («innovations» of the economic process) pave the way winning in competition with the old ones, this explains inherent in it and virtually neglects the process of social uplift on the one hand, and social declassification – on the other, as well as a number of isolated phenomena, and especially a lot in the cycle of conjuncture and the mechanism of its phases» [26, p. 133].

World economic transformations under the influence of globalization processes have contributed to the formation and development of modern theories built on the basis of fiscal federalization, which ensures the strengthening of tax competition and directs its development into a subjectivity vector. The most striking proof of this view is the hypothesis proposed by Charles M. Tiebout (1924–1968) and his hypothesis confirms «competition between private companies leads to the efficient production of private (market – ed.) goods, while competition between communities...» [and local self-government bodies – author] «... leads to the effective public goods provision at the local level» [46, p. 416-424]. This conclusion from the researcher was named «*Tiebout Model*» (Tiebout Model – in English) formed in 1956.

Due to the subjective view of the corresponding problems related to the production and distribution of public goods, as well as the provision of services by the territorial authorities, people, participating in the election process, vote for those candidates who best represent their own significance for the community as a whole, often using populist methods and slogans, instead of being able to outline real preferences in relation to specific types of proposed public goods. Thus, by completing the political palette of a certain territory, voters directly influence the formation of the relevant state policy and the vectors of tax competition development. However, in most territories, there is a limited number of competing communities that results in limited competition [44, p. 891]. In fact, this comment was expressed by Joseph Eugene Stiglitz (born in 1943), doubting on the axiomatic nature of the hypothesis presented by Ch. Tiebout. The scholar came to the conclusion that tax competition between local communities could be not only visual (perfect – ed.), but also ensure the presence of Pareto *optimality*.

Studying works of Ch. Tiebout, D. Stiglitz confirmed that competition between communities in attracting investment leads to a reduction in the tax burden on business entities, which ultimately is beneficial to entrepreneurs [44, p. 892]. Therefore, the author suggests the expediency on limiting or eliminating competition, which, in his opinion, could be the source of much wider economic problems.

Studying tax competition, D. Stiglitz examines different approaches to define its essence and impact on the development of individual territories. Evidence of this is the controversial idea, within which the scientist explains competition as a negative

phenomenon, as competing with each other, individual communities seek to attract as many business entities as possible as well as new investments, which in its sense means increased tax revenues and the creation of new workplaces. At the same time, the benefits received by the respective community are at the expense of the losses of other communities. Thus, a discussion that unfolds against the backdrop of tax competition illustrates the significant benefits that local government can receive from taxation [44, p. 893].

A peculiar gnoseological vision of the essence of the studied category was proposed by Michael Porter (born in 1947) whose main scientific thesis was the certainty of the success and competitiveness of the country in the international market due to the level of development of competition within the national economic system. At the same time, in view of the rapid development of the world economy, the transformation of the fiscal space, the scientist singled out certain features of the existence of international tax competition, based on the fact that its subjects are represented by the relevant national authorities (governments, control bodies, fiscal services, etc.), then as traditional international competition on the market of goods and services involves direct rivalry of economic entities [18].

Studying the basic aspects of tax competition, one should pay attention to the limited scientific approach to the substantiation of its theoretical component, in particular, to specify the study definition. Therefore, the problems of the existence and development of tax competition require a detailed study of its impact on the formation of the optimal fiscal space of the state.

Tax competition is a part of the historical way of institutional change, in which the economic systems are constantly evolving, where the fiscal policy is a key segment, changing and updating the direction of its development [31]. Except this one, tax competition limits the re-distributive potential of fiscal policy at the level of functioning of the internal markets of some states [29].

Objectively, tax competition is the undisputed result of the development of social relations, improvement of fiscal space within the national socio-economic systems. At the same time, tax competition is a part of economic competition, which in specialized literature is defined as economic competition and struggle between private and collective commodity producers and sellers of goods and services for the most favorable conditions of their production and sales, for appropriation of the largest profits, in which the spontaneously regulated proportions of social production [3]. (Fig. 1).

The intensive development of tax competition research (tax competition – in English [4, p. 181; 942]) was acquired at the end of the XX and at the beginning of the XXI century. The attempts of scientists to comprehensively characterize this definition can outline three main directions of its interpretation:

- The first determines tax competition as a phenomenon (Greek – φαινόμενον, the new Latin – phenomenon, English – phenomenon, French – phénomène, German – Phänomen, Phänomenon, Erscheinung) [42, p. 961], reflecting the outer side (wrapper) of objective reality;

- The second, more thorough – as a process (Latin – processus, English – process, French – processus, gm – Prozess, Verlauf) [42, p. 683], which reproduces a

consistent, meaningful integrity of certain related structural and functional events and phenomena;

– The third – as an economic relationships (Latin – relatio, Greek – τὸ πρός τι, English – relation, French – relation, German – Relation, Beziehung) [42, p. 754], which provide for certain subordination of something to somewhat – includes various aspects of influence, in particular: economic, political, social, international, mental (traditional) in the presence and consideration of the human factor (Fig. 2).

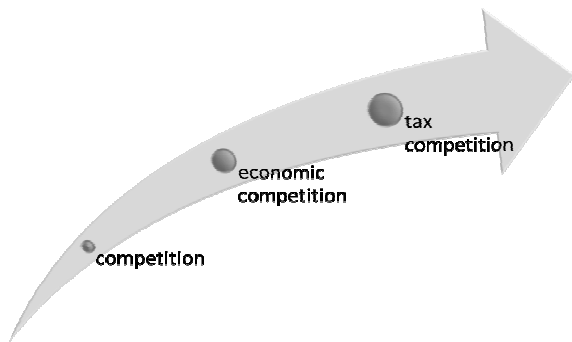


Fig. 1. Evolutionary way of tax competition.

Note: prepared by the author.

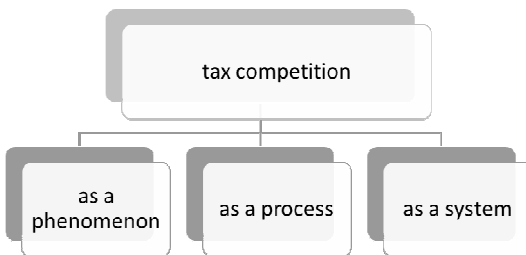


Fig. 2. Scientific vectors of definition of tax competition meaning.

Note: prepared by the author.

The phenomenon of tax competition is not new and generally, it exists as long as there is a tax system of any state. Its presence determines the transformation of one (national or local) tax system in the case of corresponding changes of another [32]. A number of scholars are studying the phenomenon of tax competition from the point of view of its influence on typical economic processes: attracting investments, making profits, improving the supply of public goods for the population and creating a favorable tax environment through a balanced approach to determining tax rates.

However, some of these interpretations, in our opinion, are too narrow. L.Oređziak notes that tax competition is a phenomenon that is based on the implementation of appropriate actions by persons involved in the implementation of

tax policies that can provide holding or increasing the attractiveness of a particular territory for the conduct of economic activity [41, p. 86]. The suggested interpretation of tax competition is understandable but imperfect, because it essentially limits the value (influence) of this phenomenon. With this definition, the author does not take into account a certain category of taxpayers – hired workers who are not business entities, and therefore, they don't conduct any kind of business, but the share of revenues in the form of tax payments in the process of their operation is significant.

K. Burak is convinced that tax competition is a phenomenon associated with the process of globalization, and more fundamentally, with the growth of international capital mobility. It can take many forms, but it is always accompanied by a reduction in tax rates in order to meet the stated economic goals that are competing in countries [28]. Objectively, tax competition was the most widespread when foreign trade became more active and the global market (space) expanded, when the economic borders of the states became much wider than the political ones. Instead, we believe that its actual formation was begun with the formation of a market economy, when the state, with the aim of remaining a full participant in economic events, was forced to interfere with the process of regulating tax relations, and world globalization became the cause for tax competition activation.

Searching the optimal model of taxation, M. Księżyk notes the significant impact of tax competition on reducing tax rates on corporate profits, which provides an attractive tax environment for investors [35]. A similar view of the functioning of the studied concept has the scientist K. Lipka, who shows tax competition as a positive phenomenon, which can stimulate the increase of economic efficiency by providing ever better and more effective proposal. The scholar points out that states which try to attract investors are interested in having tax rates on corporate profits (revenues) as low as possible. The phenomenon of tax competition in such conditions will increase, and all attempts to inhibition of it will be useless. Each country has the aim to become economically attractive, and lowering tax rates is an element of ensuring such attractiveness [37]. The mentioned above scientists statements quite rightly emphasize the need to reduce tax rates in order to increase the investment attractiveness of any state and the formation of a favorable tax environment for the implementation of investment projects, which will undoubtedly be accompanied by an increase in tax competition. Instead, characterizing its positive aspect, K. Lipka emphasizes the need to regulate the rates of income tax or income of legal entities, whereas today the dominant factor of social enrichment is not only financial but also intellectual capital, which is not deprived of individuals, in our view, greater possibilities to move and be mobile than legal ones. Especially these signs allow them to use their own creativity, acquired knowledge and skills for self-realization opportunities, increasing incomes, and improving personal well-being.

L. Furman, outlining the positive features of the phenomenon of tax competition, points out rightly that it contributes to increasing efficiency and effectiveness in tax decisions and better resolution of relevant issues [31]. We should only note that such decisions should be taken by skilled workers in the interests of the state and society only.

At the same time, in contrast to the previous statement, M. Krajka believes that tax competition is a harmful phenomenon in view of the external fiscal consequences

that lead to an inefficiently low level of public goods provision [34]. In the opinion of the author, the phenomenon of tax competition is directly related to the processes of globalization, and in particular with increasing of international capital mobility, the liberalization of their revenues, and the decreasing of transaction funds, which makes investors (legal entities and natural persons) to find attractive deposits not only in a certain state, but also abroad [34]. We do not agree with the author's thesis, because we consider that tax competition, as an element of economic one, can not have a harmful effect on the provision of the appropriate level of social benefits. In our opinion, the above mentioned phenomenon does not arise but is only intensified with the activation of globalization processes and creates special conditions for all subjects of tax work, which ultimately lead to the expected effect – improving the overall economic well-being of the country.

Consequently, according to our considerations, tax competition is a phenomenon with common signs of rivalry, caused by the functioning of a market economy in case of a conflict of interests among the subjects of tax relations in the area of distribution, influence and development of the fiscal space of the state.

The combination of phenomena with the same or similar competitive features in taxation have the ability to change under the influence of certain actions or conditions. This determines the basis for the creation of appropriate processes. Consequently, the transformation of modern economic structures, causing changes in the fiscal space, outlines the tendencies for their self-regulation and determine the general directions of development of the studied phenomena. Their systemic dynamics requires the provision of concerted actions aimed at achieving a certain result, which allows to consider tax competition as a process of finding innovative methods and mechanisms of taxation. However, among scholars, the assessment of the effectiveness of tax competition and its influence on the methods of tax regulation, as well as on economic activity, external and internal economic environment is questionable. Some of them consider that its negative feature is reducing the tax burden, which leads to significant budget losses. So, researchers G. Zodrow and P. Meshkovskiy point out that «tax competition is a very undesirable process, as it leads to a reduction in tax rates below the optimal level, which results in a reduction of public goods production» [50]. Instead, we believe that the reduction of public goods production is rather a consequence of low-quality management of state budget resources, rather than a cause of inhibition of social and economic development of society. Moreover, (the development) the process of tax competition can also stimulate both ones in terms of improving the quality of tax management mechanisms and improving the fiscal space of the state.

In the continuation of the interpretations, it is worth paying attention to the definition proposed by J. Wilson The author interprets content of tax competition as an uncoordinated definition of tax rates by independent governments aimed at redistributing workers, enterprises and capital in the regions they represent [48, p. 270]. J. Wilson, in our opinion, highlights the process of regulating tax competition, characterizing its features exclusively on the international space. Outlining the study of the definition in a certain framework, we lose the opportunity to comprehensively analyze the impact of tax competition not only on all participants in tax relations in the country and beyond, but also to provide an objective assessment

of the social and economic situation. We plan to consider tax competition in the global and local dimensions, with the aim of disclosing the deep essence of the investigated concept.

As rightly pointed out in his scientific work by K. McCarthy, Frederik van Doorn, Brigitte Unger, for many economists, tax competition is nothing more than a question of supply and demand. Instead, scientists believe that such rivalry (tax competition) is a mechanism by which the market can move towards the utopian position of perfect competition, since governments, that do not face competition, act as private monopolists, have little incentive to reduce spending or increase quality of service provision» [39]. We agree with the opinion, although we have some doubts concerning reaching the goal of utopian idea – perfect competition, even when it comes to economic processes that are regulated by both the state and business entities. At the same time, we believe that tax competition can contribute not only to improving the efficiency of the national economy, but also the competitiveness of the state in the global economic space.

Due to the subjective vision of the special role of tax competition in the functioning of the economy outlines, A. Krajewska, treating it as «reduction of national tax rates or introducing tax rebates or exemptions with the purpose of awakening economic activity of economic system, or increasing the country's attractiveness as a place of accumulation of foreign Capital» [33, p. 255]. We also indicated thesis assessed not as a core concept of tax competition, but as one of the objectives of competition, with which you can achieve relevant results: improving fiscal space, improving the social and economic development, improving the public welfare and improving the relevant market mechanisms that regulate the level of quality of life of the population.

However, scientists determine the number of positive features super-tations in taxation, particularly M. Sosnowski notes that «healthy tax competition between states, in addition to gradually reduce taxes, create appropriate mechanisms on the need to use different fiscal instruments aimed at improving the situation of public finances, will reduce the fiscal burden on taxpayers, which in turn attracts more investors» [43] Such form of competition catalyzes the formation of tax payers consciousness and increasing of performance quality of official duties of fiscal services staff, because we believe that the human factor plays a key role in shaping the direction of tax competition and providing with its help implementation through strategically defined social and economic problems.

In the continuation of this thought H. Wnorowski says that tax competition brings a number of positive results, certainty leads to a reduction in tax rates between the states, which in the consensus will promote their harmonization. In the end, this is reflected in decreasing the level of the general tax burden, which positively affects the development of the economy at all levels of aggregation [49, p. 253].

A number of authors consider tax competition exclusively in the international aspect, which greatly narrows the meaning of the concept under study. D. Serebrianskyi, describing the directions of increasing the competitiveness of the domestic taxation system, states that «the competition of internal tax rules with external, in its essence, is tax competition». In view of this, «in developing the main directions of tax policy, national governments do not have to take into account

exclusively their own national considerations (tax burden, protection of domestic producers, the need to finance social measures, debt levels, etc.)» [20], but, above all, we should weigh to»... an extremely volatile global economy and changes in the business of tax systems of other countries, especially trade partners and jurisdictions with low tax burden» [20]. However, giving such a definition of tax competition, the author, in our opinion, limits exclusively to the international aspect when it speaks of «the struggle of external and internal taxation rules» and does not take into account the participation of subjects of tax relations, at least those who are directly involved in the establishment of so called «rules», their implementation and application in practice, the executive authorities, and hence the interests of the state, which are, first of all, in ensuring economic growth and social welfare.

According to I. Ped, the essence of «tax competition is determined by its place in the integral system of intergovernmental economic competition, which is a combination of fiscal and institutional competition. Tax competition is a kind of interstate fiscal competition and is complemented by its form such as fiscal competition» [15, p. 62–65].

In addition, tax competition is defined «in the rivalry of states for mobile limited economic resources with the use of tax instruments» [14, p. 5], the phenomenon of which the author considers objective evidence of the development of interethnic economic relations in a globalized world, which «is a manifestation of its highest form after the competition of goods, services, markets» [15, p. 62–65].

A similar view is maintained by S. Devko, the process of «tax competition is particularly brightly observed within the framework of integrational entities in the absence of interstate barriers to foreign trade and the movement of factors of production» [2, p. 138–142].

An international component in the interpretation of the content of the studied concept can be traced in the definition of T. Tuchak, which states that «tax competition is an interstate and / or interregional struggle for economic benefits and the growth of the tax base by creating attractive tax conditions for individuals and entities of foreign origin and / or remittance taxpayers from other areas of their state. In particular, enterprises of transnational corporations and concerns» [22]. All of these definitions, in our opinion, are fair, but not perfect in terms of disclosing the deep essence of the researched category and social and economic nature of the phenomenon that is actively developing, since they are confined exclusively to the international aspect of the development of tax competition, and this, in turn, sharply narrows its influence on economic and social processes in society; violates the relevant mechanisms of state development and causes asymmetries in the fiscal space. In addition, in spite of the above mentioned definitions, we consider tax competition to be a general concept, under which one should understand much wider content than suggested by scholars, in particular by I. Ped, T. Tuchak and S. Devko, etc., and international tax competition with its constituent, which takes place in the presence of foreign economic activity in the country.

In conditions of modern geopolitical transformation, which, among positive evolutionary changes, is one of the reasons for the imbalance of the world economic system and significant asymmetries of the fiscal space, tax competition is increasingly gaining signs of globalisation of the world economy.

Thus, according to A. Pohorletskyy, the essence of international tax competition is the rivalry of numerous tax jurisdictions for the right to involve so called «global taxpayers» (as economic entities, residents of other countries and their own) in their national economy, in order to tax their income from operations within a certain jurisdiction abroad in accordance with the principles of residence and taxation of income at the source of their creation [17, p. 67].

T. Merkulova notes, that formation of optimal fiscal space and effective tax system from the point of view of determining the goals and directions of the implementation of the state policy of any country in the modern world takes place in the context of globalization processes, which is manifested, first of all, in international tax competition. According to the scholar, the increased mobility of basic economic resources, such as labor and capital, has intensified a certain type of competition between countries for their involvement, called by the author as «competition of tax institutions.» [12, p. 83]. It is worth stressing that, under the «competition of tax institutions», a specialist understands the effect of international tax competition, because in continuing his opinion, he emphasizes its impact on international financial flows and the redistribution of labor and capital, emphasizing that these institutions are such equally important as unambiguous» [12, p. 83]. Working on the scientific opinion of T. Merkulova, we would like to note that the author's research on the impact of international tax competition on the reform of tax systems applies only to two components – labor and capital. However, we consider it expedient, in this context, to outline another, equally important resource, which today is one of the newest factors of creation of added value, activation of innovation activity, profit making, and, in general, ensuring the competitiveness of the economy on the world market.

A number of countries, endeavoring to provide attractive tax conditions, apply to reduce tax rates and introduce appropriate preferences to attract investors. This process, according to N. Frolova, was called tax competition [23, p. 48–60].

At the base of the study of the essence of tax competition and its impact on the social and economic development of the state in ensuring the formation of optimal fiscal space, the most meaningful, in our opinion, was the definition of Yu. Ivanov and O. Chumakova, which indicate that «tax competition as a process managing the competitive advantages of the tax system in combating the volatile factors of production (capital and labor), and other benefits (innovation, availability of natural resources, employment security, etc.), in order to achieve sustainable competitiveness of the national economy, is a form of economic competition, the content of which is to compete subjects to achieve the goals, the best results in a certain area «[6, p. 5–8, p. 6]. This interpretation of the exploratory definition, as a management process, that is quite successful and most meaningful.

The signs of subjectivity of the investigated definition are reflected in the interpretation of L. Orędziak, who argues that tax competition is the use of its participants in activities regulated by the country's tax policy, aimed at maintaining or enhancing the investment attractiveness of a particular territory as a place of business [46, p. 86]. We believe that this is just one of the features of the investigated category, while the study of tax competition in relation to other aspects will allow the

most qualitatively and fundamentally analyze features of distribution, as well as outline the characteristic patterns of its functioning.

Guided by the systematic logic of scientific knowledge of the underlying insight, a number of scholars suggest more profound study of the essence of tax competition.

So, B. Balza recommends to consider tax competition at many levels, because he believes that rivalry concerns competing countries that aim to attract foreign investors equally, as companies that compete for relevant advantages with market competitors [27, p. 65]. According to another scholar, J. Kudła, in broad sense, tax competition consists of changes in tax conditions caused by the influence of tax decisions that arise in other countries [36, p. 132]. The aforementioned approaches to determining the fundamental essence of the scientific paradigm of tax competition lead to certain considerations regarding the fact that competition is primarily a reason for lowering the tax burden, although it is not always worthwhile to give a negative assessment. For example, in continuing from the aforementioned point of view, a certain administratively regulated level of tax competition can generate positive externalities if the primary taxation (which existed before the opening of economies) set the excessive tax burden [30, p. 113–134].

By synthesizing the above outlined positions of scientists, we can draw a conclusion on the evolution (phenomenon) of tax competition, which in the path of its development is formed in a coherent process. Thus, according to our considerations, tax competition is a process by which tax-paying actors, in pursuit of their economic interests, use more beneficial from other offers (products of fiscal institutions, as well as their own capabilities) in terms of their cost (cost) and quality in order to provide the most favorable conditions for functioning in the fiscal space of the state.

Implementation of any economic process involves the introduction of mechanisms for its regulation, on the basis of which the relevant relations are formed. In market conditions, the formation of such relations is ensured through the implementation of market economical processes, which usually have a cyclic nature.

Tax competition can be analyzed both from the perspective of the developed state and from the standpoint of developing countries, so-called small states. Countries, included in the group of developing countries, are potential beneficiaries of the phenomenon of international tax competition, hence the special interest in direct participation in this process of activity [38, p. 98–125].

Individual scientists consider tax competition in the local environment, which affects the overall social and economic situation in the state as «a kind of relationship among many local authorities who seek to secure access to most of the compulsory payments, state money in the form of taxes» [47]. This assertion, on the contrary, limits the impact of tax competition on international processes that have intensified in the modern world, and sometimes, with the emergence of the factors of globalization of the world economy, have changed the veto P development of national economic systems.

Other authors outline the relationship as «the manifestation of a kind of struggle for potential investors and capital for the development of a particular state» [43]. Nevertheless, the interpretation of tax competition in such a way greatly reduces its impact on the relevant economic factors: such as the development of the domestic

economy, the formation of prices, the regulation of the consumer market, etc., as well as narrows and denies the deep meaning of this concept. Therefore, one should pay attention to more modern views of scientists that characterize tax competition more widely.

M. Pinskaya believes that «tax competition can be seen as a way of interaction of public-law formations, aimed at implementing the tax policy of the country at the federal, regional and local levels of management in the field of tax base distribution» [16, p. 8]. Such an understanding of the definition of tax competition allows it to consider not only as one particular process of tax regulation, but also as a logically formed system of management of relevant processes at different levels of fiscal interconnections.

Tax competition in general relates to choice, which makes it similar to competition in a free market, where a person decides to purchase a product (in this case, obtaining relevant public services) by comparing the cost and utility of the product provided [45]. Therefore, taking into account the scale of the fiscal space of the state and the development of tax competition within it, we consider it expedient to define tax competition as a system of economic relations between countries, administrative and territorial units and / or their groups that arise in the process of attracting exogenous and maintenance of endogenous mobile resources forming the object of taxation (real and potential) due to the differentiation of tax instruments and simplification of the tax administration process in order to maximize this approach allows to take into account in the determination of tax competition key aspects of the phenomenon of economic competition and the main characteristics and functions of the tax as a tool of state policy, which provides an opportunity for a comprehensive analysis of the tax system and the fiscal space of the state in terms of increasing its tax competitiveness in the context of ensuring the development of the national economy. Friedman argued that competition between local authorities in providing public goods, as well as in taxes they identified, is in any case productive, as well as competition among economic entities in relation to the sale of goods and services for them at fixed prices [31]. In general, tax competition is a motivating tool for achieving equity in the redistribution of budgetary resources between and within countries. Additional competition is an element of the institutional structure of the national economy and the institutional norm of tax relations.

Thus, when defining tax competition it should be noted that this is a special form of economic relations between the subjects of tax relations, who taking care of their own interests seek to obtain the appropriate profit as a result of their activities, which contributes to the development of the fiscal space of the state, its effective functioning and improvement.

Thus, studying the theoretical foundations of tax competition, we come to the conclusion that the content of a definite definition should be considered in a wide range. In this context, we have pointed out three main areas of research on tax competition: tax competition as a phenomenon, as a process and as relationship that will allow more broadly determine the place and role of tax competition in the formation, functioning and development of the fiscal space of the state, and will provide opportunities for the provision of objective assessment of the impact of tax competition on relevant social and economic processes.

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1.2. Prospects of fiscal policy in the context of increasing labor potential

A very significant direction of fiscal policy implementation is to ensure the growth of the employment level and an increase of the country's labour potential. The increase of the labour potential may be achieved through the application of various incentives forms towards the able-bodied population of the country. Interconnection between the social status of the able-bodied population and the dimensions of the labour potential doesn't require any additional reasoning. But the country has the greatest influence both on the social situation and on the labour potential. The fiscal policy of the state, depending on the goals, directions and mechanisms of its implementation, can contribute to the improvement of the social status and labour potential as well as can have a reverse effect.

Tax and expense instruments of the fiscal policy are key in this sense. With the help of taxes one can immediately and directly affect the level of households' incomes. Indirectly one can also influence through consumer taxes and also through the taxation of enterprises which are the most widespread resources for receiving income by citizens. An expense instrument is manifested through the implementation of economic expenditures. State's expenditures, which are directed to the development of new productions and the expansion of modern technologies, help to attract the able-bodied population to work and, accordingly, to the increase of their incomes. Another type of expenditures – social expenditures, by contrast, can have a destructive effect on the labour potential by increasing only the current individual income and reducing the desire to work (unemployment allowance, short term disability benefits, pensions).

There are different approaches to the interpretation of the essence of the labour potential. First of all, the labour potential is one of the directions of category concretization – «labour force». In contrast to the labour resources, labour potential reflects not only the total number of people capable of working but also their educational and qualification characteristics and the participation duration of a certain totality of able-bodied population in social work under appropriate conditions. Secondly, labour potential is the human resources of labour which society has at a certain stage of its development (the number of able-bodied population and its qualitative characteristics). That is, in this case, labour potential is considered through the prism of the concept of «labour resources». Thirdly, labour potential is the embodiment form of the personal factor of production (human factor). [1]

According to the statistical data, the number of economically active and busy population in Ukraine has been decreasing recently (Fig. 1).

The key inaccuracy in the implementation of the fiscal policy for almost whole period of independence was not taking into account the employment factor and the labour potential on the whole. Today, fiscal policy mainly solves the budgetary problems of social, security and management character without including the long-term incentives in order to build a growing processing economy with an increasing number of workplaces and able-bodied population.

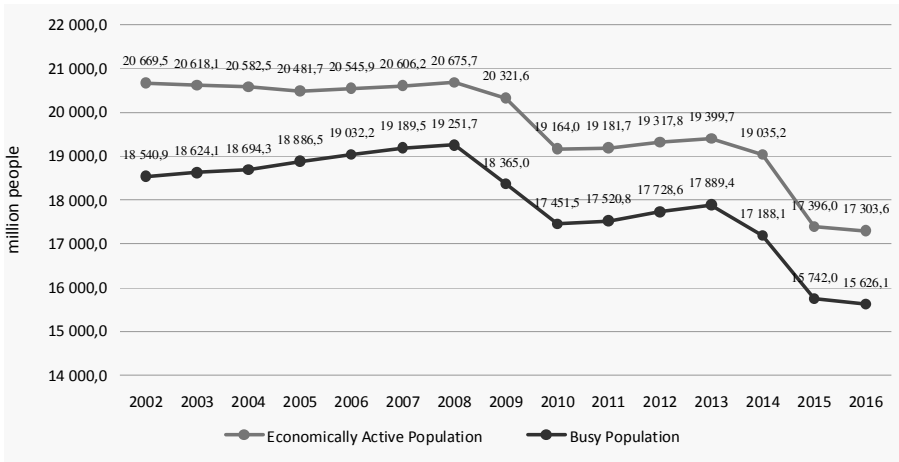


Fig. 1. The change in the number of economically active and busy population of active working age.

Source: compiled by the author based on [2, 3].

Fig. 2 reflects the tempo of changes in nominal and real salary, as well as the average salary conveyed in USD in order to display the real purchasing capacity.

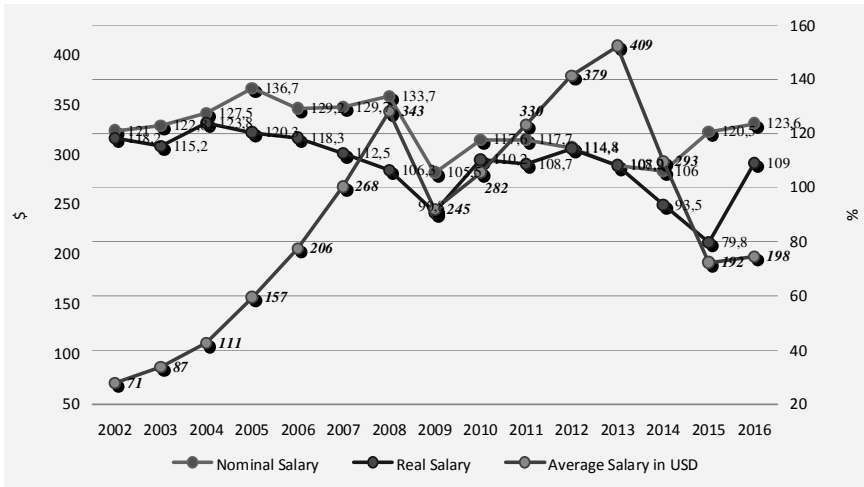


Fig. 2. The dynamics of changes in nominal and real salaries to the previous year.

Source: compiled by the author based on [2, 4].

Despite the similarity of the trends in nominal and real salary changes the average salary conveyed in USD partially repeats the tendency of the change only of

real salary. Historically, the most significant indicator of the influence on the qualitative and quantitative parameters of the labour force in Ukraine is the average salary index in USD. The figure shows that in 2016 it was 2 times less than in 2013.

It should be noted that with such level of average income of the able-bodied population Ukraine competes with such countries as Ethiopia (221 USD), Uganda (156 USD) [5]. For example, in 2016, the average salary was in Albania (369 USD), Romania (692 USD), Greece (968 USD), Poland (1026 USD), Czech Republic (1,189 USD), Estonia (1,268 USD). Among the developed countries, the average salary may be noted in Germany in 2016 which amounted 4,511 USD [6].

Such disappointing statistics for Ukraine confirm an unsuccessful government policy over decades of independence. Of course there are many reasons for such poor stimulation of the state's labour potential but global history gives many examples of the rapid economy restructuring and the emergence of an economic crisis (Germany, Japan, Poland).

The devaluation of the monetary unit has had a negative impact on the welfare of population and on the stimulation level of the able-bodied population. Due to the currency depreciation the purchasing power of the incomes of able-bodied population was reduced. It also led to the withdrawal of a significant part of the citizens' savings in order to survive in crisis conditions. Inflation also did not contribute to the level of the financial stimulation of the population. It has consistently exceeded 10% in recent years and in 2015 consumer prices rose almost twice (148.7%) [2]. With such price spiralling, unfortunately, there has not been an adequate increase of population's incomes, which has led to the migration of the able-bodied population into countries with higher salaries.

In our opinion, the key of the mentioned above instruments is tax regulation. Firstly, the possibilities of expenses adjustments are properly limited by taxes as they are the dominant source of state revenues. The amount of the raised taxes will depend on the amount of the expenditure influence. Secondly, the possibilities of expenses adjustments are properly limited by the amount of the expenses which, in addition to stimulating the able-bodied population, have other funding objectives.

If we analyze the approaches to taxation of the working population in Ukraine, we can note a number of characteristic features. One of them is the application of a proportional approach to the taxation of personal incomes of citizens. Despite the existence of recent two tax rates (15% and 20%) which depend on the amount of income, it is doubtful to call this a progressive taxation approach. And since the beginning of 2016 a single rate of 18% has been applied. Although there was no increase of the tax burden on the payer (at the same time the deduction of a single social contribution of 3.6% was cancelled), in fact, the existing before proportionally identical taxation of rich and poor people was appointed. But in most of the developed countries the progressive approach to taxation of working population is used. It is more effective in fiscal stimulation of labour potential. For example, in the United States such rates range from 10% to 39.6%. If applying such approach in national practice, it would have been possible not only to reduce the tax pressure on the majority of working population, but also to put higher tax liability on the wealthy segments of the population. This would result in a significant increase in tax

revenues and would considerably expand the possibilities of expenses adjustments in order to increase the labour potential.

In the tax legislation there are such collisions on the incomes taxation as social benefits which are defined in the law but not applied because of the established restrictions. This concerns the right to apply the tax social benefit. However, the minimum salary, set at 3,200 UAH, does not give the right to use the benefit which is provided only for incomes up to 2,240 UAH.

The legal norms regarding the application of the tax relief from the personal income tax are not widespread. A person, who has a claim on the recalculation the amount of the tax due to incurred expenses during the year, still has to file a paper return having filled it in provisionally. In addition, the list of expenses, allowed to be taken into account in the tax relief, is rather short.

The effective incentive to increase the labour potential, that promotes self-employment of the working population, is the application of a simplified taxation system. But along with the positive effects such system allows to minimize tax liabilities for medium and large taxpayers. There are no incidents in history when the state, acting through taxation on small-business enterprises, receives positive effects of the incomes' growth of the working population, solving crisis situations and promoting economic development in the country.

The value added tax, administered in Ukraine, foresees the application of the same approach in taxation of consumption of various goods and services (at a basic rate of 20%). Exclusions are given only to medicines, that have recently been taxed at a rate of 7%. It should also be noted that the quality of medicines, sold in Ukraine, does not often correspond to the quality of medicines in the EU countries or the US. Instead, in the neighboring Poland, in addition to the basic rate of 23%, reduced rates of 8% and 5% are applied to food products, books and pharmaceutical products. The lack of the state's influence on food pricing in the country also directly affects the amount of financial expenses for first necessity goods, thus reducing the financial resources of the households.

The norms of the tax legislation on corporate profit taxation for many years disrupted business development due to ambiguous interpretations of the law and, consequently, the frequent application of sanctions to business by the Body of State Authority. Under such circumstances a simplified taxation system became a legal opportunity for business development and a legitimate way to minimize taxes. It should be noted that in foreign practice the progressive taxation is also used in business taxation. This never existed in our country. Although, we must note the positive trend towards tax deduction on enterprises' incomes, which in the early years was 40% and now reduced to 18%. This trend coincides with the policy of many European countries which, during the crisis periods, reduced the tax burden on business. But, in addition to tax rates reduction in Ukraine, in different years there has always been a fiscal pressure on enterprises, especially it is characteristic of the political power change in the country. Under such circumstances it is difficult to confirm the effective tax incentives for business development in our country.

Concerning specific excises, Ukraine is the leader in Europe for the illegal movement of tobacco products across the customs border. This situation is caused by the

establishment of substantially lower rates of excise tax on tobacco products in comparison to neighboring countries. Under these circumstances the state budget loses potential tax on tobacco products, and, as a result, reduces potential budget and expenditure control once again. At the same time, financial flows from the illegal movement of tobacco products form a significant financial status of a certain circle of citizens, whose incomes and property could be a source of payment of significant amounts of taxes.

Property taxes are an important fiscal instrument that may affect the formation of fiscal resources for financing the regional economic expenditures. Today, it is more likely to perform a declarative function, since it does not provide significant budget revenues. In comparison with foreign experience, where the tax base is the value of real estate, in Ukraine the base is a certain area. The existing marginal tax rate, in fact, cannot provide significant revenues to local budgets. It means that funding will not be available to finance new technologies and productions.

The same nominal fiscal role carries a tax on movable property. It taxes only the owners of expensive cars. At the same time, the issue of taxation of those cars and trucks, which make significant emissions of pollutants into the environment remains unaccounted. The practice of taxing vehicle owners depending on engine type and emissions is widespread in European countries. The application of such taxes to a large number of old cars that are not utilized and are in use would provide significant tax revenues and hence potential expenses. On the other hand, the availability of such a tax base would facilitate the decommissioning of outdated vehicles and reduction the impact on health of the able-bodied population and the rest citizens of Ukraine.

Summing up the use of tax instruments in Ukraine, it should be noted that this often leads to negative consequences rather than positive changes. In fact, tax reformation is constantly being implemented in Ukraine, but it is not intended to create real incentives for labour. The reduction of the amount of taxes from 24 to the present 11 has not solved the problem of costly taxes. Even among these 11, there taxes that do not perform sufficiently fiscal and regulatory function (property tax, tourist fees, parking fees). There are also examples of tax norms that are not applied in practice. Changes, made in the sphere of taxation only in the part of electronic administration, have a positive incentive effect on labour potential and economic development.

An important influence on the development of entrepreneurship and the creation of incentives for labour can play a debt instrument. The usage of borrowing as the way of solving economic and social problems is a widespread practice in the world. However, the usage of borrowings will ensure the effective fiscal policy of the country only if they are used for economic development.

Fig. 3 shows the ratio of government debt to the gross domestic product of the country.

From 2014, Ukraine surpassed the Maastricht criteria, which is equal to 60% of government debt to GDP. But despite the accelerated growth of the size of the public debt to GDP, the funds received from such borrowings are not used to make economic expenditures or to create new working places. Unfortunately, the widespread Ukrainian practice of borrowed funds usage is the solution of current social problems, solving the problems of retirement benefits, repayment of debt

obligations of the past years, repayment of debt obligations where the state acts as a guarantor. Under such conditions there is no argument for the expediency of the further usage of borrowings and especially of external ones. This will set the burden of repayment on future generations which will be forced, in the form of taxes, to give the part of their incomes to repay the state debt. The only exception to the future usage of borrowings must be their direction only to the development spending.

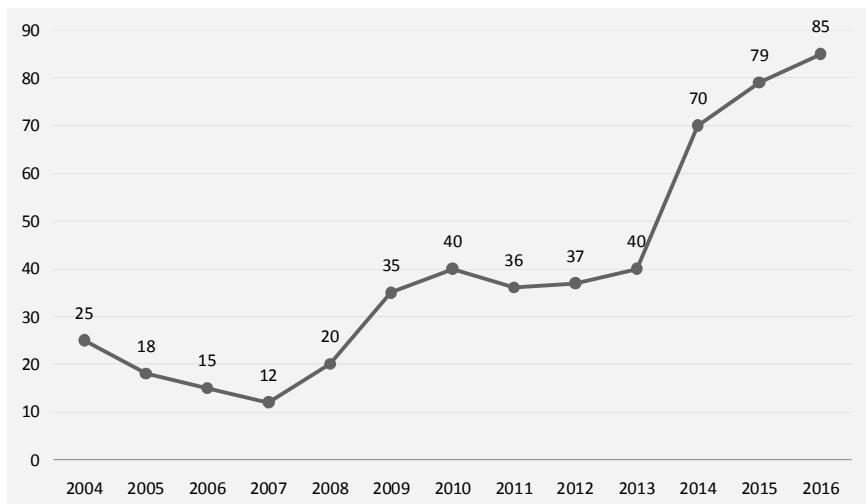


Fig. 3. The ratio of the state direct debt and state guaranteed debt of gross domestic product, %

Source: compiled by the author based on [7, 8].

The destructive state policy during the crisis economy of Ukraine, which leads to a permanent decrease in the number of able-bodied and economically active population, has already caused a military and political conflict and, in future, it can lead to much worse consequences. Instead, obtaining a visa-free entry with EU, interpreted as an achievement, further contributes to the reduction in the number of able-bodied population. After all, citizens have received an opportunity to travel legally to another country for working and developing the economies of different countries of the world. A person must be the key in future government decisions of the Ukrainian authorities regarding both taxes and expenditures. Only if there is economically active population of the country, this Ukraine can happen.

Under conditions of the declared desire to build a competitive, with highly developed countries, Ukraine it is important to modify fiscal policy instruments in the direction of the increase of the qualitative and quantitative characteristics of labour potential. In this context tax and expenditure regulation and debt instruments should be used, contributing to the development of perspective enterprises and business which could compete on the domestic and, especially, on foreign markets. Under these circumstances, qualitative and quantitative characteristics of the labour

potential would be improved. The positive consequence of fiscal policy in this direction would be an increase of the joint social product and budget resources, and hence budget opportunities.

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1.3. Phenomenology and conceptualization of the essence of fiscal space of the state

Functioning of the state and society in general nowadays is determined by development of different areas – economy, ecology, medicine, culture, politics, etc. Standard of living in the society depends on the efficiency of formation and functioning of the above-mentioned fields. The beginning of the third millennium was marked by the ideology of forming a society of sustainable development, which is based on environmental, social and economic dominants. It is clear that unregulated economic growth and lack of adjustment for environmental factors will inevitably lead to the collapse of civilization. Thus, social and environmental determinants have come to the fore along with economic determinant of development of the society.

Without denying that fact one should note that the global financial crisis that began in 2008, in our opinion, again brings economic, but rather the financial sector to the forefront in supporting the viability of the state. Proof of this is that the economies of developed European countries (Greece, Portugal, Spain and others) are on the brink of default. Instead, population accustomed to an appropriate standard of living does not accept intensive reform packages based on a reduction in expenditures and therefore funding to society.

Consequently, economies of many countries of the world face again the problem of providing financial resources for the state to finance an adequate standard of living of the society. Therefore, pragmatics of using a variety of fiscal instruments aimed at balancing budget revenues and expenditures is relevant. There is a need to study possible mechanisms for ensuring fiscal stability both in practical and theoretical aspects.

In the context of solution of above-mentioned problems, the concept of *fiscal space* is becoming widespread and popular in the scientific literature. It is mainly used for characterizing the search for the ways and methods of increasing financial resources for the state. According to T. Yefymenko, the concept of fiscal space has got its origins not in the field of fiscal theory but rather from the needs of financial management practice caused by necessity of making government decisions on sources of budget resources for development purposes, modernization of the economy, and implementation of structural or social reforms, whose consequences and effects are expected to occur in the medium-to-long term [1]. We agree with the statement on practical origin of the mentioned concept but we are convinced that there is an inextricable link between fiscal space and the theory of fiscal policy, its instruments, as well as the cyclical development of the economy, and, in general, with functioning of economic subjects (actors) involved in the process of fiscal policy implementation.

For an in-depth research of the conceptual foundations of the essence of fiscal space we will analyze the approaches to its definition given in foreign and national economic literature.

Most definitions of the concept of *fiscal space* cover state capabilities to collect additional financial resources. The difference lies in the methods of mobilization and ways of use of potential resources.

The first research on fiscal space is highlighted in the works of Harvard University Professor P. Heller [2] who considered that concept as *availability of budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of a government's financial position*. The scholar stressed that inability to service debt obligations and likelihood of default or increase in inflation are significant limiting factors to fiscal space implementation. It is the most common definition that does not stress on both methods of mobilization of funds and their use but gives a warning about influence of fiscal space on economic sustainability.

American scientists M. Zandi, X. Cheng and T. Packard determine fiscal space as *the difference between a nation's sovereign debt-to GDP ratio and the limit*

beyond which the nation will default [3]. This definition covers the method of mobilization of financial resources connected with debt instruments of the state.

Representatives of the World Health Organization V. Durairaj and D. Evans exploring fiscal space for boosting health care in resource-poor countries shared P. Heller's concept of fiscal space namely *capacity of government to provide additional budgetary resources for a desired purpose without any prejudice to the sustainability of its financial position* [4]. The mentioned definition of fiscal space covers a warning about sustainability of financial position and the purpose is albeit indirectly but related to improvement of health care. The scientists of Oxford University consider fiscal space as *the scope for financing the deficit tout court or for financing the deficit without either a sharp increase in funding costs or undue crowding out of private investment* [5].

R. Roy et al. identify fiscal space as *the financing that is available to government as a result of concrete policy actions for enhancing resource mobilization, and the reforms necessary to secure the enabling governance, institutional and economic environment for these policy actions to be effective, for a specified set of development objectives* [6]. Thus, the scientists detailed the instruments of mobilization of financial resources.

Problems of formation and expansion of fiscal space have repeatedly been raised in research and official documents of international organizations. Accordingly, definitions of fiscal space presented in the documents of particular organizations are due to the purpose and the main directions of their functioning. So, within the framework of the UN recommendations on the formation of fiscal space are prepared for solving the main problem of the millennium – poverty reduction. According to these recommendations, fiscal space is represented as state capability to mobilize resources to tackle poverty and achieve the millennium development goals [7]. The publications of the International Monetary Fund indicate that fiscal space is, on the one hand, the opportunities for additional public savings through expenditure rationalization and tax reform, on the other hand – additional resources that can be mobilized through loans and grants [8]. In the World Bank Report on fiscal policy in the framework of growth and development strategy, published on the eve of the global financial crisis, fiscal space is defined as the state capability to make expenditures without affecting its solvency, namely the current and future ability to pay its debts. The mathematical expression of this notion is proposed to be defined as the difference between the actual level of public expenditures and the maximum, at which solvency is not disturbed [9].

Expressing our point of view regarding defining the concept of *fiscal space*, one should note that we fully agree that mobilization of additional or predicted financial resources is the result of the development, implementation, or functioning of fiscal space. Nor do we deny the purpose of mobilization of mentioned resources and share the opinions of the authors of the above definitions concerning the application of instruments for the formation of financial resources. However, we consider that in the broad sense, the concept of *fiscal space* is inappropriate to be identified with resources or capability to mobilize them, since such resources, as indicated, are the result of the manifestation of fiscal space. Instead, in the narrow sense, for the general

indication of the research field, we consider it acceptable to characterize fiscal space by using resource-based approach as shown in the definitions given.

Taking into account the above-mentioned considerations, we will construct the logic of the definition of the concept of *fiscal space* in the broad sense. First of all, we are convinced that in the theoretical research of any economic concept it is necessary to proceed from the etymology of words, which reveal it and from its economic essence and socio-economic manifestation.

Analyzing the category of *space*, it should be noted that its definition also specifically depends on the field in which to consider it. For example, in physics, space can not be determined beyond matter, and in social theory it can not be determined without reference to social practice. Space is a common form of existence of all material systems and processes. There is no object that would be out of space, as it is not in itself that would have existed beyond matter. Absolute space as an infinite empty length does not exist. Everywhere there is a different form of matter, and space acts as a general property or an attribute of matter [10].

Historically, there are two approaches to studying space. The first one is a *substantive conception*. Space appears here as something independently existing along with matter, as its empty space. Democritus, emphasizing that there are atoms and emptiness, expressed the first view of this space. Development and completion of *substantive conception* has been obtained in Newton and in classical physics as a whole. The second approach to the study of space covers a *relativistic conception*. It was formulated by Aristotle, but for the first time with the utmost precision was formed by G. Leibniz. From the standpoint of this conception, space is a form of existence of material objects, which determines the coexistence of objects. A *relativistic conception* in the philosophical context was perceived and developed by dialectical materialism, and in the natural sciences – by relativistic physics, and in our time, the most fully corresponds to the level of development of natural science [10].

The research of the essence of the term *space* was begun in ancient times. The first interpretations of this category are in the writings of the philosophers of the Eleatic School, who closely linked the categories of *being* and *space*. The category of *being* is at the center of all philosophical doctrine of this school. So, according to one of the representatives of this school – Parmenides – space is the main criterion of being. That is, space is considered as an objective phenomenon, but with this it can not exist on its own [11, p. 23-24].

Aristotle categorizes *space* through the concept of position. He linked the space with the understanding of the mutual disposition of bodies, that later, as already noted, was transformed into *relativistic* conception that was dominant in the era of antiquity [12]. Understanding space in the philosophy of Euclide comes to its continuity, unlimited, and three-dimensional. *Space is a thing that consists of points, straight lines, planes, geometric shapes and geometric solids. In space itself there is no structure, nonequivalence of different points or different directions; the properties of the figure do not change regardless the position of this figure in space* [11, p. 30].

In the Middle Ages, the philosophical interpretation of space was developed in the writings of G. Bruno, G. Hegel, R. Descartes, and I. Newton. Newton's classical

mechanics led to the separation of space from matter, motion, and time. In his concept, absolute space is explained as an infinite length, which contains all matter and does not depend on material processes. At the same time, space was considered here as emptiness, a substance in which all bodies arise. G. Hegel developed the dialectical conception of space. From the perspective of the philosopher, space and time act as external forms in relation to the concept, but they are internally inherent in nature itself. According to G. Hegel, space is the materialization of labor or practice in items [10].

Development of science in the 20th century revealed new aspects of the dependence of space on material processes. Space was not an absolute value, but relative. Space has the same meaning, for example, as the speed of the body, which is not absolute, but relative. Thus, the special theory of relativity revealed the inextricable connection between space and movement of material objects. In turn, A. Einstein proved that in case of the destruction of all material things space would have disappeared. The general theory of relativity revealed a physical connection between the distribution of material masses and space. This theory has shown that in the universe, depending on the distribution of masses, different geometries of space can be realized. Modern physics and the general theory of relativity have also confirmed the idea that space is not an independent entity, but a form of the existence of matter. Important conclusions are also obtained in quantum mechanics, which proposes a quantization space hypothesis. And this, accordingly, caused a certain part of the physicists to tend to deny the universality of space. In fact, not the space disappears, but a certain limit of our knowledge of it. Consequently, space as a philosophical category to a greater extent is an immanent form of moving matter, as well as a form of coordination of coexisting material objects. It is the form of the existence of matter, which characterizes its length, structure, coexistence and interaction of elements in all material systems. Space as such is the fundamental material dimension of all human life [10].

Thus, the analysis of the evolution of approaches to the interpretation of the category of *space* makes it possible to conclude that space is an all-existent phenomenon, which determines the way of the existence of matter, which can not exist beyond space. Accordingly, varieties of space, including fiscal space is not separated from the existence of the material world, but on the contrary, it as a certain shell determines its existence.

Definition of space can be found in reference literature. Thus, in the Large Explanatory Dictionary of the Contemporary Ukrainian Language edited by V. Busel, the word *space* is interpreted in five ways:

1. In the philosophical sense. One of the main objective forms of the existence of matter, which is characterized by length and volume.
2. Unlimited length (in all dimensions, directions); three-dimensional length above the ground.
3. Free, large space; the area of something on the earth's surface; territory.
4. In figurative meaning. Absence of any restrictions, obstacles in something; will.

5. In the mathematical sense. An abstract set with an axiomatically defined structure, in which one or another mathematical theory develops [13, p. 1170].

The Philosophical Encyclopedic Dictionary interprets the notion of space as follows: *space is the general form of the existence of matter, namely, the form of coordination of material objects and phenomena. Space is a universal form of coexistence of bodies* [14, p. 392]. Another Philosophical Encyclopedic Dictionary defines the notion of space as *one of the most important attributes of matter. Space is a form of the existence of matter, which characterizes its length, structure, coexistence and interaction of elements in all material systems* [15, c. 519]. According to Encyclopedic Dictionary of Physics, the notion of space is interpreted as *a set of relationships that reflect the coordination of material objects, their location relative to one another. Space reflects the order of location of simultaneously existing objects, their length* [16, p. 227].

Analyzing the definitions of the category of *space*, we will define its main characteristics, which are general, objective and inherent in any type of space, including fiscal space, in accordance with the philosophical and scientific opinions of other sciences at the turn of the twenty-first century.

Consequently, space has the following characteristics:

1. Determines the existence of matter and can not exist detached from it;
2. Has length, multidimensionality, volume, structure and hierarchy;
3. Characterizes the coexistence and interaction of elements;
4. It is open, reflects the communication, flexibility and dynamism of the elements.

Despite the fact that the word *space* in the field sense, in addition to the characteristics of the philosophical category, tends more to the field of physics, mathematics and geography, its practical application can be found in the designation of many abstract categories. In particular, you can often hear the words *space of choice, space of decisions, space of possibilities*, etc. M. Mashutina gave the most commonly used phrases, which include the term *space*: social space, political space, gaming space, risk space, personal space, legal space, mental space, space of choice, space of trust, network space, virtual space, economic space, interdisciplinary space, information space, marketing space, space of interactions, space of operations (actions), space of influence, space of interests and motivations, space of innovations, financial space, space of goals and values, space of communications [17]. We believe that this list is not exclusive and it is quite logical to highlight fiscal space as a component of economic and financial space.

Regarding the selection of economic space, the discussions are absent at all. The classics of global economic thought A. Smith and D. Ricardo laid the foundations of determining economic space. Without going into the research of the retrospective of the concept under consideration, we note that in modern scientific research the understanding of economic space is synthesized in four main approaches [18]:

1. Territorial approach. This approach is the most widespread and most of its representatives (O. Granberg, F. Ryansky, E. Kochetov, E. Mihurynska, etc.) practically identify economic space with the concept of territory. So, O. Granberg

defines it as: *a rich territory containing a lot of objects and connections between them: settlements, industrial enterprises, economically developed and recreation areas, transport and engineering networks* [19, p. 25].

2. Resource-based approach. Representatives of the resource-based approach (P. Krugman, V. Radaev, V. Peftiev, I. Kuchyn) in the study of economic space rely on economic relations that arise when allocating resources and consider economic space as an environment for decision-making on the use of resources. Particularly, P. Krugman regards space as *an abstract economic landscape of the dynamic allocation of resources depending on conjuncture and their location* [20, p. 413].

3. Information approach. Representatives of this approach (R. Shiller, H. Shibusawa, S. Parinov) determine economic space through the analysis of transactions in the form of information exchange and entry into the general information flow. Thus, H. Shibusawa in a study on economic space between firms and within the company from the point of view of telecommunication networks determines the optimal structure of the firm and concludes that the virtual spatial association of firms based on the use of common technologies is advisable [21].

4. Process approach. The main essence of this approach is detailed in the writings of O. Biyukov, who believes that the system of relations between the entities that carry out separate economic processes and the subject of the general economic process (V-process) on formation of the expected results of their activities is the basics of economic space. To the elements forming economic space the author refers: aggregate economic process, economic time, economic competition [22, p. 44].

We believe that selection of any of these approaches as the only correct is irrelevant. Instead, groundings to each of them is defined by the field of scientific research of the authors. Moreover, from a standpoint of general understanding of economic space it is advisable to synthesize mentioned approaches for more objective characteristic.

In our opinion, resource-based and process approaches are without reference to any field of economics. Their synthesis makes possible to formulate the definition of *economic space as the environment in which economic relations between subjects (entities), realizing economic processes during formation, distribution, and use of resources, arise.*

The definition of *economic space* as the environment, to our mind, is the most appropriate, as the term *environment* is interpreted in general as body substances filling any space and have certain attributes [13, p. 1309]. Therefore, *space* as philosophical category is defined as form of existence of any matter without its characteristic. In turn, any types of space including economic space characterize more matter itself, substances, elements, that fill the space, and the latter for them is original covering.

Subjects (entities) realizing economic processes and processes themselves are the elements of economic space. In particular, in our opinion, the most important subjects (entities) comprise the state and its institutions, business entities, international organizations, etc. Respectively mentioned entities can perform different inherent processes. Business entities primarily produce goods, provide

services, and as a result get profits. In turn, the state and international organizations perform regulation and control functions in this case.

The right choice of resource-based approach as one of the initial for characteristic of economic space is also confirmed by the essence of economic theory as science itself and necessity of its functioning. In particular, the main economic problem was and still is limited resources, and the solution to this issue lies in the right choice of approaches concerning quantity and quality of production of resources and products, their correct distribution and use whereby economic science and practice deal with. Relatively the concept of *economic space* can not be deprived of resource-based approach.

Therefore, having investigated the category of *space*, its essence, possible types and the concept of *economic space* we can confirm that fiscal space is a component of economic space as finances are the component of economy. It is logical that definition of *fiscal space* in the broad sense of this term to our mind should be interpreted as the environment. However, its content emerges from the essence of concepts of *fisc* and *fiscal policy*.

Large Explanatory Dictionary of the Contemporary Ukrainian Language edited by V. Busel defines the term *fisc* as imperial treasury in Ancient Rome or simply state treasury [13, p. 1309]. Etymologically the word comes from Latin *fiscus* that means *basket*. However, at that time state treasury and now state budget without any actions or processes do not represent the whole essence of mentioned notion besides the opportunity concerning its formation and use. In turn, activity of the state connected with formation and use of budget is called fiscal policy. The latter represents not only the budget itself but a wide range of possibilities of the state concerning influence by means of mechanisms of mobilization of financial resources and their use on number of macroeconomic indicators of the state (GDP, employment, inflation, etc.) and finally impact on public welfare.

Many definitions of *fiscal policy* are revealed in national and foreign scientific literature. C. McConnell and S. Brue consider fiscal policy as *changes in government expenditures and taxation aimed at achieving full employment and increase in non-inflation domestic production or decrease in inflation* [23, p. 256–257]. P. Hayne regards fiscal policy as budgetary policy; policy aimed at regulation and prevention of unwanted changes in aggregate demand by means of planned changes in public expenditures and taxes. R. Dornbusch and S. Fischer interpret fiscal policy as government policy concerning amounts of public procurement, transfer payments and taxes [24, p. 90]. P. Samuelson and W. Nordhaus state that fiscal policy is the process of changes in taxation, government expenditures in order to 1) decrease business cycle fluctuations; 2) promote rapid economic growth with high employment and without high uncontrolled inflation [25, p. 389].

Without going into further analysis of definitions of *fiscal policy*, we can state that its essence is to use instruments connected with formation and use of state budget to influence the key factors of economic development of the state. The State implements fiscal policy through legislative and executive bodies. It also is the main subject of this process. The other subjects of fiscal policy comprise business entities –

taxpayers, citizens who receive public goods from the state, etc. Actually, any unit of economic system covered by this policy can be attributed to subjects of fiscal policy.

Implementing fiscal policy economic relations between its subjects arise, which reflect the whole essence of such policy. Building such relations includes not only fiscal function of the state concerning budget revenues and further use of accumulated funds to meet state needs. However, during such actions regulation ability of the state concerning influence on business entities, citizens, other subjects of fiscal policy manifests that ultimately will determine economic and social development of the state and public welfare.

Therefore, having analyzed existing in world and domestic economic literature definitions of *fiscal space*, etymology and essence of category of *space*, its possible types, approaches to interpretation of concept of *economic space*, etymology of the word *fisc* as well as essence of fiscal policy we can determine *fiscal space* in broad sense. In our opinion, *fiscal space is the environment in which financial relations between subjects of fiscal policy implementation arise characterized by limited capacity in quantity and time to generate and use financial resources and regulate socio-economic development of the society aimed at achievement of its welfare.*

We have substantiated the essence of fiscal space as the environment in which financial relations between subjects of fiscal policy arise. However, to fully understand the definition presented we would like to specify our position on limited capacity of fiscal space to generate financial resources in quantity and time.

Majority of presented at the beginning of research definitions of fiscal space focus on constraints of its implementation. Such constraints root in the need to preserve financial sustainability and economic stability. As extra-accumulated financial resources are the result of functioning and realization of fiscal space, there are the number of threats. All depends on the ways to attract such resources and peculiarities of their use. In case of tax revenues, risks of unreasonable increase in tax burden may arise, that will undermine financial position of business entities or increase shadow economy. In case of resource formation by means of borrowings, the risk of inability to service public debt may arise and excessive increase in public spending can cause increase in inflation, etc.

Even if there are no risks of economic instability and there is an opportunity to attract additional financial resources, then their accumulation needs certain period of time that is constraint of realization of fiscal space. Time constraint of fiscal space to generate financial resources is connected with fiscal policy lags. Fiscal policy lags mean period between the onset of economic crisis and decision-making on necessary changes in regulatory framework and to the moment of positive reaction of economy to the changes adopted.

Entire period from onset of economic crisis to legislative approval of fiscal policy instruments lasts from five to seven months [26, p. 141]. This period is called inside lag of fiscal policy. In turn, inside lag is divided into recognition lag – the delay in time between the start of the recession and awareness of this fact and administrative lag – the delay in time between recognition of the need to apply fiscal instruments and their legislative approval.

Since the adoption and amendments to laws is not an end in itself, legislator is primarily interested in the effect, caused by regulatory innovation. After a certain period, which depends on concrete instruments of fiscal policy, the effect of legislative changes manifests in economic situation in the country. This period is called outside lag of fiscal policy or operational lag. Outside lags of fiscal policy are usually less than inside lags. This is due to the fact that tax rates and tax incentives are fiscal policy instruments that are the elements of taxes with the greatest regulation capacity. Thus, operational lag of fiscal policy lasts to five months [26, p. 141-142].

Substantiating the aim of realization of fiscal space one should mention that a number of scientists in mentioned in the beginning of the research definitions of this concept focus on goals of mobilization of financial resources. Tactically it is possible to have many of such goals depending on the tasks set by the government. However, to our mind, strategically any measures concerning regulation of social and economic situation in the country by means of realization of fiscal space should be directed towards improvement of public welfare in general and well-being of every member of the society.

To sum up, existence of fiscal space is a phenomenon generated by financial management practice problems. Following theoretical researches substantiate the essence of fiscal space in terms of extra-accumulated financial resources. Instead, we suggest considering this concept in narrow and broad understanding. If fiscal space is identified with resources in narrow understanding, then in broad sense it is much broader concept that characterizes the environment in which these resources can be mobilized and used effectively.

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1.4. Conceptual framework for state budget policy formation

In modern conditions state fiscal policy is an important lever of influence on social, economic and environmental processes. Fiscal policies should create the conditions to meet the social needs that correspond to the goals and objectives of the country at certain stage of its development.

Under the provisions of the Commercial Code of Ukraine, fiscal policy is one of the main directions of economic policy determined by the state. Its role is to ensure optimal and sustainable income generation, the use of public funds, improving the

efficiency of public investment in the economy, coordination of national and local interests in inter-budgetary relations, regulation of public debt and ensuring social justice in the redistribution of national income [1].

Fiscal policy of our country is focused on the following objectives defined by the Constitution of Ukraine: ensuring social interests, economic and cultural development of the state and society in general. In this context, the following constitutional principles are of particular importance: the rule of law, equality of all subjects of legal budgetary relations, distribution of power, responsibility of the state to the individual, compliance of budget legislation to the norms and provisions of the Constitution of Ukraine, citizens' participation in public affairs, inviolability of private property, legality as the basic principles of government and state officials in their activities, equitable distribution of social wealth and so on. Violation of these principles leads to imbalance, inconsistency, asocial fiscal policy and its inability to influence the progressive development of society and strengthening democratic state [2, p. 17].

Fiscal policy should be an effective tool in implementing social priorities. Today in Ukraine we have a favorable environment for reforming and improvement of fiscal policy, which aims at creating opportunities and ensuring the right conditions for the most efficient use of resources to meet the priorities of sustainable human development. In the reference, N. Bohomolova focuses on the principles of effective budget policy covering improvement of macroeconomic forecasts quality; using the global experience of budget reform to harmonize, unify and simplify the financial system and its institutions; increasing the efficiency of budget spending through the use of target-oriented business foundations, and others. [3]. L. Lysyak seems to be having similar position, stating that fiscal policy should be based primarily «on the following basic principles: a scientific approach, consistency, commitment, efficiency, transparency, rationality» [4, p. 3].

Attaching great importance to the principles of fiscal policy, V. Demyanyshyn believes that in politics the principles that reflect the level of using the system of values, inherent in the society in general, should comprise the following: «the domination of human values over those of classes, nations, social groups, specific territories etc.; unity of personal and social needs; humanism; equality of legal entities and individuals before the law; democracy; rule of law; mutual responsibility of the state, legal entities and individuals» [5, p. 31]. The scientist examines fiscal policy through the prism of civilized approach, whose central figure is a person as an active and purposeful subject of public relations. Such focusing of public awareness on the priority of human values is an important imperative at current stage of transition to sustainable human development.

To ensure long-term stability of the budget system the state must implement a predictable and responsible budgetary policy. In this reference T. Efimenko notes that the priorities of fiscal policy is to maintain the overall economic balance, to ensure equilibrium of the budget while maintaining its social orientation in conditions of reducing both the tax burden and the high debt burden with limited possibilities of attracting external resources [6]. An important aspect is the interrelationship of the budget policy priorities.

Some studies indicate that the main tasks that must be done to improve the efficiency of fiscal policy are: while setting budget policy objectives, priority should be given not to political interests but to socio-economic impact that will be achieved by the results of their implementation; conformity of budget policy objectives with legislatively approved strategic program of economic and social development of Ukraine, leading to a concentration of efforts and accelerating the transition to sustainable economic development; balance and coordination of measures and certain areas of fiscal policy, aiming at eliminating any contradictions they might have, thus leveling a positive effect; planning and rationalizing specific mechanisms and instruments of fiscal policy on long-term (strategic) period, which will provide continuity of support of certain areas of socio-economic development; provide correlation of certain measures and fiscal policy instruments with specific objectives that will make it possible to perform an objective evaluation of their implementation results [7, p. 311].

There is a widespread belief among scientists that in order to improve the state fiscal policy it is necessary: to optimize the functioning of state financial management and budgetary expenditures for the implementation of state functions; to regulate the process of accumulation and movement of financial resources according to the law; keep the fiscal deficit at an economically safe level; ensure consistency in the development of the budget process based on legally approved government standards and reasonable financial regulations; to achieve credible forecast of basic macroeconomic indicators and revenues of the consolidated budget in the medium term, which is bound to be more accurate, since the deviation of the estimated and actual revenues within a fiscal year will be negligible; minimize financial losses of the state in the use of state property; create a favorable business environment by reducing administrative burden and improving the tax system in order to reduce the tax burden on taxpayers; create an effective system of state debt management, as well as introduce indicators of economy and cost effectiveness of public funds [8, p. 73–74].

In a democratic society budgetary priorities in financial practice are considered to be the result of public choice, that is economically and socially motivated, as well as politically supported at the level of representative legislative authorities, determined on a competitive basis objectives of state activity, backed with budget resources, necessary for their implementation [9, p. 100]. Given the current trends in the functioning of public finances, we believe that one of the main objectives of fiscal policy is the timely implementation of budget commitments.

In order to improve fiscal policy in Ukraine, the following aspects must be provided: balance of budget resources and obligations, creation of an effective public financial management system; concentration of financial resources to address priority issues; the transformation of the state budget into an effective tool of macroeconomic regulation [10, c. 27].

Thus, the essence of fiscal policy must be considered primarily in terms of the conditions of its formation. At the present stage of our country's development its fiscal policy should be the main mechanism for determining conceptual directions of state influence on its balanced social, environmental and economic development.

Within the formation of the principles of sustainable human development we distinguish three main scientific and methodological approaches to defining the essence of fiscal policy: institutional, functional and legal.

Institutional approach means the interaction of public authorities, state and local governments concerning setting priorities of budget relationships (whether social, environmental or economic). Functional approach reflects the scope of implementation of fiscal policy, which creates conditions for solving social and economic tasks of state development and ensuring the quality of the environment. The essence of the legal approach is that the state defines the forms and methods of mobilizing financial resources and uses them to satisfy national needs, as reflected in the relevant regulations.

Thus, state fiscal policy should be based on the principles of succession, objectivity, consistency, obligation and transparency (Fig. 1).

Summarizing the scientific and methodological approaches to the interpretation of definitions and taking into account reorientation of the society on sustainable human development objectives, we believe that fiscal policy of the state should be understood as priority areas in the development and use of resources aimed at effective implementation of sustainable human development tasks. All activities performed within the framework of fiscal policy should be interrelated and mutually consistent. Overall reasonable and responsible fiscal policy does not permit the growth of liabilities above the level actually provided by financial resources.

O. Kyrlyenko states that «fiscal policy and financial resources of the state must necessarily agree with the approved priorities of socio-economic development... There is a need for purposeful and consistent fiscal policy with a clear setting of its long-term (global) and current tasks» [11, p. 238]. Only clear specification of the budget policy both short-term (fiscal tactics) and long-term (budgetary strategy) main directions will help ensure its effectiveness.

For a deeper understanding of the state budget strategy T. Kolyada identifies the following characteristics: 1) its object is the state budget (local budgets at the regional level); 2) the state is the main subject of strategic management of its fiscal policy; 3) long-term fiscal policy forecasting period is at least 5-7 years; 4) the purpose of the budget strategy development is determining the amount of revenues and their structure, setting marginal costs in key areas according to the priorities and goals of socio-economic development; 5) the main point is to assess various options and most probable ways of formation and use of budgetary savings; 6) the introduction of modern monitoring of budget programs implementation results; 7) clear legal regulation of action (definition of rights and duties) of all subjects of the budget process, which may constitute a threat to the implementation of the state budget strategy and the fulfilment of its strategic goals and objectives. Based on these characteristics, the researcher defines the state budget strategy «as the process of correlation of goals and means to ensure the implementation of long-term budget policy for a certain time and in a particular country» [12, c. 330–331]. We believe that the current Ukrainian realities have all preconditions for an effective fiscal policy strategy to achieve its goal of sustainable social, ecological and economic development.

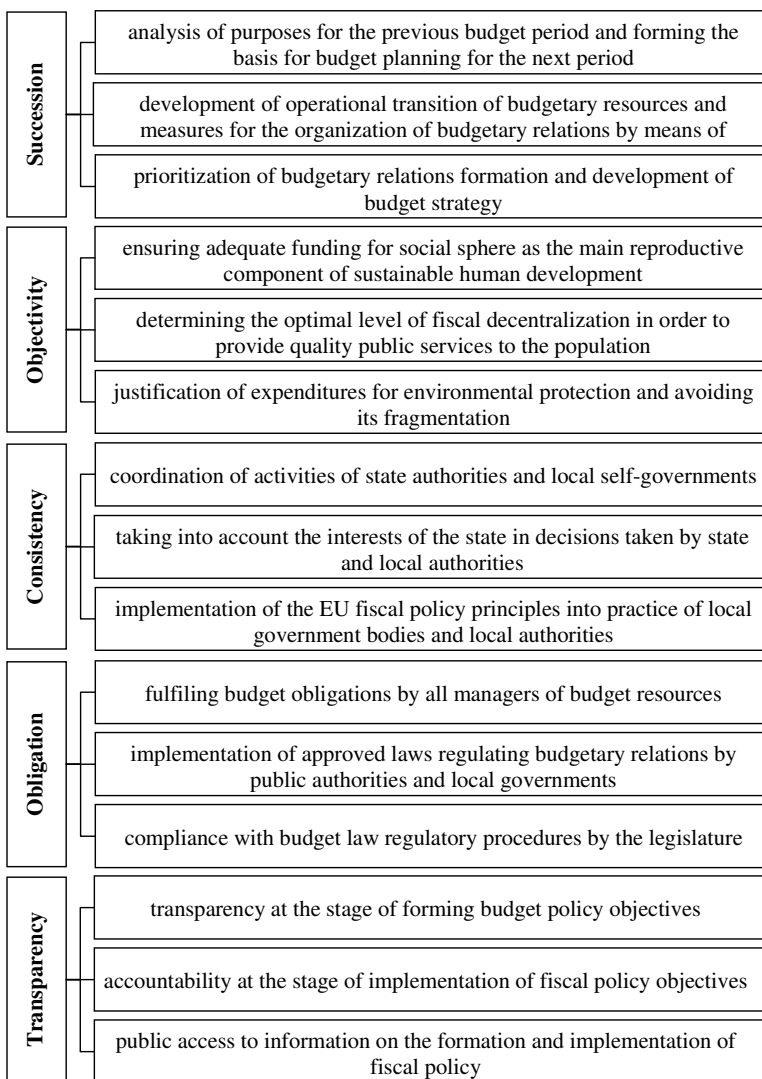


Fig. 1. Principles that contribute to the formation of an effective fiscal policy of the state.

Source: developed by the author.

Accordingly, for solving sustainable human development tasks, we need to develop a budget tactics «as a form of implementation of fiscal strategies, a set of adaptive state measures on the functioning of specific budget relationships to provide them with the parameters defined by budgetary strategy tasks» [13, p. 31].

It should be noted that balanced social, ecological and economic development of the country depends largely on fiscal policy in public expenditure sphere. This

issue is very important in the context of limited state financial resources, as features of fiscal policy on the formation of the budget expenditures are determined by the financial and economic potential, needs for public funding of strategic and tactical tasks of social development and specific features of state governance model, aimed towards the regulation of economic processes [14, p. 46].

In order to execute specific performance of the budget, its expenditure part is based on available financial resources. Recently the budget policy of Ukraine on budget spending is concentrated mainly in the social sphere. State fiscal policy in the social sphere is part of the financial policy of the country which ensures realization of the social functions of the state aimed at the implementation of national social security through a set of targeted measures and actions of state authorities to manage fiscal relations arising in the process of formation, distribution and redistribution of financial resources in the social sector with the aim to achieve the strategic social goals of the society, thus enhancing the level and quality of public life [15, c. 15].

Since human capital is a source, a driving force and the result of all socio-economic processes, its development is impossible without ensuring high living standards and free public access to quality public social services. It is this aspect that makes important the process of effective state fiscal policy implementation. At the same time, it is necessary to stress the importance of environmental protection, which on the one hand, will help create safe and favorable conditions for human life, and on the other hand will ensure environmental justice to future generations.

Budget Policy Guidelines are important components of the budget policy formation mechanism in Ukraine and they are developed and approved annually by the parliamentary hearings on budget policy. In modern conditions budget spending priorities are changing, which should be reflected in the Budget Policy Guidelines. We consider that the document should contain the following elements: 1) analysis of fiscal policy objectives and the results of their achievement during the previous budget period; 2) setting goals and tactical objectives for the next budget period while maintaining strict balance of social, economic and environmental components of the state development; 3) statement of goals and objectives for the medium budget period with mandatory balancing social, economic and environmental components of the state development; 4) anticipated social, economic and environmental effects for both the forthcoming, and the medium-term budget periods.

Thus, the general state budget policy should be directed primarily at ensuring a balance of social, economic and environmental needs of the population.

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1.5. Fiscal regulation of financial flows: theoretical dominants

Financial flows play a very important role in economic operations. Optimal movement of financial flows is able to create favorable conditions for the development and providing financial balance in society and achieve the necessary level of competitiveness of the national economy.

The imbalances in the movement of financial flows deepen the sectoral and regional disproportions in the economic development, increase social tension in a society and create conditions for the expansion of the informal economy sector. The scientists identified the main basis for regulating the allocation of financial resources and transfer of capital, but few scientific developments are devoted to the fiscal regulation of financial flows. The aforementioned leads to inefficiency in the full use

of foreign practice in Ukraine concerning regulation of economic processes and requires the use of institutional approaches to address the problem.

At the present stage many foreign and domestic scientists engaged in research of financial flows, including A. Horbunov, S. Kalambet, V. Mayboroda, A. Moroz, I. Shkolnyk, A. Yakymova etc.

Problematic issues of fiscal regulation of economic processes are reflected in studies of such specialists as: V. Andrushchenko, V. Vyshnevskiy, O. Danilov, V. Demianyshyn, Yu. Ivanov, A. Krysovaty, L. Lysiak, I. Lunina, V. Melnyk, V. Oparin, K. Pavliuk, N. Prokopenko, A. Sokolovska, O. Tymchenko, T. Paientko, V. Tropina, V. Fedosov, I. Chuhunova, S. Yuriy.

Formation of the market mechanism of regulation of social and economic development of society creates a need for application of adequate leverages for market on the process of financial and economic activity of enterprises with the definition of cash flows that actualizes the need to concretize the concept «cash flow».

In modern scientific works there is no clear separation of cash and financial flows. The reason is that the definition of the scale dimension of financial and economic processes is performed in monetary terms. This also applies to assessment in monetary measurement units of the entire mass of various production resources involved in the production and reproduction processes. The consequence of this is that monetary funds are distinguished from the entire set of resources and remaining resources which are not monetary are perceived as a mass of financial resources (excluding labor). This fact leads to the following situations:

- identification of the concepts of monetary and financial flows;
- allocation of separate monetary and financial flows with perception of last as specific monetary flows.

The specification of certain economic relations leads to the identification of cash and financial flows. This approach allows us to state that «cash flow» and «financial flow» are independent categories. Being similar in personification of the movement of values, flows differ in their essence because they represent different specificities of economic relations. This fact is emphasized by many scientists, who studying categorical definitions and conceptual apparatus, develop their different basic fundamentals (Figure 1).

Analyzing scientists' positions and taking into account the practice of conducting financial and economic activity of Ukrainian business entities it should be noted that author's approaches differ from each other mainly due to considering various research bases as a basis. For example, the position of V. V. Vyhovska can be considered controversial because the listed sources of the formation of financial resources are also the sources of the funds formation. And since there are doubts about the differences between these flows (that is confirmed by the definitions formulated by other authors), the assertion of an aforementioned scientist can also be considered questionable. But we should not assume that the above presented approach is unsubstantiated because the scientist rightly points to the real formation sources of financial flows.

The authors' positions about the definition and components of «financial flows»	
<i>The author, source</i>	<i>The main features and components</i>
O.V. Mayboroda [8, p. 16]	Financial flows are a purposeful movement of financial resources in the course of conducting business operations, as a result of which economic relations occur.
V.V. Moroz [7, p. 356]	The financial flow is directed movement of financial resources related to the provision of goods movement.
V.V. Vyhovska [4, p. 8]	She considers financial flows being part of funds of economic entities that is obtained in the form of income and foreign revenues from operating, investing and financing activities; by contributions from owners; funds raised on financial markets and borrowed from counterparties.
A.R. Horbunov [5, p. 36]	He determines financial flows as a flow of company's income or expenses for a certain time.
V. Ivanchenko, V. Bocharov [3, p. 111]	They do not distinguish between cash and financial flows; believe that one of the links of purposeful use of finance to achieve strategic and tactical objectives is the management of financial (cash) flows. They suggest the definition of the essence of cash flows: 1) cash flow is the movement of financial resources in time; 2) cash flow is the amount of money that an enterprise receives or pays during the reporting or planned period.

Fig. 1. The main positions of scientists on the definition of financial flows and identification of their components*

Note: * – it is generalized by the author based on the study of special literature.

And if we assume that the term «cash flows» and «financial flows» indicate the same object of study, that is they are synonymous word combinations, then there is no contradiction in this case. Similarly, we can assume that the position of such author as A. R. Horbunov is reasonable because a financial flow is considered by this scientist at the enterprise level, as well as a dynamic phenomenon.

But this is true if we take micro level as a basis. However, at the macro level financial flows are also an important economic category. Therefore, to distinguish between the definitions means to break the integrity of the relationship of micro and macro indicators.

So, it is necessary to distinguish between two concepts of financial and cash flow. Thus, the last, as an economic category, represents financial and economic relations between individual economic entities regarding selling of created products. Also, these flows encompass relations between the economic entities and the state undertaken to cover liabilities in the form of paying taxes and from the state's side in

the provision of budgetary allocations. Financial flow as an economic category in the broadest sense includes the movement of any funds (value) – financial resources and cash flow in the narrower sense as the movement of the funds – money. These differences in the interpretation of the terms «financial» and «cash» flows allow us to specify their scope and identify the functions of their manifestation.

Fiscal regulation is one of the most important areas of balance of financial flows and optimization of their redistribution. The world practice in this area suggests that this process is extremely complex.

However, its implementation in a rational framework allows reducing the threat, including the manifestations of crisis in the national economy. Moreover, a number of scientists, describing the dynamics of financial crises for the last time, make substantiated conclusions about changing the theoretical principles of motion control of financial flows.

Thus, O. Prutska on this issue indicates the need for a new theoretical foundation of motion control of financial flows. The achievements of new institutional flows can become this foundation. The dominant factor in the international movement of financial flows, according to this scientist, is globalization that reduces barriers for transfusion of capital, but increases the risk of crises. Globalization promotes the distribution of funds in favor of developed countries that is also one of the causes of financial instability [13, p. 204].

Adequate response and consideration of such specifics in the modern issues of state regulation of financial flows, including through fiscal mechanisms and tools requires indisputability for spread of globalization processes on the economy. Ensuring economic growth is the basic principle. The state should be guided by this principle in the use of fiscal mechanisms and tools.

Institutional nature of fiscal regulation is manifested in the following features: fiscal regulation as a set of norms, fiscal regulation as a set of game rules, as a set of behavioral stereotypes and a system of contracts [12, p. 68]. Thus, we should agree with the position of such scientist as T.V. Paientko that fiscal regulation of financial flows is a mechanism for applying revenue-generating and expenditure-investment tools by means of which the state creates conditions for mobilizing the necessary amount of financial resources, their allocation and effective use, rational flow of financial resources between sectors and regions [9, p. 8].

Developing this position, it is reasonable to conclude that the aim, objectives and content of fiscal regulation are determined by the regulatory function of taxes, that this process is necessary and not only the movement of financial flows depends on it, but also the dynamics of economic development of the country. Thus, fiscal regulation remains the only effective means of cyclical economic regulation on condition that monetary instruments lose their strength.

In general, we note that the result of application of fiscal regulation of financial flows is defined by the objectives, which in this case planned to be achieved. In turn, the last must be organically linked to the corresponding functions of fiscal regulation. These functions include: rapid response, movement of capital, investment and anti-inflation function. In addition, the scientists determine creating conditions for mobilization of the necessary amount of financial resources and their effective use as

the purpose of fiscal regulation. The following facts are distinguished among the objectives of fiscal regulation of financial flows: balancing of economic interests; minimizing of transaction costs; warning of non optimal redistribution and the emergence of institutional deformities; reducing of institutional uncertainty; minimizing the consequences of the crisis, stimulation of the growth of savings and their investments as investments; balancing of the budget and so on [9, p. 9].

However, specified list for each country except common for all states may have their own challenges. In particular, in Ukraine such tasks should include minimizing of corruption schemes, forming foundations for the repayment IMF loans, etc. Achieving the implementation of these problems is possible only by integrating fiscal and regulatory function of taxation. To achieve a compromise on this issue is difficult because this statement contradicts to the neoclassical and Keynesian concept of macroeconomic regulation; also, there is a need not only in taking into account features of economic development, but also the potential reactions of participants in the economic process.

As Paientko T.V. notes in his publications, you can resolve this issue by using institutional approach, since it allows you to synthesize existing tax concepts with taking into account national features, including mentality. Institutional nature of fiscal regulation is shown in different aspects, namely from the position: the need to maintain the public institution; the specific of economic relations; identification of functional purpose of financial institutions in the economic system; presence of transaction costs for the implementation of fiscal regulation [12, p. 240].

In this regard, long enough emphasis is on the need of the harmonious combination for regulation of the formation process of state finances by improving the tax mechanism concerning the issues in the domestic scientific journals.

At the same time peculiarity of taxes as financial flows is that the purpose of their regulation is to balance the interests of taxpayers and the state. This will help to mobilize the necessary amount of tax revenues to the budget due to that the volume of financial resources that remain at the disposal of economic agents after paying taxes, will be sufficient to provide doing business.

Thus, the main role of taxes in the activity of business entities aimed at the conducting the following objectives: providing financial resources for the state; stimulating investment into the real sector of the economy; creating conditions for regulation of the financial sector of the economy of the country; increase in credit and investment capacity of economic entities; neutralization of economic inequalities that arise in the process of market relations; limiting the possibility of using different optimization schemes of financial flows of the enterprise; development of rational and fair tax system.

At the same time fiscal regulation of financial flows involves the coherent use of techniques of budget and fiscal regulation, and, as rightly clarifies L. P. Ambryk «covers a set of fiscal instruments and levers of state influence on social and economic processes with the purpose of their correction on condition of achieving a balance of the interests of the state, taxpayers and citizens-voters» [1, p. 51].

Exploring the tax regulations, experts have focused on the use of measures for indirect effects in the context of income redistribution. That is the primary aspect is

the redistribution of income for the purpose of filling the revenue part of the budget. The secondary aspect determines how these processes affect the economy. Budgetary regulation is also seen as redistributive state activity, that is, in the narrow sense budgetary regulation is aimed at balancing budgets and optimization of financial security of areas. In a broad sense it is managing income and expenditures of the budget.

In most cases, scientists divide separately the notion of «budgetary regulation» and «tax regulation». However, this distinction is conditional, because these elements are interconnected and operate in parallel. The use of the term of «budget and tax regulation» points to a sphere of public policy influence in the regulatory process of crisis processes.

The elements of budget and tax regulation include: identification of sources of revenues to the state treasury; forming a system of taxation; determining objects and their level of taxation; regulation of the formation process of expenses of economic entities through depreciation rates; contributions to various funds; determination of the Articles of public expenditures; regulation of the state budget deficit, etc. [6, p. 85].

Effective use of these items for the purposes of budget and tax regulation in mandatory must meet the above outlined functions of fiscal regulation of financial flows. It will not succeed to achieve integrity and legality of the implemented measures in another case.

Therefore, it is extremely important that not only the functions and elements of budget and tax regulation were spelled out clearly and unambiguously. The authority of relevant public institutions should be subjected to the same stringent regulation. In practice, this will allow to avoid a dual interpretation of the legal and regulatory provisions and provide greater transparency of economic relations in the sphere of public finance.

Since the implementation of the fiscal regulation functions occurs through certain financial instruments and leverages, so in order to create sufficient income at all levels of the budget system it is necessary to use carefully the list and rates of taxes and fees, tax benefits, conducting capital transactions and so on.

Thus, it is necessary to recognize that exceptional their regulating impact on aggregate demand and level of income, and through them to the movement of financial flows is problematic for Ukraine because of different tax structure. The optimum ratio of the last should be based on consideration of the specifics of a particular country economy. The experience of countries with developed economics is confirmation of this, where the share of taxes on personal income in total taxes on the average of about 40%, and taxes on corporate income – 10%, and in Great Britain – 26% i 11% accordingly, Italy – 25 % i 9%, Japan – 20% i 12% [12, p. 59].

It gives the bases to make an assumption that nowadays for the Ukrainian economy tax incentives for aggregate demand through the impact on individual income and consumption to some extent remains problematic. To implement such an impact will be possible, when the real growth of legitimate income of the population happens.

Fiscal regulation of financial flows in modern economic systems is happening under conditions of institutional uncertainty and insufficiency. Institutional

insufficiency is manifested in contradictory and haphazard nature of fiscal regulation of financial flows, which reduces the efficiency of distribution and use of financial resources, results in a significant increase in corruption and shadow sector of economy. In this regard, transaction costs are increasing significantly, which variety is caused by a variety of contractual relations in the field of state regulation in general and fiscal in particular. That is why it is important to choose such regulatory mechanisms that would allow minimizing transaction costs in the short term and would be flexible to optimize such costs in the long run.

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1.6. Interdependence of public loans and taxes as the tools to balance a state budget: theoretical aspects

Every year the governments of virtually all countries face the challenge of balancing a state budget during the process of its preparation, discussion and approval. The main methods of balancing the budget include: increased tax revenues, debt financing of expenditures, etc. Both of these methods are used to increase the budget resources. That is why they are interrelated. Moreover, the governments apply taxation and public borrowing simultaneously. That is why they are also the complementary methods of budgeting.

The scientific research of the interdependence of tax and credit methods for the budget balancing will allow to set priorities in the process of formation the budgetary policy correctly. Understanding the interconnections and interdependence between public loans and taxes will contribute to forming a more effective structure of the budget.

Many famous scientists were researching the questions of determination the credit and tax methods for the state budget balancing throughout the centuries in the framework of both the theory of state credit and tax theory. The prominent scientists such as R. Barro, J. Buchanan, A. Wagner, K. Dittsel, J. Keynes, G. Myrdal, D. Ricardo, M. Rosbard, A. Smith and others investigated problems of the relationship and interdependence between the public loans and taxes. Despite the fact that the level of scientific achievements of these scientists is high, the problems of the effective enforcement of the credit and tax instruments for the budget balancing remain actual and require further scientific research which would take into consideration the dynamics of financial systems and markets, as well as contemporary realities.

The scientific researches of many scientists concerning the expediency of attracting credit resources to cover the state budget deficit confirm the necessity of the optimal combination of the tax and credit methods of mobilizing budget resources since taxes and loans are complementary tools of modern public finance.

The taxes are obligatory payments which are set by the State and are paid for its benefit in accordance with valid legislation.

Tax is a necessary element of the financial-economic system of each country, without which is impossible its effective development. In particular, this fact confirms the example of France, where in the XVII-th century during the revolution the system of taxation was liquidated. As a result of this inefficient action the State power couldn't fulfill its functions, because it was the sharp deficit of financial resources. At last, the taxes were restored. On the other hand an empiric experience testifies that a hard tax load also is a negative phenomenon, which has bad influence on prosperity of population, escalates social conflicts and undermines financial basis of state.

Taxes carry out such basic functions: fiscal and regulative.

A fiscal function means, that the taxes are the main instrument of financial resources accumulation to budgets and special funds. The fiscal function of taxes is a structure component of the distributive function of finances, because taxation is the main methods of centralization a part of GDP, it creates conditions for its redistribution and using for social necessities.

A regulative function is predetermined by the inner ability of taxes to influence the development of an economy and social sphere. The functions of taxes are an objective phenomenon, but their usage by the state for realization of some tax policy is a subjective process. That is why the State can effectively regulate the processes of production and consumption in society, only if it takes into account the regulative function of taxes.

Public loans are the credit relationships between the State and individuals or entities in which the state gets a certain amount of cash on the due date for fee due. The state credit is relationship of the secondary distribution of GDP. It performs the fiscal and regulative functions. Through the fiscal function of public credit the State provides centralized formation of state funds for later using them on the principles of duration, paying, recovery. The essence of the regulatory function of public credit is shown as follows. In the credit relationships the State have influence on the condition of currency, on the level of the interest rates on the money and capital markets, on production and employment.

Therefore, public loans and taxes carry out similar functions in the formation of a state budget profitable part.

The famous Swedish economist, Nobel laureate (1974), Gunnar Myrdal said: «Taxation is a most flexible and effective but also a dangerous instrument of social reform. One has to know precisely what one is doing lest the results diverge greatly from one's intentions» [1, p. 188]. In our opinion, the same we can say about the public loans. So, taxes and state loans are flexible and effective tools of economic regulation on the condition of substantiated their applications in the process of shaping and balancing a budget.

Taxes and public credit are complementary instruments of the budget management.

However, the comparison of these two instruments gives grounds to assert that taxation has the following advantages over credit: it does not entail creation of public debt and necessity of its further payment. On the other hand, government loans do not cause social protests, while taxes payers usually perceive the taxes negatively.

The study of the relationship of taxes and government borrowing has a long history.

Specifically, the founders of the classical school of economics Adam Smith and David Ricardo pay much attention in their research simultaneously both taxes and public loans.

The general opinion is that the representative of the British classical economics Adam Smith (1723–1790) in his scientific work «Inquiry into the Nature and Causes of the Wealth of Nations» laid the fundamentals of the tax theory. He viewed taxes as the state fees related to the costs of providing protection and maintaining the established order. Smith emphasized that every tax is ultimately paid by the three types of income: rents, profits and salaries [2, p. 588]. He also pointed out that the State should limit or completely refuse to use credit instruments to balance the state treasury. In particular, in his scientific work «The Wealth of Nations» Smith pointed to the inefficiency of public consumption, and as a result the government loans actually are loss for its economy.

Ricardo also substantiates in his works unreasonableness of the involvement of state borrowing to cover budget deficit. According to him «equivalence theorem» tax and debt financing of budget expenditures are equivalent. At the same time Ricardo points out that «the most burdensome tax is an easier for the best credit» [3, p. 165]. He argues that state debts provoke the capital flight from the country, as well as reducing of private savings. The state debt, on the other hand, is becoming permanently increasing problem under pressure to pay more and more interests. Furthermore, Ricardo also considers the debt financing of public expenditure as a precondition for wars.

French economist of Swiss origin S. Sismondi was an opponent for representatives of the classical school of political economy in some matters. However he fully supports them in relation to the negative impact of public debt on economic and social development of the country.

Sismondi pointed out that public loans form the protection for contemporaries «by all the work and expectations of future generations» [4, p. 174].

It should be mentioned that a large public debt is not always an excessive burden on the budget. There are cases when large state borrowings contributed to economic development of a country. In the XIX century this feature had been studied by scientists of the German Economic school. Outstanding representatives of this school were A. Wagner, K. Dittsel, W. Sombart, F. Nebenius, L. Stein.

Thus, replacing the classical approach to the vision of public debt in as little as an instrument of redistribution of capital, new theory of state credit emerged. This theory argued that by the government loans can be formed new capital.

The German scientist F. Nebenius designated public credit as a specific type of credit and proved the feasibility of debt financing expenditures, if such loans are directed into the productive sphere [5, p. 657]. His countryman K. Dittsel also pointed out the positive features of public borrowing. In his work «The system of state loans» he said that «nation the more wealthier and the economy the more prosperous and progressive, then the greater the proportion of public expenditure spent on interest payments». K. Dittsel argued that the state credit is the «driving force of progress» and increases the efficiency of the national capital [6, p. 140].

A. Wagner, considering the activities of the State as economically productive he indicated that all extraordinary state expenditures should be financed by loans. A. Wagner saw that the main factor for the development of public credit is its industrial purpose: financing the construction of ports, railways, etc. [7, c. 107].

Later, parallel to the concept of the negative impact of debt financing budget expenditures on the economy which was launched by the classical school of economics, an alternative approach to cover the budget deficit at the expense had been formed by Keynesian school.

J. Keynes regarded taxes as a «built-in flexibility mechanism» that can be fuses of the economic instability. The same time he regarded perfectly acceptable for government to involvement credit to cover budget deficit. Moreover, he considered state credit as an effective instrument of economic regulation. Keynesians argued the need for deficit financing, if necessary, pointing out that public debt serves as multiplying factor of of investments, expanding the total social consumption. According to Keynesian doctrine the State must to increase investments even in cases

where they are not provided with revenues (tax receipts). Additional funds for investment the State can receive by borrowing.

Keynesians argue that the reduction of employment in the economy, followed by a reduction in the aggregate demand cost for society much more than the burden of public debt.

The concept of compensatory debt finance is based on the multiplier effect of growth the aggregate demand due to increasing public expenditures which are covered through borrowed credit resources. Thus stimulated the aggregate demand provides impetus for further development of production. This situation, in its turn, provokes even more expand the aggregate demand. This multiplier mechanism allows the State to successfully serve the public debt, which is formed as a result to finance the budget deficit by credit resources [8, p. 159–273]. In addition, this multiplier mechanism allows to overcome the economic difficulties, to broaden the tax base and lead to higher income taxes to a budget.

Thus, within the Keynesian approach during the economic difficulties the leading role in balanced budget belongs to the government loans. On the contrary, in the period of economic growth the leading role in balanced budget belongs to taxes.

Keynesian views on the positive impact of balancing the budget at the expense of public borrowing on the economy found its further development in the neo-Keynesian concepts of public credit. Neo-Keynesian concepts defend the appropriateness of debt financing to budget expenditures. They point out that public debt plays an instrumental role in the implementation of state financial policy which is aimed at achieving macroeconomic balance and cyclical smoothing.

The American scientist economist A. Lerner introduced the concept of «functional finance». According to this concept the main task of the government is non-inflationary full employment which serving key to long-term economic growth. At that State first of all should focus on balancing the economy, but not on balancing the budget. And a budget should be used as a tool of state regulation in order to balance the economy [9, p. 59–73].

The neoclassical concepts are opposite to neo-Keynesian views. Neoclassical approach to solving the problem of public credit consists in necessity of limit the use of credit to cover the budget deficit. Neoclassicists indicate that in a sustainable deficit the public debt is no longer carry out a role an effective instrument of economic regulation by managing aggregate demand. The American scientist M. Rosbard notes that the public credit has the following negative trait. Through loan finance private funds actually are transferred to the State twice, as before: once in attracting credit resources to cover the budget deficit and once during the mobilization of additional resources (taxes) to pay off the loan.

Classical and Neoclassical as a negative feature of public credit note that debt financing public spending means lower taxes at the current stage in exchange for higher taxes in the future. This means that the tax burden is translated thus on future generations. There is a so-called «anticipation» of taxes.

Public loans is an alternative to taxes. Public borrowing allows for sudden increases of budget spending without having an immediate effect on the rate of taxation: an increase of public debt in one monetary unit today implies an increase in present value in one monetary unit of future taxes. Budget spending financed through

borrowing or taxes does not matter, as long as there is certainty about future levels of income, government spending and profit margins, with perfect capital markets and some future horizons for the population.

On the other hand, it should be noted that the deficit financing expenditure is justified in the case of attracting credit resources to finance the construction of facilities that can meet the needs not only contemporary but also future generations (infrastructure objects, monumental buildings, etc.). This means that the financing of investments which are designed for long periods only through taxes paid by contemporaries is unfair because future generations would get these services for free.

Primarily taxation is different from the credit that taxes are levied in a compulsory and mandatory, but credit relations based on freedom of choice and on the interests of creditors. Thus the government using credit may attract significant resources to the budget, but the population get the impression of the exaggerated material prosperity.

Hypothetically, if we offer the taxpayers get a choice: either he pays the tax or provides loans by the same amount, he chooses the last. Because the loan will be returned together with interest. So people find themselves burdened less by lending than by the tax system.

In different concepts of public credit lending instruments of attracting of budgetary resources are considered as alternative and complementary for taxes or partially replacing them. For example an American scientist Robert Barro who is the author of the «neutrality of public debt» theorem notes that the replacement of the current tax payments by state debt repay only mutually moving resources between generations without affecting the interest rate, the volume of production and prices. Barro also points to carry out the distribution of the tax burden over time through state loans. It allows you to make the macroeconomic decisions without regard to fiscal constraints in the form of endogenous quantities tax with respect to the amount of public expenditure [10, p. 225]. Underscoring this point, we want to pay particular attention to the important role of the credit resources in the coating of budget expenses as a complementary tool for taxation. This allows the government to pursue a more flexible fiscal policy.

The positive example effective use of tax finance in combination of with loans are financial and economic policy of the United States under President Ronald Reagan. The program was designed for 8 years and provided significant borrowing (about 3 trillion dollars USA) which would offset the loss of tax revenue. Reducing taxes led to economic recovery. Subsequently it had allowed to avoid the debt problems and contributed to strengthening the US position on the international stage.

American scientist James Buchanan made an important contribution to the theory of public credit. In his book «Public Principles of Public Debt. Justification and confirmation» Buchanan points out that public debt creates the same problems faced by borrowers legal entities and individuals [11]. The situation in the case of public debt is complicated by the fact that the decision to cover the budget deficit through borrowings takes one government, and repayment period begins already in another government. Thus it may encourage the excessive expenditure of funds in the account of future governments. The opportunity of attracting credit resources to cover public expenditure is often «temptation» for the government in the form of easy

solution to the problem of budget deficits and incentive to the exaggerated budget spending in the account of future governments. After all, the successors will have to repay the debts.

Public credit relationships provide that one government takes a loan but another repay it and takes responsibility. Under conditions of representative democracy this feature of public credit can be used by authorities as a kind of means of «unfair competition» in the struggle for power between different political forces. For example, the two parties are in opposition for the competitive governmental power.

Ruling party is not confident in the results of these elections and attract credit resources. It will help to can increasingly financing specific programs to meet the needs of its adherents. In case of losing the election next government will serve the debt. It will limit its financial capacity to meet the needs of the electorate. On the other hand deficit financing can be used to save power. The government can win over the voters pursuing a policy of increasing expenditure by the inconspicuous sources of resource mobilization, including public credit.

Analysis of the problems of deficit financing expenditure within different conceptual approaches revealed a number of advantages and disadvantages of balancing the state budget by attracting credit resources. We can make a general conclusion that the involvement of state loans are not clearly positive or negative phenomenon, and in each case the answer to the question of whether public spending deficit financing lies in the efficient use of credit.

Consequently, taxes and state loans are interrelated tools of balancing the state budget. For successful implementation of fiscal policy the government has a balanced approach to the use of tax and credit instruments of balancing the budget.

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CHAPTER 2.

Financial Policy of Ensuring Sustainable Development

2.1. Enhancing the effectiveness of public procurement system in Ukraine

Among Ukraine's main advances on the road to effective and transparent management of public finance in 2016 were the enactment of the Law of Ukraine «On public procurement» [1], approval of the Governmental Strategy for the Reform of Public Procurement System [2], launch of the *Prozorro* electronic public procurement and reclamation system, and accession to the WTO Agreement on Public Procurement.

On the whole, all measures implemented last year work towards one aim – forming a modern and effective system of public procurement in order to create competitive environment and promote fair competition in procurement, as well as to implement international commitments in the sphere of public procurement by way of gradual approximation of Ukrainian legislation to the EU standards [2]. In other words, the task of the public procurement reform is to significantly decrease the level of corruption in this sphere and to increase the effectiveness of public expenditure. At that, high hopes were placed on business community representatives and their participation in overseeing the actions of authorities.

At its core, the *Prozorro* system is based on the «everyone can see everything» principle [3]. The Law «On public procurement» specifies the constituents of this principle: fair competition among bidders; maximum efficiency and effectiveness; openness and transparency at all stages of procurement; non-discrimination of bidders; objective and impartial evaluation of tenders; prevention of corrupt practices and abuse [1]. Assuring the unconditional adherence to these principles will contribute to formation of an effective system of public procurement, as well as more rational and efficient distribution of public funds.

The scale and significance of the public procurement issue are illustrated by the data of *Transparency International USA*, the non-governmental international

organization whose aim is to fight corruption and perform research on global corruption, according to which public procurement accounts on average for 15% to 30% of the GDP for selected countries [4]. In Ukraine, 1/3 of its total consolidated state budget funds were channeled through public procurement system in 2016, which means that a cost saving of 1% is equivalent to almost 3 billion hryvnias [5; 6]. Therefore, the introduction of effective public oversight in the sphere of public procurement is an extremely significant, responsible and complex social issue.

The creation of a transparent procurement system is a very labor-intensive task, which requires a lot of time, financial expenditures and professional training; thence, the implementation of electronic procedures is being realized gradually. To that end, all public procurements of goods, services and works are currently divided into below-threshold and above-threshold procurements. It is above-threshold procurements that are realized by means of the *Prozorro* system: these include procurements of goods in value of more than 200 thousand hryvnias and works in value of more than 1.5 million hryvnias; in some sectors of the economy, thresholds are set at 1 million and 5 million hryvnias for goods and works respectively. In the case of below-threshold procurements, procurers can use this electronic system voluntarily to choose suppliers of goods, providers of services or contractors. In addition, when performing below-threshold procurements in value of more than 50 thousand hryvnias, procurers are obliged to publicly report about agreements concluded via the e-procurement system.

Starting from April 1, 2016, e-procurement has become obligatory for central state executive authorities and selected sectors with high level of monopoly power (production, transporting, supply and storage of natural gas, heating energy and electricity, drinking water, oil and petroleum products, transportation and communication services, and works for the sphere of defense and military equipment). Since August 1, 2016, it has become obligatory for all public procuring entities to use the *Prozorro* system. Currently, the system is being configured so that it could be used for below-threshold procurements.

The main changes implemented in place of paper-based tender procedures, consist in the following: procurements are realized on-line; the process of winner selection is public and comprehensible; the access to and use of the electronic system, as well as participation in tendering procedures, are arranged under simple procedures.

Table 1 features main outcomes of public procurement in Ukraine for the year 2016. The total value of public procurement in Ukraine amounted to 275 billion hryvnias, of which 68.9 billion hryvnias or 25.1% were realized via the *Prozorro* system. However, only 3.66% of procurements were realized through open tendering procedures, which accounts for 12.3% of the total value of public procurement.

In 2016, the majority of tenders were announced for purchase of construction works, medical equipment, foodstuffs, office and computer equipment, and furniture. The majority of contracts were concluded with national participants: 99.6% of contracts were concluded via tender.me.gov.ua and 99.5% via prozorro.gov.ua. Last year, the share of competitive procedures carried out via the *Prozorro* system (primarily open tendering procedures) was 55.9% of total value of procurements and 63.5% of total concluded contracts. However, the share of noncompetitive negotiated tendering procedures remains to be rather high, which is explained by purchases of

public utilities supplied by monopoly enterprises. Besides, procurements through negotiated procedures were carried out in the cases when procurers have previously cancelled tenders twice due to lack of sufficient number of participants; when procuring artwork and legal services; when there was urgent and auxiliary need for procurement; when there was need for additional construction works.

Table 1

Results of public procurement in Ukraine in 2016 [5]

Indicators	Quantity	Value, billion hryvnias	Share of total value, %
Below-threshold procurements with reporting procedure	128643	25.8	9.4
Below-threshold procurements	136185	15.1	5.5
Procurements via web-portal: tender.me.gov.ua	80106	165.1	60.0
Procurement via Prozorro.gov.ua	21599	68.9	25.1
<i>Of which: open tendering procedure</i>	<i>13446</i>	<i>33.7</i>	<i>48.9</i>
<i>negotiated tendering procedure</i>	<i>7886</i>	<i>30.4</i>	<i>44.1</i>
<i>negotiated tendering procedure (for the defense)</i>	<i>267</i>	<i>4.8</i>	<i>7.0</i>
Total	366533	275.0	100.0
Reference information: <i>open tendering in % of total public procurement</i>	3.66	12.3	x

The Accounting Chamber of Ukraine, – the authority overseeing the formation and distribution of state budget funds, – found that gaps in the legislative framework are the main barriers to better usage of public funds and competitive environment in public procurement, making large markets of goods and services exempt from regulations of the Law «On public procurement» and creating the possibility of applying non-competitive contracting procedures justified not on the basis of applying, but on the basis of the urgency of need [7].

Maintaining the principle of openness and transparency at all stages of the procurement process allows to track the information on the largest procurers, which apply noncompetitive procedures. In 2016, these were the Ministry of Infrastructure of Ukraine, State Television and Radio Broadcasting Committee of Ukraine, Mariupol City Council, Dnipropetrovsk Regional State Administration, and Ministry of Education and Science of Ukraine.

Worthy of mention are indicators that characterize the efficiency of public procurement, specifically the level of cost-saving on procurement of goods and services (the difference between expected value and actual value of the contract). Thus in 2016, Kharkiv, Poltava, Odessa, Zakarpattia, and Mykolaiv regions managed to achieve the highest levels of cost saving ranging between 16% and 18% for below-threshold procurements and between 6% and 14% for procurement procedures [5].

According to expert estimates, as of May 15, 2017, the implementation of the *Prozorro* system allowed the country to save 16.7 billion hryvnias worth of public funds. The total cost-saving potential, including tenders taking place in May 2017, is estimated at almost 24 billion hryvnias. Over the period, more than 791 thousand tendering procedures were registered involving more than 100 thousand participants [8].

Along with undoubtedly positive effects from introduction of the *Prozorro* system, it still holds possibilities for the procurers to realize noncompetitive and

discriminatory procurements. Thus, experts from the National Institute for Strategic Studies and representatives of the business sector identified the following malpractices:

- splitting above-threshold contracts into several below-threshold lots, which allows the procurer to avoid the obligation to use the *Prozorro* system;
- providing an unclear specification of the subject of procurement by the procurer so that to make proper information available only to predetermined suppliers;
- setting excessively high expected value of procurement in result of unjustified financial planning;
- substituting procurements of technical equipment with procurements of works that are subject to higher threshold in the *Prozorro* system;
- establishing privileged conditions for preferred suppliers, producing low-quality tender documents;
- collusion of two companies, which take part in the tender together to create a false impression of competition;
- disqualifying bidders based on formal, immaterial and insignificant reasons;
- introducing changes to material terms of the contract after it has been concluded;
- breach of contract with tender bid winners, which offered best conditions and lowest prices [9; 10].

Quite understandably, the introduction of the *Prozorro* system has not so far resolved all problems with acquisition of goods, services and works with public (budget) funds, which is testified by conclusions of the respective controlling authorities. Thus, in 2015–2016, the Accounting Chamber of Ukraine identified public procurement violations worth 326.3 million hryvnias. Similarly, over the period including 2015 and 9 months of 2016, the State Auditing Service of Ukraine found violations worth 4.5 billion hryvnias [7, p. 38–39].

In many instances, the *Prozorro* system's current rules of public procurement can prevent neither procuring entities nor suppliers from behaving unscrupulously. For example, given that there is no requirement for the procurers to set the bottom-line prices of procurements, bidders sometimes deliberately submit offers containing abnormally low prices. The evaluation of bidders, which are granted access to tender participation, is also insufficient. However, on the other hand, one should keep in mind the risks related to public disclosure of full information about bidders, in particular their licenses, certificates, passport data, and ownership documents, which can be potentially misused by fraudsters. The realization of e-procurement without visual examination of products can also lead to provision of low-quality products that do not satisfy the needs of the procuring entity.

Apart from this, the *Prozorro* system exhibits some shortcomings in relation to contracting procedures for foreign bidders. Although the number of bids placed by foreign companies increases, only few of them win tenders and thus remain reluctant to massively enter the Ukrainian market not only because of the legislative imperfections, but also due to overall economic and political instability. The attractiveness of public procurement for foreign bidders is low due to presence of discriminatory tender conditions; the language barrier, in particular absence of the English version of procurement conditions; short time limit for submission of original

documents by tender bid winners (5 days), which is unacceptable for companies located at a significant distance from Ukraine; the unresolved mechanism for digital signature and its identification; ambiguities relating to treatment of exchange rates (translation of offer prices into contractor's currency) and taxes (VAT) in public procurement, etc [11].

Ukraine lacks a coherent and consistent institutional basis for public procurement, which produces negative implications for public regulation of this sphere: in particular, there are some redundancies of controlling functions carried out by different institutional structures, incomplete performance of newly assigned functions, as well as insufficient transparency in the activities of authorized bodies. In addition, there are a number of organizational and financial problems with the functioning of the *Prozorro* information and communication system, electronic platforms, web-portals, and other informational resources. However, all the contracting authorities, providers and experts came to the conclusion that the main reason for low effectiveness of public procurement is the gaps in the legislative framework which must be filled.

In 2017, the process of forming the transparent system of public procurement in Ukraine continues. The Ministry of Economic Development and Trade of Ukraine (acting as an authorized body for public procurement) set the following strategic vectors for its activities: maintaining the transparency of public procurement; enhancing competitiveness by simplifying procedures and establishing effective communications with business; building professionalism by developing an adequate knowledge system, implementing professional training and producing quality tender documents; achieving global leadership and promoting the *Prozorro*-philosophy abroad; exporting new approaches to other public authorities thus contributing to re-formatting of public service in general.

In the Strategy for Public Finance Management Reform in 2017–2020, approved by the Order of the Cabinet of Ministers of Ukraine as of February 8, 2017, due attention was paid to public procurement as an important element of the overall system of public finance management. In the context of maintaining the overall budget and tax discipline in the medium term, the Strategy stipulates for the following measures:

- to harmonize Ukraine's legislation on public procurement with the respective EU standards;
- to develop institutional structure and legislatively split the functions of institutional bodies in the sphere of public procurement;
- to determine the mechanism of centralized procurement;
- to implement further improvements in the system of electronic procurement;
- to implement professionalization of public procurement;
- to form competitive environment in the sphere of public procurement [12].

In April 2017, the EU Project «Harmonization of Public Procurement System in Ukraine with EU Standards» presented their proposal of provisional amendments to the Law «On public procurement», which were elaborated in the context of the requirements stipulated by the Strategy of Public Procurement Reform [13]. The proposed novelties extend to expansion and specification of qualifications criteria for expulsion of bidders; introduction of technical characteristics and criteria for

decision-making (including criteria for evaluation of tenders based on life-cycle values and tenders with abnormally low bids); inclusion of methods for calculation of the estimated value of public contract for purposes of procurement procedure selection; creation of the legal basis for participation of enterprise groupings (consortia); introduction of tendering procedures allowing limited participation; introduction of a new article regulating the procedure of realizing centralized procurements.

In conclusion, we have to acknowledge that Ukraine is undergoing an irreversible process of reform in the system of public procurement. If implemented consistently and systemically, it will add to improvement of public finance management as a constituent of the entire system of public administration and create necessary preconditions for the development of an effective and competitive national economy and civil society.

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2.2. Fiscal imbalances and their influence on the level of Ukraine's debt sustainability

The success of structural reforms directed at the renewal of the progressive economic growth, modernization of state's economy and increase of citizens' welfare, is largely conditioned by the effectiveness of the mechanisms of budget constraints.

The political crisis, the annexation of Crimea, armed conflict in eastern Ukraine, deep economic recession (caused by regrouping of economic links with international partners and by destruction of infrastructure and industrial facilities on some Ukrainian territories), the increase of defence expenditures, powerful regional guarantee of state's enterprises and banks in 2014–2016 have led to the strengthening of the government sector's disbalance and to the considerable increase of the state's debt which is one of the basic factors of deceleration of the state's economy development.

Therefore, one of the key aims of fiscal policy in Ukraine is the attaining of such fiscal position which, on the one hand, would limit disproportions in budget and tax spheres, and on the other hand, would not oppress the imperative of economic and fiscal development. At the same time, it should be noted that fiscal position administration requires taking into account various approaches. On the one hand, it is expedient to achieve balanced budget, and on the other hand – to comprehend that running the budget deficit may become an additional factor of economic growth and renewal of economic activity [13, p. 4]. Herewith, the increase of negative fiscal position becomes a cause of acquirement of state debt which, as a phenomenon, has a multilateral destructive influence on the economy.

A great contribution into the research of fiscal imbalances' range of problems and, in particular, their influence on macroeconomic indices of the national economy development was made by such scientists as: S. Adonin [1], O. Zinchenko [20], V. Iziumska [1], V. Kudriashov [13], I. Lunina, I. Liutyi, N. Matviichuk [14], N. Matsedonska [15], V. Fedosov, S. Yurii, L. Yaniv [20] and others.

Doing justice to the scientists' achievements on this subject, it should be mentioned that in the domestic financial and economic literature there is a lack of thorough scientific and practical designs dedicated to the issues of the imbalance influence of Ukraine's State Budget on the level of its debt stability.

The permanent imbalance of the Ukraine's State Budget is not a unique phenomenon. It has a complex relationship of cause and effect and is considered to be a habitual attribute of the modern budget policy of any country not depending on its development [14, p. 33]. Its influence on the social and economic processes in the society declares itself differently. Prevailing majority of the consequences of state budget deficit affect negatively the social and economic development of the state and are connected with the «crowding-out effect» of the private investments, strengthening of the inflation processes, reduction of the output, capital outflow, cutback of the investment programmes, intensification of debt dependence and the default risk and so on. However, according to the postulates of the Keynesian

economics and the supply-side economics, under certain circumstances budget deficit becomes an instrument of the stimulation of state's economy development.

In particular, in accordance with Maastricht Treaty (the Treaty on European Union), which was signed on 7 February 1993, state budget deficit doesn't perform disturbing influence on state's economy, if it doesn't exceed the level of 3% of GDP.

In Ukraine during 2008-2015 the amount of the state deficit grew rapidly annually as in absolute expression so in relative expression (see Table 1). Thus, in 2014 the deficit of Ukraine's state budget was seven times higher than its amount in 2007 and was 78.1 billion UAH (or 5% of GDP) [5].

At the beginning of 2015 there was a wrecking of the given tendency. By results of January – February 2015 Ukraine's State Budget was implemented with a profit of 8.8 billion UAH. But, its annual results had a deficit of 45.2 billion UAH (or 59.5% of threshold amount constituted by The Law of Ukraine «On the State Budget of Ukraine for 2015»), which is 42.1% less than in 2014.

Table 1

The dynamics of the deficit (profit) of the state budget, indices of its financing and the state and state guaranteed debt of Ukraine

Indices	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Deficit (-) / profit (+) of Ukraine's state budget:										
<i>in billions UAH</i>	-9.8	-12.5	-35.5	-64.4	-23.6	-53.5	-64.7	-78.1	-45.2	-70.1
<i>in % to GDP</i>	1.4	1.3	3.9	5.9	1.8	3.8	4.4	5	2.2	2.9
Loans, billion UAH	10.4	33.3	121.0	124.3	80.7	109.8	160.9	332.7	514.1	307.7
Discharging debt liabilities, billion UAH	6.5	6.0	31.6	26.7	45.6	68.1	79.8	120.8	416.6	111.4
Share of loans in the resources' structure of budget financing, %										
<i>including:</i>										
<i>external</i>	64.2	98.6	95	94.2	87.6	85.3	99.1	99.8	97.2	94.2
<i>internal</i>	42.2	18.4	45.7	41.1	29.6	33.6	32.0	29.3	57.7	32.2
State's direct and guaranteed debt:										
<i>in billion UAH</i>	88.7	189.4	317.9	432.3	473.1	515.5	584.4	1100.8	1571.8	1929.8
<i>in % to GDP</i>	12.3	19.9	34.8	39.9	35.9	36.5	39.9	70.3	79.4	81.0
Ukraine's state direct debt, billion UAH										
<i>including:</i>										
<i>external</i>	71.3	130.7	227.0	323.5	357.3	399.2	480.2	947.0	1333.9	1650.8
<i>internal</i>	53.5	86.0	135.9	181.8	195.8	208.9	223.3	486.0	825.9	980.19
	17.8	44.7	91.1	141.7	161.5	190.3	256.9	461.0	508.0	670.65

Note: calculated and created by author according to the data [5; 9; 2; 6].

The cause of essential improvement of the fiscal position of the state budget in 2015 became the excess of increment rates of its incomes over increment rates of its expenditures, which were 49.8%, that is 44.9 p.p. more than in 2014. Rapid growth of the state budget incomes under conditions of deep economic recession was largely conditioned by accomplishment the measures of discretionary adjustment (alteration to the tax system, introduction of specific methods of income mobilization) and widening of tax base, induced by the acceleration of prices increase and the depreciation of the national currency.

That is why, the fiscal policy which was led in Ukraine in 2015, ensured the reduction of the state budget deficit, but the recession was not overcome, inflation reached a record mark, real income indices of the population became worse.

However, at the beginning of 2016 there was a wrecking of the given tendency. By results of the year the deficit of the State Budget of Ukraine to GDP was 2.9%, having 0.7 percentage point increase. Moderate increase of fiscal imbalance under conditions of the renewal of economic growth¹ indicates the positive magnitude of the fiscal impulse in 2016, that means the introduction of the incentive budget and tax policy by the government which contributed to the recovery of the economic activity [6, p. 42].

Characteristic feature of the resources' structure of Ukraine's State Budget financing is the domination of external and internal loans in it (see Table 1).

The use of borrowed funds to cover the deficit of the main forward budget of Ukraine, which in 2009-2014 exceeded economic safe level of 3% of GDP (see Table 1), led to rapid increase of debt liabilities of the state and to the deterioration of the level of its debts' stability level.

For the last nine years the state direct debt of Ukraine increased to 1579.5 billion UAH or became 23 times higher (see Table 1).

As a result, according to the data of American company, the provider of financial software tools Bloomberg, Ukraine takes the third place after Greece and Venezuela in the Default Probability Rating. Taking into account such factors as state of the economy, outstanding debt and political risks, information agency estimates the default probability in Ukraine for the next year in 17.8% [19].

It should be also noted that the dynamics of the indices of state borrowings significantly deviates from the size of the budget deficit. Thus, in 2016 the amounts of the state borrowings exceeded the size of the budget deficit to 237.6 billion UAH (see Table 1). Such deviation is explained by financing of the quasi fiscal activities (increasing the authorized capital of state financial and nonfinancial corporations), providing the local budgets with the subventions for the compensation of the difference in tariffs on heat energy production, allowance for waste to depositors of the banks declared bankrupt, the need to solve problems with VAT recompense which is not inherent to the state budget under conditions of market economy [13, p. 9].

A significant gap between the amounts of state borrowings and payments of discharging the state debt (see Table 1), indicates that in future the debt burden on the

¹ Real GDP growth rate for 2016 was 2.3% higher. Herewith, in 28 countries of the EU mean value of this index was 1.9%.

State Budget of Ukraine will only increase and will lead to a growing problem of debt security of the state.

The budget deficit which is covered through internal and external borrowings or selling state assets is not a threat for the stability and resilience of the state's financial system and is an instrument to stimulate the economic growth under conditions when financial resources gained from privatization and received from lenders are directed to financing of innovative and investment projects. Therefore, most countries of the world in the budgetary legislation introduced restrictions, a so-called «golden rule» according to which the size of the budget deficit cannot exceed the amount of budget investments in the relevant fiscal period. However, despite the existence of the similar rules in the Budget Code of Ukraine, it is not always possible to observe it, especially in recent years [11, p. 217].

In particular, in 2016 as in previous years, a considerable part of the external and internal borrowings was directed to the accomplishment of consumption expenditures of the pool of the State Budget of Ukraine and to pay off debt obligations. Herewith, capital expenditures and expenditures on research, developments and separate measures of growth, which in future should contribute to economic growth, amounted only 4.5 billion UAH and 7.4 billion UAH respectively, or 19.2% of the total amount of the budget deficit [6].

Thus, it can be stated that according to the direction of the deficit financing in Ukraine the passive budget deficit prevails. Assets from its covering are directed to the current budget expenditures, such as social transfers, payment of the salaries in the public sector and others. The share of active budget deficit, due to which the financing of the investment needs is implemented, is slight and tends to decrease [11, p. 217].

Mentioned above highlights the lack of the finances of the state to meet current needs. This fact can also create the risk of strengthening the debt burden on the state budget in the future due to limited investment, social and economic effect of which could contribute to income expansion and improvement of its fiscal position.

Qualitative characteristics of state debt sustainability, which is largely influenced by the debt financing of the budget deficit, is the determination of the debt burden and solvency level. For the evaluation of the given variables in the world practice they use about two dozen indices-indicators and even greater number of their boundary (threshold) values [12, p. 138].

Herewith, the official indices of Ukraine's debt security level provided by «The calculating method of the level of Ukraine's economic security», approved by order of The Ministry of Economy of Ukraine №60 of 02.03.2007 [17] is: the ratio of the total amount of the state debt to GDP; the ratio of the state external debt to annual export of goods and services; the ratio of total payments of state debt to the state budget revenues and others (see Table 2).

One of the main indicators of debt sustainability of the state is an index which reflects the ratio of the total amount of the state debt to GDP and defines the ability of the debtor state to attract borrowed resources and service its debt obligations in proper time without violating the normal course of the reproduction process.

Table 2

The indicators' dynamics of the level of Ukraine's debts stability

Indices-indicators	Threshold indices (in the world)	Threshold indices (in Ukraine)	2007	2010	2011	2012	2013	2014	2015*	2016
The ratio of state and state guaranteed debt to GDP, %	≤50–60	≤60	12.3	39.9	35.9	36.5	39.9	70.3	79.4	81.0
The ratio of state and state guaranteed external debt to GDP, %	≤40	≤25	9.7	25.6	22.7	21.9	20.5	39.1	52.7	52.0
The ratio of the state external debt to the annual export of goods and services, %	≤150–165	≤70	16.5	33.0	27.6	29.0	32.7	45.0	72.6	78.4
The level of the external debt per one person, USD	≤200	≤200	297.1	755.7	818.1	847.8	825.7	890.8	902.3	1009
Share of the external loans in the resources' structure of state budget financing, %	–	≤30	42.2	41.4	29.6	33.6	32.0	29.3	57.7	32.2
The ratio of total payments from the service of state external debt to the annual export of goods and services, %	≤20–25	≤12	0.8	0.9	1.1	0.7	1.5	1.5	2.3	2.7
The ratio of total payments for state external debt to the state budget income, %	≤20–25	≤20	3.8	5	6.8	8.5	14.4	19.5	66.2	6.9
The ratio of state and state guaranteed internal debt to GDP, %	–	≤30–35	2.6	14.3	13.2	14.6	19.4	31.2	26.7	28.9
The ratio of total payments for state internal debt to the state budget income, %	–	≤30	1.9	13.1	15.3	12.8	19.5	28.9	28.5	27.2
Specific gravity of payments for state debt in budget expenses, %	–	–	5.3	12.6	20.2	19.6	23.3	26.3	10.8	22.4

Note: calculated and created by author according to the data [5; 6; 9; 2];

*data of 2015 are modified for the operation of restructuring of the external debt.

According to the Maastricht criteria in the member states of the Eurozone the total amount of the state debt at the end of the budget period cannot exceed 60% of the annual nominal amount of the state's gross domestic product. The debt limit of

60% of GDP for state and state guaranteed debt is recorded in the Budget Code of Ukraine.

By 2014, in Ukraine the value of this indicator did not exceed threshold indices (see Table 2). However, by the results of 2016, the ratio of the state direct and state guaranteed debt to GDP was 81.0%, which is the highest value in the history of independence and shows not only a high probability of deepening of debt crisis, but also an exclusive actuality of the directions' search of budget and debt state's policy [16].

A similar situation is observed in 19 of 28 countries of the EU (see Figure 1).

Several researches, including K. Reinhart, K. Rogoff and M. Savastano, calculated that among the countries with the average income level, 40% of the total amount of defaults and debt restructurings occurred in countries with the debt burden level of 41-60% of GDP, and 13% of defaults and debt restructurings – in countries where external debt was less than 40% of GDP. According to IMF, countries with developing markets are not able to ensure the debt sustainability if the state debt exceeds 50% of GDP. Generally acceptable level of the state debt for the typical country with developing market is only 25% of GDP [4, p. 59].

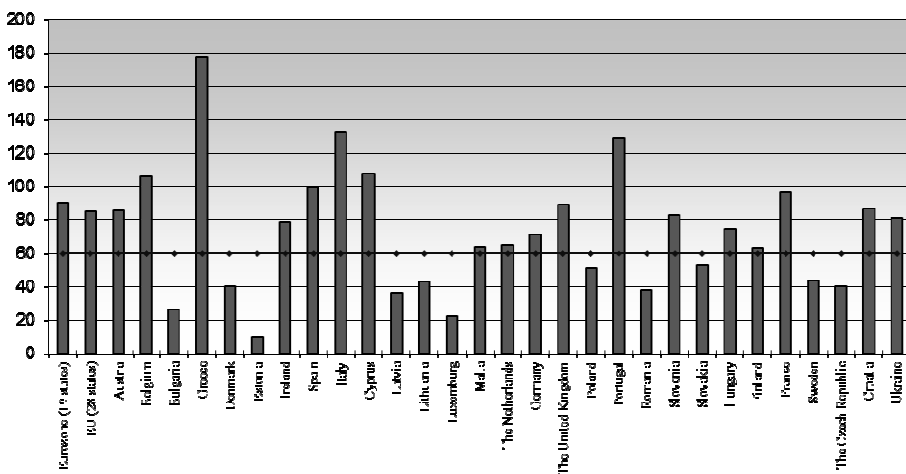


Fig. 1. The ratio of the state debt and GDP in Ukraine and member states of the EU in 2016, % [6, p. 49].

According to the data of Table 2, the negative tendencies are also observed in the dynamics of indicators characterizing the level of the external debt dependence of the state. Despite the fact that with the exception of 2012 and 2015, in 2010-2016 the specific gravity of external borrowings in the resources' structure of financing of the State Budget of Ukraine decreased annually (an average of 9%), state direct external debt had increased by 844.3 billion UAH (or 7.3 times) during seven years (see Table 1).

The growth of the state and state guaranteed debt from 300.28 billion UAH or 37.6 billion USD (51.4% of the total amount of the state and state guaranteed debt) in 2013 to 1240.03 billion UAH or 45.6 billion USD (64.3% of the total amount of the state and state guaranteed debt) in 2016 was largely due to devaluation of the national currency to American currency, which during 2014-2016 depreciated by 240.3% (from 7.99 UAH per 1 USD to 27.19 UAH per 1 USD).

The worsening of the debt sustainability of Ukraine is affirmed by the dynamics of the level index of the external debt per person. Over the past nine years, the level of the external debt per person in Ukraine increased by 712 USD and five times exceeds the threshold (see Table 2). Such dynamic growth of the given indicator's value of the debt security is not only due to the increase of the absolute value of the direct and the state guaranteed external debt, but also due to unfavourable demographic situation in the country and the decrease of the population size because of the occupation of the Autonomous Republic of Crimea and Sevastopol.

Therefore, under such conditions, further policy of the active involvement of the borrowings from the international financial organizations, foreign commercial banks and financial institutions, foreign governments and state's securities placement on the international financial markets will lead to further transfer of the debt burden on future generations and as a result – increased social tension in the society.

It is naturally that the dynamic increase of the state debts since 2008 had led to the increase of the expenses on their servicing and repayment.

One of the indicators that shows how burdensome the state debt is for the main financial plan of the state is the ratio of the total payments by the state internal and external debt to the incomes of the state budget.

In particular, by the results of 2016, the ratio of the payments by the state internal debt to the incomes of the State Budget of Ukraine amounted to 27.2% (see Table 2) with the limit level of no more than 30%, which indicates the strengthening of the debt burden on the state budget for the last nine years at 25.3 p.p. and the growth of default threat.

The increase of payments for the state internal debt and, consequently, an increased burden on the budget will be observed till 2031. This is connected with the necessity of the repayment and incomes payment by the Bonds of Internal State Loans emitted in 2009-2016 to attract the financial resources for budget deficit covering, debts implementations, capitalization of Incorporated Bank «Rodovid Bank», Open-end Company «Ukrgezbank», National JointStock Company «Naftogaz Ukrainy», authorized capital replenishment of Public Company «Ukrgridroenergo», Joint Stock Company «Ukrexsimbank», cash assets' redemption by the government (shares of «PryvatBank», bills of the Deposit Guarantee Fund), and other.

Restructuring of the state external debt, which was led in 2015, helped to facilitate the burden on the State Budget of Ukraine to some extent. Thus, by the results of 2016, the index that expresses the ratio of service payments and repayment of the state external debt and state budget incomes amounted only to 6.9%, that is 12.6 p.p. less than in 2014 (see Table 2).

Taking into consideration the calendar of debt payments (which was scheduled before the debt restructuring) the most intense for the system of state financed had to be December of 2015. During this period, payments for Eurobonds had to amount almost 65 billion UAH. According to IMF, total payments for servicing the state debt of Ukraine had to reach 20% of GDP in 2015 [8].

According to State Debt Management Programme for 2017 approved by order of The Ministry of Economy of Ukraine of 31.01.2017, the total payments of the state debt in the current year will amount to 240897.4 million UAH (70% of which – payments for internal debt), or 33% of the state budget income that is envisaged by The Law of Ukraine «On the State Budget of Ukraine for 2017». Thus, the amount of payments of State debt servicing for 2017 is forecasted to be 111.3 billion UAH (or 15.2% of forecasted state budget income) [10; 18].

To characterize the condition of the state debt security in the world practice they also use the index which characterizes the specific gravity of the payments for the state debt in budget expenditures. Thus, by 31.12.2016, the total amount of expenditures for payment and servicing of the state debt amounted to 208.8 billion UAH or 22.4% of all expenditures of the state budget, which is 11.6 p.p. more than in 2015 and 3.9 p.p. less than in 2014.

The necessity to spend more on the state debt servicing from 34.4 billion UAH in 2013 to 97.4 billion UAH in 2016 (or to 183.1%) significantly reduced the possibility of funding other items and the effectiveness of the state budget expenditures in general.

Thus, debt restructuring which was led on 30.12.2015 and which envisaged the wiping of 20% of the total amount of the state external debt off, although facilitated the burden on the state budget for 1015-2018, but it significantly strengthened the burden of the external debt in the long term. Under the agreement with creditors, the government will repay 80% of the nominal amount of the debt and will pay them 7.75% of annual interest for debts during 2019-2027. So, instead of written off 3.6 billion USD, government is covenanted to give creditors 15% or 20% of the nominal GDP growth during 20 years, if the real GDP growth rate will exceed 3% and 4% respectively. According to simple mathematical calculations, the total payments for compensation cost instruments will reach 8.3% billion USD provided that the real GDP will grow during 20 years for 4% and 33 billion USD – in case of annual GDP growth for 5% [3, c. 25].

The conducted research gives the grounds to conclude that Ukraine breaks the criteria of debt sustainability in almost all basic indicators. Moreover, in the last three years, problems of the excessive debt burden have become critical.

Unconsidered policy of the debt financing of the chronic deficit of the State Budget of Ukraine, which was held over the last decade, has led to the immersion of the country into the debt crisis. It displays in the increase of the debt burden to dangerous parameters and, as a result, a high probability of the sovereign default. Therefore, the increase of the level of Ukraine's debt sustainability requires the optimization of not only the debt but also of fiscal and budget policy. In particular, the help to overcome the debt crisis in Ukraine will give: the activation of the structural reforms in the sector of general state management directed to the increase

of the effectiveness of the budget funds disposal; directing the external and internal loans, attracted to cover the state budget deficit, to the financing of the innovative and investment projects; optimization of the currency and term structure of state obligations; tightening the control over the cases of evasion of taxes; reducing the cost of state debt servicing; adoption of the basic law on state debt which would systemize all the regulations of certain legislative acts on management, repayment and servicing the state debt.

Optimization of Ukraine's debt policy needs the development and implementation of integral strategy which will combine the task of improving the regulatory, legal and institutional support of the debt policy, short- and medium-term guidelines of the state budget management, instruments of drastic improvement of the investment component of state expenditures and long-term tasks of re-orientation of debt police, reduction of the debt burden and the development of alternative non debt instruments of the budget expenditures' financing [7].

Only effective management of the state budget deficit and balanced debt policy can provide a solid foundation for steady economic progress and implementation of deep structural social and economic reforms in Ukraine.

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2.3. Debt safety of Ukraine: current state analysis

Modern development of Ukraine's economy is characterized by rapid increase in the public debt. This causes deterioration of debt safety and as a result negatively affects public finances and living standards. Therefore, there is a need to ensure appropriate level of debt safety that will support to socio-economic development of the state. State sovereignty is directly proportional to the level of debt safety, hence, the higher level of debt safety, the more independent the state is.

Problem of debt safety should be considered from the perspective of the public debt-to-GDP ratio (Figure 1).

As shown in figure 1, Ukraine's public debt increased from UAH 473.1 billion in 2011 to UAH 1929.7 billion in 2016. Growth rate of public debt for the past six years amounted to 307.9 per cent that is very negative phenomenon. Herewith, public debt-to-GDP ratio grew from 35.9 percentage points in 2011 to 80.9 percentage points in 2016. In addition, the level of external public debt is much higher than level of internal public debt.

The sharp increase in public debt starting from 2014 and further growth in 2015 and 2016 was influenced by the following macroeconomic factors:

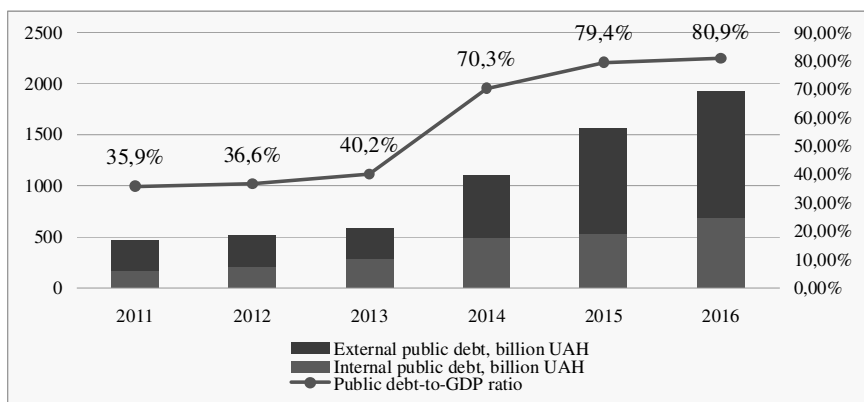


Fig. 1. Dynamics of the public (state) debt and the public debt-to-GDP ratio for the period 2011–2016.

Source: compiled by the authors based on [1].

Note. The public debt including publicly guaranteed debt.

1. Devaluation of the national currency (hryvnia), which level at the end of 2014 amounted to about 200% [2] compared with 2013 that caused increase in external debt in foreign currency as well as debt service relatively national currency. Data in Table 1 show reduction in Ukraine's debt in 2014-2015 relatively foreign currency.

Table 1
Dynamics of public and publicly guaranteed debt for the period 2011–2016, billion US dollars

Indicators	Years											
	2011		2012		2013		2014		2015		2016	
	Fact	Fact	Growth rate, %	Fact	Growth rate, %	Fact	Growth rate, %	Fact	Growth rate, %	Fact	Growth rate, %	
Total public debt	59.2	64.5	+8.9	73.1	+13.3	69.8	-4.5	65.5	-6.2	71.0	+8.3	
Internal public debt	21.7	25.8	+18.8	35.5	+37.6	31.0	-12.8	22.1	-28.8	25.4	+15.0	
External public debt	37.5	38.7	+3.2	37.5	-2.9	38.8	+3.3	43.4	+12.0	45.6	+5.0	

Source: compiled by the authors based on [1].

As shown in Table 1, during 2011–2013 the public and publicly guaranteed debt in dollar equivalent increased but in 2014–2015 certain reduction in total state debt in dollar equivalent was seen. Herewith, this reduction was due to decrease in internal debt; however, total external debt has built up on the contrary that is a negative trend. As internal public debt implies redistribution of funds between generations within the state, while external debt increases total debt commitments on

international arena and worsens solvency of the state concerning external creditors. However, total public debt grew by 8.3% again in 2016 compared with previous year. This growth was due to both internal and external sources. Moreover, internal public debt increased largely than external debt – by 15.0% and 5.0% respectively.

2. The sharp decline in real gross domestic product (GDP) that at the end of 2014 amounted to –12.6% in comparison with –3.5% in 2013. Decline in real GDP was observed in 2015 and 2016 – by 27.7% and 14.6% respectively [3].

3. Reduction in domestic consumption because of inflation (inflation rate amounted to 112.4% in 2016) and increase in unemployment (unemployment rate according to International Labour Organization methodology averaged 9.7% in 2016) [3].

Quasi-fiscal operations have considerable impact on debt burden. These operations lead to emergence of additional debt due to loans under state guarantees. Low development of national economy necessitates state guarantees, which serve as important tool to attract financial resources for investments, in particular in innovative activities and development of IT industry in Ukraine. Nevertheless, it should be mentioned that quasi-fiscal operations contribute to formation of hidden contingent commitments of the government. This reduces transparency of tax and budgetary policy as well as the level of efficient use of financial resources.

Amounts of public and publicly guaranteed debt are represented in Table 2.

Table 2

Dynamics of public and publicly guaranteed debt for the period 2011–2016, billion hryvnias

Indicators	Years						Deviation 2016/2015	
	2011	2012	2013	2014	2015	2016	absolute + / –	relative %
Total public debt	475.2	527.5	585.3	1 113.5	1 645.6	1 931.0	285.4	17.3
Public debt	358.6	411.0	480.1	959.8	1392.4	1651,7	259.3	18.6
Share, %	75.5	77.9	82.0	86.2	84.6	85,5	–	–
internal	161.9	201.4	257.7	469.0	528.5	670,6	142.1	26.9
external	196.7	209.6	222.4	490.8	863.9	981,1	117.2	13.6
Publicly guaranteed debt	116.7	116.5	105.2	153.7	253.3	279,4	26,1	10.3
Share, %	24.6	22.1	18.0	13.8	15.4	14,5	–	–
internal	12.2	16.2	29.0	27.8	21.2	19,1	–2,1	–9.9
external	104.5	100.3	76.2	125.9	232.1	260,3	28,2	12.1

Source: compiled by the authors based on [4].

As shown in Table 2, share of public debt in total public debt is characterized by growing trend and varies between 75.0% and 87.0% while share of publicly guaranteed debt decreased from 24.6% in 2011 to 14.5% in 2016. Herewith, the public debt increased by 259.3 billion hryvnias (by 18.6%) in 2016 compared with 2015. This was due to growth in internal debt by 26.9% and external debt by 13.6% compared to the previous year. Publicly guaranteed debt also increased but to a lesser

extent than public debt – by 26.1 billion hryvnias or by 10.3%. This was due to growth in external publicly guaranteed debt by 12.1% while internal publicly guaranteed debt decreased by 9.9%.

Special attention should be paid to payments on public debt in particular repayment of public debt and expenditures on total public debt service (Table 3).

Table 3

Payments on public debt for the period 2011-2016, billion hryvnias

Indicators	Years					
	2011	2012	2013	2014	2015	2016
Payments on public debt, including	68.8	92.3	114.2	171.8	503.4	207.2
internal debt	47.6	–	65.7	102.7	151.3	–
external debt	21.2	–	48.5	69.1	352.1	–
Repayment of public debt, including	45.6	68.1	79.8	120.8	416.6	111.4
internal debt	32.1	38.0	41.8	68.0	91.2	102.4
external debt	13.5	30.1	38.0	52.8	325.4	9.0
Expenditures on public debt service, including	23.1	24.2	34.4	51.0	86.8	95.8
internal debt	15.5	–	23.9	34.7	60.1	–
external debt	7.6	–	10.5	16.3	26.7	–
Payments on public debt, % of GDP	5.2	6.6	7.8	11.0	25.4	8.7

Source: compiled by the authors based on [4].

As shown in Table 3, payments on Ukraine’s public debt amounted to more than 25.0% of GDP in 2015. It indicates a high level of debt burden on Ukraine’s economy.

Public debt restructuring was carried out by the government of Ukraine in November 2015 aimed at decreasing debt burden [5]. These measures partially reduced debt burden on Ukraine’s economy that can be observed at the end of 2016 when the share of payments on public debt decreased to 8.7% of GDP.

Considerable increase in borrowings and repayment of total debt commitments in 2015 as well as existing negative trends concerning growth in total public debt in 2016 cause concern regarding debt safety of Ukraine. The latter covers the appropriate level of internal and external indebtedness taking into account cost of debt service and effectiveness of use of internal and external borrowings as well as optimum ratio between them sufficient to meet pressing socio-economic needs that does not threaten state sovereignty and its financial system [6].

Many factors affect debt safety. According to this, there is a large number of methods to determine debt safety that comprise different impact factors using certain indicators. To calculate indicators Methodical recommendations on calculation of the level of economic security are used in Ukraine. However, in our opinion, they need adjustment. The methodologies for determining debt safety elaborated by the International Monetary Fund and the World Bank are the most common ones. However, they differ in the number of indicators and their thresholds.

Based on the analysis of different approaches to determination of the level of debt safety we have selected the indicators that to our mind are the most appropriate to describe the level of debt safety (Table 4).

Table 4

Debt safety indicators

No.	Indicator	Threshold
1.	Total public debt-to-GDP ratio, %	<60%
2.	Total external public debt-to-GDP ratio, %	<25%
3.	Total internal public debt-to-GDP ratio, %	<30%
4.	Weighted average domestic government loan bonds yield in the primary market, %	<11%
5.	Ratio of net annual exports and imports of goods and services to external debt, %	<30%
6.	Ratio of official international reserves to total external debt, %	>50%

Based on the data in Table 4, we will determine the state of debt safety in Ukraine in terms of indices (Figure 2–7).

Figure 2 shows upward trend in total public debt-to-GDP ratio. A slight increase in this indicator within 1.0% was observed during 2011–2013. However, political and economic crisis at the end of 2013 and at the beginning of 2014 led to sharp rise in total public debt-to-GDP ratio by 30.0%. Starting from 2014, total public debt-to-GDP ratio exceeded the threshold that significantly impairs the level of debt safety in Ukraine. The situation only gets worse in the following years and total public-to-GDP ratio amounted to approximately 81.0% in 2016.

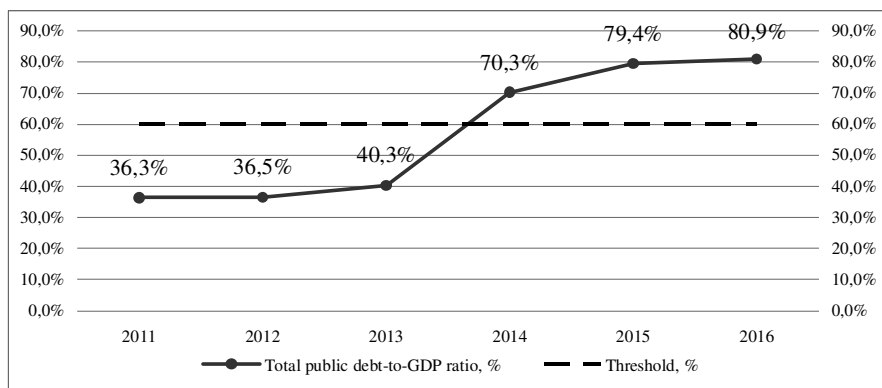


Fig. 2. Dynamics of total public debt-to-GDP ratio in Ukraine for the period 2011–2016.

Source: compiled by the authors based on data provided by the Ministry of Finance of Ukraine and the State Statistics Service of Ukraine.

Total external public debt-to-GDP ratio decreased in 2012 compared with 2011, as seen in Figure 3. However, starting from 2013, Figure 3 shows growing trend and that above-mentioned indicator exceeded the threshold in 2014. A slight reduction in total external public debt-to-GDP ratio was observed in 2016, but it did not significantly affect the level of debt safety.

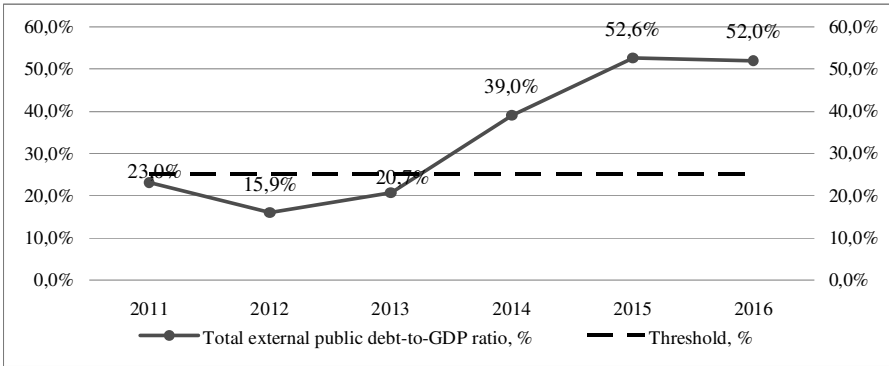


Fig. 3. Dynamics of total external public debt-to-GDP ratio in Ukraine for the period 2011-2016.

Source: compiled by the authors based on data provided by the Ministry of Finance of Ukraine and the State Statistics Service of Ukraine.

Total internal public debt-to-GDP ratio has increased by 15.6% between 2011 and 2016 (Figure 4). In general, total internal public debt-to-GDP ratio was within the debt threshold. The only exception was 2014, when this indicator exceeded the threshold by 1.3%. The indicator was close to the debt threshold during 2015–2016.

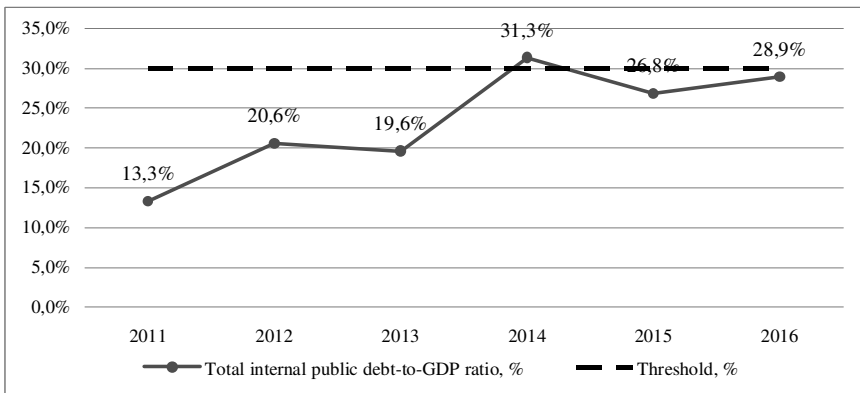


Fig. 4. Dynamics of total internal public debt-to-GDP ratio in Ukraine and its threshold for the period 2011–2016.

Source: compiled by the authors based on data provided by the Ministry of Finance of Ukraine and the State Statistics Service of Ukraine.

One should mention that weighted average domestic government loan bonds yield in the primary market exceeded the threshold; exceptions are 2011 and 2016, when indicator amounted to 9.2% (Figure 5).

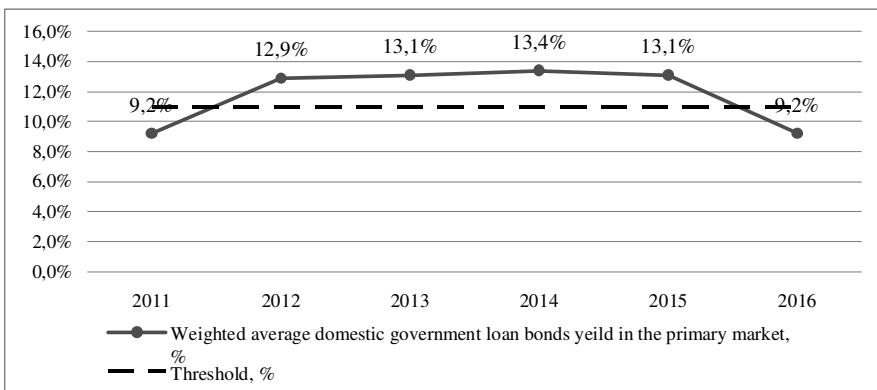


Fig. 5. Dynamics of weighted average domestic government loan bonds yield in the primary market in Ukraine for the period 2011–2016.

Source: compiled by the authors based on data provided by the National Bank of Ukraine.

As seen in Figure 6, ratio of net annual exports and imports of goods and services to external debt increased between 2011 and 2013, as well as starting from 2012 exceeded the threshold. However, since 2014 until 2016 this indicator was below the threshold.

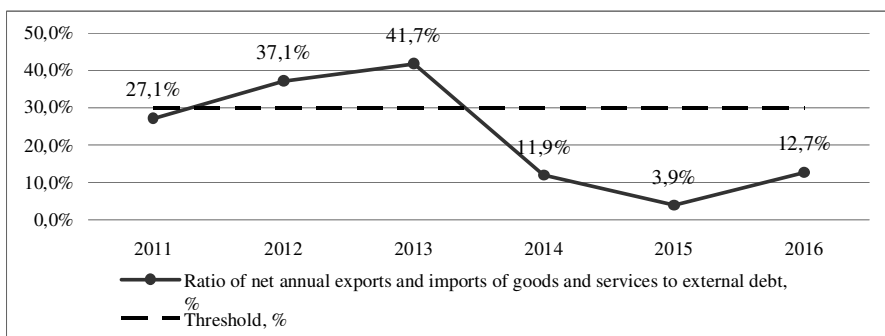


Fig. 6. Dynamics of ratio of net annual exports and imports of goods and services to external debt in Ukraine for the period 2011–2016.

Source: compiled by the authors based on data provided by the Ministry of Finance of Ukraine and the National Bank of Ukraine.

Figure 7 demonstrates a downward trend. This was due to reduction in official international reserves and growth in total external debt. Thus, between 2011 and 2014 ratio of official international reserves to total external debt has reduced by 65.4% and amounted to 19.4% in 2014 that was considerably below the threshold. This indicates high risk to debt safety in Ukraine. The situation slightly improved during 2015–2016 but the threshold was not reached.

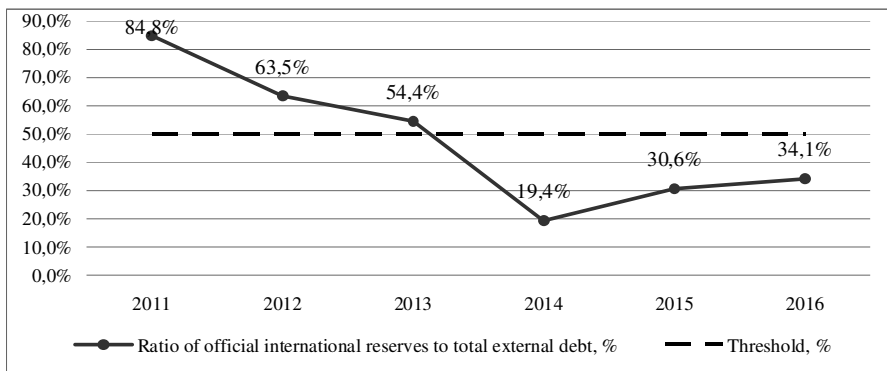


Fig. 7. Dynamics of ratio of official international reserves to total external debt in Ukraine for the period 2011–2016.

Source: compiled by the authors based on data provided by the National Bank of Ukraine and the State Statistics Service of Ukraine.

Therefore, such indicators as total public debt-to-GDP ratio, total external public debt-to-GDP ratio and ratio of official international reserves to total external debt negatively affected the level of debt safety in Ukraine in 2016. In turn, such indicators as total internal debt-to-GDP ratio, weighted average domestic government loan bonds yield in the primary market and ratio of net annual exports and imports of goods and services to external debt promoted debt safety. However, the impact of negative factors is greater than positive ones.

To sum up, Ukraine's deepening debt crisis requires urgent measures. Elaboration of fiscal rules that would restrict the right of the government to borrow funds is the strategic task nowadays. Herewith, to provide efficient use of credit resources it is expedient to invest them.

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2.4. Budget investments aimed at the social programs realization in Ukraine

Under the current conditions it is important to consider the issue aimed at the maintaining of the economic stability, competitiveness and stimulating of the socio-economic development of Ukraine. The main leverage of the economic regulation and the economic growth stimulating is the budget investments. Under the economic crisis, the budget investments play a stabilizing role in the society inasmuch as they lay the foundation for the economic growth and social development. However, it should be noted that in the field of the budgetary investments there is a number of the unresolved issues related to the ineffective action of the budget financing mechanism of the investment activity, likewise the lack of the significant sources of the development budget replenishment at the level of the local budgets, the inconsistency of the budgetary investments amount with the sources of their financing, the suboptimal allocation of the budgetary expenditures on the current and investment ones, the lack of regulation of the budget investments legal framework, the lack of the effective mechanism of the evaluation of the investment projects implementation and their competitive selection [12, p. 206].

The budget investments have specific features and the availability of the investment component in the budgets, by means of which the state participates in the ensuring of the social development and economic growth of the country and its regions.

On the opinion of the academician I. Lukinov, which we share, the investment in the social sector, particularly in the science and education is the most profitable and guarantees the fastest return, laying a confident foundation for the present and future progress. And every country if it is to be the globally competitive should support its scientific, technical and educational potential at an appropriate level [11]. Therefore, considering the nature of the budget investments the investment into the human capital should not be left unattended. T. H. Zatonatska defines that the budget expenditures are the investments from the public and local budgets allocated to the financing of the state targeted programs of the economic, scientific, technical, social development, likewise the programs of the individual regions, branches of economy, financing of the investment projects or acquisition of the proportion of shares or participation rights in the management of the enterprise [6, p. 86].

The main objective of the budgetary investments is to provide the investment development of the real sector of the economy and social sphere. Consequently, the investments into the formation of the system of public services rendering are expected, ensuring a high level of the social and economic development, increasing the material well-being of the population, providing the development of the material and technical base of the social sphere likewise promoting the investment processes and the economic growth in the country.

In our view, taken into consideration the fact that the volume of the budget investments are limited due to the lack of the real resources of financing it is necessary primarily to determine the priorities of the investment policy

implementation with the need to make an inventory of the current budgetary programs and projects to assess their economic and social impact over the long term in order to have a real assessment of the cost efficiency investments.

The social orientation budget investments are the expenditures of the state and local budgets allocated to the financing of the state targeted programs of the social development of the country as a whole, some regions, sectors and areas of the social nature in particular. The state targeted programs, the funding sources of which are the funds of the state and local budgets, referred to as the budget programs and are implemented by using the program-based budgeting method.

To achieve the complementarity of the economic and social development, Ukraine needs to resolve a number of conflicts, including the following: inefficient and over-expensive social sphere; mainly fiscal nature of the social services financing. The first of these contradictions, on the opinion of the experts from the National Institute for Strategic Studies, causes the need in the excessive fundraising for the social needs [17]. This is primarily due to the continuing lack of attention from the government to the problems of the investment in the sphere of production and human capital. This is one of the reasons for the low efficiency of the social development – the insufficient work out of the mechanisms of the targeted social services rendering.

The fiscal nature of the social sphere funding is conditioned by the spontaneity in the developing and implementing of a system of paid services and underdeveloped diversification mechanisms of the provision of services by all segments of the sector. The consequence of this situation is the increase of the financial burden on the state and local budgets under the almost complete lack of control over the targeted use of received budget costs [9, p. 225].

Thereby, as of today the issue to establish the methodological principles of a common coordination system of the social and budgetary policy is of immediate interest. As a part of the system tasks – is to improve the intergovernmental relations towards the increasing of the budget programs social efficiency.

The process of the social efficiency determining is significantly complicated because in the budgeting the various methodological approaches are used at the national and local levels. In particular, at the level of the state budget some elements of the program and targeted method (PTM) are introduced.

The effective indicators are the special component of the budget program, describing the progress of its implementation, the degree of achievement of the goals and objectives of the program budget [13].

The current stage of development of the budgetary relations in Ukraine is characterized by the growing role of the public spending in the management of the socio-economic development of the country and its regions. In our country every year about 20% of the state budget is spent on funding for the program «Social protection and social security in Ukraine», but the current system of the social protection, especially of benefits and subsidies do not provide an adequate level of support for the most disadvantaged groups, despite of the increase in the share of the budget expenditures for the noted needs. The chronic shortage of funds for the social protection and social security is explained primarily by the fact that the current

system of benefits in Ukraine is financially unreasonable, that it is not aimed at protection against poverty. Besides, the lack of the adequate amounts of the financial resources one more reason for the failure of the social support programs are the drawbacks in the methodology of their development. Therefore, the available programs and the real order of their financing do not perform the functions of the public expenditure rationalization and the efficiency increase [9, p. 224].

It should be noted that the expenditures on the social development should ensure the solving of the economic development issues in the future. For example, the implementation of the retraining programs for the military retirement public employment services contributes to their social adaptation to the market conditions and as a result, improving the social status of the latter. Also it is shown that the investment into the human capital is a highly effective contribution into the development of the society and the economy as a whole. However, today in Ukraine the all social costs are directly focused on the consumer financing needs, particularly the increase in the social benefits and a gradual increase in the minimum wage. In the process of the budget expenditures formation for next year the main efforts of the state are aimed mainly at solving of the current problems without the sufficient assessment of the impact of such decisions on the future economic development.

Every year the volumes of the budget programs financing aimed at the developing of the social sphere in Ukraine increase. It is impossible to consider all the budget programs as the social because of the large number of them, however, it is appropriate to consider the budget programs under the specific areas of the social services, the volume of financing for which in 2015-2016 was the greatest. For example, in the health care, among the budget programs to promote the development of the industry, the following program should be noted: «State health and epidemiological surveillance and disinfection measures», the amount of financing within the 2015–2016 was 1,722,300,000. UAH. – 1,734,100,000. UAH., likewise the budget program «Diagnosis and treatment with the introduction of the experimental technology in clinics of the research institutions» the funding of which increased in the time period 2015–2016 from 915.3 million UAH. to 1,165,900,000. million UAH. Often the manager of funds for the implementation of the budget programs in the health sector is the Ministry of Health of Ukraine. In 2016 with the introduction of the medical subvention from the state budget to the local ones, the largest amount of funds on it from the main manager of the Ministry of Health are were allocated – 46.2 bln. UAH. Over the analyzed period 2015–2016 among the all budget programs on promotion of the spiritual and physical development in Ukraine the following ones should be highlighted: «The production of TV programs for the state needs» with the volume of financing in the amount of 605.8–576.3 million UAH in different years and «Financial support of theaters» which was funded in the amount of 345.7 million UAH in 2015 and 390.6 million UAH in 2016. It is noted that among the all budget programs aimed at the social development in Ukraine the financing of events in the sphere of the mental and physical development is the lowest.

The budget programs conducted in the field of education are generally associated with the personnel training and retraining in the higher educational

establishments of I-IV accreditation levels for the specific sectors of the economy and social sphere. In particular, for the period of 2015–2016 the highest volume of funding was allocated to the budget program «Personnel Training by the higher educational establishments of I-IV accreditation levels» in the amount of 11,001.2 – 17707600000 UAH, the main manager of funds for which is the Ministry of Education and Science of Ukraine.

In the area of the social protection and social security of the population in Ukraine in 2015–2016 the largest amount of funding was allocated to the program «Grants for the Pension Fund of Ukraine on the military pensions, pensions, allowances and increases to pensions for different pension programs» (63162.1 mln. UAH) and «Covering the deficit of the Pension fund of Ukraine to pay pensions» (31,875,100,000. UAH.).

In 2016, 548 state budgetary programs were carried out that is 74 programs less than in 2015. 17 budget programs were approved by the Law of Ukraine «On State Budget of Ukraine» totaling 5.4 billion. UAH were never funded. Mostly – from 90.0% to 100.0% 406 budget programs were funded or 74.1% of the total approved [2, p. 51].

It should be noted that the constant increase in the budget investments in the social sector is not a guarantee of the effectiveness of implementation of the budget programs to promote the social sphere. The most revealing indicator of the budgetary investment resources use is to assess their effectiveness.

The efficiency is the ratio of the result of certain conducted actions to the costs on their implementation. A positive figure will indicate the actual performance and negative – the ineffective activities. Several authors tend to believe that from the standpoint of the state fiscal policy in the social sphere the efficiency should be understood as the social effects of the budgetary services provision [7, p. 8].

We believe that the most practical measure that allows to assess the social impact of the implementation of the budget programs in the social sphere is the quality and standard of living.

In the world practice to analyze the living standards the following indicators are used: the quality of life index and the human development index of [16, p. 71].

The standard of living in Ukraine is determined by the following factors:

- the state of human development (human development index);
- poverty level;
- level of income and expenses of the population;
- salary;
- pensions provision;
- social assistance.

Let's consider these figures consistently.

The world countries are divided into the following categories: HDI (human development index), with extremely high levels of development (42 countries), high level (43 countries), with the average development (41 countries) and countries with low development (41 countries). Ukraine occupies 69 place [19].

Human Development Index in each of the 169 states is calculated based on:

- health and longevity, measuring life expectancy at birth;

– access to education, measuring the level of literacy of adults and total gross enrollment ratio;

– a decent standard of living, measured values of the gross domestic product (GDP) per capita in US dollars at purchasing power parity (PPP).

The report on Human Development 2014 includes a new indicator of gender inequality measuring that takes into account the level of the maternal mortality and the presence of women in parliament. The report also introduces a multidimensional poverty index, which assesses poverty not only because of the level of income, but also takes into account the multiple factors at the household level – from the basic living standards – access to schooling, clean water and medical care. Due to the methodological refinements in the HDI calculating formula the ranking of the countries in 2014 is incompatible with the ratings in the previous reports [18, p. 1–2].

In terms of the health and longevity Ukraine ranks 104 place, while the life expectancy in 2014 increased from 68.2 years to 68.6 years. It is the greatest in the countries with the highest HDI: Japan – 83.2 years, Hong Kong – 82.5 years.

In terms of the access to education Ukraine took 17th place with an average duration of 11.03 years of study. Index of education in Ukraine – 0.795, while the world – 0.436, i.e. Ukraine exceeds its 1.8 times. In terms of the decent living standards or gross national income per capita at purchasing power parity (PPP) in USD Ukraine occupies 90th place (with indicator 6535 US dollars.) [19]. Its worldwide figure is 10,631 US dollars (PPP), which is 1.6 times more than in Ukraine.

Thus, the relative growth of the human potential in Ukraine is accompanied by the deterioration of the vocational qualification structure of employees. The destruction of the high-tech and the dominance of the low-tech industries cause a decrease of the employment in science, the emigration of the highly skilled engineers and technicians and increase of the low-skilled labor of the simplest trades' representatives.

Under the international standards, the poverty line – \$ 2 daily expenses per person or \$ 60 per month. Poverty limit – \$ 1.25 daily expenses per person or \$ 38 per month [8].

In Ukraine, the poverty line is 1,378 UAH per month, which is at the current rate in December for about \$ 1.8 daily cost per person. In many countries, the value of the subsistence minimum equals to the minimum wage. In 2009 Ukraine joined these countries [1]. According to the European Sociological Service «Eurobarometer» below the poverty line there is about 78% of the population of Ukraine. Proportion of the population with the average per month total return below the subsistence level for 2015 increased compared to 2009 by 2.5 times and amounted to 54% [4].

The next indicator – incomes of population – a collection of resources and costs to maintain the natural expression of physical, moral, economic and intellectual human condition [15, p. 61]. According to the State Statistics Committee of Ukraine in 2010, compared with the previous year, the nominal income increased by 19.6%. The disposable income, which can be used for purchase of goods and services increased by 20.4% and real disposable income, taking into account the price factor –

by 11.0%. The basic state standards in the sphere of population income is the subsistence level [3], in particular per month per person. Based on the consumer basket the subsistence level was calculated, which is also the poverty line.

It is stated in the ILO Convention № 117 «On the basic aims and standards of the social policy»: «In determining of the subsistence level the following basic needs of the families of workers are taken into account: foods and their calories content, availability of the place of residence, clothing, medical care and education» [8].

The dynamics of the changes to the family budget for 2008–2015 indicates that over the years food prices have increased four times. Moreover, their growth was the highest on those products which are often eaten by the average Ukrainian. The peculiarity of the price of food products is that their prices in Ukraine are equal to or even higher than the prices in the countries like the United States or Spain. It should be considered that the minimum wage in Ukraine set on January 1, 2015 – 1378 UAH. At the same time, it is 600 euros (about 16,000 UAH) in Spain or 1,560 dollars (37,480 UAH) in the US.

The minimum wage is set in 20 out of 27 EU countries, with the exception of Denmark, Sweden, Finland, Germany, Italy, Austria and Cyprus. The average monthly (nominal) wages in Ukraine for the 2015 – 3871 UAH (about 150 euros).

There is a significant difference in the wages of employees of the various types of economic activities and regions. Attention is drawn to the fact that the largest wage levels each year occur in the services sector (financial, transport, media, etc.), but not in the sphere of material production. This indicates the growing importance of services and their gradual domination in the national production that characterizes the formation of the principles of post-industrial economy, the environment of the fullest realization of the human potential.

The highest salaries are paid to the employees of the air transport and financial institutions engaged in the production and processing of oil extraction in the field of fuel and energy minerals. The level of wages in these economic activities exceeded the national average by more than 2 times.

One more indicator that characterizes the level and quality of life is the quality of the life index. This is a complex index, which shows the level of the social development achieved by the country. It is calculated under the specific criteria on a 100-point scale. These criteria include the cost of living, culture and leisure, economy, environment, freedom, health, infrastructure, risk and security, climate [16, p. 71].

Under the experts' assessment as of today the quality of medical services in Ukraine does not meet the requirements. Thus, the infant mortality rate is 2.5 times higher than in adults and 1.3 times higher than in the «new» EU countries. The level of the premature mortality is 3 times higher than in the EU (648 vs. 220 cases per 100 000 people). The death rate from tuberculosis in Ukraine is more than 21 cases per 100 000 people, while in the EU – 1.1 case per 100 000 citizens. In Ukraine, the highest in Europe, is the natural population decline (4.4 per thousand in 2010). We cannot speak about the reproduction of the human abilities if there is a dying population. Therefore, the crucial task of the social policy today –is to stop the depopulation.

Disparities are also evident in the fact that 80% of the health care consumes 20% of the most affluent and healthy citizens, and 80% «poor and sick» is only 20%. Because of the high personal spending on the health care services 18.5% of people in general cannot receive the necessary medical care.

According to the Committee to Fight HIV, AIDS and other socially dangerous diseases of the Ministry of Health of Ukraine, the country's daily recorded 48 cases of HIV infection. That is, the annual number of HIV cases increased by 10%. The Representative of UNDP in Ukraine said that the official statistics do not reflect the country's reality, because 7 out of 10 HIV-infected people do not know about it. In fact, we can speak about 360 thousand infected annually, indicating that the country has the most active and fastest growing of HIV in Europe.

The number of registered unemployed as of January 1, 2016 amounted to 490.8 thousand people (including 276.8 thousand of women, 214 thousand of men and 207.1 thousand of people who live in rural areas) or 30.7% of unemployed people of working age, defined by the ILO [10]. The process of polarization of the former egalitarian society was added to the above noted, which is characterized, on the one hand, by the rapid concentration of the assets and property in the hands of a few groups of population and on the other – a progressive increase in the poverty and deprivation of the broad layers of population.

The main characteristic of the social differentiation is a decile coefficient of differentiation, which shows how many times the minimum income of 10% the most affluent segments of the population exceeds the maximum income of 10% the poorest ones [5, p. 294]. In Ukraine in 2015 the decile coefficient of differentiation was 32.7 [14], although its importance should not exceed 6. Although poverty in the country appeared not today and is not only the result of the transformation crisis and failures of the reforms implementation, it is now has become one of the most important factors in the formation of the social tensions and social instability in society, the rapid decline in fertility, increasing of immigration, including illegal, ill health and increased mortality, intensification of the depopulation processes.

Thus, among the priority objectives of the reforming of the practice of performing of the expenditures of the state and local budgets for the social purposes is to improve the evaluation procedure of their effectiveness. It should be noted that the algorithm of the budget expenditures assessment should not be identified with the assessment of the budgetary programs, inasmuch as the latter provides the calculation of the costs indicators. They mainly characterize the expenditures as a whole or per one unit of account. Therefore, determining of the budget expenditures effectiveness through the identical indicators is nonsense. In addition, the Guidelines for the assessment of the economic and social effectiveness of the state targeted programs fulfillment provide the calculation of the integrated index of the program activities financing and the co-financing indicator which assess the attracting of finance from the non-budget funds and resources of the non-state actors to implement the budgetary programs and is inadequate to determine the effectiveness of the expenditures. Thus, the assessment of the expenditures for the social purposes should include the formation of a separate set of the indicators that would objectively characterize the effect of their implementation. These parameters should be defined as the following:

– index of performance that characterize the product scope (effect) per unit cost (number of pupils graduated, the number of patients treated, etc.);

– performance indicators that define the relationship between the desired (expected) product and the expenditures made (the number of pupils graduated with an average score of 7 or higher, the number of patients with sustained treatment effect and etc.);

– quality indicators that measure the parameters of the social indicators per unit of the expenditures made (change of the scope level of education, the burden of disease on a certain types of illnesses and others);

– indicators of correspondence to the social needs or sociological evaluation indicator value per unit costs (population self-assessment of the quality and availability of a certain type of education, health care and so on).

It is obviously, that this list may include the indicators of the multidirectional orientation, which are different in content, units of measurement which can take both quantitative and qualitative expression. Therefore, to ensure their comparability, in the process of determining of the effectiveness of the social expenditures it is expedient to use not absolute, but relative parameters of the mentioned indicators, calculated by comparing their actual and normative values. In this case, the calculation will include the indexes that can be easily compared. It is clear that the normative value of the indicators is a kind of the ideal that can only be achieved under the most favorable conditions.

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2.5. Social aspects of mortgage lending

In a market economy, mortgage lending is one of the most effective tools to stimulate social and economic development of society. It promotes the growth of investments in promising sectors of the economy, stimulates the construction industry and real estate market, helps to find solution to the issue of housing provision as well as to alleviate social problems. Mortgage lending has a strong potential for economic development and transformation of real estate into the capital that works and helps borrowers to obtain housing and implement innovative projects, whereas creditors benefit from it by getting income with less risk [1, p. 12].

The economic nature of the mortgage lending is viewed in different ways. Notably, in scientific sources mortgage credit is often viewed as credit on housing. However, the term mortgage lending is much broader. The fundamental feature of the mortgage loan is that it is provided to the borrower in the long term on the security of real estate [10, p. 24], while intended use of borrowed funds may be different. Typically in most cases, mortgage loan is used for construction or purchase of real estate, and improvement of living conditions. However, its object may include not only housing, but also commercial property, land and even consumer needs.

Given the multidimensional nature of the mortgage as an economic phenomenon in the scientific literature there is quite a wide range of features of the classification that reveal the specifics of this kind of loan, its social purpose and features of inclusion. In particular, L. Ilchenko-Siuiva classifies mortgage loans by: subject of mortgage (housing, land and commercial real estate mortgage); time criterion (the first and subsequent mortgages); and the number of secured collateral assets and mortgagors (joint and combined); legal basis (Anglo-Saxon and Romano-Germanic) [6]. According to G. Kaletnik, in the commercial real estate mortgage it is

necessary to single out unitary property complex mortgage [8, p. 58] as an integrated totality of land and production facilities located on it. O. Zavydivska adds to these classification features of mortgage loans also the types of lenders and borrowers, interest rate type, method of payment, the grounds of emergence, opportunities for early maturity, quality, goals and purpose. For this purpose O. Zavydivska suggests to differentiate mortgage loans into the social (housing) and revenue (land, commercial); and by type of borrower into loans to developers, builders, future homeowners, employees of the bank and its corporate customers [5, p. 117].

Despite the variety of approaches to differentiation of mortgage credits it can be noted that most of these classification features emphasize the economic assignment of mortgage, or indicate the peculiarities of its design or redemption, whereas the social aspects of mortgage lending are not included. In our opinion, it is advisable to take signs, such as purpose, type of lender and payment while considering sociocentric classification of mortgage credits.

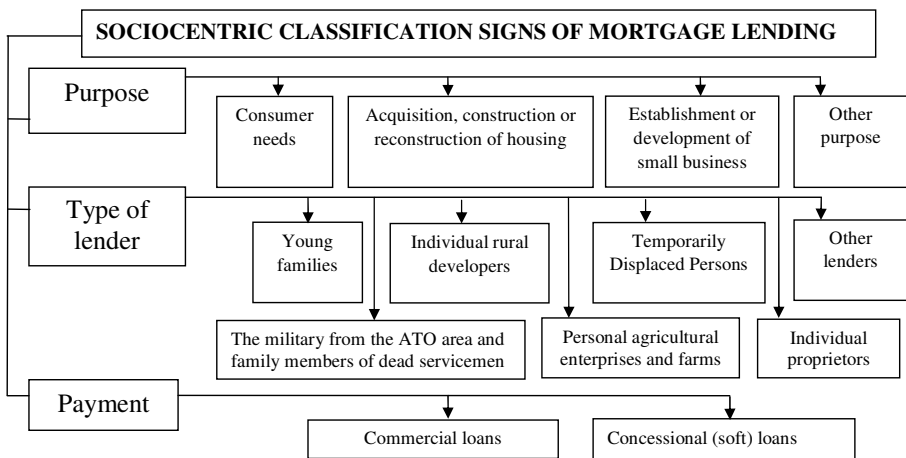


Fig. 1. Sociocentric classification signs of mortgage lending.

According to the first feature, mortgage credits can be distinguished by loans for consumer needs, the acquisition, construction or reconstruction of housing, loans for the establishment or development of small business, and mortgage loans of other purpose (it is advisable to include in this group mortgage credits involved by commercial structures in the production development or with a speculative purpose). It is advisable to differentiate mortgage lending by the type of borrower in view of certain categories of population, to which special rules for granting loans are applied (young families, individual rural developers, etc.) and other borrowers that get loans under normal procedures. Mortgage credit serviceability feature is complementary to the type of borrower.

Credit for the purchase, construction or reconstruction of residential real estate holds leading position among the spectrum of mortgage loans. It is one of the most

effective means of influence on the level of social welfare, because it allows to satisfy the need for housing that Maslow's hierarchy of needs relates to basic human needs. Lack of comfortable living conditions and their effective means of ensuring makes impossible normal functioning of individual, hinders demographic activity of the population, aggravates social tension and, consequently, slows down economic development of state [9, p. 86]. Indicators of implementation of housing needs of the population belong to the leading indicators of living standards and at the same time determining factors that shape the level of social stability. Thus, housing loans play an important social role, because, according to O. Yevtukh, they act as a financial mechanism that provides real estate redistribution in the public interest [4, p. 16]. Therefore, O. Yevtukh defines the principle of sociality as one of the basic principles of mortgage lending, which means that such loans should be available to the general public.

According to L. Ilchenko-Siuiva, social purpose of mortgage loans should not be reduced to the welfare of the population that has improved living conditions through credit, and to consider it more globally, as an acceleration of state economic growth by enhancing construction. According to experts, each hryvnia invested in the construction industry provides a GDP growth of 2.5–3 hryvnias, and every job created in construction, creates 5–6 additional jobs in related industries. [6] Thus, the synergistic effect of the economic development of mortgage lending is much higher than the growth rates of residential or commercial real estate.

Mortgage lending also serves as a tool for the implementation of social policy. Traditionally, the forms of state support for mortgage lending are granted in varying degrees to such categories of citizens as families of many children and young families, rural residents and other persons in need of better living conditions. In recent years, because of foreign aggression against Ukraine and occupation of the part of the country new categories of the population were added to this list. In particular, one of the consequences of foreign aggression was the emergence of a new social class that requires attention from the state, namely temporarily displaced persons, which makes, according to various estimates, from 1.6 to 2.5 million people. Most of these citizens due to their lack of financial capacity are not able to solve the problem of acquisition or construction of housing, and so the use of instruments of state support is an objective necessity. In 2016 the right to preferential housing loans was extended also to the military from the ATO area and family members of dead servicemen.

In Ukraine to address the housing problems of privileged categories of the population the state provides the use of a wide range of financial instruments of state support, mortgage refinancing bank loans, partial compensation of interest rates on mortgage loans for the purchase, construction or reconstruction of housing; preferential mortgage lending of population by means of the budget through the State Fund for Youth Housing, etc. [3, p. 28]. However, due to lack of funding, inconsistent government policy on housing loans and other factors the impact of their use is ambiguous. In conditions of growth in the budget deficit the financing of programs relating to preferential mortgage lending was first to be cut down on. Delays in transfer of the budget for the program of partial compensation of loans for

housing put borrowers in a difficult position, because they were forced to decide themselves how to fully implement their commitments to the banks on their loans. It became an important demotivating factor that turned most potential borrowers away from participating in public housing loans programs. Because of these drawbacks, most national programs of preferential mortgage lending failed, and their results were not achieved. Moreover, the government has shown itself as an unscrupulous partner, thus reinforcing mistrust of society to solve the housing problem through participation in targeted government programs.

In modern conditions bank lending to housing for young families has practically stopped. The main reasons for this is the high risk of this type of loan, the prohibition of foreign currency lending and the lack of long-term hryvnia resources in banks. It is clear that during the high risk of devaluation and the deepest crisis of banking system for the whole period of independence the proportion of long-term deposits fell sharply. At the same time, housing mortgage loans in most cases has a long-term nature, and therefore its financial resources are long-term deposits, to be precise. As for the ban of foreign currency lending, it is a direct consequence of the population debt crisis on foreign currency loans that persists to this day. Given these factors, we tend to associate the activation of bank mortgage lending primarily with the stabilization of economic situation, lower inflation and interest rates on loans, an increase of the population trust in the banking system.

Given the inadequate funding and the difficult conditions for obtaining mortgage loans, experts ambiguously evaluate housing lending programs implemented by state banks for ATO servicemen and settlers from the occupied territories. According to O. Petriaieva mortgage housing conditions for displaced persons are not feasible for most immigrants, because they require a high level of current income. At the same time, the interest rate proposed by «Oshchadbank» on such loans at 20% per annum, is excessively inflated, as a consequence of its use will be multiple increase in the total amount of payments for a credit. The argument for this conclusion is the fact that the cost of conventional (non-preferential) mortgage loans in foreign European countries ranges of 3–10% per year [11].

A type of mortgage lending such as loans to small businesses secured by their real estate also has dual purpose. On the one hand, these loans are attracted for economic reasons, because they are usually intended to finance the development of small business, replenish its working capital and other business needs. On the other hand, in Ukraine, as well as in foreign countries with market economies, small business plays an important social mission, providing more than 2/3 of employed citizens. Taking this into account, mortgage lending for small businesses is rightly considered as one of the ways of solving the problem of working population unemployment, poverty reduction and the middle class establishment.

An important factor that impedes the development of this type of lending is a conflict of interests of the lender and the borrower: on the one hand, most entrepreneurs need resources mostly in the first year of operation of their business, and lack of funds is the reason for the closure of more than a third of all newly created small enterprises within a year of the establishment date; On the other hand, due to relatively high-risk lending to small business banks are interested in providing

loans primarily to small businesses that has already been operating for a certain time (a year or more). The use of instruments of state support of small business loans (development of loans guarantee schemes, concessional financing of banks, partial repayment of interest on loans, etc.) makes it possible to solve this problem.

Social component of mortgage lending is especially notable in giving loans to personal agricultural enterprises and farms. As noted by R. Sabluk and A. Voitiuk, more than half of the working population in rural areas are engaged in small forms of economic activities, and more than a third of people of working age have no regular work [14]. Therefore, the development of rural businesses, including the intensification of mortgage lending helps improve the social and economic situation in rural areas and decrease the acute problems of unemployment and poverty in rural areas.

The development of mortgage lending to small agricultural enterprises in addition to general reasons (low profitability loans, high risk, high transaction costs, etc.) is impeded by specific factors, primarily by the lack of a full-fledged market of agricultural land. Long-term moratorium on purchases and sales of such land hinders the establishment of objective prices, which directly affect the terms and conditions of the mortgage lending. According to experts, due to the absence of land market the farmland rental charge fees are understated 10–11 times, and the rural economy annually loses billions of dollars of investment [13]. It is obvious, that the launch of the land market and establishing objective prices will allow small and medium farmers to get mortgage loans secured by land on more favorable terms, and thanks to this market, improve the quality of equipment and technology, thus increasing productivity efficiency. As the foreign practice shows only in the first year after lifting the moratorium on sale of land one can expect annual growth of its cost by 20–40% [2].

Moreover, due to lack of liquid collateral in the form of land owned by farms, banks are focused on short-term loans at high interest rates. This forces farmers to concentrate on the development of the types of agricultural production, which are characterized by short production cycles and high profitability. The negative consequence of this is the existing imbalances in the agricultural sector where rapid progress in cropping combines with the gradual decline of livestock.

Another negative consequence of years of moratorium on sale of agricultural land is that during this period more than 1 million of land parcel owners died leaving no heirs, and while still alive had not been able to exercise their right to free disposition of property. Currently 1.6 million of land parcel owners, or more than 23% of the total population are persons aged above 70. Being the owners of land parcels, these citizens are deprived of the opportunity to sell, take a mortgage loan secured by these parcels, or otherwise improve their financial situation. The lack of agricultural land market, in addition to the negative effects of an economic nature (suppressing the mortgage market, investment in agriculture, etc.) has a significant negative impact on the wellbeing of a large part of society.

An important feature of the classification of mortgage loans that characterize their social purpose is the payment criterion. In our view this feature rightly divides mortgage credits into commercial loans and concessional or soft loans. The first

group includes «normal» commercial loans secured by real estate, issued by banks to business entities and individual borrowers. For example, according to «Prostobank Consulting» company at the end of 2016 mortgage loans for home purchase in the primary market were issued by 14 financial institutions, while the average rates on loans ranged at 10.0% for loans with a term of 30 years, and up to 23.1% for 5-year loans [7]. However, soft loans can be considered as such only when their interest rate is much lower than the market average, or is not applied at all. Among them are mortgage loans for government programs to stimulate housing for certain categories of people (young families, military personnel from the ATO area and others) [12].

The most important drawback of concessional lending is that it usually involves passing the complex bureaucratic procedures of coordination and formation of a broad package of documents. Thus, despite the overall rational idea of the use of tools of state regulation to increase the availability of mortgage loans, an important drawback of this practice is preservation of a corrupt environment, since the decisions on granting or refusing the applicants in obtaining preferential loans are taken in «manual» mode. Along with this, some experts rightly think that the mechanism of reduction of mortgage loans is nothing but a «transfer» of funds from the state or local budgets to the bank owners.

Summarizing the research, we can state that mortgage lending is one of the most effective tools of regulation of economic development and addressing social problems. However, its effectiveness depends largely on the consistency of government policy in this area, as well as the overall macroeconomic situation in the country.

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2.6. The utilization of privatization receipts as part of budgetary policy in Poland

Privatization was one of the essential elements of the transformation of the Polish economy, as the economy dominated by state-owned enterprises, with over 80% of GDP generated in the state sector, was characterized by very low productivity. The competitive mechanism could not function in a public sector, resulting in poor quality of manufactured products and a very low level of innovation in the whole economy. The absence of a normally functioning market mechanism despite unsuccessful attempts to replace it by central planning, has led to permanent shortages in both the retail sector and raw materials as well as means of production in industry. The private sector, marginalized for ideological reasons, and operating on the periphery of the state economy, was faced with numerous barriers, including permanent lack of raw materials and unfriendly, repressive administration. This in turn effectively limited its development potential and prevented the normal economic mechanism from being activated also in this sector. In agriculture, where private arable farms were the basis of ownership, state arable farms had priority in every possible manner and in particular in case of the allocation of increasingly rationed, means of production.

In this situation, the privatization of state-owned enterprises, restoring classic, market-based economic mechanism, was of paramount importance.

The basic act regulating the processes of ownership changes in the sector of state-owned enterprises was the Act of July 13, 1990 on the privatization of state-owned enterprises, replaced in 1997 by the act of 30 August 1996 on the commercialization and privatization of state-owned enterprises¹ whose name was changed in 2003 to: Act on

¹ The law went into force on April 8, 1997, with some of its provisions in force since October 22, 1996.

commercialization and privatization. There were also many other acts applicable to particular privatization introductory processes, which regulated or clarified the way of ownership changes in selected areas (e.g. municipal enterprises) and sectors of economy and even specific companies, but also defined the competence of some governing bodies and local authorities in the field of privatization.

The Ministry of Privatization was the main ministry responsible for privatization, and after its liquidation on October 1, 1996, its function was taken over by the Ministry of Treasury, which ended its activities on December 31, 2016, although other ministries also supervised and privatized some companies. The process of privatization of small and medium-sized enterprises, under the supervision of the Minister of Privatization / Minister of Treasury, was conducted by provincial governors (voivodes). After the activity of the Ministry of Treasury ended, the supervision of non-privatized companies was divided between the Deputy Prime Minister and other ministers.

Two basic methods were used in the Polish privatization model: direct privatization (initially referred to as liquidation privatization) and indirect privatization (originally referred to as capital privatization), although the different approaches adopted under these two main methods allowed for a considerable degree of flexibility and adaptability to specific needs of different companies.

Indirect privatization consisted of transforming a state-owned enterprise into a one-man state-owned company (joint stock or limited liability company) and then selling its shares to private investors. In the later period, privatization was also understood as increasing the share capital of one-man state-owned companies, as a result of which their shareholders, along with the Treasury, also became private investors. Indirect privatization was used to privatize large and very large enterprises.

The privatization of small and medium-sized enterprises involved the use of direct privatization as a result of which the legal personality of the privatized enterprise was liquidated and its property was sold to private investors, and used to raise the share capital of the existing private company or leased to a company formed by employees of the privatized enterprise.

Other processes also leading to the privatization of state-owned enterprises (or their property), although not aimed at achieving this goal but the clearance of economic space from enterprises unable to adapt to the new market economy, involved the liquidation of enterprises under the Act of September 25, 1981 on the state-owned enterprises (Article 19) and bankruptcy under bankruptcy law. As a result of these processes, the entire liquidated enterprise (bankrupt) or parts of its individual assets were sold to private investors, which meant privatization of these enterprises. However, the liquidation of a state-owned enterprise could only be performed in a situation when the enterprise's assets were at least sufficient to cover its total debt. Otherwise, bankruptcy law would apply. More often than not, it meant, the end of the liquidation and the opening of the bankruptcy proceedings because the debt of the enterprise exceeded the market value of its assets¹.

¹ For example, as of December 31, 2009, out of 1923, commenced liquidations in 683 cases there was a necessity to open the bankruptcy proceedings. There were also cases where the bankruptcy proceedings were opened immediately [4, 2009, p. 19].

A specific privatization process, regulated by a separate act, was the so-called General Privatization Program, in which shares of 512 one-man state-owned companies were transferred to the National Investment Funds created for this purpose. Adult citizens received special certificates, exchanged subsequently for shares of National Investment Funds.

According to the Central Statistical Office, there were 8453 state-owned enterprises at the beginning of the privatization process.

Table 1

Number of state-owned enterprises subject to ownership transformation processes (as of 31 December 2015)

Privatization method	Number of transformed enterprises
Commercialization	1756
Indirect privatization	543
General Privatization Program	512
Direct privatization, including:	2308
– sales of enterprises	586
– transferred of property to a private company (rising its share capital)	253
– leasing	1402
– mixed methods	67
Liquidation (Article 19)	1939

Source: Ministry of Treasury data.

In case of direct privatization and liquidation, the data in Table 1 refers to the processes already initiated. By 31 December 2015, 1175 processes of liquidation of state-owned enterprises and 2222 processes of direct privatization were completed [3, 2015, p. 8].

Commercialization is the initial stage of ownership transformation of large state-owned enterprises, consisting in transforming them into one-man state-owned companies. The number of indirect privatization processes and companies transformed in the framework of General Privatization Program listed in Table 1 refers to companies that have already been commercialized. As a result of the commercialization process the companies changed their ownership status also using other methods.

Table 2

Transformations of commercialized enterprises (as of December 31, 2015)

Conversion method	Number of transformed companies
Indirect privatization	543
General Privatization Program	512
Companies transformed to local authorities (communalization)	73
Increase of share capital	18
Banking settlement proceedings	127
Companies with creditors (creditors took over the share packet)	17
Other	28

Source: Ministry of Treasury data.

In the process of communalization, the Ministry of Treasury distributed free shares of companies to local authorities, provided that the activities of these companies were connected with the fulfilment of the tasks of local authorities aimed at meeting the basic needs of local communities.

Both banking settlement proceedings and take – over of share packets in companies by creditors were support programs, among others for one-man state-owned companies in a very difficult economic situation. In the case of banking settlement proceedings, the process was initiated by the bank, and the result could be an agreement between the debtor and the creditor regarding the grace of debt, the remission of part of the debt, but also the conversion of debts to shares of the debtor taken over by the creditors. Another way of supporting debtors was taking over their shares by creditors in exchange for giving up their financial claims. In both cases (bank settlement proceedings and debt swaps), the result was a change in the ownership structure of the debtor, thus, apart from the state owner of shares, new private investors – creditors of indebted companies appeared.

As a result of the ownership transformation process as of 31 December 2015, there were 41 state-owned enterprises, 19 of which were engaged in business activity (the remaining ones are in liquidation process or bankruptcy proceedings) [3, 2015, p. 5].

In the supervision of the Minister of the Treasury, 206 companies with the State Treasury's shares were active, including¹:

- 87 one-man state-owned companies,
- 29 companies with a majority shareholding in the Treasury,
- 90 companies with a minority shareholding in the Treasury.

In addition, among 217 other companies under the supervision of the Ministry of Treasury²:

- 73 liquidation processes were conducted,
- 68 bankruptcy processes were conducted,
- 76 closed the business.

By 1997 privatization receipts were included in state budget revenue, which meant that they contributed to reducing the budget deficit. So they were not allocated, as a result of the principle of unity of the material budget, to the financing of specific tasks carried out from the budget, but intended to cover the overall budget expenditure³.

The budgetary revenue presented in Table 3 does not include receipts from privatization to maintain comparability with data for subsequent years, and to illustrate the actual ratio of privatization receipts related to budget revenue.

The share of privatization receipts in the budgetary revenue in the period under review has steadily increased, and their upward trend has also been shown in relation to GDP⁴. Over the period considered, privatization receipts would be sufficient to

¹ Ministry of Treasury data.

² Ministry of Treasury data.

³ Although article 2 par.1 of the Act on privatization of state-owned enterprises stated that «At the request of the Council of Ministers, the Parliament shall establish annually the basic direction of privatization and determine the allocation of receipts received from this title.» Parliament did not set specific targets for the expenditure of privatization receipts.

⁴ In comparison, national defence expenditure in 1991 amounted to 2.23% of GDP, decreasing successively in the following years to 1.55% of GDP in 1997.

cover an increasing part of the budget deficit until 1997, when they would have surpassed that level.

Table 3

The privatization receipts in relation to basic macroeconomic parameters in 1991–1997

Year	Privatization receipts (m PLN)	State budget revenue (m PLN)	Privatization receipts in relation to state budget revenue (%)	Budget deficit (m PLN)	Budget deficit in relation to GDP (%)	Privatization receipts in relation to budget deficit (%)	Privatization in relation to GDP (m PLN)
1991	170,9	20917,6	0,8	3097,3	3,9	5,5	0,2
1992	484,4	30793,1	1,6	6911,5	6,0	7,0	0,4
1993	780,4	45120,4	1,7	4342,0	2,8	11,3	0,5
1994	1594,9	61530,3	2,6	5739,8	2,7	27,8	0,8
1995	2641,6	81080,1	3,3	7448,0	2,2	35,5	0,8
1996	3749,8	95924,7	3,9	9167,2	2,2	40,9	0,9
1997	6558,1	113234,4	5,8	5902,8	1,1	111,1	1,3

Source: Data of the Central Statistical Office and the Ministry of Treasury.

Since 1998, privatization receipts have been classified as state budget income being a source of financing net borrowing budgetary requirements.

Table 4

The privatization receipts in relation to basic macroeconomic parameters in 1998–2015

Year	Privatization receipts (mil PLN)	State budget revenue (mil PLN)	Privatization receipts in relation to state budget revenue (%)	Budget deficit (mil PLN)	Budget deficit in relation to GDP (%)	Privatization receipts in relation to budget deficit (%)	Privatization in relation to GDP (mil PLN)
1998	7 069	126 600	5,6	13 192	2,2	53,6	1,2
1999	13 347	125 900	10,6	12 479	1,9	106,9	2,0
2000	27 182	135 700	20,0	15 391	2,1	176,6	3,7
2001	6 814	140 500	4,8	32 358	4,2	21,0	0,9
2002	2 860	143 500	2,0	39 403	4,9	7,2	0,4
2003	4 143	152 100	2,7	37 043	4,4	11,2	0,5
2004	10 254	156 300	6,6	41 417	4,5	24,7	1,1
2005	3 848	179 800	2,1	28 361	2,9	13,6	0,4
2006	455	197 600	0,2	25 063	2,4	1,8	0,04
2007	1 375	236 400	0,6	15 956	1,4	8,6	0,1
2008	1 021	253 500	0,4	24 300	1,9	4,2	0,08
2009	6 970	274 200	2,5	23 800	1,8	29,3	0,5
2010	29 947	250 300	12,0	44 600	3,1	67,1	2,1
2011	13 058	277 600	4,7	25 100	1,6	52,0	0,8
2012	9 158	287 600	3,2	30 400	1,9	30,1	0,6
2013	4 396	279 200	1,6	42 200	2,5	10,4	0,3
2014	1 003	283 500	0,3	30 000	1,7	3,3	0,06
2015	44	289 100	0,01	42 600	2,4	0,1	0,002

Source: Data of the Central Statistical Office and the Ministry of Treasury.

The privatization receipts, and hence their relation to budget revenues, GDP and budget deficit, have changed over the period considered. In some years, a significant growth of privatization receipts was noted while in other periods, there were a decrease in their growth. This was related to political cycles: depending on the party (coalition) in power in the given period, the privatization receipts significantly increased or even dramatically decreased. Record-high privatization receipts in 2010 resulted from one transaction: the sale of shares of Telekomunikacja Polska SA to a French investor. Total receipts from this transaction amounted to more than PLN 22 milliard.

Changing the qualification of privatization receipts into budget incomes has led to the need to determine how to use them. Initially, up to 2002, 10% of the receipts from the sale of shares of state-owned companies were used to finance the social security reform (Social Insurance Fund), and in subsequent years the amount of planned receipts derived from privatization allocated for this purpose was determined annually in the Budget Act. In 2004, funds transferred to the Social Insurance Fund were excluded from the budget revenue category and classified as public disbursements¹ [4, 2006, p. 156–157].

After 2000 (with the exception of the years 2004 and 2010) the problem was failure to achieve planned privatization receipts (as illustrated in Table 5), which significantly reduced the amount that could be spent on social security. Since these funds were already included in the state budget at the planning and enactment stage, it resulted in a negative balance of privatization receipts and distribution. In addition, since 2000, prior to the transfer of receipts from the privatization to the budget, the statutory deductions were made to the state-owned special purpose funds².

Table 5

Percentage execution of planned privatization receipts from 1991 to 2015

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999
Execution	11,4	80,7	88,7	129,7	113,4	146,2	146,9	105,5	193,4
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Execution	135,2	67,2	42,1	45,5	116,1	62,4	10,7	59,6	74,49
Year	2009	2010	2011	2012	2013	2014	2015		
Execution	58,0	119,79	87,1	90,0	87,0	27,1	3,63		

Source: Ministry of Treasury data.

Privatization involves certain costs. In March 2000, the Privatization Financing Fund was created, with funds equal to the costs of privatization incurred in the given year, but no bigger than 2% of the annual receipts from these processes³ [1, p. 16].

Not all companies founded by employees who leased state-owned enterprises in the process of privatization have been able to repay the related payments to the

¹ Public disbursements include repayment of loans and borrowings, redemption of securities, granting of credits and loans, payments resulting from separate acts, which are financed by receipts from privatization of Treasury assets, other financial operations related to management of public debt and liquidity, Treasury payments connected with membership in international financial institutions. On the other hand, public expenditure is allocated to the fulfilment of public needs and the fulfilment of other functions and tasks of the state.

² By 2005 these were special reserves.

³ The balance of this fund, on April 1, 2002, amounted to PLN 61.3 million [1, p. 38].

Treasury. In such situations, after excluding other possibilities, the State Treasury was forced to terminate the lease and the property of such companies returned to the state. This was related to the costs associated with the acquisition of this property and its redevelopment. In order to fund these processes, the Property Management Fund was established in March 2000, which was aided by 10% of the revenues from the sale of property acquired after the termination of the lease and the funds taken over on its terminated¹ [1, p. 16].

The management of undeveloped property remaining after the liquidation or bankruptcy of state-owned enterprises, as well as the financing of the liquidation process of these enterprises and in some cases covering the costs of the bankruptcy proceedings required specific financial means. For this purpose, the Post-liquidation Property Fund was established in the 1990s, where property was transferred, including funds remaining after the liquidation and bankruptcy of state-owned enterprises, as well as the revenue from the sale of this property² [1, p. 15].

As of April 1, 2002, these three funds were merged into the Treasury Fund, to be supplied with 2% of privatization receipts in a given year [1, p. 37]. Funds from this fund were to be provided to cover the costs of privatization, management of Treasury property and other tasks performed by the Treasury Minister not financed directly from the state budget³.

The next target, whose implementation was to be supported by the funds obtained from privatization, was the restructuring of the armaments industry. The receipts from the privatization of industrial armaments potential enterprises were intended for restructuring and modernization of this industry in the years 2000 – 2003⁴ [1, p. 9].

Some of the receipts from privatization were used to compensate the lack of valorisation of pensions and earnings in the budgetary sphere and the loss of allowances for pensions⁵ [1, p. 36].

Part of privatization receipts was transferred directly to the financing of the budget deficit⁶ [1, p. 36].

Part of the unused financial means from reserves and funds (until 2010 only from the Treasury Fund, later also from other funds), under the subsequent budgetary acts, was transferred to the state budget⁷.

Apart from transferring receipts from privatization to specific purposes, special reserves were also created, to which a given part of shares of the Treasury companies

¹ The balance of this fund on April 1, 2002 was 16 thousand PLN [1, p. 38].

² As of April 1, 2002, the remaining financial means on this funds amounted to PLN 45.5 million [1, p. 38].

³ The balance of the fund's account on April 1, 2002 amounted to PLN 106.8 million [1, p.38].

⁴ A total of PLN 290.7million was allocated to this purpose. Some funds were spent in 2004 [1, p. 65–67].

⁵ In the 1990s, due to budgetary difficulties, part of wages in the budgetary sphere and pensions was not valorised and some allowances for pensions were liquidated, which turned out to be illegal and eligible individuals received financial compensation from the budget. Privatization receipts were allocated to this purpose PLN 9,09milliard [1, p.36].

⁶ By the end of 2004, the budget was funded by PLN 35.85 milliard.

⁷ For example, in 1999–2004 the Treasury Minister supplemented the budget with PLN 1.4 milliard from funds which he was the holder.

was transferred. Since October 1993, a reserve of Treasury property has been created to satisfy possible claims of former owners of the property nationalized by the State Treasury after the Second World War. This reserve consisted of 5% of Treasury shares of one-man state-owned companies allocated to privatization. This deduction was appropriately higher in case of companies whose property was claimed by well-documented reprivatization claims. As of May 2000, this deduction was still transferred to the reserve, but the reserve was also financed by 5% of revenue from the sale of these shares¹.

In the period from May 2000 to March 31, 2002, 2% of shares in one-man state-owned companies was transferred to the Foundation for Polish Science and another 2% of shares was transferred to increase the capital of Industrial Development Agency for restructuring the Treasury companies. Between April 2002 and the end of 2004, instead of shares, the Foundation was given the revenue from their sell and, moreover 2% of the receipts from privatization was transferred to the State Committee for Scientific Research².

Between May 2000 and March 2002, 7% of the shares in the Treasury companies created a reserve for granting property rights (enfranchisement)³. Since April 2002, revenues from the sale of these shares have been transferred to the restructuring of enterprises and supporting job creation programs for graduates and subsequently (January 2003) to finance vocational activation and anti-unemployment programs. In April 2002, financing for restructuring and job creation programs for graduates increased by an additional 10% of annual receipts from privatization. Since January 2003 this has been 15% of annual privatization receipts for restructuring and assistance for enterprises of particular importance for the labour market (since May 2004, 2/3 of these revenues were transferred to the Enterprise Restructuring Fund and 1/3 to increase the capital of the Industrial Development Agency)⁴.

In the period 1999-2003, part of the shares of the Treasury companies constituted a reserve for satisfaction of potential claims under the State Treasury warranty and guarantees⁵.

¹ As of December 31, 2004, the total revenue amounted to PLN 1771.2 million and the expenditures of PLN 222.2million. The nominal value of the booked shares amounted to PLN 1686.9 million. The value of restitution claims was estimated at PLN 32-40 milliard [1, p. 39].

² As of December 31, 2004, the State Committee for Scientific Research was donated PLN 332.4 million and the Foundation for Polish Science PLN 51.6 million. The Industrial Development Agency received PLN 51.6million. The nominal value of the shares allocated for the support of science was PLN 499.2 million and the shares allocated for the support of Industrial Development Agency was PLN 497.8 million [1, p. 41].

³ Granting property rights was to be based on an unspecified form of transferring ownership of part of the state assets to citizens, e.g. in the form of privatization bills. This idea has never been realized.

⁴ At the end of 2004, the total revenue from the sale of shares from the granting property rights reserve amounted to PLN 180.9 million and the value of the remaining shares on the reserve was PLN 1 398 million. The value of monetary means on the Restructuring Fund Account was PLN 570.4 million [1, p. 41-42].

⁵ In 1999, shares worth over PLN 77.5 million were allocated for this purpose, in 2001, worth over PLN 7.5 million, and in 2003, shares worth over PLN 34.7 million [1, p. 44-50].

Since January 2005 significant changes have been made in the redistribution of privatization receipts. Prior to their transfer to the budget, deductions were made to four funds¹:

- Reprivatisation Fund (5% of revenue from the sale of shares in Treasury companies),
- Enterprise Restructuring Fund (15% of receipts from privatization),
- Treasury Fund (2% of receipts from privatization)²,
- Polish Science and Technology Fund (2% of receipts from privatization)³.

Since 2012, a statutory change has been put in force, whereby it is possible to set other indexes of deductions for funds, justified by budgetary needs and without jeopardizing the tasks of the funds. In addition, for the years 2010–2011, a change was made in the deductions for the Reprivatisation Fund (1.5% of the receipts from the sale of shares) and the Enterprise Restructuring (3% of the receipts from privatization) [3, 2010, p. 37].

The remaining privatization receipts were transferred to the budget and allocated to the financing of social security reform (Social Insurance Fund). Still, the receipts from the privatization of the armaments industry companies were used for its restructuring and modernization, and in some years also the deduction was made to the Treasury Warranty and Guarantee Reserve.

In 2006 an additional deduction was made to the Fund of the National Education Commission⁴ (1% of receipts from privatization), and in 2013 some of the receipts from privatization were transferred to the implementation of the tasks of the Military Housing Agency⁵ [3, 2013, p. 22].

In 2009, a significant statutory change was introduced in the distribution of privatization receipts. A new deduction for the Demographic Reserve Fund⁶ was introduced, representing 40% of privatization receipts, diminished by the amount of deduction for the Reprivatisation Fund [4, 2009, p. 42].

In 2011, the process of consolidation of liquidity management of the public sector was carried out. As a result, the financial means of most earmarked funds, including four privatization funds, are managed by the Minister of Finance. When the means are not used, they can be allocated to finance the loan needs of the budget [3, 2011, p. 23].

In 2015, the total amount of record – low privatization receipts was distributed exclusively between funds, no money was transferred to the budget.

¹ Part of the revenue from the sale of land previously owned by state-owned farms was transferred to the Compensation Fund, intended to compensate those who left the property outside the present borders of Poland after the war.

² Financial means from the fund were transferred, among others, to cover the costs of privatization and management of Treasury assets, increase the share capital of companies with State Treasury shares.

³ In addition, the revenue from the sale of shares constituting till March 2002 granting property rights reserve was allocated to the anti-unemployment programs and 1/3 of the Enterprise Restructuring Fund was transferred to increase the capital of the Industrial Development Agency.

⁴ This fund existed only in the period 2005 – 2006 and the accumulated funds were used for material aid for pupils.

⁵ It was PLN 43.7million [3, 2013, p. 22].

⁶ The fund may be used to supplement deficits in the Social Insurance Fund due to unfavourable changes in the demographic structure of a society [4, 2009, p. 42].

Table 6

Disposing of receipts from privatization in the years 2005–2015 (%)

Year	RF	ERF	TF	PSTF	Other deductions	Budget
2005	5,52	15,0	2,0	2,0	3,4	72,08
2006	7,4	15,0	2,0	2,0	1,8	71,8
2007	8,2	15,0	2,0	2,0	1,2	71,6
2008	17,0	15,0	2,0	2,0	20,9	43,1
2009	44,6	15,0	2,0	2,0	24,7	11,7
2010	5,0	9,0	2,0	2,0	42,0	40,0
2011	3,2	3,0	2,0	2,0	41,9	47,9
2012	1,6	15,0	2,0	2,0	41,2	38,2
2013	1,0	14,8	2,0	2,0	42,3	37,9
2014	0,3	15,0	2,0	2,0	45,7	35,0
2015	0,0	15,0	2,0	2,0	81,0	0,0

Source: Own elaboration.

RF – Reprivatisation Fund, ERF – Enterprise Restructuring Fund.

TF – Treasury Fund, PSTF – Polish Science and Technology Fund.

During the period under review, financial means for the Treasury Fund and the Polish Science and Technology Fund were transferred in accordance with statutory indicators. The amounts transferred to the Reprivatisation Fund changed, depending on the value of sold shares of Treasury companies and the applicable ratio of deductions. The deduction of 15% of privatization receipts was transferred to the Enterprise Restructuring Fund, except for the years 2010–2011, when a lower deduction ratio was established.

The column «Other deductions» in the Table 6 included, for different years: the receipts from the privatization of the armaments industry and from the sale of shares from the granting property rights reserve, a single deduction to the Fund of the National Education Commission and to the Military Housing Agency, deductions for the reserve of the Treasury Warranty and Guarantee, revenue from the sale of the Treasury real estate (the Compensation Fund) and from 2009 a deduction to the Demographic Reserve Fund. In particular, the last deduction resulted in a smaller percentage of financial means transferred to the budget, from which the social security reform was financed (Social Security Fund).

Privatization receipts were used for financing a variety of purposes however there was no coherent policy. In general, long-term financing of specific tasks has occurred, but there were also situations where privatization means were directed to the financing of incidental needs or they were allotted only to specific tasks in the short-term¹. There was a wide range of targets financed by privatization, although only a small proportion was allocated to goals that could be directly linked to the development of the state (economy)².

¹ For example, in the years 2000 – 2004, rules of the formation of privatization reserves receipts and their use were changed eight times [1, p. 6].

² According to the Supreme Audit Office, only 3.4% of privatization receipts was used for the purposes which can be considered as a contribution to the development of the state in 1991–2004 [1, p. 7].

Between 1991 and 1997, when privatization receipts were budget revenue, they were transferred to 10 special funds and to a reprivatisation reserve [2, p. 97].

In general, since 1998, privatization receipts were to be spent on:

- Financing social security reform (mainly to supplement the missing financial means of Social Insurance Fund)¹;
- Supplementing the shortage of financial means in Social Insurance Fund due to demographic changes resulting in decreasing income from insurance premium,
- Restructuring and supporting enterprises and companies in difficult economic situations, and increasing the capital of the Industrial Development Agency, which has also been conducting restructuring processes,
- Restructuring and modernization of the armaments industry,
- Subsidizing the liquidation and bankruptcy processes of enterprises and companies,
- Financing anti-unemployment and vocational activation programs,
- Financing the development of Polish science and technology,
- Coverage of the costs of privatization and management of Treasury property,
- Creation of reserves: re-privatization, granting property rights, compensation²,
- Financing compensation for retirees, pensioners and employees of the budgetary sphere,
- Reserve for claims under warranties and guarantees granted by the State Treasury,
- National Education Commission Fund,
- Direct financing of the budget deficit.

Not all funds were used according to their original purpose. Since the concept of granting property rights has never been implemented, financial means from this reserve have been transferred to anti- unemployment and vocational activation programs. There was delay in the transfer of funds for the modernization of the armaments industry and financing scientific research.

Management of the financial means of the Enterprise Restructuring Fund was inefficient. In the years 2007–2009, the aid to enterprises was not granted at all, and from 2010 to 2012 only a negligible percentage of the funds collected was spent on this purpose. Mostly, the financial means were allocated to the capital increase of the Industrial Development Agency and gaining possession of new shares in companies by the State Treasury [2, p. 99], which interfered with the concept of privatization of the economy. Decisions to mobilize the funds for restructuring often originated from political reasons, and the question is whether the state should be involved in such undertakings at all.

Similarly there can be doubts about the allocation of receipts from privatization to central anti – unemployment programs, whose effectiveness is generally negligible, which in some cases was confirmed by the report of the Supreme Audit

¹ The deficit of the Social Insurance Fund was partly due to the transfer of some of the insurance premium to the Open Pension Funds, which were created in the framework of the social security reform. The privatization receipts did not, however, cover the whole deficit.

² The Compensation Fund was not created directly from receipts from the privatization of state-owned enterprises, but from revenue from the sale of agricultural land of the Treasury.

Office [1, p. 9]. It seems that the best way to decrease unemployment is to deregulate the economy, which promotes high activity of entrepreneurs.

Accelerating the privatization and liquidation of ineffective enterprises and companies would significantly reduce the need for restructuring funds, Treasury property management and financing the liquidation and bankruptcy processes.

The largest part of privatization receipts was allocated to the social insurance system, which meant solving the existing budgetary problems. Some of the other purposes financed by privatization receipts were also related to budget problems (reprivatisation, compensation). Few resources were allocated to research, but they were not always used effectively [1, p. 8].

From the point of view of transparency of public finances, one should be critical of the transfer of the financial means collected on a specific funds for other purposes (e. g. raising the capital of the Industrial Development Agency from the Enterprise Restructuring Fund or transferring PLN one-billiard from the Reprivatisation Fund to the budget) [2, 105, 3, 2010, p. 37]. The principle of transferring some of the unused financial means from some funds to the budget is also controversial, as financial planning of such special funds should not be done within the budget year [2, p. 100].

The quality of planning of privatization receipts was generally poor, which led to the fact that the actual revenue was often much smaller than planned. In some periods, this was due to political changes when the new government would withhold projects initiated by predecessors.

From the point of view of the functioning of the government system, it is puzzling that none of the governments representing the various political options over the period of 24 years managed to address the problem of privatization receipts by allocating them to support economic development objectives.

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2.7. The impact of funding model on the development of higher education of Ukraine: challenges and opportunities

The development of higher education nowadays is undergoing the huge changes not only under the impact of knowledge-based economy and competency based economy but and under the 4th Industrial revolution, which, as was noted at the World Economic Forum in 2017, must change the requirements to higher education of improving the research activities of universities and the process of commercialization of their results. The actuality of idea of Triple Helix are more increasing under these conditions, because it determines that the potential for innovation and economic development in a Knowledge Society [knowledge-based economy and competency based economy] lies in a more prominent role for the university and in the hybridization of elements from university, industry and government to generate new institutional and social formats for the production, transfer and application of knowledge [1]. Thus, the current situation in global world demonstrates, that to take advantages of global economy – there is insufficient of using general types of economic resources, the most needed resource is becoming – human capital. However, the main feature of human capital is the inherency of valuable characteristics to the person, among which, we consider, education is prevailing, because according to the modern paradigm of human existence, the new knowledge and global thinking are in basis of which, the aim of building of the human society should become education, on the tasks of the continuous human development, the forming by her the possibility of critical thinking and objectivity in decision making and also the social activity in actions. As a result, the global economy requires the necessity to the governments of the countries to strengthen attention to the improving of quality of training the personnel, that can be done primarily through the effective education system, which is a producer of human potential and human capital, in particular [2]. But, the creation knowledge-based capital is possible through the funding in education, the results of which can be scientific investigations and innovations, which in total are the bases of knowledge-based economy and ensure the long term growth of any country. As an evidence the following affirmation, that the weakest national systems [systems of higher education] are those with low government funding but high government control [3].

Moreover, the development of economies within the global environment is becoming more dependent from the systems of higher education, which every year becomes more capital-needed. This leads to increased the demand for the funding models that would ensure the effectiveness of higher education. The problem of effective financial mechanism is inherent mainly for the countries with transition economies, but in is lack of effective («smart») mechanism as the management of financing of system of higher education in general, due to the issue of necessary the active institutional reforms. For example, in developed countries, regardless of the model of the state management of higher education (marketed (the UK), social (the Nordic) and mixed (the Central Europe)), which are defined, the firstly, its traditions

and historical specificities of formation the educational system and as well as related with a mode of ensuring the welfare of population (liberal, social democratic, conservative-corporatist), the systems of higher education demonstrate the effective funding mechanism for higher education, as a result, the highest position of their national system of higher education in the context of international comparisons. That is why the aspect of funding model in terms of its impact on the development of higher education of Ukraine is so relevant in comparing the main trends in European Educational Space, because it has to ensure the development of higher education under conditions of the intensification of the global environment.

The main aim of paper is to examine the contribution of funding model on the development of system of higher education. This aim will be received with the helping of the next objectives:

- to assess the impact of funding on the country's place in the ranking by analyzing the changes in funding and the country's position;

- to conduct the correlation and regression analysis of such indicators as the funding in higher education and the total score of ranking, to test the hypothesis of their dependence;

- to evaluate the structure of funding and the accordance between the established tuition fees and required expenditures on providing the educational service;

- to consider the basic theoretical models of funding of higher education, their advantages and disadvantages.

The methodological basis of conducting this research is the theoretical approaches to the concept of current models of funding of higher education. To make the reasonable conclusion of necessity of some funding model was defined to hold the analysis the data of unique annual ranking of higher education – Universitas 21 and Indicators of Higher education, which were held by OECD, these data became the empirical basis of research, then carrying out the correlation and regression analysis between indicators and evaluation the structure of expenditure and its comparing in different countries, prerequisites for established tuition fees and the real costs, which are needed for preparation the graduates.

The core of research is in hypothesis, the funding model of the sphere of higher education does impact on its development and quality of educational service and, as results, in total on economic indicators of this country. Then, Besides, it is very important to study the theoretical approaches to the essence of existing models of funding, identifying the opportunities for their implementation in Ukraine.

The Universitas 21 Ranking is one of the world to assess national higher education systems, which was developed the Rankings as a benchmark for governments, education institutions and individuals, and the project aims to highlight the importance of creating a strong environment for higher education institutions to contribute to economic and cultural development, provide a high-quality experience for students, and help institutions compete for overseas applicants. U21 points to the best educational systems of each country and includes four areas, in particular: «Resources», «Environment», «Connectivity» and «Output». According to the Figure 1, we can observe, that the strongest systems of higher education are in the

USA, Switzerland, Denmark, the UK and Sweden. The Ukraine took 42th place with 42.1 score, which are the less, than in Ranking of 2015 (43.8 score) [4].

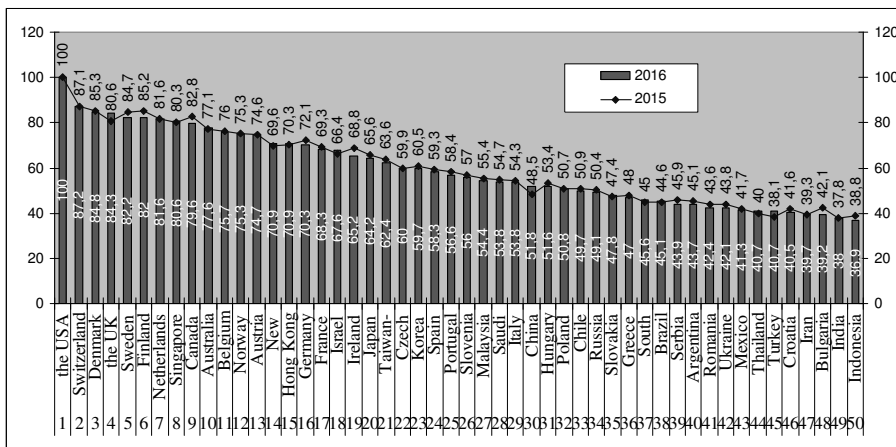


Fig. 1. The comparative analysis of the Universitas 21 Ranking in 2015–2016 years.

Source: formed by author based on [5].

Taking account our hypothesis as for that the funding of universities has a direct impact on the competitiveness of these universities and quality of higher education in total, necessary to compare the expenditure on higher education.

Funding of higher education all over the world is a crucial challenge for all stakeholders: governments, enterprises, university administrators, researchers and students. In developed countries, while governments provide some resources to finance higher education, there is a continuous effort on the part of university to mobilize and diversify resources to supplement what governments provide. In the most advanced countries, there has been an upsurge in the demand for policy restructuring to reduce the over-reliance on the governments to financing higher education. At the same time, there has been a gradual shift from the provision of free higher education in countries to a system of cost sharing.

Looking at the achieved results of calculations, which concern the expenditure for higher education in absolute values, which are presented in Table 1, we see: the TOP-10 of ranking of competitiveness of higher education coincides with the TOP-10 countries with the highest spending on higher education in calculating per 10 thousand of population, that allows to reflect the real situation with financing in each country.

Thus, these results confirm our hypothesis. Moreover, we consider, that it's necessary to analyze the dynamics of indicator «Expenditure for HE in absolute values, per 10 thousand of population» for countries-leaders and Ukraine and then to compare the change of indicator and place of country in the ranking.

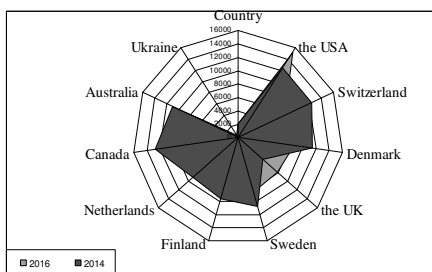
Table 1

Expenditure for higher education in absolute values in 2016

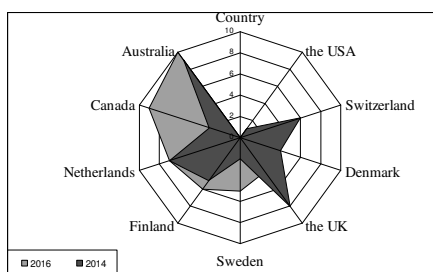
Place in the ranking of national higher education systems [5]	Country	Expenditure for HE as a percentage of GDP (%) [6]	Expenditure for HE in absolute values (billions of USD) [7]	Expenditure for HE in absolute values, per 10 thousand of population (thousands of USD) [8]
1	the USA	2,6	482.8	15 139
2	Switzerland	1,2	6.4	7 712
3	Denmark	1,7	4.9	8 575
4	the UK	1,8	50.6	7 949
5	Sweden	1,7	8.3	8 520
6	Finland	1,8	4.3	7 751
7	Netherlands	1,7	14.8	8 739
8	Singapore*	1.1	3.0	5 557
9	Canada	2,5	40.8	11 481
10	Australia	1,7	20.1	8 569
22	Czech Republic	1,3	4.8	4 579
26	Slovenia	1,2	0.8	3 906
31	Hungary	1,3	3.5	3 557
32	Poland	1,4	14.8	3 852
35	Slovakia	1,1	1.9	3 436
42	Ukraine [9]	1,6	1.4	340

Source: formed by author based on [5, 6, 7, 8].

From Figure 2 we observed that the indicators of financing of higher education have changed over the years 2014–2016, namely the United States increased the expenditure in 1.2 times, thereby was securing the first position in ranking, the UK increased the expenditure in 1.6 times, thus its position has changed from 8th to 4th, Sweden – reduced the costs in 0.8 times as a result – the position was moved from the 2 to 5, Finland has moved from the 5th position to 6th, through reducing the expenditure in 0.8 times.



a)



b)

Fig. 2. The comparative analysis of change of indicator and place of country in the next: a) «Expenditure for HE in absolute values, per 10 thousand of population; b) position in Universitas21 Ranking.

Source: formed by author based on calculation of table 1 and on [5].

Thus, we can see the relationship between the development of higher education, component of its competitiveness in world comparison and the degree of funding. Moreover, using the Programme STATISTIKA 12.0, we conducted the correlation regression analysis and we received the next results:

The coefficient of multiple correlation (R), which shows the closeness communication the output variable (Y) from the input variable (X) is 0.8433, so the relationship between the input variables and output variables there is strong relationship.

Calculated Regression coefficient (0.72) shows how will change deterministic component of the country's position in the ranking if factor in our model – funding, changes per one unit.

Next, we consider it is necessary to analyze the structure of funding, including the share of public and private funding (Figure 3).

In tertiary education the private sources have a more crucial role and account for around 30% of expenditure on average or 0.5% of GDP.

In some countries, private sources are very important in relative and absolute terms to assure that a large percentage of national wealth goes into tertiary education. Canada, Chile, Korea and the United States stand out as the countries with largest percentage of GDP spent on tertiary education. Part of that is explained by the fact that they are also among the countries with the highest shares of private sources. Among countries spending more than 2% of GDP on tertiary education, only Estonia has a small percentage of private sources, at 0.3% of GDP.

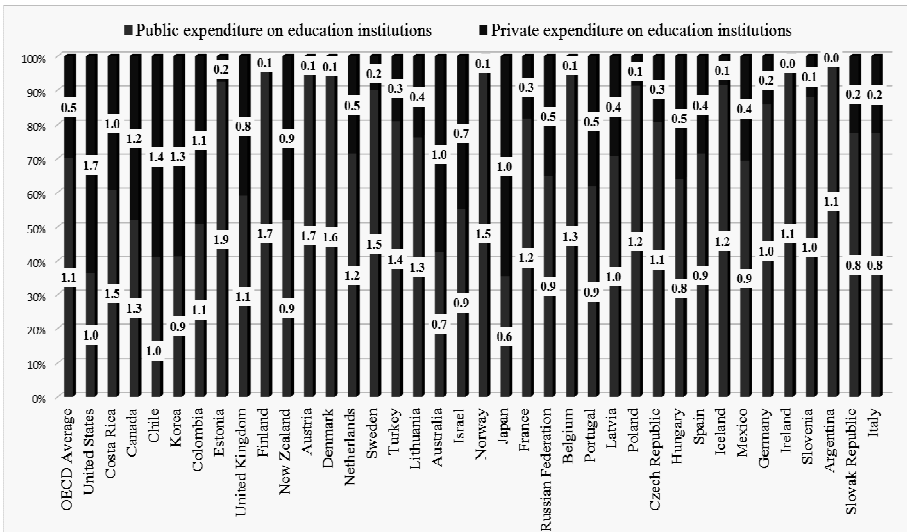


Fig. 3. Public and private expenditure on higher educational institutions, as a percentage of GDP, (2013).

Source: formed by author based on [6].

In the Central and Eastern Europe (Poland, Slovak Republic, Slovenia, Hungary), it is largely dominated by public funding, while the private funding is

ranged from 0.1% of GDP (Poland, Slovenia) to 0.5% (Hungary). In Ukraine the public funding dominates above the private. But, unlike the foreign countries, where under the private financing is considered the financing by business or invest-organizations, in Ukraine, in fact, the private funding – is costs of householding.

Furthermore, it should be noted that the structure of expenditures of Ukrainian system of higher education is significantly different from Central European countries, namely, according to UNESCO [11]. Ukraine over the last decade has reduced the share of the costs of equipment, construction and modernization in total spending in higher education from 17% to 4%, while the Czech Republic (20%), Poland (22%) and Lithuania (25%) were increased it. Thus under these moments was reduced the potential of high level of practical preparation of students in comparison with foreign countries.

Ukraine is unable fully to ensure financial needs of the system of higher education, that leading to the following problems:

- material and technical provision of Ukrainian universities is outdated and does not correspond to the modern needs of specialist's training;

- there is no funding for participating of teaching staff in various activities outside Ukraine for the information sharing and increasing the collaboration between colleagues;

- a limited financial provision to conduct the full laboratory research at the universities;

- salaries of the teaching staff and the regulatory policy of employment of teaching staff (load on professor) looks like as demotivator of holding the scientific researches or totally engaging in science.

In addition, due to the funding of higher education in Ukraine, this amount is enough only to pay salaries to professors and the providing the educational services to students. However, taking account the fact, that the requirements for preparing of graduates are increasing every year, and the state is not able to provide a fully free education – university has to set the tuition. The latter is quite common practice in the world. But if we take into account the structure of tuition fees in Ukraine we are observing the funding by state or by households, the financing by business structures is not popular. As a result, the universities can not set the tuition fees at the real need for the provision of educational services of European dimension, because the purchasing power of population is low because universities are set the tuition fees at a level, which the house holding can pay and not at the level of the tuition fees, which would reflect the necessary costs on providing the educational services of appropriate quality.

The situation with the financing by householding leads to the emergence a gap between the real sector of economy and one of the tasks of universities – training the specialists to meet the needs of the labor market. Because the consumers of educational services, the applicants, the learning of which is payed by householding, mainly they are motivated in choice of specialty by their desire to get a particular specialty and not its demand of labour market. So, hypothetically, a graduate who has chosen the profession on the basis of unreasonable desire of the needs of labor market is becoming a potential unemployed. As a result, this leads not only to the increasing in youth unemployment but also demotivation of population to obtain higher education because of mis-information and mis-understanding of the situation, which

is appeared. After all, the main reason is, primarily, the fact that householding in financing, does not take account the current situation at the labor market as a result, their choice hasn't any relation with the real economy and the long-term prospects of further development. Until this tendency exists in Ukraine, the gap will be increased every year and the value of higher education will be decreased.

In Ukraine, to keep universities at a high level, there is no alternative but to charge tuition fees for national students. In this situation, policy-makers (government) must choose the most suitable model of higher education financing to provide better results.

Depending on the combination of public and students' private funds, there are two alternative models of higher education financing: the model of binary financing (MBF) and the model of diversification financing (MDF) [12].

In the MDF all students are liable to pay tuition fees. The financial accessibility of higher education is provided by means of public scholarships and student loans. This model is traditional in American and Western European countries. That is why the problems of sharing finance in higher education are usually considered with regards to the MDF [13, 14, 15].

In the MBF, the students passed university entrance examinations with better results are eligible for free tuitions and academic scholarships, whereas all others receive none of public grants and must pay tuition fees. This model is used in Ukraine as well as in other post-Soviet states. In other words, the expenses on higher education of every student are financed separately in the MBF (either from public or private funds) and simultaneously in the MDF (from both public and private funds).

Next, we consider it is necessary to observe the advantages and disadvantages of both models (table 2).

Table 2

The comparative characteristic of advantages and disadvantages of MDF and MBF models

MDF		MBF	
advantage	disadvantage	advantage	disadvantage
possibility to obtain large expenditure per student and thus to improve the quality of higher education.	the necessity to organize the effective student financial support system to help disadvantaged students, if such support system is failed for some reason, higher education becomes inaccessible to low-income students.	free access to higher education for advanced school-leavers regardless of their income. There is no need for large student loan programs.	excessively sensitive to the amount of budget expenses on higher education, thus it becomes very ineffective when public budget is tight.

Source: formed by author based on [12,13,14,15].

We can admit that such disadvantage of the MBF has happened in Ukraine. In spite of a share of public expenditure on higher education in GDP (the share is as in European countries), expenditure per one student remains very low (the share is less in European countries). So, one of the ways to make solutions is in switching from the MBF model to the MDF. The key characteristics of MDF model:

- 1) higher education is funded via a combination of tuition fees paid by students and budget grants to institution;
- 2) students from low-income families receive social scholarships;
- 3) excellent-students are eligible for free tuition;
- 4) students are eligible for subsidizing loans, the amount of which depends on their income and tuition fees;
- 5) public resources are redistributed from direct financing and academic scholarships to social scholarships and student loans.

Thus, we conclude that the mechanism of implementation of effective funding models is very important for the countries of transition economy, including Ukraine, because the deepening of cooperation between universities, government and business in a global environment which is open, and jeopardizes such countries and its system of higher education, which are apart of modern approaches to management, including the financial management of system of higher education. Therefore, the study of experience of implementing the funding models of foreign countries should be based on the added value of their implementation, which will get by the economy as a whole. This will be a «reasonable» approach to effective management of higher education.

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2.8. Regulatory and technical support for the introduction of percentage philanthropy in Ukraine

The issue of attracting additional resources is the one of acute importance to NGOs of Ukraine. It is not only the matter of supporting the organizations, but also the issue of providing quality services and meeting the needs of the present in terms of the development, as the needs and demand are increasing rapidly.

Available mechanisms for financial support of NGOs of Ukraine are not effective, and therefore we should pay attention to the alternative ones.

In economically developed countries, there are many advanced methods of fundraising for NGOs that are traditional for them, while in Ukraine they are still not used at all or used only partially. This is stipulated by the peculiarities of the current legislation, as well as the characteristics of current social and economic processes in Ukraine, which are unique compared to other states.

Particular attention should be paid to the newest among the methods of financing NGOs – the method of percentage philanthropy. Numerous discussions are devoted to this method, however, its use is still not legally enforceable in Ukraine.

In the recent years, the issue of implementation and use of the method of percentage philanthropy has drawn the attention of many Ukrainian and foreign scientists. Among them published scientific papers and reports delivered at mass scientific events of such scientists as N. Bullain [2; 3; 4; 5], O. Kyrylenko [10], I. Mészáros [11], E. Haunina [9], B. Shator [13] and the researches published by Ecumenical Social Week [6; 7] and the Institute for Rural Development commissioned by the OSCE Project Coordinator in Ukraine are particularly relevant [12]. However, the practical implementation of percentage legislation (also known as percentage philanthropy) requires legal and technical support, which have not been researched until now.

The method of percentage philanthropy provides an opportunity for the payer of tax on personal income to divert a certain percentage paid to the budget of tax on social needs, such as the activities of civil society organizations engaged in addressing public needs [6; 8].

Percentage philanthropy is multifunctional in its nature (Fig. 1), because its existence causes essentially three major independent consequences.

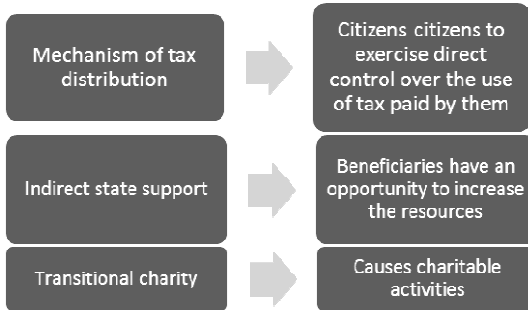


Fig. 1. The legal nature and consequences of percentage philanthropy.

First of all existence of percentage philanthropy allows citizens to exercise direct control over the use of tax paid by them, because it is they who identify a specific NGO, in favor of which they transfer the share of the tax and in this way they get involved in resolving certain social and economic problems, which belong to the profile of the NGO.

On the other hand, percentage philanthropy is an indirect state support, because, according to the mechanism of transfer of money, the transfer is from the state and / or local budgets on the basis of the results of the tax year, meaning that the state essentially concedes a share of the taxes that it received to the NGO. Consequently, NGOs that are beneficiaries of payments, are able to increase their resources.

Finally, the percentage philanthropy charity is a kind of transitional charity, the existence of which is most appropriate in societies where traditional charity is not developed. However, it is designed to encourage the development of charity in such societies, show its benefits for all members of society and the state as a whole.

The experience of implementing percentage legislation in Central and Eastern Europe shows that the percentage philanthropy allows to attract significant financial resources to the activities of the public sector (Table. 1).

Table 1.

The quantifiable benefits of introducing percentage philanthropy in some states*

	Hungary	Slovakia	Poland
Involvement of taxpayers in philanthropy	35–40%	42% – private individuals ; 75% – business entities.	3,6%
The share of NGOs eligible for financial support	–	99,8 %	–
The share of NGOs	43%	21%	–
The value of revenues from charity	\$25 mln	\$14,43 mln – private individuals.; \$29,26 mln. – business entities	\$22,038 mln

* Data for the 2005/2006 year.

For example, the value of revenues from percentage philanthropy in the sector in Hungary in 2005 was about \$25 million, which made up 0.8% of revenue of the

whole sector. 35–40% of taxpayers were involved in charity and about 43% of NGOs became the recipients [3].

In Slovakia, the first year of implementation of percentage philanthropy 34% of taxpayers were engaged in the process of charity, and in the second year – 42% of taxpayers-individuals and 75% of taxpayers-business entities (corporations). Such a high level of involvement allowed taxpayers in 2006 to accumulate \$43.7 million for the needs of the sector (\$14.43 million – from private individuals; \$29,26 million – from business entities). 21% of all NGOs became the recipients of such financial support (representing 99.8% of the ones eligible for the support) [3].

In Poland, despite the low share of taxpayers who used the opportunity to transfer income tax that they paid (only 3.6% of taxpayers), the NGOs received more than \$22 mln owing to this type of support [5].

Using two formulas (1, 2) makes it possible to calculate the benefits for NGOs of Ukraine in case of introducing of percentage philanthropy.

At full involvement of citizens in charity, the benefit received from the tax transfer (calculated in value terms) can be calculated as follows:

$$P = \frac{T \cdot i}{100\%}, \text{ where:} \quad (1)$$

P – benefit received from the tax transfer, calculated in value terms;

T – the amount of income tax that is planned to be paid in the period, according to the forecast;

i – the percentage of tax that is redirected.

In reality, one should not expect 100 % engagement of the public into the activity of the third sector. Therefore, the formula (1) needs to be adjusted for the ratio of public activity, which we correlate with *the rate of turnout of public for the elections*. It shows not only the interest of the general public in internal affairs, but also the willingness and ability to influence their course, as the people become a direct participant. Moreover, we use *the rate of turnout for the presidential elections* as they are held by the majority principle and are accompanied by greater activity, which means that the voters believe in their ability to affect change in the state a lot more when it comes to choosing a particular candidate (and the principle of percentage philanthropy involves namely the choice of a particular NGO, in favor of which the tax is transferred).

Thus, after the above-mentioned adjustment the formula (1) is as follows:

$$P' = \frac{T \cdot i \cdot a \cdot w}{100\%}, \text{ where} \quad (2)$$

P' – benefit received from the tax transfer, calculated in value terms;

T – the amount of income tax that is planned to be paid in the period, according to the forecast;

i – the percentage of tax that is redirected.

a – share of all voters who were present at the last presidential election;

w – the share of employed voters in the total number of voters who were present at the last presidential election.

The foundations for the introduction of percentage philanthropy in Ukraine already exist. Extensive discussion of percentage legislation occurred in 2009 in the

framework of the public forum «Ecumenical Social Week» [6]. As a result, a draft law «On amendments to some laws of Ukraine to support non-profit organizations» was registered and submitted to the Parliament in 2010 (registration number 6055 of 10.02.2010) [15]. However, the adoption of the Tax Code of Ukraine at the end of that year made the above-mentioned draft bill irrelevant and the procedure was suspended for several years. In December 2012 all of the efforts to promote the idea of percentage philanthropy were renewed. The Association of Philanthropists of Ukraine established the work group on the implementation percentage philanthropy in Ukraine [1]. At the meeting, the coordinator of the Work Group presented to a draft version of the Law of Ukraine «On Amendments to the Tax Code of Ukraine for support of non-profit organizations», which would regulate the mechanism of percentage philanthropy. Anyone willing to contribute any comments and suggestions to the project and also to the explanatory note could send them by e-mail coordinator. However, it should be noted that there were no significant changes either in the draft or in the explanatory note (which was identical to that which was written to the draft law of 2010) [1].

We decided to analyze the main provisions of the draft Law of Ukraine «On Amendments to the Tax Code of Ukraine on the support of non-profit organizations.»

According to the draft, only the residents should have the right to conduct a tax transfer [15], which can be explained by the general norms applicable to the tax on personal income, which applies in particular to the realization of person's right to a tax credit and, therefore, the norm indicated in the explanatory note to the draft law is «set forth in the spirit of existing requirements and does not create a precedent in this issue» [6]. However, in our opinion, such regulation substantially limits the rights of non-residents, who, according to the Tax Code of Ukraine, are payers of income tax [14, 162.1.2] and are interested in the activities of NGOs of minorities, cultural orientation, etc., and therefore it is appropriate to allow tax transfers for all payers of the on tax personal income.

According to the draft law, the taxpayer is entitled to delegate the tax authorities to conduct tax transfer in favor of one of the non-profit organizations at a rate not exceeding 2% of the amount paid by the taxpayer during the reporting tax year based on the results of the tax year and on the annual tax return [15]. 2% tax transfer is universally acceptable defined norm for countries which have percentage legislation. This rule is substantiated, because it transfers the amount that is not too large for the government, but quite perceptible for taxpayers and NGOs which receive it. However, the rule that allows taxpayers to make transfer in favor of a single organization, not only creates restrictions for the taxpayer, but is also not justified. Thus, according to the explanatory note, this limitation is related on one hand to the need to facilitate the administration of the transfer by the tax authorities and to simplify the calculations for the taxpayer, reducing the likelihood of errors when filling out financial disclosure statements, on the other hand [6].

In contrast, it should be noted that the time frame of the administration of the transfer by the tax authorities is so broad (the final deadline for transferring funds is before September 1 of the year following the reporting period, and the period of publication of the list of non-profit organizations that received transfer in the previous year and the amount of the specified transfer is January 31) so, given the

low level of public involvement in the charity, the initial implementation of this mechanism will not cause additional problems for the tax authorities.

In addition to the taxpayer's calculations of transfer in favor of one or several NGOs (which is normal for countries that have already introduced percentage legislation, and we consider it to be acceptable for Ukrainian practice) do not differ significantly. Moreover, the establishment of the right to transfer in favor of a couple of NGOs does not automatically mean that all those who carry out such transfers will use it.

Nonprofit organizations are considered organizations included in the list specified by the Tax Code of Ukraine and in the Register of nonprofit organizations. This rule is acceptable because the procedure of registration of non-profit organizations is much more complex compared to the practice of developed countries, and even equated with the registration of businesses, in addition, an organisation must additionally register with the tax authorities to get a non-profit status. So, creating additional conditions for NGOs that are eligible for transfer is simply impractical.

An NGO is eligible for tax transfer if it has conducted business activity in Ukraine for at least one year as a non-profit organization and does not have debts concerning taxes or other mandatory payments to the state [15]. In addition, the tax authorities update and publish an annual update on their website or in the official publications a list of nonprofit organizations which are eligible for tax transfer as of January 1 [15]. However, this interpretation does not provide clarity as to whether the NGOs that would not have «operated» for a year as of January 1, but when filling out the income declarations by taxpayers will fulfill this condition, will be eligible for tax transfer, which, in our opinion, should be allowed and taken into account while compiling these lists.

Tax transfer cannot be made in favor of public authorities, local governments, housing cooperatives, condominiums, political parties, pension funds and social insurance funds, credit and trade unions and other voluntary associations or other associations of legal entities [15]. This provision of the draft law is quite adequate, since the purpose of their activity is incompatible with the objectives of the tax transfer mechanism, namely the establishment and development of civil society.

Moreover, since, according to the Budget Code of Ukraine, the income tax is part of the revenues of both the State Budget and local budgets, it should be clearly specified that the tax transfer should be made from the State Budget of Ukraine. Firstly, it is necessary for facilitating the administration of transfer; secondly, because of limited resources at the disposal of local authorities; thirdly, as the state is determined by the recipient of the benefits from the introduction of percentage philanthropy, and, thus, it is fair for transfer to be made out of the State Budget of Ukraine. Finally, based on the characteristics of the national practice of using public funds having a single source of funds distribution (meaning the State Budget of Ukraine in contrast to many local budgets) will significantly reduce the possibility of misuse of available funds by public servants and will increase the possibility of public control over the cash flow.

The Law «On Amendments to the Tax Code of Ukraine for support of nonprofit organizations» entrusts the responsibility for implementation and adjustment of mechanisms of percentage philanthropy to the tax authorities. This applies to informational and technological support, which will include the establishment of a

special section on the website of the State Fiscal Service dedicated to percentage philanthropy. In our opinion, the above-mentioned section should include two main parts.

The first part should be devoted to advocacy of percentage philanthropy. It should inform the general public about the essence and the benefits of participating in this kind of charity, examples from the experience of countries that have successfully used the percentage legislation in practice, that is the information that can attract the payer of income tax to transfer in favor of the NGO. In this section, you must place a detailed instruction for the taxpayer, which will contain steps he needs to make in order to redirect a part of the tax paid for the benefit of the selected NGO.

The second part should directly enable the taxpayer to make a transfer in favor of one or more of NGOs. The steps for making a tax transfer should be simple and understandable to the benefactor. Sign in will be ensured by personal login and password known only to the payer and attached to the personal tax identification number (for citizens of Ukraine) or passport data (for foreigners and persons of religious convictions who refused to take an identification number). Signing in the person will see the amount of the tax on personal income paid by him or her and can be used for charity.

The search for the NGO, which one can make a transfer to, and the subsequent choice will be carried out in several ways: by name, by place of registration, by type and scope of activities and so on. Having chosen the specific NGO, the benefactor will see the transfer of an amount of money which has already been made in favor of this NGO by other benefactors. After the transfer, the payer will have to refresh the page to see that this amount of money will contain information regarding his or her transfer.

People who are not able or willing to use global network to transfer the tax still have the right to implement it while completing the declaration. In this case the tax official are responsible for adding this information on the website. Thus, the website will contain full information on income from percentage philanthropy for the benefit of any NGO that is eligible for tax transfer.

The implementation of the mechanism of the percentage philanthropy will bring significant benefit for the NGOs. And it does not only mean the additional financial resources, as this amount is not very large for the state, but of significance in the ability to create a market environment for the NGOs to function in. This environment will provide more funding for those providing services of high quality and high in demand, and protecting the interests of the population. However, this calls for a series of targeted legislative changes and innovations. First, it is necessary to adopt the Law «On Amendments to the Tax Code on the support of non-profit organizations», which, in our opinion, should take into account several important issues, namely: to allow tax transfer from non-residents; provide for the possibility of tax transfer to one or more NGOs at the discretion of the taxpayer, which conducts the transfer; to consolidate eligibility for tax transfer among those NGOs that carry out activities in Ukraine for at least 1 year at the time of filling out of declarations by a taxpayer (if all other requirements are met); to fix tax transfer from the State Budget of Ukraine.

Moreover, the informational and technological support is important in regard to the introduction of percentage legislation, which stipulates the establishment of a special section on the website of the State Fiscal Service dedicated to percentage philanthropy.

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CHAPTER 3.

Theory and Practice of Budget Decentralization

3.1. Decentralization of power as a priority direction of budget policy reform at local level

Local budgets are the financial basis of local government and the key factor of regional development. The level of autonomy of local authorities is largely dependent on the adequacy of the revenue base of local budgets. Art. 132 of the Constitution of Ukraine states that the territorial structure of Ukraine is based on the principles of combining centralization and decentralization of state power. According to art. 7 of the Budget Code of Ukraine, one of the principles of the budget system is the independence principle, according to which the State Budget of Ukraine and local budgets are independent [2]. Therefore, one of the main factors of strengthening the role of local government is decentralization of state authority that comes to reforming the budget system towards formation of all its units as autonomous and financially able to meet their budget authority.

Decentralization is one of the areas of improving the financial security of local governments, and should include legal settlement for fiscal autonomy of local communities taking into account economic, geographical, historical and other criteria of their development.

Fiscal or budget decentralization is a timely issue in Ukraine and is accompanied by the transfer of significant powers (functions, competences and responsibilities) and financial resources from the state authorities to local governments.

It should be noted that there is no generally accepted definition of decentralization. In its simplest sense, decentralization means the transfer of political, administrative and / or financial authority to middle and / or lower level departments of the state hierarchy [13].

According to N. Kalinyuk, «the most difficult issue of fiscal decentralization is the management of finance. Despite the fact that in order to address certain issues there is a need to transfer powers to lower level bodies, these lower level institutions usually do not have sufficient funds to implement their new budget authority» [7, p. 322].

N.Stetsenko believes that «decentralization is a way of territorial organization of government in which the state gives the right to make decisions on certain issues or specific spheres to structures of the local or regional level, which are not part of the executive branch and are relatively independent of it» [10].

Decentralization is a significant transfer of powers to local self-governments so that as much authority as possible can be given to those governmental bodies that are closer to the people, where such powers can be implemented most effectively [9]. Moreover, the powers are transferred to the lowest level, which is closest to the people provided that it does not harm the quality of services consistent with the principle of subsidiarity of local budgets. However, in Ukraine the principle of subsidiarity found its regulatory implementation neither in the Constitution of Ukraine nor in the Law of Ukraine «On Local Government». Some of its provisions are mentioned in the European Charter of Local Self-Government, ratified by Ukraine in 1997 [6].

Analysis of basic approaches to decentralization shows that: 1) the state can carry out the decentralization of power in the interests of its people according to the law by transferring executive powers to local governments; 2) decentralization should be implemented on the principle of subsidiarity, or transmit power to the closest possible to the citizen level of management, which in its turn is able to execute this power more effectively than other organs; 3) transfer of authority from a higher level to a lower level should be backed up by the transfer of the necessary resources and the provision of local authorities' right to decide on the basis of the powers transferred, taking into account local circumstances [12]. It is on these bases specific changes regarding the division of powers between the central government and local authorities in Ukraine are expected.

The primary step in the reform of local self-government was the task of fiscal decentralization, which began by making changes to the Budget Code of Ukraine and Tax Code of Ukraine, including the transfer to local governments additional budget authority and stable sources of revenue for its implementation; stimulating local communities to unite and switch to direct relations with the state budget with appropriate resource support at the level of regional centers and so on.

The next important step was the adoption of the Law of Ukraine «On a voluntary association of local communities» and methods of forming capable local communities, approved by the Cabinet of Ministers of Ukraine in April 2015 to introduce legal basis of forming capable local communities by increasing their financial and economic capacity. These statutes provided an opportunity for local authorities to develop and approve on the regional level Long-term plans of forming capable local communities in relevant areas and submit them to the government [5].

Decentralization reform, which started in 2014, allowed increasing the capacity of local budgets, but also added responsibility of local authorities, which has to effectively use the tools provided by the Government to improve their work efficiency. Owing to decentralization not only the financial capacity of the regions increased but also their administrative powers. This makes it possible to create transparent local offices that provide administrative and social services in the most convenient format for citizens. V. Hroisman stated, that «It is significant that through

decentralization and the development of local self-government our cities begin to restore and people notice that. Today we need to provide another important element, which is the increase of responsibility on the local level in order to develop more dynamically the tools that local governments have, for these tools to be more effective, so that people can influence decision-making in the field. It is important that the government views coincide with the views of the community» [4].

Decentralization is one of the basic conditions for an independent and efficient operation of local government. In this respect, we note that April 9, 2015 the Law of Ukraine «On a voluntary association of local communities» was adopted, which allowed local governments to unite local communities, and de facto formed new administrative territorial units (ATU), consolidated local communities (CLC). In fact, in the last two years Ukraine established 368 CLCs: 159 in 2015 and 209 in 2016 (Figure 1).

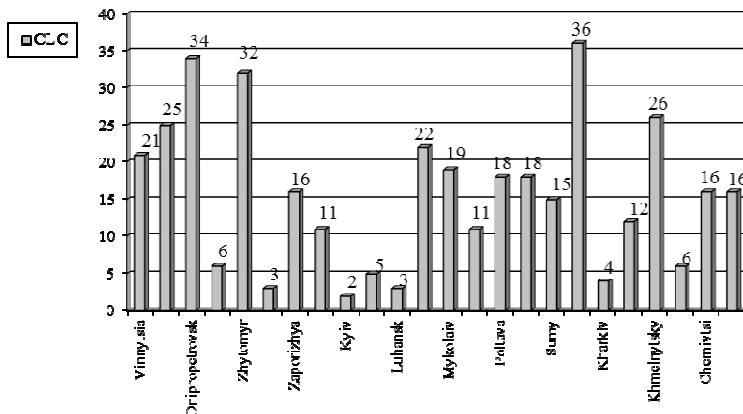


Fig. 1. Consolidated local communities in Ukraine (as of January 1, 2017) [5, p. 8].

The largest number of CLC, 36, is formed in Ternopil region. It makes 27.7% of the region area, and is home to 228.2 thousand (21.3% of the population) [8, p. 22].

CLC territorial structure is affected by its geographical location. The largest CLCs in terms of population are: Narodnytsi CLC in Zhytomyr region (66 settlements), Shishatsk CLC in Poltava region (63 settlements) Novoushatsk CLC in Khmelnytskyi region (53 settlements). Overall, there are about 80 CLCs, which include more than 10 settlements. The remaining 100 CLCs are composed with up to 10 settlements, with 5 CLCs comprising only 2 towns, 8 CLCs which consist of 3 settlements, namely Merefyansk urban (Kharkiv), Kalynivsk urban (Vinnytsia), Zelenodolsk urban (Dnipropetrovsk), Tyachiv urban (Transcarpathian) Pyriatyn urban (Poltava), Pechenizhyn township (Ivano-Frankivsk), Bilyayivsk urban (Odessa), Malovyskivsk urban (Kirovohrad) Kalytyansk township (Kyiv) Bobrynets urban (Kirovohrad) Sokrynsk urban (Chernivtsi) Velykokuchurivsk village (Chernivtsi) Mamalyhivsk village (Chernivtsi). Another 24 CLCs include 4–5 settlements.

Analysis of financial performance data and assessment of financial capacity of newly created CLC was done by Ministry of Regional Development and included the rates of income per capita in 2016, subsidy dependence levels of newly created CLC budgets, indicators of the proportion of development spending in CLC own resources [11]. The first parameter that determines the CLC financial viability is an income per capita indicator. In 2016 14 CLC have income per capita rate in the range of 2 to 3 thousand UAH. Overall, 91 of 159 CLC show income per capita rate over 1 thousand UAH. The remaining 58 CLC have lower income per capita rates. The average income per capita rate is 1.3 thousand UAH, which actually corresponds to the average national index of 1.4 thousand UAH [5].

Most representative indicator of LC financial soundness is the subsidy dependence levels of newly created CLC budgets. It shows the actual amount of newly created CLC budget revenues. Currently, most local budgets are subsidized and need help from the state in the form of intergovernmental transfers. The process of reform provides for the local budgets to get a significant amount of financial resources of the community [3].

According to the Ministry of Regional Development [4], only 22% CLC (34) have subsidy-free budget. Among subsidized budgets (125) 40% CLC (50) have subsidy dependence rate ranging from 0.5% to 20%, 40% CLC (50) have subsidy dependence rate ranging from 20% to 50%, and 20% CLC (25) have subsidy dependence rate more than 50%. Most subsidized is Zoloty Potik CLC in Ternopil region, which is subsidized by 70%. The average percentage of CLC budgets subsidy dependence is 27.6% [8, p. 26].

The presence of development budgets is an important indicator that characterizes the financial viability of newly created CLC, as its share in total budget indicates the amount of money that should be used by CLC for the development of its territory and is the main criterion by which it is possible to analyze the development prospects of CLC areas.

In terms of the proportion of development spending in CLC own resources, leading positions are held mostly by rural CLC. The largest share of funds in CLC budgets allocated for the development of CLC area is in the budgets of the following CLCs: Dnipropetrovsk region Novooleksandrivsk CLC (almost 60%), Khmelnytsky region Rozsoshansk CLC (almost 50%), and Vinnytsia region Kalynivka CLC (47.5%) [8, p. 25].

Due to changes in the tax and budget legislation in the context of decentralization, the volume of local communities' combined budgets has increased more than 2 times (by 1.046 billion UAH) compared to 2015 (827 million UAH to 1.873 billion UAH) [5, p. 5].

Further implementation of the policy of decentralization is bound to become an active factor in stabilizing the socio-economic situation, overcoming the financial crisis, eliminating the contradictions between the various levels of government, organizing relations between the center, regions and local communities on the principles of responsibility and competence as well as partnership in the field of providing the people of Ukraine with state and local benefits, and enhancing the efficiency of budgetary funds at all levels of government.

As part of fiscal decentralization it is appropriate to provide legislative consolidation of functions to be carried out by local governments, and those to be performed by state authorities that will avoid duplication of functions and rational use of financial resources.

It is worth noting that it is advisable to create conditions for improving financial literacy of the people, which is possible through various kinds of conferences, round tables, public participation in budget hearings and so on. Thus, the residents of a particular community might have incentives to increase the revenue base and there would be no doubts about the funds being used irrationally or not as intended. Since the priority direction of the development of a democratic state is to ensure the growth of the welfare of each citizen, local authorities should be accountable to the final consumers of those services, i. e. the population of the municipality, for taken budgetary decisions. It is necessary to ensure transparency of fiscal policy debate in the local press, at budget public hearings, through the institution of local referendum, openness of budget information, and unimpeded access to it for any interested parties.

In order to expand the financial base of support for regional development and ensure the sustainability of local communities in terms of new challenges of regional policy, the following things should be done [1, p. 46]:

- gradually expand the list of tools used by local authorities to increase the amount of their own funds. This in particular, includes attracting investment and expanding loan market of current needs (particularly in the housing and utilities sector to finance water supply maintenance and building renovation), access to the financial markets;

- spread program-target method of preparation and execution of local budgets to increase transparency and efficiency of budgetary funds;

- streamline intergovernmental relations; increase the share of targeted funding to ensure the formation of horizontal intergovernmental relations;

- ensure the expansion of local infrastructure revenue base of regional importance and create new jobs.

However, note that decentralization should be implemented at those management levels, which may effectively provide public social benefits. Decentralization should primarily refer to local level with financial reinforcement of the functions and responsibilities of local government basic administrative units, while issues of financial strengthening of regions need to be considered in the longer term.

Therefore, the effective functioning of local governments in Ukraine can only be achieved through the decentralization of powers with the appropriate transfer of financial resources, which in its turn fully contributes to the efficiency of fiscal policy at the local level.

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3.2. Current trends in decentralization through the lens of execution of local government revenues

The imperative of democracy is the autonomy of the local governments, which provides through the fiscal decentralization, which the second consecutive year demonstrates the positive trends in the context of the financial independence of local authorities and leads to the development of the administrative units. It is possible because of the self-possession and expenditure of financial resources, the size of which meets the functions and tasks assigned to local authorities, enables the realization of the objectives and programs of economic and social development of areas according to selected priorities.

Fiscal decentralization, based on local realities, characterized by ambivalence. The positive aspects are:

– adoption in 2015 amendments to the Budget and Tax Code of Ukraine and a number of important laws that legitimize the transfer to local governments an additional budget authority, securing a stable sources of income for their implementation;

– encouraging local communities to unite and switch to the direct relations with the state budget with resource support at the level of the cities of regional significance and additional obtaining of stabilizing grants and subsidies for building up infrastructure of these communities. Due to this stimulation the local budgets include the combined budgets of united municipalities, whose number since the beginning of decentralization is growing rapidly from zero as of 01.01.2015 to 404 on 01.01.2017. During the year of 2015, 794 village and city councils, which include 2015 settlements, voluntarily united in 159 united municipalities. In 2016 – the creation of another 245 united municipalities. Three leaders in numbers of united municipalities as of 01.01.2017 are Ternopil region (36), Dnipropetrovsk region (24) and Zhytomyr region (32) with a number of settlements that united 345, 419 and 565 respectively [2];

– the introduction of regional implementation of investment programs and projects from the State Fund for Regional Development, which formed in the size of 1% of the General Fund Budget and is in 2015 – 2.9 billion UAH, in 2016 – 3 billion UAH and in 2017 – 8 billion UAH [2].

This reveals that building up the financial capacity of regions and optimization of local budgets create new opportunities for self-development of local communities, provide a proper level of social protection and financial security for today's realities.

Ambivalence of fiscal decentralization in the context of stochastic and destructive tendencies is:

– excessive number of local communities (92% of rural communities have a population of less than 3 000 inhabitants, 11% – less than 500 inhabitants);

– a significant need for subsidies of local budgets (according to State Statistics Service of Ukraine, 50% of rural communities subsidized by 70% and 483 municipalities are funded from grants by 90 %) [5];

– inconsistency of regulatory support in the contradictions of the existing legislation and delay the adoption of amendments to the Constitution of Ukraine;

– lack of qualified personnel on issues of decentralization;

– complexity and multidimensionality of the reform of fiscal decentralization;

– preservation of centralized control of the financial flows of local governments;

– lobbying of fiscal decentralization based on political expediency and political interests of interested subjects.

These factors partially reduce the gains of fiscal decentralization, creating artificial obstacles to the development of the respective administrative units.

The maximum providing of the financial sustainability of regions in the light of the division of powers, functions, responsibilities and resources that are based on revenues of local budgets is the leading motive of fiscal decentralization.

Formation of the budgets of all levels provides an optimal consideration of the interests of the state, local governments, business organizations, public. At the same time the revenue budgets of all levels is a process for full scale development in the context of increasing macro economic and social development indexes of the country.

It is well known that the formation of the budgets at all levels based on the concentration of sources such as tax and non-tax revenues, revenues from property and business activity, income from capital and transfers.

Execution of revenues depends mostly on reality of set targets, legally defined demarcation of taxes and other payments between the state and local budgets, which is the main feature for income stability, economic efficiency, distribution after administration, social and financial effect as a result of redistribution.

Considering the above, let review the effectiveness of mobilization and analyze the dynamics of local budgets and their implementation status during the years 2015–2016 – years of decentralization, budget and tax reforms, innovations, determine their effectiveness and highlight certain trends and characteristics.

First, you need to focus on the dynamics of local revenues and their correlation with the size of official transfers (Fig. 1).

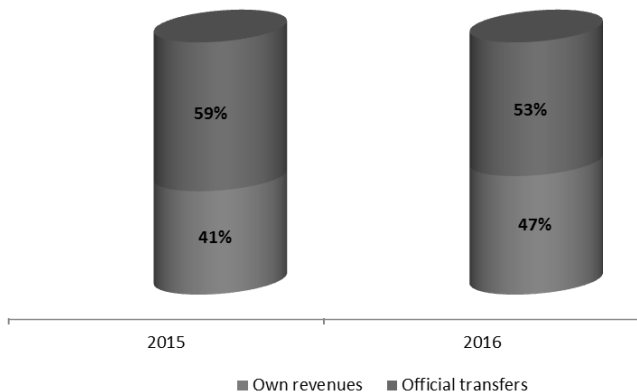


Fig. 1. Structure of local revenues in Ukraine in 2015–2016 years [5].

As illustrated by the data in Fig. 1, within two years of fiscal decentralization the local budget revenues increased by 1.3 times – from 294 billion UAH in 2015 to 366 billion UAH in 2016, which is the main indicator of positive changes on the way for local governments to obtain complete financial autonomy, despite the recession processes in the national economy. Positive changes in favor of the tax on personal income, property tax, single tax and excise tax from retailers.

In addition, the revenue structure demonstrates an increase the share of own revenues of local budgets from 41% to 47%, and reducing the share of official transfers from 59% to 53% during this period, which implicitly confirms the impact of fiscal decentralization [5].

Thus, fiscal decentralization, considering the figures, showing a clear trend towards increasing of the financial base of local budgets, and therefore a prerequisite for the development of administrative units. This, in turn, enables the implementation of socio-economic problems and allows to build up the foundations of financial self-sufficiency of local communities.

Given these positive prospects, let's analyze trends of revenues execution of the city of Ternopil, which is financially self-sufficient, considering the income growth, in a ranking of economic development of Ukraine, but along with it, it's a

region with a low level of socio-economic development and determine the causes, so and consequences data inconsistencies. In the context of the above, consider the features of the formation and execution of budget revenues of the city of Ternopil for the 2015–2016 years (Fig. 2, Fig. 3).

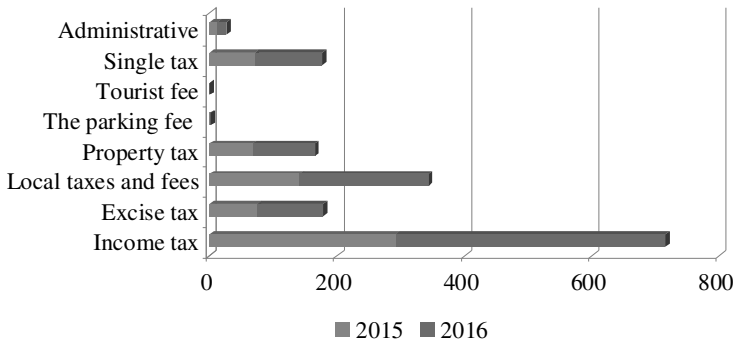


Fig. 2. Dynamics of revenue execution of the city of Ternopil for the General Fund in the 2015–2016 years (excluding official transfers) (mln. UAH) [6].

Shown on fig. 2 and 3 demonstrate the growth of revenues of the city of Ternopil both by General and Special funds during the 2015–2016 – the first two years of decentralization. Thus, the amount of revenues generated of the city of Ternopil (including intergovernmental transfers) for 2015 is 1,301,200,000 UAH, and in 2016 this figure was 1,729,600,000 UAH, which is 38.7 million USD (133%) over the corresponding figure of the last year. This trend clearly illustrates the positive aspects of decentralization already in the first two years of its implementation, despite the economic instability and political differences in the whole country, and the lowest development indexes of this administrative unit.

It is worth to mention that the growth of revenues of the city of Ternopil by General Fund is due to the increasing revenue of:

- income tax – by 1.9 mln. UAH in 2016 compared to 2015 due to the consolidation of the large part of its revenues in local budgets ;
- local taxes – 10.9 mln. UAH in 2016 compared to 2015 in terms of property tax by 4.3 mln UAH due to its inclusion in the structure of objects of nonresidential property and vehicle tax;
- excise tax for the sale of business entities through a network of retail excise goods (alcohol, tobacco and fuel) – by 6.1 mln. UAH in 2016 compared to 2015 as a result of its introduction at the rate of 2% to 5% of the excise goods, including VAT;
- fees for administrative services – by 0.7 mln. UAH in 2016 compared to 2015 due to the transfer in full from the state budget to local budgets and state fees;
- a single tax – by 6.6 mln. UAH in 2016 compared to 2015 due to its transfer from the Special to the General Fund of the local budget.

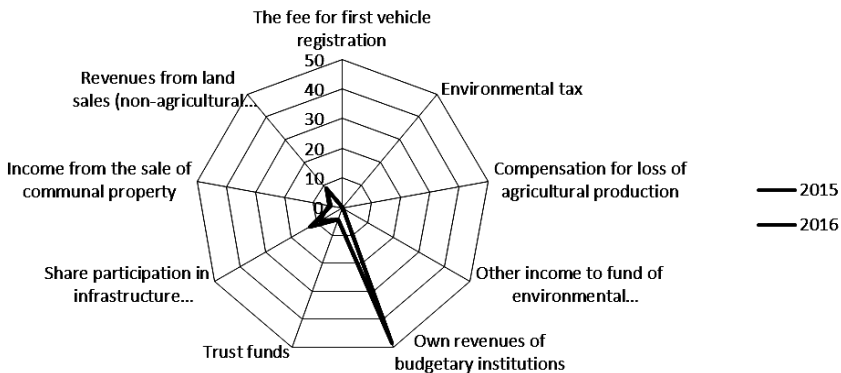


Fig. 3. Dynamics of revenue execution of the city of Ternopil for the Special Fund in 2015–2016 years (excluding official transfers) (mln. UAH) [6].

Regarding the revenue execution of the city of Ternopil by Special Fund during two years of implementation of decentralization, we have singled out the following trends:

1) increase in revenues of the Special Fund of the city budget in 2016 compared to 2015 as part of the development budget of 7.5 mln. UAH, primarily due to the share participation in infrastructure development of the city – 6.8 mln. UAH and revenues from the sale of land (non-agricultural purpose) – 0.7 mln. UAH, which in general positively characterizes the potential to fulfill all commitments made by local authorities of Ternopil;

2) increasing the Special Fund of budget of the city of Ternopil in 2016 from own revenues of budgetary institutions. Their volume is steadily increasing – from 46.3 million UAH in 2015 to 48.8 million UAH in 2016 (at 1.1 times), which also stabilizes the financial budget of a Special Fund of the city of Ternopil.

As for official transfers, it should be noted about increasing of their volume in the structure of local budgets. In particular, the General Fund of the city of Ternopil shows an increase of 484.9 million UAH in 2015 to 886.1 million UAH in 2016 by gaining stabilization grants (3.4 mln. UAH) and subsidies – educational, medical and other (882.7 million UAH). For Special Fund the subsidy transfer occurs through the balance of educational grants in the amount of 0.5 mln. UAH. However, the positive aspect is the reduction of the share of official transfers in the revenue structure of the city of Ternopil during the 2015-2016 from 55.8% to 53.7% respectively, which state about another positive indicator of fiscal decentralization that creates new conditions for further financial autonomy of the local community.

In the context of the research we consider the features of execution of budget revenues of the city of Ternopil in terms of each of the funds (Table 1). Accordingly, by the General Fund in 2016 there is a slight over-budget of the city of Ternopil index of 101.2% compared to figures in 2015, while the Special Fund is over by a significant 31.5% in 2016 compared to 2015.

Table 1

Status of of revenue execution of the city of Ternopil for General and Special funds during the 2015-2016 (mln. UAH) [6]

Revenues	Fact 2015	Plan 2016	Fact 2016	Deviation 2016 to 2015 (+/-)	Execution (%)
Total revenues, mln UAH including	1301,2	1690,8	1729,6	+428,4	102,3
– General Fund	1228,1	1630,3	1649,9	+421,8	101,2
– Special Fund	73,1	60,6	79,6	+6,5	131,5

Overall, the budget of the city of Ternopil fulfilled by 102.3%, which implicitly reveals that indicators of over-planned revenues, and this, in turn, clearly demonstrates the positive effects of fiscal decentralization in the context of the acquisition of local governments financial autonomy, creating opportunities for further development of the city of Ternopil and welfare of its inhabitants.

Evaluation of local budgets and city budget of Ternopil after two years of implementation of the decentralization allows you to recognize this as a breakthrough in local government because local governments have increased the revenue base, optimize the expenditure side, which created conditions for the achievement of full financial autonomy of local authorities and development of each local community and community of the city of Ternopil among others.

We are convinced that further steps towards decentralization should not destroy the achievements of the two years of its implementation, which are illustrating the Law of Ukraine «On the State Budget of Ukraine for 2017», the Law of Ukraine № 1791 «On Amendments to the Tax Code of Ukraine and some other legislative acts of Ukraine concerning the balance of budget revenue in 2017», the Law of Ukraine № 1795 «On amendments to section XX «Transitional provisions» of the Tax Code of Ukraine to support the aircraft industry», the Law of Ukraine № 1797 «On amending Tax Code of Ukraine on improving the investment climate in Ukraine», Law of Ukraine № 1789 and № 1794 «On Amendments to the Budget Code of Ukraine», but rather to achieve secure data and implement reform in order to increase revenues of local budgets, and the budget of the city of Ternopil, in particular:

- transfer of the full of income tax on personal income to local budgets;
- introduce transparent procedures for obtaining funds for regional investment programs and projects from the State Fund for Regional Development and maintenance of control over this process by the local community;
- strengthening the control of the tax assessment of real property;
- prohibition of certain subsidies from the state budget to local budgets, thereby shifting the financial burden to local governments that do not have adequate financial capacity;
- creating the real financial incentives to merge local communities in order to increase the financial sustainability of the regions;
- ensuring the training of qualified personnel to implement the program of fiscal and financial decentralization.

The actual implementation of these measures will enable the expansion of revenues of local budgets, will neutralize the negative trends of adopted legislation, will not allow achievements of two years' fiscal decentralization transit to the selective reforms for reasons of political expediency.

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3.3. Transformation of budgetary relations in the context of decentralization

The negative effects of globalization processes, the global economic crisis, the contradictions of the home social and economic policy of Ukraine caused by insufficiently effective, and in some cases totally ineffective reforms, and strengthened by military aggression in Eastern Ukraine, the frequent changes of legislation have led to numerous problems in the sphere of budgetary relations. The main ones include constant violation of the rules of the Budget Code of Ukraine regarding the deadlines for adoption and promulgation of legislative acts that affect budget revenue and/or spending, excessive centralization of budget funds, physical inability (due to excessive workload) of the majority of experts to quickly and objectively evaluate the reality and make justified calculations for optimal decision making, increased amount of the detected budget violations, and simultaneous reduction in the number of people brought to a certain kind of responsibility, etc.

Given the above and considering a significant role of the budget as a tool for regulation of social and economic processes, the relevance of the issue does not cause any doubt, especially under the conditions of proclamation of the budget decentralization. In particular, the process of reforming the budget system and changes it has caused in the organization of relations between the budgets require a detailed analysis in order to compare the obtained and expected results.

Many Ukrainian scholars and practitioners have studied the problems outlined above, in particular S. Bukovynskiy, O. Vasylyk, V. Demianyshyn, I. Zapatrina, A. Kyrylenko, L. Lysiak, I. Liutyi, I. Lunina, A. Miarkovskiy, C. Ohon, K. Pavliuk, S. Slukhai, V. Fedosov, S. Yurii, I. Chuhunova, I. Shcherbyna, and others. However, implementation of the appropriate measures in the framework of reforming the budget system and relations between the budgets contribute to the objective necessity of evaluating their results and generation of proposals on budgetary relations improvement.

Since the independence was proclaimed in Ukraine, the process of, firstly, establishment, and later – reforming of the budget system and relations arising in the course of its functioning, began.

Owing to the reforms (2001, 2010, 2015), the Ukraine’s budget system has undergone significant changes. In particular, the approaches to budget planning have changed; servicing of the State and local budgets; the principles of inter-budgetary relations organization; a number of local budgets were united in connection with the establishment of joint territorial communities, the process of decentralization began, due to which a partial transfer of powers and responsibilities from the state to the local authorities was made. A share of the local budgets revenue (without inter-budget transfers) in the structure of revenues of the Consolidated budget of Ukraine for the past fourteen years had a steady downward trend, except for some years (2006, 2007, 2009, 2012, 2013) (Figure 1). In the specified, as an exception, years, the share increase compared to the previous year was insignificant and ranged from 0.6 to 1.2%, in 2007 – 3.3%, which has almost had no effect on the determined tendency. That is, since the beginning of the budget reforms implementation, a systematic centralization of funds has been taken place, which resulted in the fact that the share of local budgets revenues in the budget revenue part of the Consolidated budget of Ukraine made as much as (!!!) 18.5% in 2015. In 2016 the situation has slightly improved – the studied rate increased by 3.3 percentage points. However, in 2017, under the plan, it fell back to 19.4%.

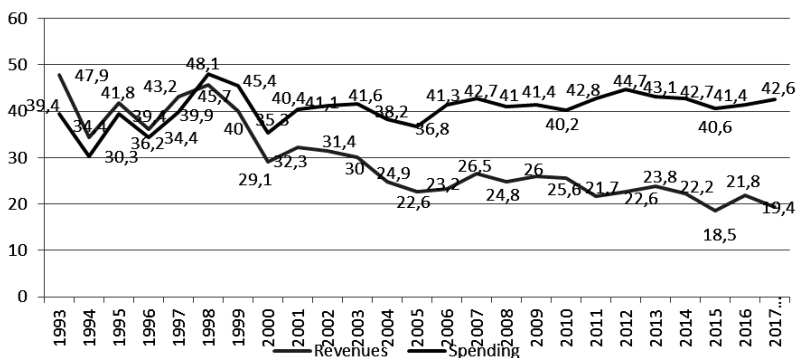


Fig. 1. Dynamics of the share of revenue and spending of the local budgets in the consolidated budget revenue and spending in 1993–2017.

* compiled by the authors based on the annual reports on the implementation of the Consolidated and local budgets of Ukraine.

In fact, about 3/4 of the amount of funds received by the state budget as a result of the GDP distribution is concentrated at the disposal of the central government authority, and only later on are handed over to the local governments' budgets in the form of inter-budget transfers.

The above updates the need for continued budget reforms towards actual budget decentralization.

A question arises, «And what is the essence of budget decentralization and how should it be reflected in practice?»

Based on the classical definition, according to which a decentralization – is a system of management in which a part of the central management functions is transferred to the local self-government authorities; cancellation or weakening of centralization [1], under budget decentralization one should understand the process of transfer of powers, financial resources and responsibility from central government to local authorities.

First of all, there should be an understanding that the budget decentralization should be considered as a mechanism of improving the efficiency of distribution and use of the budget funds. Thus, to get positive results due to an implemented reform not only the powers, which allow spending, should be passed on from the state to local authorities, but also a sufficient amount of financial and other resources to support them, as well as responsibility for implementation of these powers.

Budget decentralization carried out within the reform will be considered successful if its results in improved quality of public services, intensification of investment and entrepreneurial activity, strengthening of the financial base of the local self-government, improvement of socio-economic situation of cities and villages, development of the depressed regions, growth of jobs and slowing down of migration processes.

It is worth mentioning that no reform will ever be successful if there is a possibility to avoid responsibility for the committed offense, and a systematic non-observance of the budgetary discipline. Unfortunately, both are relevant for Ukraine. Thus, for example, the rule of the Budget Code is violated each year, which concerns the adoption of the Law of Ukraine or certain provisions thereof that affect the budget targets, a draft of which is drawn up for the next year (budget revenues are reduced and/or budget spending is increased), «not later than by July 15 of the year preceding the planned one» [3]. The extent of liability for violation of this rule is not prescribed by any legal act Ukraine.

Part 6 of Article 159 of the Law of Ukraine on the Regulations of the Verkhovna Rada of Ukraine No. 1861-VI dated 10.02.2010 on the deadline for adoption of the Law on the State Budget of Ukraine by December 1 of the year preceding the planned year is also systematically not implemented. For the years of independence of the Ukrainian state, the government succeeded to comply with that rule only once while adopting the Law on the State Budget for 2004 (November 27, 2003). The quality of this important document has also deteriorated, as evidenced by the number of amendments introduced (Fig. 2).

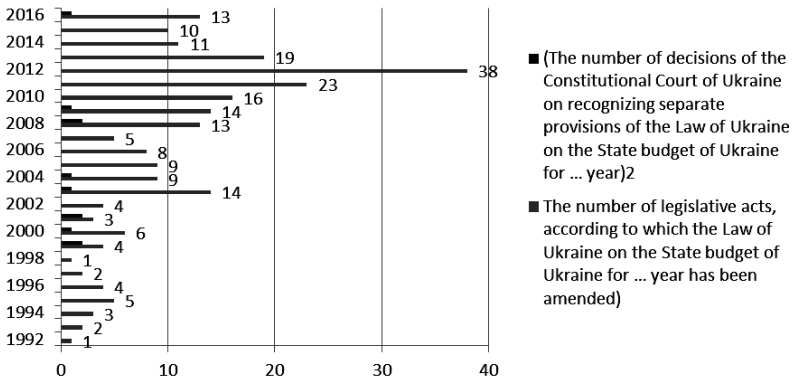


Fig. 2. Dynamics of the number of legislative acts, under which the laws of Ukraine on the State Budget of Ukraine for the corresponding year were amended.

It is worth mentioning that none of the implemented reforms have ever influenced the solution of these problems. On the contrary, this situation has not only a negative impact on the budget process in Ukraine, but also creates new problems in other branches. For instance, for «successful» implementation of the budget reform the fundamental principles, on which the tax legislation should be based, are violated. In particular, the principle of stability has been systematically violated since the adoption of the Tax Code of Ukraine (Table 1). It consists in the fact that «changes to any elements of taxes and duties cannot be made later than six months before the beginning of the new budget period, when new rules and rates will be effective» [5]. What is more, according to this principle, taxes and duties, their rates, tax incentives cannot be changed during the budget year. Let us recall that tax elements are subject, object, rate, taxable entity, taxable base, the source of payment and quota.

Table 1

Violation of the stability principle of the tax law in Ukraine

Content of changes	Changes to tax law		Deviation from the legally established rule
	Adopted	Date of validity	
1	2	3	4
Changing the existing tax law based on the adoption of the Tax Code of Ukraine	02.12.2010	01.01.2011	1)... 5 months and 28 days earlier
Temporary tax benefits for UEFA	21.04.2011	25.05.2011	1)... 4 months and 26 days earlier
Changing the rates of export duties on certain types of crops	19.05.2011	01.07.2011	2)... should have been 6 months later
Extension of zero VAT rate application for certain operations on natural gas supply	20.09.2011	11.10.2011	1)... 8 months and 20 days earlier
Revision of certain rates of some taxes and duties	22.12.2011	01.01.2012	1)... 5 months and 8 days earlier

Table 1

1	2	3	4
Some features of the income tax collection	23.02.2012	01.04.2012	1)... 7 months and 23 days earlier
Adjustments of the excise tax rates	15.05.2012	27.05.2012	1)... 10 months and 15 days earlier
Resizing incentives in collection of corporate income tax derived from the provision of hotel services	06.07.2012	01.08.2012	2)... 5 months later
Changes of the excise tax rates	06.11.2012	10.11.2012	1)... 4 months and 6 days earlier and 2)...01.01.2013
Changing the terms of the environmental tax payment on certain transactions	04.07.2013	04.09.2013	2)... not earlier than 01.01.2014
Suspension of certain provisions of the Tax Code	16.01.2014	01.01.2014	1)... 5 months and 16 days earlier
Changing taxation of certain transactions	08.04.2014	18.04.2014	1)... a 9 months and 8 days earlier
Changing the terms of taxation of passive income	04.07.2014	02.08.2014	2)... not earlier than 01.01.2015
Changing the term of tax incentives provision concerning taxation of certain companies and organizations	04.08.2014	04.09.2014	1)... 1 months and 4 days earlier, and 2)... 01.01.2015
Improving the investment activity taxation	07.10.2014	08.11.2014	1)... 3 months and 7 days earlier, and 2)... 01.01.2015
Changing the terms of taxation of certain transactions	02.03.2014	13.03.2014	2)... not earlier than 01.01.2015
Extending the list of income tax payers who uses the benefits as non-profit organizations	18.03.2015	10.04.2015	2)... not earlier than 01.01.2015
Exemption from taxation of certain drugs and medical devices	07.05.2015	01.01.2016	Rule not violated
Changing certain conditions of income taxation received by non-residents for debentures	22.05.2015	27.05.2015	2)... not earlier than 01.01.2015 or 1)... 4 months and 22 days earlier
Improving the VAT administration	16.07.2015	29.07.2015	2)... not earlier than 01.01.2015
Regarding the peculiarities of taxation during restructuring of public and publicly guaranteed debt and its write-down	17.09.2015	20.09.2015	1)... 2 months and 17 days earlier, and 2)... 01.01.2015
Regarding the stimulation of development of the market of used vehicles	31.05.2016	01.08.2016	1)... 4 months earlier, or 2)... not earlier than 01.12.2016
On clarifying certain provisions on the taxation of non-profit organizations	06.10.2016	20.11.2016	1)... 4 months and 16 days earlier or 2)... not earlier than 06.04.2017

Table 1

1	2	3	4
supporting aircraft industry	20.12.2016	01.01.2017	1)... 5 months and 20 days earlier
Regarding inheritance tax	23.02.2017	25.03.2017 Applied to income earned since 01.01.2017	1)... 7 months and 23 days earlier

1) *Should have been adopted.*

2) *Validity date.*

Data provided in Table 1 and Figure 2 are indicative of poor preparation (neglecting many terms, tendencies, lack of validity of calculations with regard to the impact of legislative acts on various aspects of economic development and living standards, etc.) of the adopted legislative acts, namely the Tax and the Budget Codes of Ukraine.

Against the background of the above, legislative innovations on generation and approval of the local budgets irrespective of the adoption of the state budget (by December 25 of the year preceding the planned one) are timely and positive. It allows the local governments to be more independent.

Among the positive features of the budgetary reform, we should also note the right granted to the subjects of budgetary relations of independent selection of agency servicing the budget funds of local budgets development and own revenues of budgetary institutions (the Treasury bodies or the institutions of state banks); independent regulation of single tax rates, property tax and determination of fee for parking spaces for vehicles, tourist fee; simplification of the procedures for provision of local guarantees of making local borrowings from international financial organizations; a radical change of approaches to horizontal alignment of the income-bearing capacity of the local budgets; replacement of equalization subsidy to the basic one, and the funds transferred to the state budget from the local budgets – to the reverse subsidy; strengthening of the responsibility of the line ministries (Ministry of Education and Science of Ukraine, Ministry of Health) in connection with the introduction of the provision from the state budget to the local ones of medical, educational subvention and subvention to support the training of workers in vocational and other schools (in 2015 – subvention for workers training) for the implementation of the state policy in the relevant area locally, etc.

However, these positive steps as a part of the reforms failed to solve the problems that have accumulated in the budget sector. The most substantial among them, in our opinion, is a chronic lack of funds to implement not only delegated, but also own powers by the local authorities.

Thus, «ensuring obtaining of vocational education in the public and municipal secondary schools, vocational schools» belongs to own powers of the executive bodies of village, town and city councils. According to the laws of Ukraine on the State Budget of Ukraine for 2016 No. 928 dated 25.12.2015 on the Amendments to the Budget Code of Ukraine No. 911 dated 24.12.2015, funding of vocational education in the cities of regional significance is transferred from the State budget to

the relevant local budgets. However, according to the Ministry of Education and Science of Ukraine, due to the limited financial resources funding of 78 vocational schools in 33 cities of 14 regions was not envisaged at all in 2016. The above situation led to the introduction of amendments to the Budget Code of Ukraine in February 2016, again in violation of paragraph 3, Article 27 of this document.

The results of analysis of dynamics of the local budgets revenue part structure give no evidence in favor of decentralization (Table 2).

Table 2

Dynamics of the structure of local budgets revenues in Ukraine, 2002–2016

Years	Tax revenues	Non-tax revenues	Revenues from capital transactions	Special purpose funds	Inter-budget transfers
2002	58.3	7.3	2.2	1.0	31.2
2003	54.2	7.1	3.0	1.5	34.2
2004	46.2	5.5	4.3	1.5	42.5
2005	44.0	6.6	3.9	2.1	43.5
2006	40.8	6.3	3.5	1.9	45.0
2007	41.7	6.0	4.3	2.5	41.7
2008	43.1	5.6	3.3	1.7	43.0
2009	44.0	5.8	1.9	1.1	46.2
2010	42.4	5.5	1.6	1.0	49.5
2011	40.3	6.0	1.0	0.5	52.3
2012	38.1	5.6	0.8	0.3	55.2
2013	41.3	5.5	0.6	0.2	52.4
2014	37.7	5.3	0.5	0.2	56.4
2015	33.4	6.8	0.6	0.1	59.1
2016	40.2	6.0	0.4	0.1	53.4

Note. Calculated by the authors based on the annual reports on performance by the local budgets for 2002–2016.

During this period in Ukraine quite a stable upward tendency of the share of inter-budget transfers within the local budgets revenues (from 31.2% in 2002 to 59.1% in 2015) and the decline in the share of tax revenues (from 58, 3% in 2002 to 33.4% in 2015) have been revealed. The first positive results on the fiscal decentralization was obtained only in 2016. The share of tax revenues in the structure of local budgets compared to 2015 increased by 6.8 percentage points, while the share of intergovernmental transfers – decreased by 5.7 percentage points.

The tendency of the ratio of the growth rate of total revenues from the local budgets and transfers is also negative (Fig. 3). Thus, for the past 15 years the growth rate of the scope of transfers exceeded the growth rate of revenues (without consideration of inter-budget transfers) of the local budgets only in 2007, 2013 and 2016. This once again confirms the lack of fiscal decentralization in Ukraine in practice, and gives evidence of low taxable capacity of the majority of Ukraine's regions.

Summarizing the above, we shall state that the existing procedure for the formation of local budgets insufficiently encourages the local authorities for action on pumping up the budgets, and is a risk factor for economic and social development of the regions and the national economy. In addition, formation of the revenue part of

the local budgets mainly at the expense of transfers from the State budget influences the structure of their expenditures since a greater share (96,5%) in the structure of transfers make targeted subventions provided for specifically defined objectives (Fig. 4).

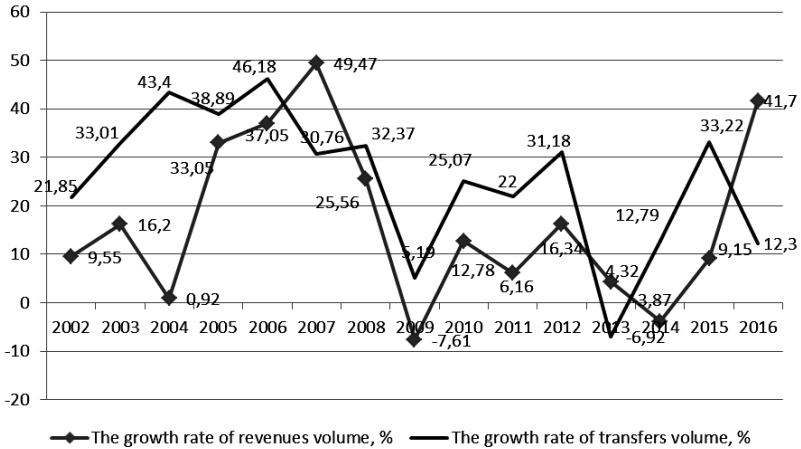


Fig. 3. Value for growth rates of transfers from the State budget and local budgets revenues in Ukraine, 2002–2016.

* without transfers.

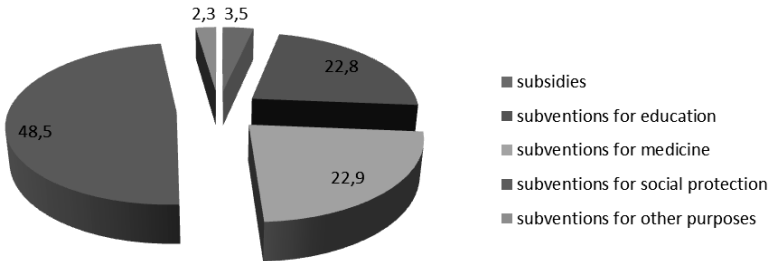


Fig. 4. Structure of inter-budget transfers from the State budget to the local budgets of Ukraine in 2016.

Quality performance of functions by the state can be achieved through the appropriate scope and the optimal structure of spending of the state and local budgets of Ukraine. Budget expenditures are made in the process of distribution of the centralized fund of the state’s monetary assets, which is based on – the scope and the nature of the functions of the public and local authorities predetermined by the

Constitution of Ukraine, and its use for the implementation of the approved programs and activities [2].

Expenditures of the local budgets of Ukraine are dominated by spending on the sectors, for which the state allocates subsidies from the state budget, namely education, healthcare, social protection and social security (Table 3). On the one hand, it demonstrates the importance of these expenditures. However, given the fact that capital expenditures in the structure of local budgets expenditures by the economic classification for these sectors do not exceed 6%, we cannot speak about the great prospects of development in the provision of educational, medical or social services.

Table 3

Dynamics of the structure of expenditure of the local budgets of Ukraine in 2000–2016, %

Types of expenditure	2000	2005	2010	2012	2014	2015	2016
General state functions	7.95	5.23	6.43	4.76	4.88	5.19	4,63
Defense	0.04	0.00	0.00	0.00	0.09	0.002	0,002
Public order, security and judiciary	1.42	0.07	0.16	0.09	0.11	0.11	0,11
Economic activity	13.08	12.39	4.92	5.84	4.09	6.83	9,92
Environmental protection	1.52	1.91	0.37	0.54	0.39	0.53	0,42
Housing and utility sector	5.87	6.77	2.89	8.85	7.84	5.60	5,00
Healthcare	22.62	21.95	22.68	21.16	20.64	21.26	17,97
Spiritual and physical development	3.82	4.79	4.01	3.68	3.98	3.43	3,40
Education	23.53	30.38	32.16	32.03	31.66	29.99	27,00
Social protection and social security	12.42	13.76	22.20	22.46	25.46	25.94	30,35
Funds transferred to the state budget	7.43	2.73	4.18	0.58	0.93	1.12	1,19
Total expenditures	100	100	100	100	100	100	100

Note. Calculated by the authors based on the annual reports on performance by the local budgets for 2000–2016.

The data in Table 3 shows that the budget reforms undertaken affected the structure of expenditure as related to social protection and social security, and education, the share of which increased from 12,42% and 23,53% in 2000 to 30,35% and 27% in 2016 respectively. At the same time, the share of spending on economic activity, general state functions and inter-budget transfers transferred to the State budget dropped.

The joint share of spending on education, healthcare, social protection and social security in the structure of local budgets spending amounted to 75,32% (2016), and given the amount of subsidies for these branches (69,7% of the local budgets spending on education, healthcare and social protection was financed by subsidies), we can conclude that actually the central government authorities determine what and how should the local authorities finance.

A simultaneous increase of the scope of transfers from the state budget to the local budgets during this period confirms the thesis once again about excessive

centralization of the budgetary finds, and does not give the local authorities sufficient autonomy in allocating these resources. In turn, this affects the development of their territories and the volume of gross regional product.

Along with changes in the structure of local expenditures resulting from the transformation of the system of intergovernmental transfers and mechanism of financial equalization, in 2016 some incorporated municipalities and cities that have changed their community-based status to regional-based one, broadcast subsidies on healthcare, education and others received from the state budget from their budgets to other local ones (mostly community-based ones). The above-mentioned contradicts the basic reform principles of decentralization of power and in particular the concept of building intergovernmental financial relations – subsidiarity. However, this phenomenon will hopefully be temporary till district councils do not send over villages, towns of any kinds from common ownership of local communities to ownership of joint territorial communities, created by law and future plan of community areas, budgetary institutions located on their territory, in accordance with the distribution of expenditures among the budgets defined by the Budget Code of Ukraine.

The equalization mechanism for fiscal capacity of territorial units implemented in 2015 not by expenditures but by income will certainly encourage regions to increase revenues of local budgets. However, the possibility of converting the amount of specified transfer due to changes in key indicators (population, the actual income tax on personal income and corporate income tax) that may occur during certain fiscal year as a result of certain conditions, is not stipulated in the current manner of calculating the planned amount of basic (reverse) subsidy for the next budget period. So, the amount of these types of transfers planned in 2016 to 2017 is not transferred. Consequently, the impact of certain factors (eg, change of registration and registration of large taxpayers) can lead to significant underperformance (overfulfilment) of the plan for revenues and receiving (deletion) of unjustified, overstated or understated amount of basic (reverse) subsidies. In general, the amount of basic (reverse) subsidies in all local budgets of Ukraine is not changed due to such abnormalities, but for the individual local budget it can be a significant problem because it prevents expenditures in full to realize planned powers of local government.

A comparative analysis in tax proceeds received by the local budgets in 2014–2015, at first glance, indicates positive changes as a result of the budgetary reform: increase of tax proceeds to the local budgets in 2015 compared to 2014 (data without consideration of ARC budgets) by 13.8%, which was mainly due to the new payment – the excise tax on sale of sub-excise goods by the business entities of retail trade; crediting of 10% income tax of the private sector companies to the regional budgets; increase of single tax receivables, which in 2014 was credited to a special fund, and in 2015 – to the general fund of the local budgets and payments for land (land tax). Thus, the local budgets received such a significant additional resource as a result of decentralization only through the transfer of a part of corporate income tax (3689,86 mln UAH) and excise duty (7684,63 mln UAH). Other significant taxes have been included to the local budgets before decentralization. At the same time local budgets lost about 17,636,860,000 mln UAH due to the fact that in 2015 25%

tax on personal income, paid in Ukraine (excluding the territory of Kyiv and Sevastopol) and 60% – in the city of Kyiv, is included in the state budget revenues.

Turning to the budgets of joint territorial communities, it should be noted that own revenues of these budgets in the 1st half of 2016 compared to the same period in 2015 actually increased more than 3 times (on 906 mln UAH), including by taxes on personal income – at 701 mln UAH, excise tax – 74 mln UAH, single tax – 50 mln UAH, payment for land – to 786 mln UAH [4]. However, the main reason for this increase cannot be measures undertaken within the fiscal decentralization. In particular, in the 1st half of 2016 the significant increase of income tax on personal income to the combined budgets of local communities compared to budget revenue of villages and towns of any kinds, that are included in those communities, compared to the 1st half of 2015, can be explained by the following factors: on 1 January 2015 income tax is not counted to the revenue of villages and towns of any kinds, which are not included in the joint territorial communities; and it can also be explained by the growth of tax rate on personal income from 15% to 18% in 2016.

Increasing the excise tax was due to the increased cost of excisable goods (combustive and lubricating materials, alcoholic beverages, etc.) caused by currency depreciation and rising prices for above mentioned products.

Due to the activities carried out within the framework of fiscal decentralization, revenues to the combined budgets of joint territorial communities from land tax and single tax increased. In connection with limited financial resources and because of the opportunities provided by local governments to set tax rates on land, these rates in most settlements were revised upward. Single tax increased due to innovations introduced to the Tax Code of Ukraine at the end of 2014, and related to single tax payers of the fourth group.

In general, in the 1st half of 2016 local budgets compared with the 1st half of 2014 by major tax revenues as in 2015 compared to 2014, suffered losses more than received additional resources. Thus, more than 11 bln UAH of personal income tax are received by the State Budget of Ukraine in the framework of removal of this resource from the revenues of local budgets. At the same time income tax, which was previously counted in the State Budget of Ukraine, and excise tax were received by local budgets in less than 8 bln UAH. So, in the end, local budgets lost more in tax revenues than obtained.

Thus, we can conclude about the lack of effectiveness of the budget reform. It is not worth evaluating the reform without consideration of all factors, i.e. based only on the overall increase of revenues to the local budgets through transfers from the State budget and their increase only by individual budgets, first of all of the cities of regional significance, and villages or towns with petrol stations on their territories.

Studying the practice of budget decentralization in post-socialist countries of the EU, the growth of a share of own revenues of the local budgets should be noted (Estonia – 62%, Slovenia – 62%, Czech Republic – 73%) rather than transfers.

Based on the foregoing, we believe that the main obstacles to obtaining the expected effect of the budget reform are haste with its implementation and incompleteness of industrial and administrative-territorial reforms. First, it makes sense to complete the health care system, education, social security and administrative-territorial reforms, based on the priority of decentralization and

subsidiarity principles. The result of the reform should be an optimized network of educational establishments, healthcare and social institutions; clearly defined powers of local government bodies; elimination of district public administrations simultaneously with the creation of executive bodies of the relevant local councils.

While these reforms are not finished, the structure of revenues of village, town and city (cities of regional significance) budgets should be left unchanged. However, the composition of revenues of the joint territorial communities should be determined so that compared with the revenues of the above stated budgets of local self-government it would be much more advantageous.

The suggested sequence of changes would allow avoiding charges for the use of budget reform as an enforcement mechanism for the creation of joint territorial communities.

Under current situation with further reforms we, above all, should respect the stability principle of the tax law and regulations prescribed by art. 27 of the Budget Code of Ukraine. Taxpayers and other agents of budgetary relations when planning their activities should be ready for changes. The haste with reforms does not guarantee the effect of their implementation. It creates additional problems instead, and contributes to strengthening of social tension in society, as well as increased economy shadowing. Budgetary reform should be preceded by measures stimulating intensification of business activity in settlements with low levels of taxability.

Further reforms of inter-budgetary relations should be carried out based on the model of «mild decentralization», which provides for the implementation of specific measures in terms of five stages: 1) increasing the efficiency of budgetary funds use by further reforming of major sectors funded from the local budgets; 2) completion of administrative-territorial reform, which would allow creating a new model of local self-government in Ukraine; 3) determining a clear division of functional authorities and responsibility for provision of public services between the tiers of authority; 4) reducing the dependence of local governments from the central government on generation of revenues and expenditures of local budgets through continuation of tax reforms and raising initiative of local self-government authorities; 5) improving the current system of inter-budgetary relations in accordance with the newly created model of local self-government in Ukraine.

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3.4. Local tax policy in Poland

Poland's local tax policy, identified with local authorities' power to impose taxes, is widely discussed as an issue which, over a longer time horizon, is strategic in its nature, contributing to the short- and long-term financial stability of gminas (municipalities) and cities [3, p. 224]. Granting the power to impose taxes to municipalities and cities with county rights entitles them to set the level of local taxes and charges (assuming that the highest levels are set by the Minister of Finance), as well as to grant tax exemptions and concessions. Therefore, the selection of local tax policy instruments has a direct impact on budgetary revenue and balance, the possibility of financing municipality investment projects as well as the process of creating a competitive environment [18, p. 275].

It should be noted that the power to impose taxes causes much controversy with regard to the structure of local taxes and charges in the first place, their fiscal implications and increased taxpayer awareness (whether or not they are viewed as election campaign slogans or a significant source of revenue for stimulating local development), and, finally, tax policies adopted by municipalities and cities with county rights. In 2010, municipalities' local tax revenue accounted for 16.2% of their total revenue, while in the cities with county rights – 14.6%. In 2016, the respective figures were 15.9% and 12.1%. Simultaneously, a considerable decrease was recorded in the revenue resulting from the power to impose taxes, amounting to PLN 3–4bn in gminas, and PLN 625–790m in cities with county rights 2010–2016.

Territorial government entities in Poland (municipalities, powiats/counties and voivodeships/regions) belong to the public finance sector. Moreover, they perform a significant role in satisfying public needs (those of local and regional communities), as well as in financing the provision of goods and services. The three-level local government structure is based on municipalities which assumed responsibility for most public tasks in 1990 (as a result of the centralization programmes implemented in 1990, 1992, and 1999). The performance of these tasks implies the need for an appropriate financing system. Municipalities rely on their own revenue sources, general subsidies, designated subsidy from budgetary sources and other optional funds. The structure of municipalities' own revenue comprises local taxes and charges (tax imposition revenue), constituting a major source of revenue from the fiscal perspective as well as a legal and financial status¹. It should be stressed that Poland has adopted a system for local community financing, which is similar to the German system, allocating revenue from local taxes and charges only to municipalities and cities with county rights².

In 1990, when local governments were reconstituted, taxes were divided into state and municipality taxes, and following the establishment of powiats and voivodeships in 1998, the state deprived them of local tax revenue. This solution is

¹ As of 1 January 2004, revenue from income taxes (PIT and CIT, percentagewise) is regarded as own revenue.

² A city with county rights is a municipality which performs powiat tasks. Poland has 2,478 municipalities and 66 cities with county rights.

criticized, especially with regard to powiats, for its inconsistency with Art. 9 Par. 3 of the European Charter of Local Self-Government [8, p. 104].

Poland does not have an explicit, legally based definition of local taxes. Taxes and charges classified in the national legislation as local taxes are only enumerated in the Act on taxes and local charges [20]. Local taxes in Poland include the following: property tax, agricultural and forestry tax, tax on means of transport, income tax paid by natural persons as fixed amount tax, inheritance and donation tax, and tax on civil law transactions. Local charges, on the other hand, are as follows: stamp duty, market charge, visitors' tax (local charge), spa service tax, dog tax, service charge, advertising fee, and others. However, in accordance with the doctrine of public finance law, local taxes are vested in the hands of territorial government entities having the power to impose taxes [6].

Without going into detail, let us just state that local taxes should have certain characteristics. Literatures give attention to such issues as fiscal effectiveness, permanent links between taxpayers and a given region, aimed to prevent tax escapes, the equal distribution of the tax burden, or taxation simplicity [7, pp. 156–157].

Moreover, literatures identify three taxation models (local tax systems adopted by EU member states) [4, pp. 16-17]:

1. the Scandinavian model – the share of tax revenue in GDP amounts to 10%–20%, while its share in the total tax revenue is 20%–50%. This model is adopted in Sweden, Denmark and Finland.

2. the Latin model employed in Italy, France and Spain, where the respective figures are 4%–6%, and 10%–20%.

3. The Hanover model – local taxes account for 1%–2% of GDP, and their share in total tax revenue stands at 4%–5%. This model is applied in Germany, the Netherlands and the UK.

The Polish system of local taxes is characterised by its low share in GDP, oscillating around 3% – hence its similarity to the Hanover model. However, the share of local taxes in Poland in total tax revenue exceeds the level of the Hanover model (4%–5%) [9, 109]. It should also be stressed that European local tax systems can be classified on the basis of a type of their revenue generating taxes. In West European and most CEE countries (including Poland) local tax systems are based on property tax, with property tax systems being different in particular countries due to the lack of harmonised property taxes in EU member states. On the other hand, income taxes play a major role in such countries as Denmark, Sweden, Norway, Finland, Belgium and Croatia [p. 54].

The above mentioned power to impose taxes, enabling municipalities to determine the amount of local taxes, originates from Art. 168 of the Constitution of the Republic of Poland [23]. Simultaneously, as set out in the legislation, this power is limited by the scope defined by the Act. Therefore, this power is limited to modelling the tax burden, which indicates that gminas do not have the actual power to levy taxes [5, p. 10] and that gmina and city councils do not have the right to impose new or revoke existing taxes. The power to impose taxes applies only to those cases in which they are collected by local government bodies (village head or mayor). In practice, it only relates to 4 local taxes – property tax, agricultural tax, forestry tax,

and tax on means of transport¹, implying the municipality's right to set the level of tax rates and grant exemptions. The right to determine tax rates under the binding legal acts is understood as the actual right to set their levels, or it can be exercised indirectly through the lowering of rye and sawmill purchase prices. With regard to the four above local taxes, municipality and city councils are also entitled to specify the terms of tax payments and tax return obligations [10, p.]. Municipality and city councils with county rights can grant specific preferences (tax concessions and exemptions, postponed payments, instalment payments, write-offs of tax liabilities, etc.). The competences of municipality and city bodies are presented in detail in Table 1.

Table 1

Municipality and city competences with regard to property tax, tax on means of transport, and agricultural and forestry tax

Local tax	Scope of competences
Property tax	<ul style="list-style-type: none"> – setting the levels of tax rates depending on location, core business and state of repair – tax collection – providing forms and information on property tax – granting other concessions than those specified in the Act
Tax on means of transport	<ul style="list-style-type: none"> – setting the levels of tax rates depending on environmental impact, year of manufacture and number of seats – granting other concessions than those specified in the Act
Agricultural tax	<ul style="list-style-type: none"> – assigning some villages to another region – lowering rye purchase price for the purpose of setting the level of agricultural tax – providing forms and information and tax return forms for agricultural tax – tax collection – setting out procedures and detailed conditions for tax exemptions with regard to the land which is no longer cultivated – granting other concessions than those specified in the Act
Forestry tax	<ul style="list-style-type: none"> – lowering average timber purchase prices for the purpose of lowering taxes – tax collection and appointment of tax collectors – providing forms, information and tax returns for forestry tax – granting other concessions than those specified in the Act

Source: [1, p. 56]. The above taxes are regulated by various Acts [20, 21, 22].

With regard to the scope of the power to impose taxes, P. Felis divides local taxes into two groups [Felis]:

1. Taxes resulting from the active (direct) power to impose taxes – property tax, agricultural tax, forestry tax, and tax on means of transport.

2. Taxes resulting from the passive (indirect) power to impose taxes – tax on civil law transactions, inheritance and donation tax, lump sum income tax paid by natural persons, and shares in income taxes – PIT and CIT.

¹ The power to impose taxes relates to the following local charges: market charge and visitor's tax, spa service and dog tax. Due to their low fiscal significance, they are not analysed in the further analysis.

The direct power to impose taxes should be understood as the right to adjust (narrow or extend) the technical elements of taxes (so called limited legislative freedom), and as decision-making authority in determining the technical dimension of taxes (so called full legislative freedom). The indirect power to impose taxes, on the other hand, only indicates the right to take over revenue resulting from the existing sources of taxes in the territory of the local self-government [2, p. 40]. In other words, the indirect power to impose taxes implies the lack of impact on the structure of taxes.

It should be noted that municipality tax policies are subject to certain objective limitations – for example, municipalities cannot set zero tax rates or set «fictitious» rates, which would imply rates close to zero in the case of tax on means of transport or property tax [3, p. 224]. Moreover, autonomy in tax policies restricts the right to set tax levels above those specified in the Act.

In a mixed financing system an entity's own revenue accounts for approx. 50% of its total revenue. An analysis of data presented in Table 2 leads to the conclusion that the share of property tax revenue is considerable, reaching the level of 28% of entities' own revenue. As regards the three remaining taxes within the framework of the direct power to impose taxes, agricultural tax has the greatest fiscal significance, accounting for an average of 3.6% of own revenue in the analysed period (forestry tax – 0.5%, and tax on means of transport – 1.7%, respectively). It should be stressed that the largest share in own revenue is represented by revenue from income taxes for natural persons, which amounts to an average of 35% (this figure is not subject to the presented analysis).

Table 2

Municipalities' revenue from direct power to impose taxes in 2010–2016 (PLN billions)

Description	2010	2011	2012	2013	2014	2015	2016
Total revenue including	72.3	75.8	78.4	80.0	84.5	87.6	101.8
Own revenue including:	32.3	34.5	36.5	38.5	41.7	43.6	45.1
Property tax	9.0	9.8	10.6	11.3	11.8	12.2	12.6
Agricultural tax	1.0	1.0	1.5	1.6	1.6	1.7	1.5
Forestry tax	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Tax on means of transport	0.6	0.6	0.6	0.6	0.7	0.7	0.7

Source: [11, 12, 13, 14, 15, 16, 17].

In the analysed cities with county rights (Table 3) the share of revenue under the direct power to impose taxes in own revenue is as follows: property tax – 18%; agricultural tax – 0.1%; tax on means of transport – 0.7%. Revenue from forestry tax is very low.

Table 3

Revenue of cities with county rights, resulting from direct power to impose taxes in 2010–2016 (PLN billions)

Description	2010	2011	2012	2013	2014	2015	2016
Total revenue including	53.9	56.9	61.2	64.2	68.3	70.6	74.4
Own revenue including:	34.3	36.0	37.4	40.1	42.9	44.8	45.9
Property tax	6.1	6.5	7.0	7.4	7.7	8.0	8.1
Agricultural tax	0.02	0.02	0.03	0.003	0.03	0.03	0.02
Forestry tax	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tax on means of transport	0.3	0.3	0.3	0.3	0.3	0.3	0.3

Source: [11, 12, 13, 14, 15, 16, 17].

A significant feature of an entity's own revenue is the possible impact on its volume as a result of the direct power to impose taxes. The question arises as to a strategy adopted by an entity's authorities. Undoubtedly, local tax policies result in decreased own revenue in a given fiscal year, which is confirmed by data presented in Tables 4 and 5. B. Filipiak states that: «This is an unquestionable fact, and a significant factor of local interventionism...» [3, p. 227].

Table 4

**Lost revenue resulting from municipalities' power to impose taxes
in 2010–2016 (PLN millions)**

Description	Lost revenue	Lowering of top tax rates	Concessions and exemptions	Write-offs of tax liabilities	Instalment and postponed payments
2010					
Local taxes including	3 053.2	2 010.2	511.1		531.9
Property tax	2 510.9	1 629.7	505.1		376.1
2011					
Local taxes including	3 086.5	2 290.0	565.9	140.2	90.4
Property tax	2 544.5	1 822.9	558.2	98.5	64.9
2012					
Local taxes including	3 778.0	2 922.9	601.4	153.3	100.4
Property tax	2 598.9	1 8525.8	593.4	105.5	74.2
2013					
Local taxes including	4 013.1	3 128.3	649.2	136.1	99.5
Property tax	2 841.2	2 031.7	642.0	95.7	71.8
2014					
Local taxes including	3 970.7	3 068.7	667.3	138.0	96.7
Property tax	2 947.3	2 122.1	660.2	94.8	70.2
2015					
Local taxes including	4 035.3	3 116.6	693.0	136.7	89.0
Property tax	3 138.6	2 296.3	685.0	92.5	64.8
2016					
Local taxes including	3 377.4	2 578.3	592.1	125.8	81.2
Property tax	2 609.2	1 875.1	586.7	86.0	61.4

Source: author's research based on [11, 12, 13, 14, 15, 16, 17].

In 2010–2016, approx. 76% of concessions and exemptions granted by municipalities and cities were the cases of lowered tax rates. The greatest share in lowered tax rates, concessions and exemptions, write-offs and instalment and postponed payments was represented by property tax. The share of lost revenue in municipalities' own revenue amounted to an average of 8.6%, and in cities with county rights – 1.7%. Simultaneously, the share of lost revenue resulting from property taxes in relation to the respective revenue amounted to approx. 25% in municipalities and 7% in cities with county rights.

An assessment of local tax policies requires in-depth research, qualitative analyses (changes in tax laws, irregularities in exercising the power to impose taxes, development strategies), as well as quantitative analyses (e.g. the scope of public aid schemes). It should be noted that local tax policies perform fiscal and non-fiscal functions.

Table 5

Lost revenue in cities with county rights, resulting from the power to impose taxes in 2010–2016 (PLN millions)

Description	Lost revenue	Lowering of top tax rates	Concessions and exemptions	Write-offs of tax liabilities	Instalment and postponed payments
2010					
Local taxes including	714.7	430.0	127.4		157.3
Property tax	537.5	308.6	126.8		102.1
2011					
Local taxes including	749.6	512.1	125.6	58.2	53.7
Property tax	579.9	376.8	124.8	40.8	37.5
2012					
Local taxes including	625.3	430.7	125.3	40.4	55.9
Property tax	469.9	275.0	124.1	30.9	39.9
2013					
Local taxes including	679.4	442.8	138.2	40.3	58.1
Property tax	481.1	273.6	137.7	29.9	39.9
2014					
Local taxes including	690.4	472.6	101.4	55.2	61.2
Property tax	475.8	289.1	100.9	41.5	44.3
2015					
Local taxes including	792.5	534.3	166.1	41.3	50.8
Property tax	564.0	331.4	165.5	30.4	36.7
2016					
Local taxes including	647.8	437.8	126.8	26.4	56.8
Property tax	407.4	220.4	125.2	19.9	41.9

Source: author's research based on [11, 12, 13, 14, 15, 16, 17].

With regard to the fiscal function, a significant role is played by an analysis of revenue structure, allowing for making the right decisions concerning those elements of the power to impose taxes which result in lost revenue. The non-fiscal function relates to those elements of the power to impose taxes which stimulate social and economic development in municipalities and cities. Such elements include investor and entrepreneur behaviour (selection of investment sites), the development of entrepreneurship (increased employment), or improvements in the quality of life in local communities through new investment projects, etc. Finally, it should be stressed that concessions, write-offs and instalment payments are public aid instruments, and that public aid may be an integral part of tax policies in the form of public aid schemes [3, pp. 226–227].

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3.5. The importance of agricultural tax as a source of rural communes' income in Poland in 2002–2015

The purpose of the paper is to present the importance of incomes from agricultural tax in budgets of all 1559 rural communes in Poland. The author proved in the paper that for the majority of rural communes, even purely rural, incomes from the tax are of low importance. This points out on the need of debate on actions aimed at introduction of income tax in agriculture or on changes in setting the tax base in agricultural tax which is currently based on old model of soil class and rye price. The source for calculations was data from the financial statements compiled by the National Board of Regional Accounting Chambers for the purpose of the Ministry of Finance.

Disposable income relevant to scale of tasks is a crucial condition for efficient and effective fulfillment of commune's tasks as specified in relevant legal acts. Its size affects both scope and standard of services provided [1]. Stability, efficiency and certainty of financing significantly determines scope and level of public services provided by communes and obligatory and additional tasks stemming from relevant legal environment [2].

Important factor driving changes of rural areas is commonly accepted necessity to develop them and restructure and modernise agriculture. It is commonly known that agriculture faces significant problems in alignment to conditions set by free-market economy. Relying solely on own funds without external support, its change would not be possible. The majority of funds used for completion of tasks undertaken by self-governments originates from local taxes and charges accompanied by redistribution of funds from the central budget. One of local taxes is the agricultural tax. Self-government taxes are such taxes that as specified by relevant legal acts are no-maturity, constant and fully-attributed source of commune's funding and are used for financing of public tasks completed by local commune [3, p. 84–85]. Agricultural tax is governed by the legal Act of 15th November 1984 on agricultural tax [4]. Another important act is the Resolution of the Minister of Finance dated 10th December 2001 on treatment of local communes and cities in the context of tax areas.

Both natural and legal persons and organisational units (including companies without nature of legal person: public, agricultural businesses within governmental units and cooperatives of individual farmers) are in scope of the agricultural tax [5]. The tax obligation starts on the first day of month after the month where the circumstances indicating on tax obligation occurred. The obligations stops on the last day of the month when these circumstances ceased (e.g. sale of ground or perpetual use maturity). If the agricultural tax obligation ceased or started within a year, the tax obligation is set proportionally to the number of months when it existed. Temporary suspension of agricultural business does not stop the tax obligation in the agricultural tax [6, p. 58].

According to the Act on the agricultural tax in scope of the tax are grounds classified in the ground register as to be used for farming purposes excluding the ones

used for business activities other than farming. Therefore, classification of grounds as specified in the register of grounds and buildings is of crucial importance for the agricultural tax purposes. The register is a consistent and regularly updated set of information for the whole country on grounds, buildings, premises, their owners and persons using them [7, p. 98].

The tax base for farms is the number of computed hectares which are calculated specifically for a tax region a given local commune, city or borough belongs to. Local communes and cities are assigned to one of four tax regions according to the list being appendix to the Regulation of the Ministry of Finance on assignment of local communes and cities to one of four tax regions [8, § 1.1].

Two tax rates in the agricultural tax are linked to a specified tax rate. The first one equals 2.5q of rye and is applied to computed hectares of a farm. The second rate equals financial equivalent of 5q of rye and is applicable to agricultural grounds not constituting part of a farm. Local commune's board is entitled to decrease through a formal decision average buy price of rice which is specified in a formal document published by the President of the Central Statistical Office of Poland [9, p. 146]. For example, in 2015 agricultural tax equalled PLN 153.42 for grounds constituting a farm (per 1 ha of computed grounds) and PLN 306.85 for remaining grounds (per 1 ha of computed grounds) [10]. The number of computed grounds being tax base are calculated on the basis of surface, type and class of ground as specified in the registry of grounds and their assignment to a tax region.

When describing reliefs and tax exemptions from the agricultural tax one needs to conclude that majority of them are obsolete which makes them not suitable to current conditions of running farming business [11, p. 28]. Regulations on the agricultural tax were introduced in 1984 through the Act on agricultural tax and some of them were inherited from previous legal acts. The majority of reliefs and exemptions remained unchanged until now despite the fact that after 1990 country's strategy towards agriculture and economic conditions of running farms changed [12, p. 428–429]. Reliefs in the agricultural tax are applicable for tax payers that were running farms and afterwards were subscribed to the army to serve the duty and to tax payers in farms where such family member was working in a farm. There are also reliefs due to natural disasters and due to location in sub-mountainous and mountainous area [11, p. 29].

A separate set of reliefs are investment reliefs which are applicable for tax payers due to expenses on modernisation, building new premises or purchase and installation of reservoirs for rainwater, equipment used for production of natural energy, melioration equipment and facilities providing water to farms. Investment relief is given after an investment is completed and as a result 25% of investment expenses documented through relevant invoices can be deducted from the tax obligation. Local commune's board may introduce other reliefs and exemptions through an official ordinance [11, p. 29].

The agricultural tax is an example of wealth tax where possession or purchase of wealth is subject to taxation and tax rate is linked to wealth or its components [15, p. 79]. From the perspective of entities entitled to receive proceeds from the

agricultural tax (previously called ground tax), it is fully attributed to local communes.

Agriculture in Poland is subject to specific tax regulations. The most important aspect of this distinction is exclusion of individual farmers from Personal Income Tax [16]. This distinction is a significant exclusion from the rule of generality of personal income tax. Exclusion of individual farmers' incomes has significant consequences not only in financial but in social area as well. Exclusion of a certain social group from bearing costs of country financing and passing the burden on other groups violates the rule of equality of all citizens. Current system of agricultural income taxation has also significant non-budgetary consequences. First of all, it influences profitability of agricultural production of individual farmers. Exclusion of individual farmers from PIT equals payment of subvention in a general taxation system. This aspect is fully omitted in discussions on the level of subventions to agriculture in Poland. Therefore, current taxation system can be perceived as equal to subvention in the amount of actual average PIT rate being 20%. The system negatively affects also competition in agriculture since individual farmers do not pay income tax what is not the case for some farms that do pay (including special individual farms) [17].

Considering the above one shall conclude that individual farmers should be in scope of general taxation system. Such situation would certainly change financial situation of farmers what would be a required normalisation for wealthy, profitable farms. For farms generating low income being only add-on to farmers' income and for unprofitable farms, changes to the system would have much lower impact or would not take place at all. It is nevertheless important to remember that the poverty in rural areas could deepen as a result of implementation of personal taxation in these areas. It would require introduction of social security and help aimed at individuals in true need. Decrease of agricultural income for individual farmers would mean decrease in profitability of their production. It seems then that inclusion of individual farmers' incomes to the general taxation system shall or even must be accompanied with some increase in subsidies to the agricultural production. Relevant budget expenses would be financed through higher proceedings from Personal Income Tax.

It is nevertheless important to emphasise that disclosure of agriculture subsidising hidden so far behind the form of exclusion from income taxation would introduce clarity and would become clear both for farmers and for the rest of the society that bears the cost of the subsidy. One of the consequences of such change shall then be stronger stimulus effect of this subsidy. As pointed out by Andrzej Koronowski – subsidising of agriculture could become subject of its operational management from the perspective of such decisions as total level of subsidies, its split into separate products and regional dispersion of the support.

Income from agricultural tax are very diversified both from regional and from commune type (rural, urban-rural, urban) perspectives. Perception that in rural communes agricultural tax becomes the major source of income is nevertheless – as proved by the author – misleading.

The basic indicator that enables answering the question of agricultural tax' importance in rural communes' budgets is percentage of the tax in total yearly

incomes of communes in scope of research. Timeframe for the research are 14 years from 2002 to 2015. Statistical measures used by the author are selected quantiles, i.e. measures that divide ordered population into two parts. Depending on the level of quantile's β (β range [0;1]), in the first part one may observe $\beta*N$ observations not higher than calculated quantile whereas the second $(1 - \beta)*N$ data higher than that quantile. Statistical measures referred to are described in the majority of statistics textbooks. Thus, the author decided not to present calculation formulas.

Measures presented in Table 1 enable to observe some characteristics and tendencies of the ratios.

Table 1

**Statistical measures of agricultural tax' share
in total income of rural communes**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Average for communes	3,57	3,57	3,38	3,12	2,32	2,43	2,90	2,75	1,99	2,04	2,82	2,95	2,79	2,60
Minimum	0,02	0,02	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01
Maximum	21,23	16,89	15,92	16,68	12,12	13,38	18,03	16,27	11,61	12,32	18,05	18,37	15,42	14,19
Quantile 0,10	0,65	0,73	0,68	0,62	0,46	0,49	0,61	0,60	0,39	0,39	0,59	0,62	0,56	0,50
Quantile 0,90	8,66	8,36	8,07	7,65	5,70	6,16	6,89	6,60	5,10	5,20	6,78	7,24	7,04	6,85
Quantile 0,20	1,37	1,45	1,37	1,31	0,92	1,00	1,21	1,17	0,78	0,78	1,13	1,18	1,07	0,99
Quantile 0,80	6,46	6,37	6,10	5,68	4,20	4,45	5,19	4,97	3,79	3,76	5,02	5,32	5,15	4,87
Median	3,44	3,46	3,29	3,05	2,25	2,37	2,71	2,60	1,94	1,97	2,67	2,81	2,65	2,50
Q0,90 : Q0,10	13,24	11,43	11,95	12,42	12,49	12,66	11,30	10,92	13,05	13,20	11,56	11,60	12,54	13,82
Q0,80 : Q0,20	4,71	4,41	4,47	4,35	4,56	4,47	4,29	4,25	4,89	4,81	4,43	4,51	4,83	4,92

Source: own calculations.

Conclusions:

1) Against common perception for the majority of rural communes in Poland the importance of the agricultural tax in total income is low – average share of incomes from this source accounts for 2–3.57% only.

2) For every 10th rural commune importance of funds from the agriculture was lower than 0.5–0.7% of its budget across all analysed years. For every 5th (more than 300 communes) it was not higher than 1–1.45% depending on the year.

3) Only one in ten rural commune has relatively high importance of agricultural tax income. Depending on the year – share of the tax in total income was above 5.00–8.67% level and for one in five communes the share was higher than 3.76–6.46%.

4) Changes in years of 2002–2015 both in average share as in quintile K_t and in decile indicators point out on significant volatility of the income.

5) Clearly low fiscal importance of agricultural tax income in rural communes' budgets indicates on necessity of constant subsidising of the communes. Such state implicitly shows that rural communes are not financially self-sufficient.

6) The solution for the situation when the agricultural tax is not efficient may be change in its applicability to large agricultural producers. The proposal is stated by experts in the subject and it takes into consideration introduction of some type of income tax to replace the current wealth tax.

7) Good solution in Poland would be introduction of income tax that would fulfill the rule of social equality and justice and the rule of taxes generality. Violation of these two rules was often indicated when current taxation system was analysed. For example, Ewa Urbaniak states that preferential taxation with agricultural tax shall exclude non-farmers which are subject of agricultural tax only because «grounds they possess was classified in the register of grounds and buildings as agricultural grounds. [...] paying taxes does not depend on running agricultural business but only on classification of ground as agricultural one» [19].

8) It needs to be considered if agricultural tax shall not be transposed into a charge supporting change in agricultural structure in Poland that may shape future investments of farmers. Such replacement of agricultural tax with another charge may simultaneously complete fiscal and motivational functions [20, p. 182].

9) It is required to identify and limit typical mistakes in setting tax rates, implementing tax exemptions and differentiating rates and exemptions by communes. The size of applied tax simplifications may cause significant decrease in communes' budget income. It is common that communes set the rates below upper limits and introduce exemptions. That indicates on potential area where income for communes may be intensified. Decisions made by communes in their tax discretion take into account political and social indicators of self-government's activities [21].

10) Agriculture taxation system is an instrument used to stimulate and to increase efficiency of farming and to reduce number of farms or production perceived as not welcome [22].

11) Obsolete construction of agricultural tax which makes its scale dependent on computed hectares and on natural measure being rye makes the tax' standard function (fiscal) weak.

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3.6. New approaches to the functioning of local budgets in Ukraine under decentralization reform

Decentralization reform, which involves transfer of powers and revenues from government agencies to local governments, has become topical for Ukraine and is gradually being implemented in the context of administrative and territorial structure changes in our country. These changes are primarily aimed at uniting local communities to establish independent regulation of public goods of local importance and process management of their supply under our Constitution and laws of Ukraine. Changes in the national legislation as for strengthening the financial basis of local government provide increased financial self-sufficiency of the united communities and in particular the independence of the law on the state budget for approval of local budget decisions.

Problems of local budgets in terms of decentralization reform in their writings were studied by such home scientists as H. Vozniak, V. Demianyshyn, O. Kyrlyenko, K. Pavliuk, Z. Peroshchuk, V. Fedosov, S. Yurii and foreign researchers Sh. Blankart, J. Buchanan, P. Samuelson, J. Stiglitz and others. The contribution of these scientists is important and significant, but considering the dynamic process of transformation of local budgets of Ukraine, the study on strengthening financial self-sufficiency at the local level is still topical.

The positive outcome of decentralization reform in Ukraine will foster modernization of the national budget system in the context of strengthening the financial basis of local government. Changes to the budget legislation, including those made to the Budget Code of Ukraine [1], provide new approaches to the formation of local budgets in order to ensure fiscal decentralization in terms of separation of powers between the central and local authorities in budget revenues and expenditure funding.

The basic vectors of transformation of local budgets, according to the ongoing reforms, are an extension of autonomy of local budgets, ensuring financial stability of local budgets, growing revenue base of local budgets, allocation of expenditure responsibilities between the budgets of different levels, the formation of financial support of joint local communities and modernization of intergovernmental relations [5, p. 83–84].

However, it should be noted that there remain a number of important issues that require further solution for the successful implementation of decentralization reform in Ukraine. These problems include the following: improvement of the system of social services at the local level, local government reorganization in accordance with the administrative and territorial reform, and improvement of the planning areas of the combined local communities [8].

Implementation of the decentralization reform and solution of the urgent problems of formation of local budgets in the current conditions should be done considering financial sustainability of the local budgets. These criteria should determine the ratio of expenditure responsibilities between the central and local levels

of government, the amount of expenditure according to GDP, specific weight of local budgets revenues in their income structure and the amount of intergovernmental transfers to total local revenues [10, p. 155–156]. Fiscal decentralization in Ukraine by amending the Budget and Tax Code of Ukraine was a significant growth of local budgets and formed favorable conditions for the implementation of administrative and territorial reform through a voluntary association of local communities (see. fig. 1).

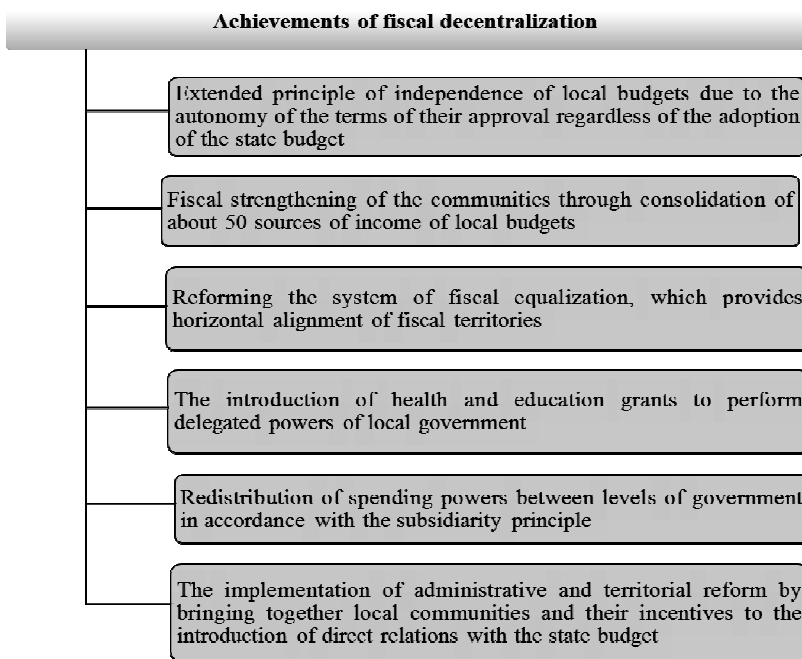


Fig. 1. Achievements of fiscal decentralization in Ukraine*.

* Compiled from [15].

Hence, the undisputed fact of financial sustainability of local budgets in the context of fiscal decentralization is the ratio of the revenue and expenditure of local budgets with predominant proportion of their income and decreased share of intergovernmental transfers.

Analysis of local budgets of Ukraine shows that in 2015 total revenues without intergovernmental transfers were 120.5 bln. грн., which was 19.2% more than in 2014. The structure of local budgets has undergone significant changes which relate to a change in the proportion of individual sources in 2015 compared to 2011. There was growth of local taxes and fees by 7.2%, other tax revenues increased by 6.9%, non-tax revenues rose by 2.9%, but there was a decline in tax on personal income by 16.9% due to its partial admission to the state budget [2].

Debit fulfillment of the local budget of Ukraine in 2015 amounted to 276.9 bln. hrn. excluding funds transferred from local budgets to the state and which was higher by 23.9% than the corresponding figure in 2014. The structure of local spending by functional classification underwent some increase in the share of expenditures on economic activity, spending on social protection and social security, but there was a decrease in the share of expenditures on education, culture and art. It is worth noting, that in the structure of local spending the priority is given to socio-cultural sphere, which accounted 80.6% in 2015.

Having studied the practice of intergovernmental relations in 2015, it should be noted that in connection with the modernization of their implementation, the provision was transferred from the state budget to local special transfers for financing current expenditures of medical and educational institutions. Thus, the share of intergovernmental transfers in the local budget revenues increased to 59.1% [2].

Further approaches to reform the functioning of local budgets ascertain their performance figures for 2016 and show revenue growth of the general fund of local budgets of Ukraine by 1.2 times (see. Fig. 2). In 2016 the volume of the General Fund resources of the local budget increased by 48.5 bln. hrn. compared to 2015 and amounted to 146.6 bln. hrn. This increase was due to bigger revenues from such taxes as income tax (17%), excise tax (52%), a single tax (58%), and a land tax (61%). In 2016 the local budgets of Ukraine received revenues from property tax in the amount of 1.4 bln. hrn. [3; 15].

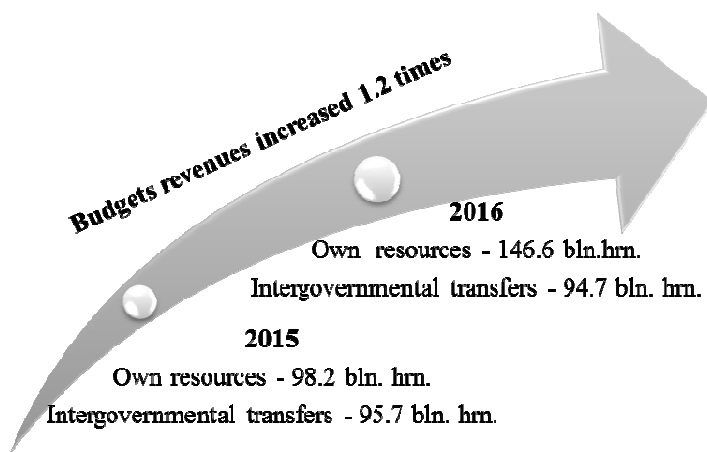


Fig. 2. Dynamics of the structure of general fund revenues of local budgets of Ukraine for 2015–2016*.

* Compiled from [15].

Predicted estimates of local budgets for 2017 are based on the principles of decentralization and continued reform of intergovernmental relations [6]. Current program-based budgeting has been functioning in Ukraine since 2017 at the local level which is related to the state budget. This method provides a new approach to

creation and use of public funds in the context of improving the efficiency and transparency of ongoing processes. The main advantage of this method of budgeting is a policy of alternative budget decision-making with mandatory monitoring of its implementation. This approach to budgeting was first used in the United States and later in Britain, but in the 1970s several difficulties were identified that arise from its use at the national level. Such comments concerned the complexities of identify and the value of goal-budget program, stakeholders influence the formation of budget programs, the impossibility of calculating the efficiency of certain public goods and services [17, p. 14]. However, the advantages of budgeting based on results were visible and this method rapidly spread among the countries of the Organization for Economic Cooperation and Development (OECD). They are such countries as Australia, Austria, Belgium, Great Britain, Greece, Denmark, Ireland, Iceland, Spain, Italy, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, the Czech Republic, the USA, Turkey, Hungary, Finland, France, Switzerland, Sweden, and Japan.

Modernization of budget relations in Ukraine and reforming budget management can be successful under the conditions of the development and implementation of evidence-based strategy for socio-economic development of the territory. Due to the increased financial autonomy of the local authorities there is necessity to improve strategic planning to facilitate the coordination of the strategic objectives of regional development, main directions of local fiscal policy and the specific means of its adjusting to the population's needs for the effective implementation of program-oriented budgeting method.

As a basic component of program-oriented budgeting, strategic planning allows not only to outline the main priorities for the future, but to foresee possible effects of the taken decisions, timely respond to changes in foreign and domestic policy. The basis for effective strategic planning and regional development prospects is a thorough analysis and assessment of the economic capacity of the relevant areas. Thus, it is quite essential to separate basic stages of strategic planning:

- performing SWOT-analysis (analysis and development of strengths opportunities, weaknesses and threats);
- formulation of strategic vision of region's development and its mission;
- defining strategic and operational objectives, tasks within specified mission;
- development of performance metrics for analysis of expected results;

preparation of specific strategic planning; implementation and monitoring of the strategic plan.

The current strategy of the region is to be agreed in accordance with defined priorities and activities in the State strategy of regional development and key areas of the region, and budget policy tasks. Such strategy focuses on searching new sources of additional revenue, developing an effective system of budget resources management, investigation of influence of internal and external externalities, etc. [9, p. 18].

Accordingly, the system of strategic planning is the basic foundation of a systematic approach in determining the long-term development of scientifically grounded priorities of a democratic society. It involves setting clear targets of

authorities at different levels to meet social needs, the best use of limited financial, material and labor resources, mandatory coordination of interests of all interested social groups in formulating the main goals and directions and measures for achieving them in order to make effective management decisions. In addition, strategic planning allows to forecast future trends and flexibly respond to changing operating conditions of the domestic economy.

In terms of fiscal decentralization, the strengthening of the strategic planning role aims to ensure effective development of regions and local communities. Thus, extension of local executive authorities and local government means increased responsibility for the sustenance of the subordinate territories. Therefore, to address all local problems it is necessary to initiate formation of strategic thinking and clearly defined strategic actions by local authorities to facilitate effective interaction with government at various levels, the public as well as. Such strategic planning is a tool that will ensure the realization of perspective directions of area development, will help to consider all external and internal societal challenges.

An important prerequisite for effective strategic planning is the public's involvement in preparation and adoption of the Strategy. That public discussion has become the driving force for the formation of partnerships with local authorities in order to maximize consideration of the interests of the population and the provision of quality public services, which will enable the authorities to make balanced and jointly agreed solutions to achieve certain aims.

Thus, it is crucial to get better quality public services on the basis of the strategic and social and economic development of administrative units as an ultimate result of transformational approaches to local budgeting.

In the context of this, the successful implementation of fiscal decentralization process in Ukraine depends on public control as an integral part of the democratic process in the country. Strengthening the role of social control will contribute to the effective management of budgetary resources including the local level that will provide the thrust budgets expenditure and will consider the public's interest in accordance with legislation.

Within decentralization, continuous monitoring is going to be provided both by civil society institutes and the population directly over the processes of formation, distribution and use of financial resources at the local level [12, p. 103]. Public control promotes efficient operation of local government, preventing illegal and unlawful actions, and determines the level of interaction with the public authorities.

With public control realistic assessment of the activities of state and local authorities in implementing their tasks and functions is performed and, accordingly, the provision of public goods and services. Therefore, great importance is given to the fact that it is performed by entities that are not subject to authorities and are direct consumers of the provided services.

Application of public control enables social power structures in management decisions to create conditions for political support to ensure the allocation of responsibility for the decisions taken, increase confidence in the local government, find cost-effective solutions to the existing problems in the region. Activation of public action that promotes transparency in local government, their need to reduce

corruption and improve the quality of public services necessitates strengthening of public control. This will enable to take into account local community demands for services, which will make the political process flexible and people will choose their own elected representatives or through strategic vectors of development of the regions [11, p. 91, 12].

In current circumstances of fiscal decentralization in Ukraine, public control is only acquiring its importance, especially it relates to public examinations and public hearings to discuss some socially important activities of state and local authorities. Therefore, local authorities should widely involve stakeholders in management, consider public opinion when making management decisions that, in turn, will contribute to a successful outcome of electoral processes at the local level. In the context of effective socio-economic development of the state and regions, it is necessary to increase transparency in government institutions. This budget transparency allows the public to form a clear view of the complexity and decision alternatives of budget solutions, influencing activities of the executive authorities, actively protecting their civil rights.

Development of the decentralization of budget relations in Ukraine leads to the introduction of new approaches to the implementation of the budget process at the local level with the involvement of civil society. The principle of maximum public participation in the budget process underlies the participatory budget, which has been a response to social and political oligarchic lobbying, social exclusion and corruption and gained most prevalent in developing countries. Participatory budget model has spread everywhere and has been used in Poland since 2011. Since then, around 100 Polish cities in different forms have been implementing the principle of citizen participation in the budget process at the local level. For example, in the cities of Lodz and Warsaw participatory budget share is 1%, but even with such funds most projects can be implemented. Each year Lodz participatory budget increases its money allocations, so in 2013 it allocated 20 mln. zł., in 2014 – 40 mln. zł., and by 2018 the city government will have allocated 100 mln. zł. City officials in Paris identified the participatory budget at 7% [7].

In Ukraine participatory budget has been implemented due to the Polish-Ukrainian partnership PAUCI since 2015 and operates in Cherkasy, Poltava, Chernihiv, Sumy, Lutsk, Ivano-Frankivsk, Zaporizhia, Lviv, Vinnytsia, Chernivtsi and is being introduced in Ternopil, Zhytomyr, Uzhgorod, Odesa, Rivne and Kyiv. The selected projects for funding at the expense of participatory budget support mainly city beautification. [4] Thus, the introduction and development in Ukraine democracy tools such as participatory budget will ensure the effectiveness of national transformation processes in the context of state power decentralization reforms to strengthen the financial base of local governments with civil society and its interests.

Introduction of decentralization reform in the context of the transformation of approaches to local budgeting has such advantages as implementation of administrative and territorial reform, reboot of budgetary relations between the state and local level to ensure the financial stability of local budgets, development of the main principles of decentralization [13]. However, there are certain disadvantages such as reform slowdown because of the inefficiency of public control, incompetence

of the participants involved in implementing reform changes to achieve practical results of quality public services, and socio-economic development of administrative units [16]. Decentralization should correlate with an innovative approach to reform the fiscal relationship between the state and local levels in the context of clear lines of authority and ensure fully adequate resources [14] in order to successfully transformational changes in budget management at local level.

Modern trends of modernization mechanism of local budgets in Ukraine in conditions of new principles of state decentralization ascertain gradual increase in budgetary resources at the local level to ensure financial stability and socio-economic development of administrative units.

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CHAPTER 4.

Dominants of Development of Household Finance under Current Conditions

4.1. Tax burden on households: theoretic and pragmatic aspects

An important feature of fiscal policy of the state is the level of tax burden on taxpayers.

The problems of tax burden determination for a long time have been considering by domestic and foreign scientists. In particular, the impact of the tax burden on economic activity and income of the taxpayers was the subject of scientific research at the beginning of previous century. These matters were considered in the works of K. Brower, E. Seligman, P. Hensel, P. Mikeladze. Further development of these studies in the context of determining the nature and magnitude of excessive tax burden found its reflection in the theory of optimal taxation in works of A. Garberger, P. Samuelson, J. Stiglitz and other scientists.

Theoretical bases of modern scientific approaches to identify and evaluate the severity of tax burden in Ukraine, causes and consequences of its unequal distribution between the entities are covered in works of native scientists V. Andrushchenko, V. Vyshnevskiy, A. Krysovatyi, I. Lunina, A. Sokolovska, V. Fedosov and other scientists. However, there are, unfortunately, few special studies on the problems of determining the tax burden on households in Ukraine.

The aim of the article is critical analysis of the main theoretical approaches to determining the tax burden on households in Ukraine and the development of proposals for its optimization under modern conditions.

In the economic literature as the tax burden one understands financial concept, which describes (in relative terms) the portion of produced and distributed social product (value added), which is distributed and redistributed in favour of the state through the mechanisms of taxation. The overall tax burden is estimated and distributed by the elements of both gross value added (profits, wages, depreciation) and by areas, industries and individual taxpayers based on certain principles.

Mostly there are determined two basic approaches to distribution of the tax burden in economy: the principle of benefits and the principle of solvency [1, p. 124–125].

The first approach, in turn, provides two methods of tax burden distribution. According to one of them, households and entrepreneurs buy government public services in the same way as ordinary goods and services on the market. Accordingly, the tax burden is distributed among different subjects depending on the amount of intake public goods. However, in practice, it is extremely difficult to establish a direct equivalent relationship between the value of tax payments, paid by particular person, and the amount of public goods and benefits received. For example, it is almost impossible to apply the market principle of obtaining direct benefits by certain natural or legal persons from national security and defence, activities of the public legal protection authorities, fire protection etc. In such situations it is necessary to apply the principle of equal (proportional) distribution of the tax burden between subjects, areas and economic sectors.

However, from whatever point of view principle of benefits by tax burden distribution is regarded, its use is more or less confined to the solvency of the subject. For example, of no logic and economic content there is taxation of poor people to finance state social support of the same population categories or forcing the unemployed to pay taxes to finance their unemployment benefits. Therefore, by distribution of the tax burden, the principle of solvency should be taken into account, which provides that the tax burden should directly relate to financial capacity, value of the obtained incomes and welfare of taxpayers that is to their real possibility to pay taxes and fees under the law in full and within the set deadlines.

On the concept of solvency there are mainly constructed the tax systems of the countries, where prevail personal income taxes of direct type (for example, the US tax system). One truly believes that «value» of the amount, charged as a tax for a poor person is much higher than the «value» of the same tax amount for the rich man, because the first one spends his income on the most necessary goods and services, and the second one – even on luxury items. Therefore, in order to balance the loss from tax payment of rich and poor citizens, the principle of the tax burden distribution, depending on the size of income received by taxpayers is applied. This approach is implemented by direct personal income taxation by establishing income tax exemption, minimal tax rate and the scale of progressive rates; while at property tax – by taking into account notional property income and use of personal exemption in tax rates. The rates of other taxes (including indirect on) will also eventually have to consider solvency of the payer. Actually the main carriers of the indirect taxes burden are usually end users of goods and services (mainly public and government agencies, who are unable to continue to shift taxes to other entities). For example, in Ukraine (both practically in other countries) the burden of indirect taxes is distributed approximately in the following proportions: population (households) – of about 70%, government agencies and organizations that provide free services to the population – of about 15%, manufacturers (companies) – of about 15%.

Theoretically, the distribution of the tax burden on the basis of solvency principle is more reasonable and fair. However, in practice, by its application, there raise a number of questions: how to determine degree of wealth and how many times

more a rich person should pay than a poor one, which considerations are to be used to assess the differentiation of taxes etc. Till now there, unfortunately, are still not found any clear and the only right answers to these and many other questions that affect the assessment of capabilities of the individuals to pay taxes. Therefore, in practice, solving these problems is largely based on empirical approach that takes into account the priorities of social and economic policy of the state, political situation and needs of government in financial resources.

Thus, by tax burden distribution, to ensure equality and fairness in taxation both approaches are used more or less in the developed countries.

In the most general form the tax burden is defined as the ratio of tax to the baseline index (gross domestic product, gross (net) value added, as well as components of these factors: depreciation, wages, income, personal income), usually in percents. Thus, the higher is the tax burden, the lower income remains at the enterprises and households for production, social and personal consumption, and the greater part of the value of the created product is concentrated in the state budget and extrabudgetary funds. And vice versa. The level of tax burden shows the degree of centralization of the gross domestic product and its components, which, on the one hand, is reflection of subjective monopoly of government action, but on the other hand, reflects the objective market laws, especially the economic model and the current level of socio-economic development.

It is well known that the excessive tax burden inhibits market economy, does not allow businesses to function normally and reduces the welfare of citizens. Empirical studies, performed on the basis of information on the macroeconomic performance of OECD-countries, have shown that reducing the tax – figure of the share of taxes paid in gross domestic product – on 10 percents makes annual gross domestic product growth between 0,5 to 1 percentage point [2, p. 2]. Conversely, excessively low tax burden does not allow the state fully performance of its functions to ensure the population and economic entities with necessary public goods.

Therefore, to solve this dilemma one should reach some optimal level of tax burden, which would take into account public, state and private (personal) interests. To do this, first of all, it is necessary to accurately estimate the actual tax burden through quality, objective and fair methods of its calculation, to determine the optimum tax limit and then to carry out a comparative quantitative and structural analysis of compliance or non-compliance of the actual tax burden to optimal parameters.

In the above context, attention should be paid to the fact that quite often during the tax load (pressure, burden, press) one understands impact on relevant subjects with of the tax instruments only (which are only part of the burden). This position is not entirely justified, since the tax burden is carried on four levels:

- direct pressure of tax instruments;
- pressure of totality of taxes, fees and charges;
- use of all sorts of preferences by the taxpayers (benefits, tax credits, grants), so there redistribution of the tax burden from some taxpayers to others takes place;
- use of tax technique, increasing pressure on the taxpayer (e. g., advance payments, providing tax payment before receipt of performance; time, spent on record keeping, etc.) [3, p. 2].

A. Sokolovskaya, asserting that tax burden provides «study of the effects of explicit and implicit tax impact on the welfare of its payers», by calculation of tax burden also offers, in addition to the amount of taxes paid, to consider the «tax expense (accounting, payment for consulting services, etc.)» [4, p. 7].

Similar views has H. Rosen, who notes that the actual level of taxation depends not only on the characteristics of the tax regime (e.g. availability of tax benefits), but also on many socio-economic factors that influence the size of the tax base (inflation, direct and indirect costs for tax compliance, shifting the tax burden, etc.) [5, p. 398].

That is why one of the most advanced methods of calculating the tax burden there is recognized methodology, proposed by the World Bank, according to which the experts estimate ratings of the countries on several factors: number of tax payments; time needed for calculation and payment of taxes; general (total) tax rate. According to the research of the World Bank, the Ukrainian tax system was recognized as one of the heaviest in the world [3, p. 3], and according to the level of tax burden Ukraine takes the lowest place in the ranking [3, p. 4], even despite the fact that the tax rate (the ratio of all unpaid taxes and social contributions to the value of gross domestic product) is relatively low in Ukraine (31.6%) and puts it in one step along with such countries as Japan (25, 8%), USA (26.4%), Ireland (28.4.), Turkey (31.1%), Australia (31.5%), Russia (33.8%), Portugal (33.9%) [3, p. 4].

Unfortunately, Ukraine's current method of calculating the tax burden does not fully meet international standards. Generally, the tax burden is often defined as a share (percentage) of actual tax revenues to budgets of all levels and off-budget trust funds in gross domestic product. However, it does not provide full and objective picture of actual tax burden and therefore needs further adjustment.

First, the numerator of the tax burden indicator should reflect the amount of all taxes and mandatory fees calculated and not paid to the budget and off-budget trust fund, because the taxpayer is actually affected not only the taxes burden he has paid, but burden of tax payments, which he must pay under the law, including indebtedness of taxes and fees. The last one continues to «crush» on the taxpayers, as it must necessarily be paid by them, and in case of non-payment it gradually moves to the next reporting periods, increasing on the value of tax penalties.

When calculating the tax burden, use of gross domestic product as a benchmark, in our opinion, is not justified because it overstates the actual amount of income for tax purposes. Firstly, gross domestic product synthesizes the totality of income in economy itself, including depreciation, which should not be a source of taxation because its economic purpose is to finance the cost of restoring worn property. Secondly, the composition of gross domestic product includes indirect taxes and contributions on social insurance, which also can not be a source of taxation. Therefore, taking into account depreciation and indirect taxes in this baseline obviously reduces the real burden of taxes with respect to revenue sources of their payment.

Sometimes when determining the tax burden the gross domestic product is increased on a share of so-called «shadow sector», which is also not justified, as this part of economy does not pay any taxes, so its inclusion, while calculating the tax burden to the baseline, also artificially lowers the actual tax burden.

The tax burden on citizens is usually associated only with the tax on personal income and other taxes that people pay directly from their income. However, the real situation is somewhat different. On the personal income not only the burden of direct personal taxes has influence, but also the burden of indirect taxes that people pay when buying goods and services at retail prices. Experts estimate a share of indirect taxes, paid by the population as a major end user, at an average of 68–70%.

As it is impossible to determine the amount of paid indirect taxes by one or all members of the household, therefore, to calculate this indicator one should use the average annual index, which is calculated as the ratio of indirect taxes, which entered the consolidated budget of Ukraine for the year, to the population amount during the same period. Per one Ukrainian an average amount of indirect taxes amounts to 3 thousand UAH, which is a fairly great amount. Taking into account the fact that the average Ukrainian family consists of three or four people, the amount of indirect taxes paid by the household is over 10 thousand UAH a year.

Therefore, in order to at least partially mitigate the burden of indirect taxes on low-income citizens, we consider it necessary to turn to the experience of foreign countries, where rates of indirect taxes (including VAT) is differentiated (subject to essential goods are taxed on reduced rate, luxuries – on higher one, other goods and services – on the basic rate).

Tax burden on households in Ukraine is relatively modest (nearly 17–19%) [6, p. 251]. And since there are no developments of domestic scientists that would justify the optimal limits of tax burden on households, then we formed our own statement, based on the study of foreign scientists.

In particular, the Nobel laureate J. Merle, who received the award for a series of works on applied problems of taxation, concluded that to neutralize chilling effect of taxation on economic activity and labour force of the employees can be done if maximum tax rate should not exceed 20% for all taxpayers without exception. American economist F. Taylor noted that tax at 25% of national income and higher causes inflation effect, and is therefore undesirable. The German scientist F. Naimak asserted that there is a political limit of taxation (about 25% of national income), the excess of which begins to annoy voters; and economic limit (about 33–35% – so-called «Laffer effect»), the excess of which leads to a reduction of tax revenues to the budget. Therefore, taking into account the developments of the mentioned scholars, we should note that the optimal upper limit of the tax burden would be appropriate to consider 27–28%.

Also, in order to reach optimal balance of taxation of different production factors in Ukraine we consider as appropriate, in addition to a number of other priority measures, to implement the gradual shifting of the tax burden on such an important factor of production as natural resources. In Europe during the recent years there is a tendency of strengthening the role of natural rent in formation of state revenue. According to the Directive on restructuring the Community framework for the taxation of energy products and electricity (2003), increasing the tax burden on natural resources has to offset the revenue losses from tax reduction from income of work and capital income [7, p. 28]. In addition, taxes on land are the most neutral because they do not distort the behaviour of the subjects of economic activity and create conditions for better environmental management.

Thus, the analysis of basic theoretical and pragmatic aspects of the tax burden on households, we can draw some conclusions related to the current priorities of fiscal policy in Ukraine.

Firstly, we consider it appropriate to bring the overall tax burden on households to optimal settings (at 27–28%).

Secondly, in determining the total tax burden on taxpayers it is to remember its lower limit (10–15%), because the level of taxation, lower than it, could lead to significant tax revenue losses.

Thirdly, reduction the tax burden should be performed gradually and in stages, for simultaneous, sudden decrease of the overall tax burden will only lead to a serious loss of current budget revenues and do not promote proper performance its functions by the state. Reduction of the tax burden on average by 2.3% per year allows the economy to adapt to new conditions and proportions of the distribution of the gross national product lossless.

Fourthly, it is necessary to optimize the structure of the overall tax burden in order not to provoke the concealment of income by the tax payers.

Finally, we should note that the assessment of the actual tax burden in terms of its optimality should be conducted by the experts annually, and the optimal parameters are to be determined at least once every three years.

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4.2. Can tax incentives be an effective tool increasing an inclination to accumulate retirement savings of Polish people?

In Poland, similar to another countries, the issue of low level of savings can be observed. This problem is particularly relevant in the context of long-term retirement savings. Individuals divides income between consumption and saving. The Life Cycle Hypothesis and the Permanent Income Hypothesis – named as Life Cycle model – is the dominant, normative saving theory at present. Consumption smoothing in time constitute one of the model assumptions. In long term this phenomenon is related to notion of saving adequacy, whose size should let keep the previous level of consumption also at retired age. However, as it is presented by numerous studies, while confronted with real human behaviors this model is doubtful and researchers proved in many cases that the consumption level in this period of time diminishes.

Retirement wealth accumulation is perceived as a difficult task, related to sense of sacrifices, willpower and self-control. While spending is linked with concrete, tangible implications, the consequences in the case of saving reveal a probabilistic nature (one is not entirely sure about what that consequence will be). The delayed implications are intangible as they are difficult or impossible to imagine (one rarely knows exactly what any money ones saves will eventually be spent on) [21, p. 5].

As one of the tools which can have positive impact on the level of retirement wealth is perceived tax incentives. The aim of the article is to evaluate the influence of tax incentives on the growth of retirement savings basing on the experience of selected countries, as well as to show the lack of effectiveness of current tax incentives system within III pension pillar in Poland. Moreover, the author identified the groups of Polish people with the lowest financial literacy as those to which actions and initiatives designed to increase the level of saving in general, including especially the level of long-term retirement savings should be addressed. The last part of this paper refers to the desired features of pension system, which will enable an effective mobilization of long-term retirement savings of Polish people.

The basic research method used in the study is a review and critical analysis of the subject literature and legal acts, as well as the survey method. In this paper the author uses research, information and insights contained within reports and papers referring to the individuals' behaviours in the area of retirement savings, particularly in the context of tax incentives. The analysis of individuals' saving behaviours was supported by the primary data derived from the results of a survey carried out in the period of 27th February – 01st March 2013 in cooperation with the Interactive Market Research Institute on the sample of 1000 Polish people.

Taking into account empirical literature relating to tax incentives problem it can be distinguish two main approaches to explore their impact on retirement saving [1, p. 9]:

- the existence of tax incentives makes individuals to save more during their working lives,
- they change the composition of wealth portfolios by increasing the weight of long-term savings (e.g. contributions to pension plans) which are less liquid and, thus less likely to be used before retirement.

The impact of tax preferences on boost retirement savings in retirement plans has been at the center of discussions in case of many studies in U.S. As G. Pang show the outcomes of the research referring to effectiveness of tax incentives embedded in tax deferred accounts (TDAs) are different [17, p. 2]:

– Venti and Wise (1986, 1987, 1990, 1995) and Poterba, Venti and Wise (1995, 1996) find large part of TDA contributions as new savings [28, pp. 579–601; 29, pp. 7–48; 30, pp. 661–698; 31, pp. 235–254; 19, pp. 1–32; 20, pp. 91–112];

– Engen and Gale (1993) and Engen, Gale and Scholz (1994, 1996) find limited evidence for new savings [6; 7, pp. 85–180; 8, pp. 113–138];

– Hubbard and Skinner (1996) judge the effectiveness of saving incentives to be somewhere in between [10, pp. 73–90];

– Benjamin (2003) estimates that one half of 401(k) balances are new private savings [3, pp. 1259–1290].

Research relating to effects of tax incentives on retirement savings based on Spanish case suggest that exists significant heterogeneity in the contributions to pension funds and in the response of household saving to tax incentives. The authors find very small consumption drops among the individuals between 56 and 65 years of age (the group that most actively contributed to the plan) and larger decrease in consumption expenditures among individuals between 46 and 55 years of age. The way of perception tax incentives is impact by time remaining to retirement. Individuals in the verge of retirement perceive pension funds and other saving forms as strong substitutes and tend to exhaust tax-exempted contribution limits by reshuffling their wealth portfolios [1, p. 10].

In the case of Germany G. Corneo, M. Keese and C. Schröder proved the ineffectiveness of saving incentives. The authors state that this effect may be more pronounced than in other countries, because of German households traditionally display a relatively high saving rate and alternative long-term financial instruments are common and well known by the population. Thus, in such a situation the rationale for subsidizing certified retirement plans is rather weak. [5, p. 22, 23].

Using quasi-experiments, rich data, and robust statistical methods the authors of the Danish study offered evidence that changes in the tax preferences for the Danish work place retirement savings plans had virtually no effect on total savings [2, p. 14].

To sum up, appropriate assessment of impact tax incentives on retirement savings is related to many difficulties. Juan Ayuso, Juan F. Jimeno Ernesto Villanueva identify three crucial areas of these problems:

- 1) the wide heterogeneity in the individuals' responses to tax incentives,
- 2) the lack of microeconomic data on consumption, saving, and wealth,
- 3) the differential impact that tax incentives may have at the moment when they are introduced (with reference to a situation in which they have been operative for a long period).

The effects of tax incentives on retirement savings depend on many different factors (e. g. age, the existence of liquidity constraints, the relevance of bequest motives, the difference between the time discount factor and rates of return, and plausible distortionary effects on labor supply), as well as is influenced by changes in individual preferences for saving [1, p. 10].

In Poland the III pillar of pension system refers to additional retirement savings. The voluntary III pillar is created by: individual retirement accounts – IKE, individual retirement security account – IKZE and occupational pension schemes – PPE.

IKE and IKZE operate on the basis of written agreement between a saver and:

- mutual fund,
- brokerage firms,
- insurance companies,
- bank,
- voluntary pension fund (DFE).

IKE and IKZE operate on the basis of the act on individual retirement accounts and individual retirement security accounts [27]. Payment to IKE is taxed and the tax is deducted from a saver's income, which contribution to IKE is financed from. Tax exemption is given to a saver and refers to tax on capital gain, however it is limited by annual amount of possible contributions to IKE. The saver can possess only one IKE and/or one IKZE account. In the case of IKZE payouts are subjected to fixed-rate income tax of 10% instead of taxation according to the tax rates applicable on the payout date. Moreover, the saver can deduct contributions to IKZE from its taxable base (maximum amount equals the annual limit on contributions to IKZE).

The limit on contributions to IKE was set at 3 times the average forecast monthly salary in the national economy, while in the case of IKZE it is 1.2 times. In 2017 the limits are as follows: PLN 12 789 and PLN 5 115.60, respectively [16; 14].

Referring to the third pillar pension, the last way to accumulate retirement savings is occupational pension schemes – PPE. The contribution cannot exceed 7% of the employee's salary. Employees can make additional contributions that supplement those of the employer. PPE contributions are on an after-tax basis and there is only a capital gain tax exemption for plan members and an exemption from social security contributions up to 7% of employees' salary. The limit on contributions to PPE was set at 4,5 times the average forecast monthly salary in the national economy and in 2017 this amount reach the level of PLN 19 183,50 [15].

According to a report conducted by the Polish Financial Supervision Authority (KNF) [25, pp. 4-25], 902.6 thousand people held IKE products at the end of 2016 (which represented 5.5% of the professionally active population). In the same time 643.1 thousand people held IKZE products (at the end of 2015: 597.3 thousand), which constituted only 3.9% of the employed. Value of IKE market in terms of accumulated assets reached PLN 6.7 billion (17.9% growth compared to the end of 2015) – the biggest value of IKE assets was accumulated in insurance companies (PLN 2.3 billion). In the case of IKZE market it was only PLN 1.1 billion, however it is important to highlight 74% growth compared to the end of 2015. Over 92 thousand new IKE were created, which is 19.7 thousand accounts more than in 2015 – the biggest number of IKE was opened in mutual funds (54.2 thousand accounts), whereas the smallest in voluntary pension fund DFE (1.2 thousand accounts). Mutual fund was chosen as IKZE product least often. In 2016 almost 64 thousand new IKZE were created and it seems important to emphasis that it was 28.3 thousand accounts less than in 2015.

The amount of average contribution to IKE reached PLN 3.7 thousand in 2016 and slightly increased in comparison with 2015 (PLN 0.2 thousand growth) – the highest value of average contribution was observed in brokerage firms: PLN 9.1 thousand, and the lowest in insurance companies: PLN 2.7 thousand. In the case of IKZE the amount of average contribution was PLN 2.8 thousand in 2016, which represents PLN 0.2 thousand growth too. In comparison with IKE the highest and the lowest amount of average contribution concern the same kind of institutions.

As regards PPE, at the end of 2016 the value of accumulated assets was PLN 11.4 billion (7,2% compared to the end of 2015). The biggest value of assets was observed in the case of mutual funds – PLN 6.5 billion. At the end of 2016 PPEs covered 395.6 thousand people (0,8% growth compared to the end of 2015) [25, p. 1].

According to report «The retirement awareness of Polish people», only 21.2% of surveyed Polish people save money for their retirement age (occupational pension schemes – PPE, individual retirement accounts – IKE, Individual Retirement Security Account – IKZE, investment-linked insurance plan, bank deposits, cash) or increases their wealth referring to retirement (invests in various goods). Merely 2.1% of people declaring some action make use of institutionalized forms of additional saving for retirement (IKE, IKZE or PPE commonly known as third pillar). [9, p. 11]. The only essential predictor is income. The professional status differentiates the probability of using the III pillar to the greatest extent. The only occupational group clearly different from the others consists of the self-employed except agriculture sector, where almost 21% use the III pillar.

The group of people who declared any form of saving for retirement (occupational pension schemes – PPE, individual retirement accounts – IKE, Individual Retirement Security Account – IKZE, investment-linked insurance plan, bank deposits, cash) was asked about the amount of their annual income they spend on retirement savings. The highest percentage (43%) showed the amount between 6 and 10%. 21% declared the amount above 10% and 20% found it impossible to state it.

The share of retirement savings in income is strictly connected with the level of education (the higher the education is, the higher the share is), however it does not depend on income, age or gender. The people who declared a higher percentage of their income on retirement savings, usually receive higher income, which means they spend higher monthly amount of money on these savings [9, p. 12].

The percentage of Polish households actively participating in the financial market is increasing, however it is still not satisfactory. According to the report *Diagnoza Społeczna* [4], in 2013, the group of households actively participating in the financial market comprised 65.8% – compared to 54.9% in 2000. The group of households being in debt which simultaneously showed same savings reached 11.6% in 2013, compared to 6.3% in 2000 (whereby in 2013 decreased by 0.7 pp compared to 2011).

When analyzing the usage extent of financial product and services in Poland, some significant differences could be identified in the cross-section of various societal groups. The percentage of a bank account holders is a key indicator for the level of consumers' engagement in the banking systems. According to the research on spending habits conducted by the National Bank of Poland in October and November

2011 and in January 2012 [13, pp. 1-227], 77% of Poles held a payment account either at a bank or a credit union.

The least number of personal bank account holders was found among the individuals who:

1) are over 65 years of age (43% of people in this group hold a personal bank account),

2) live in the countryside (72% of people in this group have a personal account),

3) have basic education background (32% of people in this group have a personal account),

4) declare the lowest monthly net income in the household, i. e. below PLN 1300 per month (41% of persons in this group had a personal account),

5) are retired or receive federal pension (46% and 50% respectively of those with 50% personal account).

The data conveyed in the study titled «The Spending Habits of Poles» is concerned with the general trends in the possessing and the usage of checking cards among consumers. During the survey's time frame, 66% of Poles held a payment debit card, but as many as one out of four respondents claimed they had not make any payment with the card in the last month. The characteristics of people belonging to this group are: [13, pp. 1-227]

1) age over 65 (69% – whereas 3% indicated no use);

2) place of residence in the countryside (81% – whereas 5% indicated not using the card);

3) basic education (72% – whereas 6% indicated not using the card);

4) the lowest monthly net household income, i.e. less than PLN 1300 per month (75% – 8% indicated no use of the card);

5) occupational status: home workers (52% – 9% indicated that they did not use the card) and farmers (60% – 15% indicated that they did not use the card).

As the numbers clearly demonstrate, the least number of banking customers and checking card holders are prevalent among the same social groups, with the exception in the criterion of the employment status.

The similar occurrence can also be found by analyzing the profiles of people who did not hold any savings. With the implementation of a CAWI method (Computer Assisted Web Interview), the author conducted a research on the above subject matter in collaboration with the Interactive Market Research Institute. The research was performed on the sample of 1000 respondents aged 15+. The sample structure was adjusted using analytical weight to reflect the structure of Polish Internet users aged 15+ regarding the key qualities related to the subject matter of the study. The sample was selected following random-quota method. The weight was constructed considering social and demographic variables such as: gender, age, education and the size of the place of residents, as well as the variables related to the broadly understood lifestyle. Invitations for participation were displayed to websites users at total monthly range of over 70% of Polish Internet users.

The study took place from February 27 to March 1st of 2013 and it was concluded that the lack of savings were prevalent among the following groups of consumers:

- 1) aged 50 years old or older (36%),
- 2) living in a city of with 100,000 up to 500 thousand residents (42%),
- 3) holding basic education background (35%),
- 4) declaring the lowest monthly net income per person in the household, i. e. below PLN 500 (44%) and falling within the income range of PLN 501–1000 (41%),
- 5) unemployed (42%),
- 6) blue collar workers or farmers (61%).

Both in case of unsatisfactory number of bank accounts, checking cards as well as saving holders, one of the contributing factors is lack of financial education of Poles [cf. 18, pp. 5–136]. Kronenberg, the Foundation at Citi Handlowy, clearly specified in its report that the demographic profile of the low-level financial literacy group is consistent with the characteristics of people who do not own neither bank accounts, debit cards nor saving accounts. According to a survey conducted at the end of July and August 2009 among a representative sample of 1502 Poles [cf. 23] it was proved that Poles with the least financial knowledge are people who:

- 1) aged over 55,
- 2) living in the countryside,
- 3) holding basic education background,
- 4) declaring the lowest monthly net income per person in the household, i. e. below PLN 1000,
- 5) being retired or receiving federal pension.

According to the article based on a thorough research conducted in the United States, individuals with insufficient financial understanding not only have a limited access to banking products but also they are inclined to make unsatisfactory financial decisions that oftentimes result in the overpaying for acquiring and maintaining the banking products.

The analysis of monthly fees accrued by Poles for maintaining a saving and settlement account and for owning a basic payment card, may indicate the convergence of the characteristics of low financial literacy consumers with characteristics specific to those who carry the highest levels of these charges.

The report «The Spending Habits of Poles» indicates that individuals with the lowest income (below PLN 1300 per month) had to pay the highest bank account maintenance fee – PLN 6.3, whereas the fees paid by the highest income customers amounted to PLN 4.5. Poles living in rural and mid-size urban areas had to pay about 23% more than residents of the largest cities. Taking into account the criterion of belonging to the specific age group, people aged 55–64 were charged the most for keeping a personal account per month (PLN 7.8), and the youngest customers were charged the least (PLN 2.1). In comparison, the average monthly account maintenance fee was PLN 5.1 at the time of the research.

There are also several regularities in terms of banking fees imposed on Poles for the audited period. Whereas the average fee was PLN 2.8, people with the highest income paid on average PLN 2.2 for the banking charges, However, Poles, whose monthly net household income ranged between PLN 1801 and PLN 2400 (PLN 4.2), and those with the lowest income – PLN 1300 (PLN 3.5) had to cover the highest banking fees for a basic payment card. However, the banking fees were the lowest

for customers from medium-sized cities (PLN 2.3), while for the habitants of cities with up to 20 000 population (PLN 3.9) and villages (PLN 3.1) the fees were the highest. Taking into account the age group, it should be emphasized that the lowest level of fees was for people aged 18–24 (PLN 0.8), while the highest was for people aged 45–54 (PLN 4).

In accordance with the author's own research 27% of respondents did not have any savings, while only 9% of them had retirement savings. Among the respondents who have accumulated some savings the biggest number is constituted by those who are driven by a precautionary motive. The saving goal in this case is to be protected against unpredictable negative incidents, which can influence the financial situation of a household. In this way the examined people satisfy the safety needs, which is the most important need and only after satisfying it the households will tend to satisfy other needs.

The biggest number of respondents who declared that they accumulate retirement savings was aged 50+ (12%), whereby the smaller groups was represented by the following age bracket: 18–24 and 35–49 (8%). It is importance to emphasize that this situation emerges as particularly negative for stability and effectiveness Polish pension system.

Basing on literature review referring to influence of financial literacy on individuals' decisions as well as on financial market and the country, H. Jariwala and M. Sharma stated that one of the consequences of behaviors characteristic for financially illiterate people is their limited access to finance services/financial exclusion [11]. The lack of financial knowledge on financial products and services as well as lack of ability to correctly assess benefits and threats – thus the lack of financial awareness is responsible for the low level of household activity in the financial market.

Design of pension system, which will enable an effective mobilization of long-term retirement savings of Polish people requires using the information referring to financial illiteracy groups of people in one hand, and to behavioral inclination and bias influencing savings behaviors – in the second hand. The long-term perspective of accumulating funds for an old age implies that such decisions are subject to a large degree of uncertainty (regarding professional, health or family situation) and result in serious problems related to calculating the saved amount level which, in consequence, frequently contributes to the choice overload occurrence. Having considered the fact that distant consequences resulting from the absence of an adequate level of accumulated retirement savings, which could facilitate the expected life quality after the professionally active period of life comes to an end, seem to a certain extent of «immaterial» – vague, or of probabilistic nature – it has been observed that such approach creates an opportunity to become influenced by a variety of mistakes and heuristics (simplified ways of thinking), frequently resulting in sub-optimal, irrational financial decisions.

In this context emergence the question: can tax incentives be an effective tool increasing an inclination to accumulate retirement savings of polish people?

As S. Kawalec, K. Błażuk and M. Kurek pointed out, current tax incentives for joining the third pillar plan are not attractive enough. The authors note that in the case

of IKE and IKZE it is difficult to say unequivocally who these programs are addressed to. Based on other countries' experiences, those tax incentives are not attractive enough to the less prosperous clients, whereas the low deposit limit deters potential customers who are relatively well off [12, p. 25].

One of the prerequisites for the effective mobilization of retirement savings is the introduction of tax benefits. However, the real impact on saving will have a properly structured fiscal incentive system, supported by the presence of other factors contributing to the effectiveness of pension systems. Tax incentives should apply to both the employee and the employer. The authors of the study entitled *How to mobilize additional pension savings?* have proposed the employee tax relief option which is a Tax-Extemp-Exempt (TEE) system. The Tee system means no relief at the time of payment, an exemption both from social security contributions during the investment period, and a capital gains tax during the pay period. Moreover, these authors suggest that unlike the tax relief, a budgetary surcharge seems to be a more logical and effective form of employee incentive, especially for people with low levels of economic knowledge. The federal budget surcharge also facilitates the construction of a program that ensures the highest levels of attractiveness for people with the lowest incomes, because in this case, the benefit derived from participation in the system will be greater than the costs of resigning from the plan altogether.

Based on the review of selected pension systems from all over the world, it is easy to identify certain characteristic distinctive for a significant improvement in the participation rate of voluntary pension plans and the effective activation of long-term savings for future retirement. The analyzed countries were: the U.S.A., Canada, Russia, Australia, New Zealand, Chile, Sweden, Germany, Denmark, Italy, France, the Netherlands and the United Kingdom.

From the comprehensive review of the above countries' experiences, it is evident that if a certain cluster of factors takes place at the same time, they enable the common access to the retirement schemes. Here are the required factors [24, p. 311–312]:

- 1) three sources of financial contribution to pension contributions: employee, employer, federal government;
- 2) create a system of monetary incentives for participants and employers – including the reassigning of the tax fees from the moment of payment deposit until the time of the actual payout (TEE);
- 3) financial support for employers;
- 4) opt-out system;
- 5) ownership verification of the collected funds;
- 6) the implementation of financial tools that on one hand would allow an effective increase of funds and, on the other hand, would guarantee a certain level of their security (the possibility of diversifying funds by taking into account the different risk preferences of the participants)
- 7) the formation of financial tools to facilitate the effective management of funds for customers with low and moderate levels of financial literacy;
- 8) providing current access to clear, comprehensible, properly selected information and analysis necessary for the management of accumulated funds,

especially in the case of complex financial products and dynamic changes in the financial markets;

9) proper determination of asset management costs by financial institutions;

10) ensuring the legitimacy of the system;

11) creating a financial education program that lasts throughout the life cycle of an individual, adapted to the age, the current living circumstances of the individual, and belonging to a specific social group.

As D. Samoń pointed out, 45% of the respondents taking part in a New Zealand poll, admitted they would not have participated if they had not been automatically enrolled in it. Other 15% of respondents would have left the scheme, if it had not been for two week transitional period where the participant was allowed to leave without any penalties. The study of the pension plan participant proves a significant role of the so called starter fee – in case of KiwiSaver the starter fee is 1000 NZD, which accounts for about 2% of the average salary. As many as 90% of respondents said that the government subsidy was an important factor in joining the program. The example of New Zealand shows that the combination of specific elements of the retirement programs such as: 3 sources of pension subsidy, startup fee, tax breaks and automatic record can generate a positive outcome. Thanks to the implemented changes, the level of participation in KiwiSaver’s plan reached nearly 80% [22].

The authors of report: *Świadomość «emerytalna» Polaków* checked whether tendency to save for retirement would increase if retirement contribution was partly financed by the rest of society and/or an employer. Only 13% would not choose such a saving system and 19% did not have their own opinion. The remaining 68% would agree to spend a certain monthly amount in this saving system. It is over three times more than 17% of those who declare to save now for their future retirement (in the form of occupational pension schemes – PPE, individual retirement accounts – IKE, Individual Retirement Security Account – IKZE, investment-linked insurance plan, bank deposits, cash). However the majority (72%) of surveyed who are ready to enter such a system would pay monthly up to PLN 100. It constitutes a satisfactory solution only in case of young people (tab. 1) [9, p. 12–13].

Table 1

What amount would you spent on retirement if retirement contribution was partly (50%) financed by the rest of society and/or an employer? (the percentage of answer)

Age/amount	any	up to PLN 50	PLN 51–100	PLN 101–200	PLN 201 and more	I don't know
up to 34	11.9	18.7	30.6	15.7	3.6	19.6
35-49	11.2	21.2	25.7	16.9	6.0	19.0
50 and more	16.9	23.4	27.8	9.3	3.6	19.0
Total	12.8	20.9	27.9	14.6	4.6	19.2

Source: [9, p. 13].

Based on Italy’s experience, it turns out that the occurrence of some of these factors does not bring about the expected results. As the authors of the report titled:

«How to mobilize additional retirement savings» indicated, the automatic enrolment without sufficient incentives that encourage remaining in the system, does not guarantee a high level of participation. In Italy, in spite of 2007 opt-out implementation, only 27% of private sector employees remained active participants of the supplementary pension schemes – the remaining employees quit the pension program.

Well-tailored tax incentives system, clear, transparent, gaining benefits to employees and employers can be a significant part of pension system, which will enable an effective mobilization of long-term retirement savings of Polish people. However, as experience of another countries show, isolated elements, not linked with another components will not contribute to increasing an inclination to accumulate retirement savings.

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4.3. Household finances under current economic conditions in Ukraine

Being a component of the country's financial system, household finances play an important role in its functioning. The level and the amount of financial resources of households have a great influence on the budget capabilities of different levels regarding the income basis formation, in particular by means of paying taxes and payments by the household members, conditioned either by the income level, or current expenses and corresponding formation of effective demand. Household finances are a means of developing and using of financial resources for satisfying personal needs of the citizens.

According to the resources circular flow model in economy, a household is defined as an economic unit, which plays an important role in the circular flow of resources and consists of one or several persons, and supplies economic entities with various resources and uses the proceeds for satisfying material and other needs.

At the current level of development of the country, the cooperation between households and other economic entities is performed through financial relations

system, i. e. in terms of formation and usage of financial resources, regulation of their income and expenses, formation of savings and their application depending on the household needs. At the same time financial relations of households serve as the financial basis of the development of all the other financial system elements due to the fact that in conditions of formation of democratic states with the developed social and economic system, a household becomes the main subject of financial relations, which operate the finance of economic entities, finances of state, etc.

The highest level of priority during the formation and usage of financial resources has a microeconomic level, i. e. a household level. It is stipulated by the fact that the lack of necessary amount of financial resources at the microeconomic level will not provide an expanded reproduction, therefore resulting in further negative influence on the development of all the branches and elements of the financial system, including the public finances.

Household finances are a set of money relations regarding the formation, distribution and usage of trust funds of monetary resources, into which the household with its separate members enters in the process of their social and economic activities [1].

Analysis of financial literature allowed us to generalize such functions as:

- savings function, because a certain part of household income can become a source of financing of economy development;
- consuming function, because there is an ultimate consumer of tangible and intangible values for satisfying their needs, that is the aim of a production;
- control function, that is control of distribution and intended use of proceeds from different sources;
- guiding function, that is the process of distribution of joint income between all the household members, and also taking a joint decision concerning its usage;
- supplying function of production factors for those enterprises, which combine them in order to produce tangible and intangible values;
- investing function, which may be defined as the process of investment of personal financial resources with the aim of increasing of personal capital.

However, the consuming function is the main one. The size of household consumption is affected by the size of its budget and price level of tangible and intangible values.

The economic relations between household members depend significantly on their financial management system, according to which the household members agree to a greater or lesser extent with an accepted model of family financial management. Therefore, the investigation of the most important methods and instruments of household financial management, and also defining of the main factors whether directly or indirectly affecting this process, are extremely important and necessary under the current conditions of economic instability.

We consider household financial management as the activities of household members regarding the regulation of input and outgoing cash flows with the aim of improving of general welfare, and also as the activities of state authorities connected with the influence on the processes of formation of income and expenses of such households. It can therefore be said that household financial management is a set of

processes of motivation, planning, organization, control and realization of financial relations either directly within the household itself or between other economic entities (monetary authorities, financial market institutions, etc.).

We promote the idea that it is appropriate to distinguish as the main priorities of household financial management: the search and realization of all possible sources of household income formation; rationalization of household's expenses on current consumption; formation of savings within the context of optimal correlation between investment profitability maximization and minimization of social, economic and financial risks; consideration of economic justification of raising debt funds and coordination of expenses on their redemption with the size of future income; realization of operating control with the aim of providing financial stability of household etc. [2, p. 19]

Thus, the aim of management should be defined as realization of financial policy by population, i.e. a set of methods, approaches, devices regarding the financial decisions made by households and aimed at the increase of personal welfare and life quality of every individual under condition of provision of financial safety, financial independence and financial stability of households.

The objects of household financial management are incomings and expenses of households.

The formation of household income is realized almost at every segment of market: at labor resources market, merchandise market, financial market. In the system of defining of living standards the measure of income occupies one of the central positions. Household income is the part of a country's national income, which begins to be controlled by a household as a result of distribution and redistribution of produced gross domestic product and it is aimed to satisfy material and spiritual needs of members of this formation [3, p. 249]

Let us analyze the household income within the period of 2012-2016 (table 1).

Table 1

**Dynamics and structure of income of the population
of Ukraine within 2012–2016***

Year	Total income of population		Salary		Profit and mixed income		Property income (received)		Social assistance and other transfers received	
	mln. UAH	%	mln. UAH	%	mln. UAH	%	mln. UAH	%	mln. UAH	%
2012	1457864	100	609394	41,7	224920	15,4	80769	5,5	542781	37,4
2013	1548733	100	630734	40,7	243668	15,7	87952	5,7	586379	37,9
2014	1531070	100	611656	39,9	257426	16,8	92016	6,0	569972	37,1
2015	1743979	100	680386	39,0	319943	18,6	85185	4,6	658465	37,8
2016	2002383	100	837250	41,8	363898	18,2	82068	4,1	719167	35,9

* Compiled from [4].

As shown in Table 1, beginning from 2012 the population income had been gradually increasing. Comparing to 2015, in 2016 it increased by 14,8%, and comparing to 2012, it increased by 37,4%. According to the data, presented in the table, we can observe the increase of all components of household income of Ukraine, except property income. Thus, in 2016 the salary increased by 37,4% and 23,1%, profit and mixed

income of household increased by 61,8% and 13,7%, social assistance and other transfers received increased by 32,5% and 9,2 % compared to 2012 and 2015 respectively, but compared to 2015, property income in 2016 decreased by 3,7%.

The comparison of structure of household monetary income indicates that during 2012–2015 relative share of salary had been decreasing, however in 2016 it increased up to the level of 2012 and made 41,8%. Probably, it is connected with the considerable raise in minimum wage in 2016. Instead relative share of social assistance and of other current transfers, received by households, decreased. Yet, in spite of the decrease of the relative share of social assistance and of other current transfers, received by households, the share of social benefits for the population is still remains high, indicating on the low level of other incomings of the population. High level of social assistance increases the expense portion of the state budget, causing the need to increase the income basis, therefore affecting all economic entities, including households.

In our opinion, the increase of social assistance mustn't be permanent, but should become a part of support in the periods of crisis and oriented on further involvement of household members exactly to receiving the income form the factors of production.

Having analyzed the sources of household incomings of Ukraine, we can state that a big share of household incomings is the incomings, received by household members in the process of redistribution from the state. And the proceeds from personal production activity or any other activity make up a minor part in the structure of household income and need a corresponding adjustment of the state policy toward to the shift of emphasis on the stimulation of active labor activity of household members with the help of corresponding financial methods and levers.

Comparing the situation in Ukraine with other countries, the income from labor compensation of employees is dominant in monetary income of the population: Belarus – 57%, Moldova – 44%, Russia – 62%. However, the share of social benefits is significantly lower: Belarus – 20%, Moldova – 17%, Russia – 15%. Quite a considerable is the share of revenues from business activities in Moldova (17%), while in Russia only 3% of monetary income of the population belong to this type of income. As for property income, in Belarus the share of this type of income is the lowest – 3%, in the property income make 6% of monetary income of households [5].

However, according to the world and national experience, for more accurate estimation of the actual financial status of household it would be more appropriate to use not so much the level of income (part of which can be concealed during an inspection), as the level of monetary expenses. The household income forms the material basis for making expenses and for opportunity to make savings.

The household expenses are a set of monetary payments made by household on the basis of the received incomings, aimed to provide its appropriate functioning.

As of the end of 2016 the Ukrainian households spent 1 824 849 million UAH on buying of goods and services, i.e. by 17 % more, than in 2015 (Table 2). The increase of expenses and savings during the last two years made up 15,4%. The biggest was the increase of expenses on current income taxes, property taxes and others, and made 38,7%.

Table 2

**Dynamics of expenses and savings of households of Ukraine
in 2012–2016, mln. UAH.**

Rates	Years					In 2016 in % till 2015
	2012	2013	2014	2015	2016	
Expenses and savings, total, incl.	1457864	1548733	1516768	1735858	2002383	115,4
Buying of goods and services	1194791	1304031	1316757	1553757	1824849	117,4
Property income (paid)	18567	21091	23495	18583	20350	109,5
Current income taxes, property taxes and other paid current transfers, incl.	97226	107345	145736	150539	175584	116,6
Current income taxes, property taxes etc.	68716	72943	75446	100830	139883	138,7
Contributions to social assistance	16004	16273	16608	16383	1962	12,0
Other current transfers	12506	18129	53682	33326	33739	101,2
Savings of non-financial assets	-2954	5378	2912	-2117	-9138	-
Increments of financial assets, of which	150234	110888	27868	15096	-9262	-
Increments of monetary contributions and savings in securities	71689	104727	-118734	-106306	41471	-
Savings in a foreign currency	63625	21509	32472	-22836	-63264	-
Loans received, except for paid-off ones (-)	-13533	5284	-40115	-82752	-18839	-

* *Compiled from [4].*

Due to the order changes regarding the accruals and unified social tax payments, the social security expenses decreased from 16383 million UAH in 2015 to 1962 million UAH in 2016. It should be noted that household expenses, connected with current service of credits and loans and redemption of these debts as of 01.01.2017 made up 20 350 million UAH, that is by 9,5% more, than in 2015, although in 2008 such expenses made 36 496 millions UAH. It indicates a decrease of amount of credits and loans, according to which, there should be performed payments to households.

In the structure of the expenditure side it should be noted that, that a part of expenses on buying goods and services increased from 81,6% in 2012 to 91,2 % in 2016 (Table 3). Such increase happened due to the decrease of non-financial assets, and also savings in a foreign currency.

The biggest relative share in consumer total expenditure of the national households is occupied by food expenses, which make more that 50% of all the expenses. According to the experience of countries with developed market economy, a part of food expenses is significantly lower than Ukrainian rates: the relative share of expenses on food and non-alcoholic drinks in EU makes about 13%, and in Japan this rate made nearly 23% [5]. This fact allows us to conclude that the modern households come to a high level of poverty.

As for the savings, it is appropriate to note that they have a definite tendency of decrease. The phenomenon, connected with the decrease of personal savings of population compared to the reduction of their consumption, indicates on the fall of

living standards. The population tends to keep the level of the current consumption at the level of the previous year by means of using savings. According to the world practice, the most common forms of savings are such elements: the availability of bank deposits and real estate, centralization of costs in securities (primarily in shares and bonds). In Ukraine, the above mentioned list is supplemented by cash currency.

Table 3

The structure of expenses and savings of the population of Ukraine in 2012–2016, %

Rates	Years				
	2012	2013	2014	2015	2016
Expenses and savings, total, incl.	100	100	100	100	100
Buying of goods and services	81,6	84,2	86,8	89,5	91,2
Property income (paid), current income taxes, property taxes and other paid current transfers	7,9	8,3	11,2	9,7	9,8
Savings of non-financial assets	0,2	0,3	0,2	-0,1	-0,5
Increments of financial assets	10,3	7,2	1,8	0,9	-0,5

* *Compiled from [4].*

The conducted study allows us to make such conclusions:

– the benefits, given by market economy conditions concerning the expansion of possible sources of income, are used not entirely, in particular this applies to the reception of property and entrepreneurial activity income;

– the structure of the national household expenses is quite typical as for post-soviet countries. However, there is a positive tendency of relative share decrease of consumption expenditures, which is a characteristic feature of many countries with developed market economy;

– due to the notable changes in the household savings structure during an economic depression, we may state about a gradual involvement of households to active financial cooperation, which is indicative of becoming of this entity an immediate and full member. Besides, the increase of savings of population in the form of financial assets indicates the formation of suppositions for receiving of different types of financial income.

It should be noted that a relative unawareness of population concerning the opportunities and peculiarities of functioning under the new economic conditions is deepened by economic depressions and political instability in the state, which in its turn restrains the further market transformations. The mentioned requires an institutional support in activation of households at the financial markets, providing the implementation of the state policy into the regulation area at all stages of its development.

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4.4. Household investment behavior: world models and national peculiarities

There are differences in investment behavior of population of different countries caused by their national, cultural and ethnic peculiarities at national financial market. Russian scholar Ya. Mirkin made an important investigation, where he emphasized the influence of cultural and ethnic values on investors' behavior and the development of financial markets. He distinguished the following models of investors' behavior: Anglo-Saxon, Islamic, German, Japanese and Russian.

Anglo-Saxon model of investors' behavior is characterized by more inclination of investors to risk, high level of economic individualism and less control of state and big companies. Such investor acts responsibly and carries out his duties but earning money is considered to be «a result and representation of his values and skills to realize his mission» [2]. The motto of the protestant investment behavior is considered to be a phrase said by Benjamin Franklin that is «time is money». Such investment behavior is observed in population of the USA, Great Britain and Canada.

The statistic data show that financial assets of American household are the biggest in the world and in the beginning of 2015, there were about \$69.4 trillion [3]. Analyzing the data of the structure of financial assets of the household of the USA (countries having Anglo-Saxon investment model) shown in Figure 1, it can be defined that the big part of costs of population is invested in shares – 34.3%, in the second place, there are pension and insurance funds – 32.3%, investment funds are almost 13%. Such structure of financial assets proves the thesis about American risk investment character, which is influenced by emigrants, who are risky and independent people.

Active investment in stock market and predominance of pension accumulation in assets of the household of the USA is explained by its national peculiarities including traditional world outlook WASP (White, Anglo-Saxon, Protestant), which is historical standard for American people. In particular, the desire to make provision for oneself (including secure retirement), to fulfill oneself, achieve success and be independent (an image of «American dream») is present traditionally in protestant world outlook WASP.

In general, on one side, predominance of stock and share in Anglo-Saxon countries is explained by religion component, on the other side, a desire to be

independent what is the most stimulating motif, which forces Americans, which made WASP model as an ideal for them to invest in pension funds. Moreover, for 93% investors who put their money in unit investment trust, to make provision for themselves in old age is a motive [4].

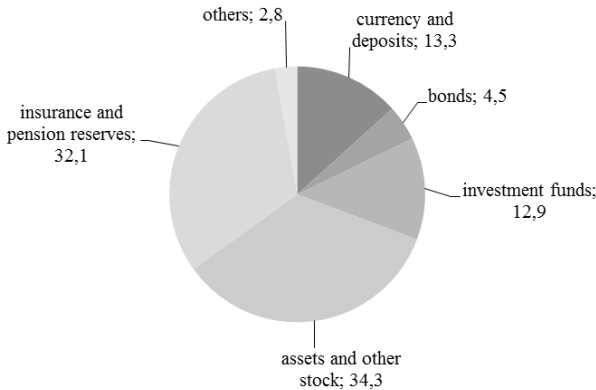


Fig. 1. Financial assets of the household of the USA in 2015, %*.

*Compiled according to the data [3].

Islamic model of investors' behavior or «Islamic finance» is based on observance of the principles of shariah (collection of Islamic laws). Professor Mahmut El-Hamal wrote about two concepts in Islamic business world: interest (interest on credit) and risk in his book «Islamic finance» [5]. The following main principles are in the base of the activity of Islamic financial institutions:

- money cannot and should not be taken from money, that is capital growth can not be in the sphere of money circulation;
- investors' profit should be connected with investments in trade and production;
- relations between participants of an agreement should be built on the base of partnership;
- money is not goods, it is only a measure of value.

The following things are the main prohibitions for Muslims:

- fish (any debt interest): credits, bonds, deposits with fixed income;
- gararu (speculation, excessive indifference concerning a subject of an agreement and its essential conditions): derivative financial instruments (forwards, futures, swaps etc) and traditional insurance;
- maysyr (groundless enrichment, profit, which is as a result of accidental concatenation of circumstances): gambling game, agreements, bet and traditional insurance [6].

Therefore, Islamic financial markets are characterized by a rather simplified structure; depressive state of a stock market (because of predominant development of share market and almost total absence of bond market); insufficient flow of external

financial resources (closed nature of Islamic markets); predominance of big family investors in joint-stock capital.

Japanese model of investors' behavior has the following peculiarities: aspiration for hierarchy in state and in business; limited working mobility; low inclination to risk; necessity in trust; personnel interests (employment, payment for labor, social payments) are more important than shareholders' interests; pronounced collectivism and inclination to self-limitation (ethics of «honest poverty», self-sacrifice for business); high level of savings of population.

Such peculiarities of behavior of population are reflected in the development of financial market and structure of household investments. In particular, in 2015, the volume of financial assets of household in Japan was about 1.7 trillions of Japanese yen. The structure of financial assets of the household in Japan differs and the part of currency and deposits is too high comparatively with other countries – 51.7%, and insurance and pension reserves are 26.4% (Fig. 2).

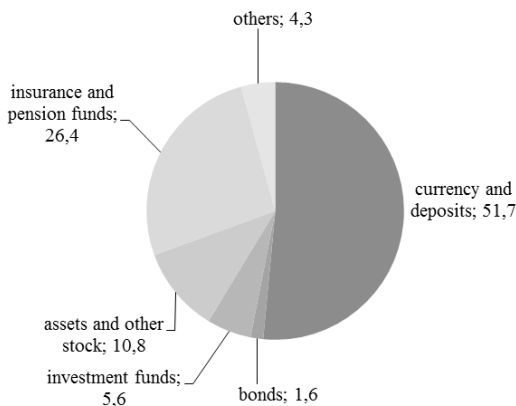


Fig. 2. Financial assets of the household in Japan in 2015, %*.

**Compiled according to the data [3].*

Such structure of financial assets shows that the population traditionally chooses currency and deposit accounts having considerable possibilities for the use of other forms of costs investment. Investment funds are not popular in Japan [7].

German model of investors' behavior is similar to Japanese one, because it is characterized by practical use, inclination to hierarchy, inconsiderable working mobility, aspiration for social security system, high norm of savings, protection of interests of personnel and less than in Anglo-Saxon countries orientation on the growth of market value of shares and high dividends. That is why demand on shares in Germany is inconsiderable and limited because the population of the country prefers less risk investments – traditionally banking products (deposits) or financial instruments with guaranteed payments, for example, bonds and insurance policies [1].

According to the statistic data, among German household investments in currency and deposits are in demand – 39.3%, and other part of financial assets is

proportionally formed in pension, insurance and investment funds – accordingly 14.1%, 16.8% and 14.1%. Stocks are only 9.9% in total value of financial assets of the population of Germany and the rest – 4.3% is for buying bonds [7]. In general, the structure of financial assets for the population of European countries is similar to German model and comparatively with other models is more diversified and quite enough improved (Fig. 3).

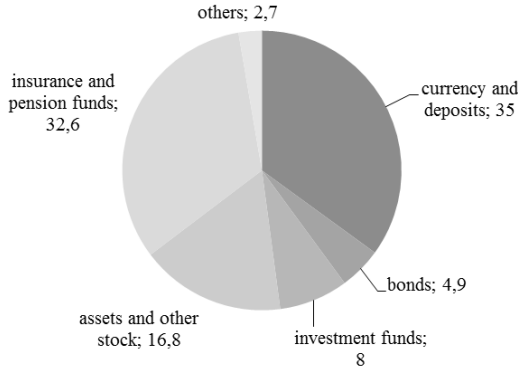


Fig. 3. Financial assets of the household of EU in December, 2014 p, %*.

**Compiled according to the data [3].*

Total volume of financial assets of UE household was €21.1 trillion in 2014. The biggest part of it was investments in currency and deposits, it was 35%, in the second place, there were insurance and pension funds – 32.6%, and shares and stocks were in the third place – 16.8%. However, each country has some peculiarities concerning the structure of financial assets of the household. For instance, in France, there were no pension funds but a high interest of investments is observed in insurance, it is 34.3%; in Italy, a big part of population costs is for buying bonds, it is 19.1%; in Netherlands, 48.6% is costs of the household invested in pension funds.

The next model of investment behavior, emphasized by Professor Ya. Mirkin, is Russian one [1]. We consider that Russian model of investment behavior of population is similar to Ukrainian one as it was caused historically. Besides, Orthodox Christians is the dominant religion in Ukraine and Russia. Characterizing Orthodox religion Ya. Mirkin used the approach of philosopher N. Berdyayev, that Orthodox has two characteristic features: «man’s spread» and conditions under which the state was under the control of the church during 300 years. It is not easy to be economically independent, «decentralized», to take risks and be oriented, first of all, on getting profit under such conditions [8].

Besides, during the last 85 years, Russia and Ukraine lost a lot of people during wars (as a rule, the most active members of society lost their lives), the population lived repressions and some waves of emigration. During Soviet period, under conditions of administrative and command economy, any enterprise activity was suppressed what caused the further weakening of human potential, increase of the

part of active and qualified staff. It was caused by the policy of total nationalization of economy and social sphere. It was the conception of «care of the state and the party about people», absence of base for economic and personal independence (absence of private ownership of land, real estate and the main means; limitedness of personal income and financial resources; loss of savings every 25-30 years, limited mobility of labor forces). The result of such policy was forming the peculiar population behavior predicting social care and dependence on a state [1]. Under such conditions, the population can take only small risks and wait for financial state support; and economic independence and freedom are considered to be less value than stability. During that period, the most spread objects of investment were building and home renovation and bonds of state debt [9, p. 14].

Therefore, that us analyze modern investment behavior of Ukrainian household (Table 1). The considerable part of financial assets of Ukrainian household is deposits attracted by banking institutions as shown in Table 1.

Insurance companies attract 2% of investment resources of the population of Ukraine.

Table 1

**Dynamics, volume and structure of financial assets
of the household of Ukraine***

Indices	2013		2014		2015		2016	
	billions, hryvnya	%	billions, hryvnya	%	billions, hryvnya	%	billions, hryvnya	%
Banking institutions (deposits)	369.3	97.4	442.0	97.4	418.1	97.5	410.9	97.4
Credit unions(deposits)	1.1	0.3	1.3	0.3	1	0.2	0.9	0.2
Insurance companies (gross insurance premiums)	8.9	2.4	10.3	2.3	9.5	2.2	10.2	2.4
Private pension funds (pension investments)	0.06	0.02	0.07	0.02	0.07	0.02	0.08	0.02
Total	379.4	100	453.7	100	428.7	100	422.1	100

**Compiled and calculated according to data [10; 11; 12; 13].*

Inconsiderable part (less 1%) of financial assets of the household was attracted by credit unions and private pension funds. The most characteristic is costs allocation on deposit accounts in banking institutions as it was shown in Fig. 4. Such investment behavior is characterized by low risk level because in Ukraine, the protection of depositors is in the form of guaranteed compensation by means of Deposit Insurance Fund.

Such investments give a possibility to get a low but stable income. Although, investment activity of household at banking market is quite high, the estimation of the index of dynamics of absolute volume of population deposits shows a negative tendency of decrease from 442 billion of hryvnias in the beginning of 2014 to 410.9 billion of hryvnias in the beginning of 2016. Such situation can be explained by instable economic situation, crises in banking sphere, and worsening of financial state of population. Decrease of volumes of population savings was caused by the decrease of the level of the household welfare. The results of inquiry of the household made by State statistic service show that in 2015, only 6.2% of Ukrainians evaluated their

income at the high level and saved up; 45.7% of Ukrainians had enough income; 48.1% of Ukrainians had not a possibility to buy the most necessary things including good nutrition [14].

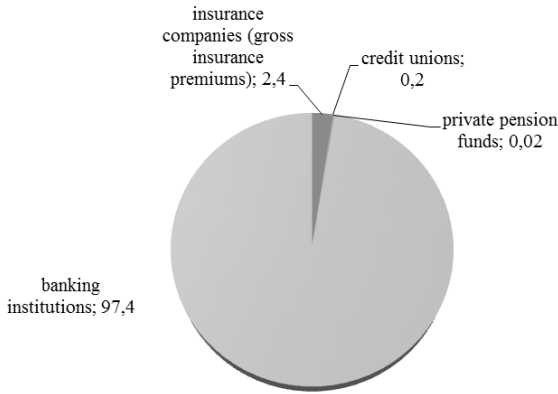


Fig. 4. The structure of financial assets of the household of Ukraine in 2015, %.

Analyzing investment behavior of the household at banking market, the terms of costs investment should be evaluated (Table 2).

Table 2

The dynamics and structure of deposits of the household attracted by banks of Ukraine according to the terms of payback during 2012–2015*

Indices	2013		2014		2015		2016	
	billions, hryvnya	%	billions, hryvnya	%	billions, hryvnya	%	billions, hryvnya	%
Deposits, total	369.3	100	442	100	418.1	100	410.9	100
On demand	77.2	20.9	87.7	19.8	100.2	24.0	112.5	27.4
Until 1 year	125.6	34.0	121.3	27.4	135.6	32.4	176.4	42.9
From 1 until 2 years	139.4	37.8	218.4	49.4	167.7	40.1	106.2	25.8
More than 2 years	27.1	7.3	14.6	3.3	14.6	3.5	15.8	3.8

* *Compiled and calculated according to the data [10].*

Economic and political instable situation and decrease of trust to national banks caused not only decrease of investment activity and effluent of deposit resources but a change of the structure of investments of the household in the size of the terms of payback. If in 2012, 45.1% was population investments (the costs were invested for longer period than 1 year), than in 2015, the part of such costs decreased to 29.6%.

Deposit behavior of population can be evaluated from the position of investment according to the types of currency (Table 3).

During 2012–2013, Ukrainians saved up in national currency but during 2014–2015, their savings increased in foreign currency, it was caused by devaluation of national currency (Table 4).

Table 3

The dynamics and structure of deposits of the household attracted by banks of Ukraine according to types of currency during 2012-2015*

Indices	2012		2013		2014		2015	
	billions, hryvnya	%	billions, hryvnya	%	billions, hryvnya	%	billions, hryvnya	%
Deposits, total	369.3	100.0	442.0	100.0	418.1	100.0	410.9	100.0
National currency	186.8	50.6	257.9	58.3	200.9	48.1	198.9	48.4
Foreign currency	182.5	49.4	184.1	41.7	217.3	52.0	212	51.6

* *Compiled and calculated according to the data [10].*

Table 4

Official rate of hryvnya to US dollar (during 100)

(average one during a period)

2008	2012		2013		2014		2015	
hryvnya	hryvnya	Rate of change, % (until 2008)	hryvnya	Rate of change, % (until 2008)	hryvnya	Rate of change, % (until 2008)	hryvnya	Rate of change, % (until 2008)
526.7	799.1	151.7	799.3	151.8	1188.7	225.7	2184.5	414.7

* *Compiled and calculated according to the data [15].*

Indices shown in Table 4 represent the extreme currency rate increase during 2008–2015. The rate of US dollar, during 2012–2013, increased comparatively to that in 2008 in 1.5 times, in 2014 – in 2.2 times, in 2015 – in 4.1 times. Accordingly, the rate of Euro in 2012 increased comparatively with 2008 in 1.3 times, in 2013– in 1.4 times, in 2014 – in 2 times, in 2015 – 3.1 times. During currency rate increase, savings in national currency decreased and savings in foreign currency increased.

The population invests its costs through credit unions, which propose higher interest on deposits. Nevertheless, under the conditions of financial instability, absence of national guarantee of costs payback and ineffective mechanism of protection of members of credit unions, the population does not want to invest its money on deposit accounts of credit unions (Table 1).

The availability of not organized savings, the popularity of which is caused by indifference of economic situation, absence of active instruments for costs attraction and their investment and insufficient level of financial literacy are characteristic features for the national household.

Thus, Ukrainian investor's model was formed under difficult historical conditions. Ukrainian investment behavior changed during the period of the beginning of the independence of the country and market economy transition. The change of the model of investment behavior is transformation of a man from a passive economic subject into active member of financial relations. The members of the household put investment potential in their own business, real estate or save up for their future needs or future generation during the process of realization of enterprise skills. However, the main reasons preventing activation of investment behavior of the national household are the following: distrust to the state, banking system and national currency; insufficient awareness of the population about the

possibilities to invest its costs; distrust to financial mediators; decrease of the level of the household welfare; insufficient level of the development of insurance market and private pension funds.

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4.5. Management of household's investment portfolio

The investment portfolio for a household is formed as a set of financial market instruments to implement their own investment objectives. The management of the investment portfolio households in terms of low-interest rates and inflation can be divided into five stages:

1. Formation of the investment objectives for household.
2. Formation of the investment policy for household.
3. Selection the strategy of investment portfolio household.
4. Selection the assets for investment portfolio household.
5. Measurement and evaluation the investment for household.

Five stages set out above form a cyclic process in which the assessment of effectiveness may lead to adjustment of objectives, policy, strategy and assets of the portfolio.

The first phase of a management process determines investment goals for a household. In particular, a household is going to provide some level of investment income in the period of their work activity that provides a decent standard of living in their retirement age.

Forming one portfolio, the households can reach the multiple objectives, the main requirement of which are that they do not contradict each other (such as achieving maximum profit always accompanied by a maximum risk portfolio, and is simultaneously achieve a high income with minimum risk impossible).

The second phase of management of portfolio household is the formation of the main ways of investment policy to achieve the selected goals.

This phase begins with the decision to place assets. In other words, household as an investor must decide how to allocate its existing savings between the major asset classes. The risk assets are assets, which future returns of them are uncertain. The major classes of risk assets usually include stocks, real estate and foreign currency. The risk-free assets are assets, which future returns of them are certain. The major classes of risk-free assets usually include bank deposits, bonds. Household, as usual, has to do choosing between risk assets.

The household makes the choice between risky assets on the basis of indicators of their future incomes, variations and dispersion. The expected incomes of a risky asset are calculated as follows. Firstly, for a given the probability distribution of possible values for realised incomes. The probability distribution is a feature that correlates with each possible value of incomes and the likelihood of their realisation. Secondly, for a given probability distribution, the expected incomes are the weighted average of the possible incomes. The role for the weighted average has «played» the probability distribution of these incomes. In practice, the probability distribution is based on past statistics (realised) incomes.

We suppose that a household wants to buy shares of company A, which probability distribution of their incomes (for a certain period) are shown in Table 1 [1].

Table 1

The probability distribution of the incomes of shares company A

n	Incomes (%)	Probability distribution
1	11	0,35
2	8	0,25
3	2	0,2
4	1	0,15
5	-7	0,05
Total	x	1

Mathematically, the expected income on assets is expressed as follows:

$$E(R_i) = p_1 r_1 + p_2 r_2 + \dots + p_n r_n \quad (1)$$

Where r_n – The possible value of incomes n for shares;

p_n – The probability of realisation incomes n for shares;

n – The number of possible values incomes for shares.

Transferring data from Table 1 into equation 1 gives the following results:

$$E(R_A) = p_1 r_1 + p_2 r_2 + \dots + p_n r_n = 0,35 * 11\% + 0,25 * 8\% + \dots + 0,05 * (-7\%) = 6,05\%$$

Thus, 6.05% is expected incomes of shares company A.

The risks are seen as a statistical value – variation – as a deviation of values of the random variable from of their average expected value.

In our case, the random variable is income of shares company A. Thus, the variation evaluates the «degree of deviation» of possible expected values of incomes from of their average expected value (6.05%). Also, the variation shows a degree of risk associated with this income.

The formula for determining the variation asset is expressed as follows:

$$\text{var}(R_i) = p_1 [r_1 - E(R_i)]^2 + p_2 [r_2 - E(R_i)]^2 + \dots + p_n [r_n - E(R_i)]^2,$$

or,

$$\text{var}(R_i) = \sum_{n=1}^N p_n [r_n - E(R_i)]^2 \quad (2)$$

Transferring data from Table 1 into equation 2 gives the following results:

$$\begin{aligned} \text{var}(R_A) &= 0,35[11\% - 6,05\%]^2 + 0,25[8\% - 6,05\%]^2 + 0,2[2\% - 6,05\%]^2 + \\ &0,15[1\% - 6,05\%]^2 + 0,05[-7\% - 6,5\%]^2 = 25,1475\% \end{aligned}$$

Thus, the variation into account not only the size of possible deviations values of incomes from their mean but and the probability of such deviation. In this sense, the variation indicates the degree of uncertainty in investors' expectations that evaluates future profitability as average for all possible values. This circumstance allowed considering the variation as a measure of risk investment.

Because the variation is the size of the square of the measured value, it decided to convert the standard deviation that is to find the square root (dispersion).

$$SD(R_i) = \sqrt{\text{var}(R_i)}$$

In this case, the standard deviation of the shares company A is equal to:

$$SD(R_i) = \sqrt{\text{var}(R_i)} = \sqrt{25,1475} = 5,015$$

As these concepts (variation or dispersion) are essentially equivalent, we can say that the higher investment risk, the greater the variation or standard deviation (dispersion).

The investment portfolio of the household consists of risk assets. The household in the management of his investment portfolio usually wants to know his expected income. The expected income of the portfolio is a weighted sum of the expected incomes from risk assets that are included in its composition.

The share of the expected income on each asset is determined as a proportion of the market value of the individual assets in the total market value of the portfolio:

$$E(R_p) = w_1 E(R_1) + w_2 E(R_2) + \dots + w_i E(R_i) \quad (3)$$

The expression $E()$ means the expected value of, and therefore $E(R_p)$ is called the expected income of the portfolio over a specified period.

The variation of the portfolio that consist of two assets depends not only on variations of two assets but also on the «degree of consistency» in the behavior of assets, as measured by such indicator as covariance.

$$\text{var}(R_p) = w_i^2 \text{var}(R_i) + w_j^2 \text{var}(R_j) + 2w_i w_j \text{cov}(R_i R_j), \quad (4)$$

Where $\text{cov}(R_i R_j)$ – covariance of incomes from the assets i and j .

The content of the equation 4 is that the variation of the portfolio is equal to the sum of weighted incomes two variations of assets and their covariance.

Covariance is the mathematical term in the context of management of the investment portfolio household means the degree of relationship the two assets.

The covariance hasn't measure special unit. Positive covariance indicates that the income of both assets change (on average) in one direction, and negative – in reverses. Covariance of two assets is calculated by the formula:

$$\text{cov}(R_i, R_j) = p_1 [r_{i1} - E(R_i)]^2 [r_{j1} - E(R_j)]^2 + p_2 [r_{i2} - E(R_i)]^2 [r_{j2} - E(R_j)]^2 + \dots + p_n [r_{in} - E(R_i)]^2 [r_{jn} - E(R_j)]^2, \quad (5)$$

Where r_{in} – n -possible value of asset income i ;

r_{jn} – n -possible value of asset income j ;

p_n – Probability of realisation n income values for assets i and j ;

n – The number of possible values the income.

To show how this is calculated by the formula covariance of two assets, use the data in Table 3. The shares of company A that were in the previous example. Other hypothetical data – are shares of company B.

Table 2

The probability distribution of the incomes of shares company A and B

n	Incomes A (%)	Incomes B (%)	Probability distribution
1	11	8	0,35
2	8	11	0,25
3	2	6	0,2
4	1	0	0,15
5	-7	-4	0,05
Total	X	X	1
Future incomes	6,05	6,55	x
Variations	25,1475	17,7475	x
Dispersion	5,015	4,213	x

Transferring data from Table 2 into equation 5 gives the covariance for shares A and B:

$$\begin{aligned} \text{cov}(R_A, R_B) &= 0,35[11\% - 6,05\%]^2 [8\% - 6,55\%]^2 + 0,25[8\% - 6,55\%]^2 [11\% - 6,55\%]^2 + \\ &+ 0,2[2\% - 6,05\%]^2 [6\% - 6,55\%]^2 + 0,15[1\% - 6,05\%]^2 [0\% - 6,55\%]^2 + \\ &+ 0,05[-7\% - 6,05\%]^2 [-4\% - 6,55\%]^2 = 16,9725\% \end{aligned}$$

The concept of correlation between incomes on assets is similar to the concept of covariance. The correlation between incomes of the shares is defined as the covariance of these two assets divided by the product of their standard deviations.

$$\text{cor}(R_i, R_j) = \frac{\text{cov}(R_i, R_j)}{SD(R_i)SD(R_j)} \quad (6)$$

It isn't a significant difference between the concepts of «variation» and «covariance». Dividing the result covariance simply normalise the standard deviation covariance, turning it into a dimensionless measure – factor.

Correlation between of shares companies A and B is:

$$\text{cor}(R_A R_B) = \frac{16,9725}{5,015 * 4,213} = 0,8034$$

The correlation coefficient takes a value in the range –1 to +1. The value of 1 reflects complete coincidence way of the income on assets, and –1 means complete disagreement [2].

In the examples we used, the estimated data, standard deviation, covariance and correlation performed based on the known distribution of probabilities for two shares. From this point of view, they really «expected value». In practice, the assessment data values obtained from statistical surveys for profitability. As a variation of the portfolio to depends with covariance on its component shares, despite the fact that the risk of certain shares may be large the total risk of the portfolio can be reduced. This principle is important not only for portfolio management but also for evaluation of professional standards of this management [3, c.125].

Suppose that our portfolio of shares comprising two ordinary shares A and B, which have the following meanings expected income and standard deviation

Table 3

The expected incomes and standard deviations of shares A and B

Assets	$E(R)$	$SD(R)$
Share A	6%	10%
Share B	12%	20%

If the share of each share at 50%, the expected income of the portfolio is equal to:

$$E(R) = 0,5 * 6\% + 0,5 * 12\% = 9\%$$

Variation and income of the portfolio of the two assets, according to the equation 4 is:

$$\text{var}(R_p) = 0,5^2 * 10\% + 0,5^2 * 20\% + 2 * 0,5 * 0,5 \text{cov}(R_A R_B)$$

From the equation 6 follows that:

$$\text{cor}(R_i R_j) = \frac{\text{cov}(R_i R_j)}{SD(R_i)SD(R_j)},$$

So:

$$\text{cov}(R_A R_B) = \text{cor}(R_A R_B) * SD(R_A)SD(R_B)$$

As we know $SD(R_A) = 10\%$ and $SD(R_B) = 20\%$, so:

$$\text{cov}(R_A R_B) = 10\% * 20\% * \text{cor}(R_A R_B)$$

Substituting the expression gives:

$$\text{var}(R_p) = 0,5^2 * 10\% + 0,5^2 * 20\% + 2 * 0,5 * 0,5 * 10\% * 20\% * \text{cor}(R_A R_B)$$

Looking standard deviation, we get:

$$\begin{aligned} SD(R_p) &= \sqrt{\text{var}(R_p)} = \sqrt{0,5^2 * 10\% + 0,5^2 * 20\% + 2 * 0,5 * 0,5 * 10\% * 20\% * \text{cor}(R_A R_B)} \\ &= \sqrt{125 + 0,01 * \text{cor}(R_A R_B)} \end{aligned} \quad (7)$$

How to can change our risk portfolio of the two assets with a change in the correlation of incomes of each asset? Consider three cases equal to +1, 0 and -1. Substituting the equation 7 get these three cases:

$\text{cor}(R_A R_B)$	$E(R_p)$	$SD(R)$
+1,0	9	11,181
0	9	11,180
-1,0	9	11,179

As expected incomes correlation between shares A and B decreased from 1 to 0 and -1 standard deviation of the expected income of the portfolio is also reduced from 11.18% to 11.17%. However the expected income of the portfolio in any case equal to 9%.

An investor can reduce the portfolio risk by holding his expected incomes by combining assets with low (preferably negative) correlation. We should be noted shares with low or negative correlation exist quite a bit.

The released income of the portfolio for a fixed period determined by the following formula:

$$R_p = w_1 R_1 + w_2 R_2 + \dots + w_i R_i, \quad (8)$$

Where R_p – the released income of the portfolio for period p ;

R_i – Income of the share i for period;

w_i – The proportion of share i in the portfolio;

i – The number of shares in the portfolio.

As a typical example, consider a portfolio that consists of three shares (A, B and C) and the investing period (for example one year) showed following indicators of incomes for each of these assets.

Table 4

The indicators of income for investment portfolio household

Share	Market value (\$)	Income (%)
A	6	12
B	15	10
C	25	3

The total market value of the investment portfolio household is 46 USD (6 + 15 + 25). So:

$$R_A = 12\%; w_A = \frac{6}{46} = 0,13, \text{ or } 13\%$$

$$R_B = 10\%; w_B = \frac{15}{46} = 0,33, \text{ or } 33\%$$

$$R_C = 3\%; w_C = \frac{25}{46} = 0,54, \text{ or } 54\%$$

$$R_p = 0,13 * 12\% + 0,33 * 10\% + 0,54 * 3\% = 6,48\%$$

The realised income of the portfolio for a fixed period is equal to 6.48%.

The third stage of household's investment portfolio management is a choice of strategy that meets their goals and their investment policy. The strategies of a portfolio can be divided into active and passive.

The active portfolio strategy is to use the available information and forecasting methods to improve the efficiency of investment in comparison with a simple differentiation. The most significant moment for all active strategies is the prediction of factors that can affect the investment characteristics of this asset class. For example, active strategies when dealing with portfolios of ordinary shares may include predicting future earnings, dividends, or the ratio of prices to income. Bond strategies are based on predicting the future level of interest rates and the strategy of foreign currency – the expected exchange rate.

The passive portfolio strategies require a minimum of information about the future. At the heart of these strategies is the diversification of the portfolio, which ensures maximum incomes matching its selected market index. Passive strategies are based on the notion that all available information in the market is reflected in market quotations of securities.

Apart from these two diametrically opposed types of strategies appear new, and combine. Once the portfolio strategy is chosen, it is necessary to identify those assets that will be included in the portfolio. This step requires the assessment of individual securities. In the case of an active strategy, the households are finding undervalued

assets. This is the stage when the household like investor tries to create an efficient portfolio.

Thus, the task for the management of household's investment portfolio becomes a search among a lot of assets that should have minimal risk for a given level of profitability or, at a given level of risk would have the greatest income. An efficient portfolio is a portfolio that has either the highest expected return for a given level of risk or the lowest risk for a given level of return.

Based on the household's preferences distinguish:

- Aggressive (speculative) portfolio (formed by the criterion of maximising current income or gains on invested capital regardless of the level of investment risk, provides a maximum rate of investment return on invested capital, but is accompanied by the highest the level of investment risk);

- Moderate (compromise) portfolio (overall the portfolio risk and accordingly the rate of income on invested capital close to the market average);

- Conservative portfolio (formed by the criterion of minimising current risk; in these portfolios are practically no financial instruments with investment risk level higher than the market average).

Evaluating the effectiveness of investment is the latest stage in the process of investment management. At this sense, the household makes the measuring return portfolio and comparing the result with the selected baseline. Baseline, in this case, serves some quantitative characteristic behavior of the pre-selected set of assets. As a benchmark can be selected any known stock indexes such as Standard & Poor's 500 (S & P 500), or indices that publish known consultancy firms.

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CHAPTER 5.

International Business in the Conditions of Tax Harmonization

5.1. The importance of taxation aspects of international competitiveness

Protracted crises break existing routines and force one to look for qualitatively new solutions. The urgent need to take some steps in this direction emerged in 2008 with the start of the global economic crisis. It has revealed the presence of deep internal contradictions within the development of the global economy and made clear the urgent need to develop an effective approach to a sustainable recovery from the crisis.

Up to now the leading driver of the development of the global economy was international trade and its basis was the international competitiveness of participating countries. However, the conditions of the future development of the global economy will be significantly different from the previous ones. There will also be changes to the conditions of international competitiveness, including its fiscal aspects, which are gaining in importance. Therefore, the purpose of this paper is to outline the evolution of the fiscal aspects of international competitiveness.

Globalisation is a systematic process of harmonisation of the factors shaping international competitiveness and the diversification of the strength of their impact. An important factor is the fiscal aspect, with the tacit acceptance of the main makers of the global economy and trade, has been resistant to the globalisation process. National tax systems have become an increasingly important lever of state influence on its international competitiveness. This has led to growing interest in the subject of international tax competition.

Competitiveness is the system of institutions, policies, and factors that determine the level of productivity of the public economy, which in turn creates growth and prosperity [21]. Furthermore, in the framework of a global economy, growing welfare implies the need to consider simultaneously the growing interdependence between countries and the decreasing autonomy of the national economy. In this continuous process of evolution of international competitiveness, the consequences are becoming

evident very slowly. They are mainly due to the most advanced form of globalisation, which is economic globalisation. Economic globalisation is an ongoing, long-term process of the integration of a wider and wider range of growth conditions across an increasing number of national economies. It is through the extension and intensification of mutual trade, production, investment and financial cooperation that the strengthening the global economic system progresses, characterized by high interdependencies and substantial implications for autonomous actions in faraway countries [9].

The global economic crisis has shown that globalisation does not guarantee a sustainable and balanced economic development. It is neither universal nor beneficial for all. This is in fact an evolving process with its end-state and duration still unknown. Globalisation can also not be considered in the context of intentions and plans, since it is identical to what happens to us all [3]. In an empirical sense, globalisation is an unprecedented in history of world output growth, particularly with regard to trade in goods and services, and capital and information. It has also revealed the strong contradictions of the development of the world economy. The long duration of the recession of the global economy, the lack of ideas for the recovery from the crisis and of the future path of sustainable and balanced development are the key challenges for the future development of the world economy. Challenges are difficult and complex, but as yet do not give rise to further direct and definitive risks, but nevertheless require a robust analysis and constructive assessment and should lead appropriate actions to address them. These challenges include:

- limited natural resources and an increasing rivalry over their control,
- demographic changes and its impact on the labour market and migration,
- technical and scientific progress,
- financialisation of economic development,
- progressive environmental degradation,
- political transformations in the world.

The depletion of natural resources, of food and drinking water impact the livelihoods of a growing share of the world's population. This restricts the potential for the further development of industrial production and consumption. It also gives rise to growing competition for possession and access to natural resources, by either economic or political dependence. The failure to address these issues leads to an excessive exploitation of raw materials, often linked to environmental degradation [5].

Another challenge is the **dynamics of demographic change in the world**. Population and labour supply grows mainly in developing countries, while it declines in developed economies. The deep divergence of income of the people of both sets makes of countries already makes it difficult to control the influx of immigrants to the countries of Western Europe. A failure to control this process, in addition to economic problems, will give rise to the growing problem of cultural adaptation [19].

Technical progress has so far been the primary driver of the development of the world economy. Radical progress in this area has driven productivity and reduction of production costs. Subsequent steps in this process will be based on intelligent production systems combining conventional production methods with advanced digital technologies. This will radically change the economic and social reality, it will create a new development paradigm of unknown form. A key objective

of the current global economy is to base it on innovation and knowledge. This should be supported by innovation policies [1].

The suspension in 1971 of the gold standard and the world oil crisis of 1973, marked a new stage in the development of the economy, dominated by unrestrained and liquid **financial capital**. Globalisation has entered the phase of financialisation, where institutions and financial capital have dominated economic development, with decreasing significance of the real economy. This has also been facilitated by the information technology revolution.

The autonomous development of the global economy increases the risk of **environmental degradation**. International attempts to regulate this issue face particular national interests, with the result that this fundamental challenge to future development remains unresolved [15].

The development processes of globalisation are changing faster than many people can comprehend, mentally accept and creatively develop. This is particularly important in the face of the simultaneous growing international interdependence of economic processes and the weakening of the autonomy of national economies. At the same time, globalisation in the framework of the IT revolution makes the existing **political systems**, based on a traditional model of democracy, seem slow to respond to the needs of future development [4]. There is thus a corresponding and urgent need for a new and inspiring vision of a global political order, which takes account of these new realities of development. Their scope is set out in Table 1.

Table 1

The evolution of the main drivers of global economic development

Drivers	Classical development (Contemporary)	Sustainable development
Main motive	Money	Personal and societal wellbeing
Main aim	Use capital to ensure even higher incomes for owners of capital	Use all available measures to satisfy the basic needs of all
Firm size	Large	Small or medium
Costs	Covered by public funds	Covered by users
Form of ownership	Not personal, not present	Personal, rooted
Financial capital	Global, no borders	Local/national with clearly defined borders
Aim of investment	Maximise private profits	Increase common good
Role of profit	It should be unconditionally maximised	Incentive for productive investment
Coordination mechanisms	Central planning by multinational corporations, including financial ones	Self-organizing markets or network structures
Cooperation	Between competing enterprises in order to circumvent competition rules	Between people or societies for common good
Aim of competition	Elimination of weaker	Incentivising efficiency and innovation
Role of government	Defence of property	Care for the rule of sustainable development
Trade	Free	Fair and mutually beneficial
Political orientation	Elites, financial democracy	Populist, societal democracy

Source: Based on D. Korten, Świat po kapitalizmie. Alternatywy dla globalizacji, Wydawnictwo – Stowarzyszenie «Obywatel», Łódź 2002, p. 51.

A comparison of the shape of modern economic development with the concept of sustainable development makes evident the dominance of financial characteristics in the former rather than the latter. As a result a major part of the development challenges of the global economy is related to the impact of financial capital, which often takes the state hostage, as shown by the financial institutions deemed «too big to fail» during the financial crisis. The global dominance of financial capital has released it from effective political and social control. It has become an independent factor driving economic development. This requires a qualitatively new perspective on international competitiveness, in particular its links with financial capital.

Long-term changes in the world GDP and international trade are linked to the development of international competitiveness. It should be seen as being derived from the consistent past evolution of competitiveness. It is synthetically quantified in annual international competitiveness rankings published by well-known research institutes. An analysis of the changes in the various rankings over time allows for the assessment of trends in the rankings of individual countries in terms of international competitiveness [13].

The ongoing global economic crisis was most severe in 2009, since then the core indicators of development of the world economy are improving, although geographical performance is diverse [10]. Changes in international competitiveness rankings for the period 2014–2016 published by the two most renowned global research institutions are presented in the table below.

Table 2

The changes of international competitiveness indices during 2014–2016

Country	Index of global competitiveness ^{x)}			World competitiveness yearbook ^{xx)}		
	2014	2015	2016	2014	2015	2016
Switzerland	1 / 5,70	1 / 5,76	1/5,81	2 / 92,4	4 / 91,9	2/98,0
Singapore	2 / 5,65	2 / 5,68	2/5,72	3 / 90,9	3 / 95,0	4/97,6
USA	3 / 5,54	3 / 5,61	3/5,70	1 / 100,0	1 / 100,0	3/97,8
Germany	5 / 5,49	4 / 5,53	4/5,57	6 / 85,7	10 / 85,6	–
Netherlands	8 / 5,45	5 / 5,50	5/5,57	–	–	8/91,3
Japan	6 / 5,47	6 / 5,47	8/5,48	–	–	–
Hong Kong	7/5,46	7 / 5,46	9/5,48	4 / 90,3	2 / 96,0	1/100,0
Finland	4 / 5,50	8 / 5,45	10/5,44	-	-	
Sweden	10/5,41	9 / 5,43	6/5,53	5 / 85,8	9 / 85,9	5/92,4
Great Britain	9 / 5,41	10 / 5,42	7/5,49	–	–	–
Denmark	–	–	–	9/ 84,0	8 / 87,1	6/91,8
Canada	–	–	–	7 / 85,4	5 / 90,4	10/90,4
China	28 / 4,89	28 / 4,89	28/4,95	22/73,3	22 / 77,0	25/79,4
Poland	43 /4,48	41 /4,49	36/4,56	36/ 61,8	33 / 68,8	33/71,3

Source: ^{x)} *The Global Competitiveness Report, Global Economic Forum, Geneva 2016.*

^{xx)} *IMD World Competitiveness Yearbook, IMD, Lausanne 2016.*

Apart from minor differences in the methodologies used by both institutions for assessing the level of competitiveness the top four countries in both rankings are similar, and the performance of individual national indices does not differ much. This is also applicable to China fast growing economy and the future global economic powerhouse [11]. Attention should also be paid to the systematic improvement of the competitive position of both Germany and Poland.

Analysis of the international competitive position of individual countries is essentially the appreciation of events and developments shaped in the past. More important and of a higher application value is the research into the preconditions for economic development, which allow countries to actively shape their future international competitive position. An undisputed basis for this is the production and innovation potential of each country. Therefore, two other research institutions develop appropriate robust global indices of:

- Industrial Competitiveness (The Deloitte Creative Studio – London),
- Innovation (World Intellectual Property Organisation, Geneva).

The changes in the rankings of leading countries in both indices between 2014 and 2016 are presented in the table below.

Table 3

Changes in global industrial and innovation competitiveness indices during 2014–2016

Country	Index of industrial competitiveness ^{x)}			Innovation index ^{xx)}		
	2014	2015	2016	2014	2015	2016
China	1 / 100,0	1 / 100,0	1/100,0	29 / 46,6	29 / 47,5	25/50,27
USA	4 / 58,4	2 / 99,5	2/99,5	6 / 60,1	5 / 60,1	4/61,4
Germany	8 / 48,0	3 / 93,5	3/93,9	13 / 56,0	12 / 57,1	10/57,9
Japan	6 / 51,1	4 / 80,4	4/80,5	21 / 53,4	19 / 54,0	16/54,5
South Korea	3 / 67,9	5 / 76,7	5/76,7	16 / 55,3	14 / 56,3	11/57,2
Great Britain	–	6 / 75,8	6/75,8	2 / 62,4	2 / 62,4	3/61,9
Taiwan	–	7 / 72,9	7/72,9	25 / 3,97	–	–
Mexico	7 / 48,4	8 / 69,5	8/69,3	66/36,0	57 / 38,0	61/34,6
Canada	–	9 / 68,7	9/68,7	12 / 56,1	16 / 55,7	15/54,7
Singapore	9 / 46,9	10 / 68,4	10/68,4	7 / 59,2	7 / 59,4	6/59,2
India	2 / 81,5	–	11/67,2	56 / 43,1	81 / 31,7	66/33,6
Brazil	–	–	–	61/36,3	70 / 34,9	69/33,2
Poland	10 / 44,9	15 / 59,1	15/59,1	45 / 40,6	46 / 40,2	39/40,2

Source: ^{x)} *Global Manufacturing Competitiveness Index. The Deloitte Creative Studio, London 2016, p.13.*

^{xx)} *The Global Innovation Index 2016 World Intellectual Property Organization, Geneva 2016, p. XXX.*

The most striking feature of the table above is that the ten countries leading in 2016 in terms of industrial competitiveness featured on the same positions in previous years. During the three years under consideration China remained in front, although its advantage in relation to the other nine countries is decreasing. This is related to the notion of the «new international division of labour» popular during the pre-crisis era of globalisation and which singled out labour costs as central to economic development. This has led to the delocalisation of production to the «periphery» of the economic world and the reorganisation of manufacturing activity in the «centre». This is confirmed not only by the industrial competitiveness rankings for the years 2014-2016, but also by a longer-term reflection [17].

However, the economic crisis has also pointed out that the empirically observable patterns of reorganisation of the economy are more complex and that labour costs are not the decisive factor in the development strategies of multinational corporations, which have started to dominate the global economy. A division of the

economic process into individual stages of production and consumption that takes place above national borders, within the structure of a dense network of companies and institutions from a variety of countries. Such networks are organised around a single good or product, creating a chain of interdependent households, businesses and countries within the global economy [6]. The substance of future industrial competitiveness should be assigned to companies rather than countries as the key driver for new «international division of labour». This is synthetically reflected in the world industrial competitiveness ranking for 2016, where the leading positions of India (2) and Brazil (5 seat) in 2009, has been taken over by economically developed countries such as the UK and Canada, and Germany, while Germany has moved from eighth to third in the 2016 ranking.

The country's future industrial competitiveness on the global stage is determined by technical and technological progress in production. It is in fact derived from the level of innovation of a given economy. It is in turn one of three basic components of the assessment of the potential of overall competitiveness of a country. The other two components are resources and efficiency. Innovation in a classic sense is any significant change in production, involving the creation of new combinations of means of production, under conditions of uncertainty of the outcome of such a change. These changes may consist of the introduction of new products or services, new methods of production or trade or new management structures. Innovation must not be radical and may be incremental leading to gradual improvements to get more value out of the resources involved [20]. In this way innovation allows to proactively develop industrial competitiveness and ultimately the global international competitiveness of a given country.

Different countries have varying capabilities and experience in the field of creating and developing innovation. Change is slow and their production and market impact is indeed delayed in time with respect to the inception of the innovation process. Among the top ten countries in the 2016 industrial competitiveness ranking, only three (Great Britain – 6th, USA – 2nd, Germany – 3rd) are also leaders in terms of innovation in 2016. The leader of that ranking is Switzerland with the mark 68,3 out of 100 possible points. Gradually innovation as a key factor of economic growth is no longer a privilege of only the developed countries. Low- and medium- developed countries are rapidly catching, as can be seen in annual reports on global innovation performance [22].

Globalisation is also reflected in the gradual process of harmonisation by research institutes of the range of conditions that must be taken into account in international competitiveness rankings and their associated impact. An increasingly important component is the financial one, in particular its financial aspect. The process of globalisation only slowly affects the latter, countries commonly regard the budgetary sphere as their exclusive area of competence. As a result, the impact of the taxation system on international competitiveness is systematically taking on greater significance [12].

Any country implementing socio-economic policies is faced with the need to gather the financial resources necessary for its implementation. The primary way of obtaining these resources is the country's fiscal policy. It consists of tax law and administrative instruments, creating a more or less conducive environment for doing business. This environment shall be equal to domestic and foreign economic

operators. This idealistic assumption is limited by the relationship of budgetary expenditure and internal accumulation shaped by fiscal policies. There is an assumption that low tax rates and tax exemptions stimulate economic development by broadening the tax base and attracting foreign investors. The reduced tax bill should remain at the disposal of undertakings operating on a country's territory and should attract foreign investors to transfer their business to a country with a competitive level of taxation. From the point of view of an entrepreneur, the tax burden is a cost. A reduction in the tax burden will improve the international competitiveness of his/her products provided that they find buyers on the domestic and export markets [2].

This mechanism, in the context of globalisation, forms a substantial part of the international competitiveness of a taxation system and translates into offering businesses more attractive tax arrangements than other countries do. It must also be borne in mind that not only the level of taxation, but also low labour costs, the quantity and the quality of production factors, infrastructure, the efficiency of public administration, transparency and stability of regulation, determine the attractiveness and competitiveness of companies operating on its territory.

Tax competition must be regarded as an expression of some kind of struggle for potential entrepreneurs and capital serving the development of a country. The notion of development makes it difficult to deprive a country of its right to shape its own tax system adapted to its needs and opportunities. Tax competition is international by nature and can take the form of:

- crawling tax competition,
- unfair tax competition.

The former is a slow and long-term process during which countries by own initiative or in response to similar activities of other countries reduce tax rates to progressively increasing the country's investment attractiveness. This increases the level of financial means for investment and technological progress, which is a cornerstone of the development of international competitiveness. This form of tax competition is usually associated with countries with a stable tax system and would affect both domestic and foreign investors [14].

On the other hand unfair tax competition is the country-specific action aimed at inducing foreign investors to move their operations from other countries to their own territory by means of lower rates of tax. Countries competing with each other by progressively reducing taxes to prevent the «leakage» of tax receipts and flight of mobile factors of production to countries with lower taxes. This is a short-sighted policy characteristic of countries with weak economic potential and leading to a «race to the bottom», which may become economically ruinous for the economy. Very often this form of competition takes the form of «tax havens», i. e. locations with favourable legal and financial measures and, in particular, low or even zero tax rates [7].

There is internationally the tendency to reduce the level of business taxation, which points to the increasing difficulty of achieving and maintaining the level of international competitiveness in a globalising world.

The long-term nature of these processes is confirmed by table 4 which shows the changes in indices of international tax competitiveness for the period 2014–2016. It also represents the assessment of the global competitiveness of national tax systems.

Table 4

Change in international tax competitiveness indices

Country	2014	2015	2016
Estonia	1/100,0	1/100,0	1/100,0
New Zealand	2/ 92,5	2/ 92,1	2/91,6
Latvia	4/ 83,8	3/ 88,1	3/ 88,0
Switzerland	3/ 85,2	4/ 85,3	4/ 84,6
Sweden	5/ 82,8	5/ 82,5	5/ 82,1
Netherlands	6/ 82,5	6/ 81,7	6/ 81,4
Luxembourg	8/ 79,9	8/ 79,0	7/ 78,6
Australia	7/ 80,0	7/ 79,0	8/ 78,3
Slovakia	9/ 75,9	10/ 75,5	9/ 75,0
Turkey	10/ 75,3	9/ 75,7	10/ 74,8
Poland	29/ 58,4	30/ 55,4	29/ 56,5

*) China is not included in this ranking containing 35 leading countries.

Source: K. Pomerleau, *International tax competitiveness index 2016*, Tax Foundadion, Washington D. C. 2017, p. 5.

Among the top ten countries in terms of international tax competitiveness, only the Netherlands, Sweden and Switzerland are also in the top ten of ranking international competitiveness. At the forefront are countries with small populations and small production capacity and low budget expenditure for which even small inflows of foreign investment has a disproportionately high domestic impact.

The index of global tax competitiveness is the composite result of tax competition between four major types of taxes:

- Corporate income tax (CIT),
- The value added tax (VAT),
- The personal income tax,
- Taxes on immovable property.

Another element is the degree of internationalisation of the taxation system. This aspect of international tax competitiveness is shown in table 5. The far-reaching convergence, apart from the rankings of New Zealand and Australia, of the index for general international tax competitiveness and the index for competitiveness of business taxation draws particular attention. This confirms the dominant role played by corporate income tax in the tax systems of most countries [8].

In recent years many countries have restructured their tax systems in order to make their tax system more competitive. This process began during the 1980 s. In the OECD countries, over the last 30 years, taxes on commercial incomes decreased on average from 47.5% to about 25%. In the United States over the same period it was reduced from 46% to 34%, and the country is still ranked 33rd globally in terms of competitiveness of the corporate income tax [8].

Globalisation is directly linked to the liberalisation of international economic cooperation in relation to goods, services, people and capital, as well as the freedom to conduct business. This has created new opportunities to improve tax competitiveness, particularly for multinational companies with branches in countries with different fiscal regimes. They identify loopholes in the international tax system

using the possibility to pass the costs between the different countries, often reducing their level. In this way they optimise revenues, minimise the level of tax paid, often in countries with the lowest possible tax rates. Therefore a pressing global problem is the approximation of tax, commonly referred to as tax harmonisation. Tax harmonisation is commonly described as «...an intermediary solution between a loose and non-binding coordination of national tax laws and their full harmonisation in all countries...» [16].

Table 5

Ranking of the factors shaping international tax competitiveness in 2016

Country	Overall ranking	CIT	VAT	Real estate tax	Individual taxes	Internationalisation of taxation rules
Estonia	1	1/100,0	10	1	2	14
New Zealand	2	21/ 59,9	6	2	1	15
Latvia	3	2/ 86,9	25	6	7	2
Switzerland	4	7/ 73,1	1	33	4	8
Sweden	5	6/ 74,1	11	7	23	6
Netherland	6	17/ 64,1	12	23	5	1
Luxembourg	7	31/ 47,7	5	18	13	5
Australia	8	26/ 53,9	8	4	15	16
Slovakia	9	11/ 68,1	32	5	8	12
Turkey	10	10/ 68,8	26	9	3	13
Poland	29	9/ 70,4	34	29	16	26

Source: ³⁾ *Global Manufacturing Competitiveness Index. The Deloitte Creative Studio, London 2016, s.3 i 8.*

^{xx)} *The Global Innovation Index 2015, World Intellectual Property Organization, Geneva 2016, s. XXX.*

In general tax policy is intentional, institutionally organised and focused activities performed by the State with the help of legal and formal instruments and regulations at its disposal. In a context of increasing globalisation, the intention of a country's tax policy is to support the competitiveness of its economy. Today, each country establishes its own tax system and tax rates, given the increasing importance of global financial markets. Countries attract financial capital that is sensitive to the fiscal environment in five major ways, through the:

- reduction of tax rates,
- tax loopholes and offering special tax incentives,
- narrowing of the tax base,
- guaranteeing financial secrecy for derogating from the relevant taxes,
- an informal acceptance of tax evasion or the manipulation of the level of taxes due.

In order to benefit from these mechanisms firms must possess highly qualified staff familiar with international tax arrangements. This is usually available only to large multinational companies.

Practically the most viable counter-measures to the practices set out above is international tax harmonisation that has already been mentioned. Effective identification and punishment of tax fraud, is a step in this direction. To achieve this there is a need for coordinated legal changes and more tax transparency. Further there is a need to develop and implement rules for the accounting of the various companies within multinational corporations, including the prevention of the possibility to assign

debt to costs and thereby reduce the abused practice of creating artificial commitments to reduce profit in the framework of large corporations.

Another step is the clarification of the instructions on the financial statements of multinational companies with an annual turnover of more than EUR 750 million. On a publicly accessible website they will have to present clearly seven categories of information: economic activity, number of employees, total net turnover, profit before tax, tax due, tax paid and accumulated profit. Countries, especially tax havens, were obliged to exchange information on tax schemes offered to corporations, but only for the information of tax offices. In fact these EU initiatives may be difficult to achieve, since for many EU Member States tax harmonisation is not economically profitable. Even now each Member State is competing for revenue from corporate income tax in a manner acceptable to its citizens. It will also be difficult to address the shifting of profits and costs between businesses located in different countries, as about 60% of world trade takes place within multinational corporations, primarily for tax reasons.

It is also planned to oblige companies to publish data on the sale of firms in the various European countries compared with locally paid taxes. There are also plans to harmonise EU tax rules, even though not the actual tax rate. There are also plans to introduce a so-called entry tax on intellectual property sold abroad.

The most positive prospects are associated with the so-called Stiglitz formula. It contains the proposal for recognition of national branches of corporations as self-standing entities and to disregard trade between them. Hence a global corporate income tax should be claimed globally, taking account of the worldwide profits of corporations. Only then the global tax could be shared between the countries in which the multinational operates, taking into account its local sales, employment and assets.

In the long term there are encouraging signs of tax reform, part of a general trend towards its internationalisation [18]. The direction of change is the reduction and harmonisation of rates of tax on corporate income and basing fiscal revenue to a greater extent on consumption taxes. State social policy should be increasingly based on preferences for personal income tax. «Societal justice of income» should be moderated by taxes on ownership. A general tax on environmental use should also be introduced. The financial sector must also become a source of tax income.

Harmonisation of tax systems at the international level is difficult to conceive. Therefore, this objective should be pursued through a regional approach. The tax administration itself should be made more open to cooperation with the taxpayers and the administrative procedures made more transparent.

The internationalisation of tax should primarily focus on the exchange of information between countries and its transparency. A clear definition is required of the measures to combat fraud and tax avoidance and their coordination for this purpose. Steps must also be taken to promote rules against unfair tax competition. All of the above activities, in the medium term, should also be made to include developing countries.

The collapse of the old, diverse taxation system is approaching [23]. This is confirmed by the recent initiatives of the European Union aiming at modernising the tax system in order to prevent its collapse. Each country's economy continues to be

competitive as long as it is able to retain the ability to adapt to changing internal and external conditions. One of those conditions, the tax system, is clearly not conforming to the realities of the global economy and the notion of social justice.

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5.2. Economic sanctions as a tool for regulation of foreign economic activity

One of the economic and political means of imposing demands on the country, which contradict its interests, from the side of other countries is the use of sanctions. In this case, a large country, which has political and economic influence in the world community, can cause economic and political losses to a less influential country through the use of sanctions. The impact of restrictions can increase if other major players from the politics and economy world join the sanctions or, conversely, cooperate with the country which is the object of restrictions, thus provoke an increase and extension of the restrictions' incidence.

Over the past decades, economic sanctions have become more popular as an instrument of the foreign policy for both statesmen and community. Economic sanctions often become a result of international disputes. They are applied almost all over the world, and the thesis about the exceptional effectiveness of the economic sanctions is widespread.

However, despite the importance of economic sanctions in international politics, the problems of their functioning in the sphere of foreign economic relations are not sufficiently investigated. The widespread world practice of the use and a number of problems that arise in the process of introduction the economic sanctions, cause the necessity to search new approaches for their use. Taking into consideration the importance of this issue, in the given article we will examine the essence of economic sanctions from the point of view of modern effective instruments of foreign economic activity regulation, will investigate the types of the state's means of influence on the opponent under conditions of economic confrontations.

Such foreign and domestic scholars as Elliott K., Escriba-Folch A., Hufbauer G., Masters J., Morteza Ezzati, Oegg B., Roberts A., Schott J., Wallenstein P., Wright J., Buchyk V. S., Malysheva Y. V., Sedliar Y. O. and many others studied the problems of economic sanctions, their theoretical essence and the pragmatism of their application.

However, in the domestic scientific literature there is not enough attention to the consideration of modern theoretical foundations and practical dominants of economic sanctions' functioning as an effective instrument of foreign economic activity regulation. For the most part, on the pages of scientific publications the issues of the theory and practice of the usage of economic sanctions are fragmentary studied or their separate forms are characterized. This indicates the inadequate study of the outlined problems.

Economic sanctions are generally known as an alternative to war due to their stimulant force, since under current conditions one of the effective mechanisms of the influence on the illegal actions of the country that violates the international law regulations, agreements and deals is the use of economic instruments.

The philosophy of sanctions lies in the fact that they cause economic losses for the population of the country which is under their influence. In its turn, this raises social dissatisfaction and the loss of the population support of the state's policy which provoked the restrictions' imposing. As a rule, it forces the government of the state to review and change its policy for the purpose to lift sanctions.

The world practice of sanctions' imposing proves the availability of a whole range of different forms which is caused by a variety of purposes of their application. Restrictive international measures range from comprehensive economic and trade sanctions to more purposeful measures, such as arms embargo, travel ban, assets freeze, foreign aid reduction and also financial or commodity restrictions.

Economic restrictions may include, in particular, the suspension of economic cooperation, the blocking of investments, the limitation of banks' participation of the country-violator in access to the markets of loan and investment funds, the prohibition on debt financing of companies, restrictions on the use of securities, the abolition of trade agreements on duty-free import of products of the country-violator, restricting access to financial markets, restricting of technology exports, sanctions for individual officials and other.

It should be mentioned that there is no single universal and exhaustive definition of economic sanctions in international law and scientific economic literature. However, in spite of the variety of the given notion formulation (for example in works 1–5), the main point is that economic sanctions are state actions taken by one country or organization against the economy of the other country (or individuals) to force the holding of law or the set of rules [6, 7].

In practice, a certain set of measures of economic impact on a country which falls under the sanctions is determined separately in each specific case of their application. Sanctions can be applied by a solution of one country as well as by several countries or their associations. However, the official international status have sanctions under which the UN Security Council takes decisions.

National governments and international organizations such as The United Nations Organization and the European Union are applying economic sanctions for compulsion, containment or punishment of individuals or countries which threaten their interests or violate international standards of behaviour. They are used to promote a number of political goals, including the battle against terrorism, the fight against drugs, the resolution of international conflicts, the withdrawal of troops from the occupied territories, the deterrence of unconstitutional changes, cybersecurity, the protection of human rights and so on.

It should be considered that today the most extensive and the most efficient economic sanctions are those which are imposed by the United Nations Organization, The European Union and the USA (see figure 1).

There is no definition of the term «economic sanctions» in the UN Charter but Article 39 states that «The Security Council determines the existence of any threat to peace, any violation of peace or an act of aggression and gives recommendations or decides which actions should be taken to support or restore the international peace and security». In addition, Article 41 of the Charter provides that «The Security Council is empowered to decide which non-military means should be taken for implementation of its decisions, and it can demand from the UN members to apply these measures. These measures may include full or partial break of economic relations, railway, marine, air, postal, telegraph, radio or other means of communication, as well as the severance of diplomatic relations» [9].



Fig. 1. Global sanctions regimes 2016 [8].

The process of imposing sanctions is based on the norms of the UN Charter. Thus, according to Article 35, any state member of the Organization may bring to notion of the Security Council or the General Assembly about any international dispute or situation which is capable to provoke the international conflict or threaten the maintenance of peace and security [9].

If the situation pertains to an act of aggression, the Security Council forms a commission for investigation. After the investigation the created commission makes up a report and gives it to the Security Council which, in its turn, discusses the report. After this, The Security Council determines which measures should be taken to manage contradictions or to adjust the conflicts. If the measures will turn to be insufficient and one of the parts of the conflict refuses to comply the previous decisions of the Security Council, the latter begins to apply against it compulsory measures imposed by Chapter VII of the UN Charter, that is sanctions against the state which not only continues to violate its international obligations and the UN Charter, but also refuses to comply with the Security Council's decisions. These measures may have a political, diplomatic or economic character without the use of armed forces. If the UN Security Council decides that non-military measures may be insufficient it resorts to compulsory measures which become necessary to maintain or restore the international peace and security. Such measures of influence may include demonstration, blockade and other operations of air, marine or land forces of the UN Members [9].

Since 1966 The Security Council has imposed 26 sanctions regimes against South Rhodesia, South Africa, the former Yugoslavia, Haiti, Iraq, Angola, Sierra Leone, Somalia, Eritrea, Liberia, Congo, Cote d'Ivoire, Sudan (2), Lebanon, DPRK, Iran, Libya (2), Guinea Bissau, CAR, Yemen, South Sudan and also against ISIL (Daesh), Al-Qaeda and the Taliban (2).

According to the data of the UN Security Council today there are 13 permanent sanction regimes aimed to support the political settlement of conflicts, nuclear non-proliferation and the fight against terrorism. Each regime is under the management of the sanctions committee under the chairmanship of non-permanent member of the Security Council. In addition, there are auxiliary subdivision which support the work of the sanctions committees [10].

The decision on sanctions should be taken by fifteen members of the Security Council by a majority of votes and without a veto from any of the five permanent members: USA, the PRC, France, Russia and the United Kingdom. The most widespread types of sanctions of the UN which are compulsory for all state members are assets freeze, travel ban and export supplies of weapons.

Since all state members of the UN are obliged to comply the decision of the Security Council it is obvious that international sanctions are of paramount importance. At the same time, the practice of applying economic sanctions demonstrates the existence of certain contradictions because the actual effectiveness and efficacy of sanctions depends primarily on the will of the states – main trading partners of the country on which sanctions are imposed, since the UN Security Council has no effective methods of influence on the violators.

Another considerable intergovernmental organization that can effectively use the instrument of economic sanctions is The European Union. The EU imposes sanctions (restrictive measures) within its Common Foreign and Security Policy. Since the EU does not have a common military force, a lot of European leaders consider sanctions the most powerful instrument of the external policy of the block. The sanctions policy should be obtained by the unanimous agreement of the state members in the Council of the European Union.

Since its creation in 1992 the EU has imposed sanctions more than thirty times (in addition to those provided by the United Nations). Individually, states can also impose autonomous sanctions within their national jurisdiction [8].

The Treaty about the European Union establishment is the legal basis for practice of sanctions application and provides the restrictive measures as one of the possible instruments that can be used to achieve the goals of the Common Foreign and Security Policy. In particular, the regulations of Article 301 state that «if joint actions or common position adopted according to the regulations of Treaty about the European Union as to Common Foreign and Security Policy, condition the suspension or limitation, partial or complete, of economic and financial relations with one or several third countries, the Council shall adopt the necessary urgent actions» [11].

The EU Council also imposes sanctions on the decision of the Security Council of the United Nations Organization and in accordance to terms of the Partnership Agreement between countries of Africa, Caribbean, the Pacific Rim and the European Community (Cotonou Agreement).

The Treaties of Rome of 1957 at one time already foresaw that state members of the Community may coordinate their trade policy and introduce economic sanctions, but only since 1992 according to Maastricht Treaty the EU has started to impose the political sanctions.

Today, there are three internal documents relevant to the EU policy as to sanctions imposing (Table 1).

Internal documents of the EU policy as to restrictive measures

Name of the Document	Year of confirmation	Basic Regulations
Basic Principles on the Use of Restrictive Measures (Sanctions)	2004	Includes regulations amenable to which the EU applies sanctions according to approved sanctions of UNO and also independently when it is necessary for EU goals achievement.
Guidelines on Implementation and Evaluation of Restrictive Measures (Sanctions) in the framework of the EU Common Foreign and Security Policy	2003, renewal in 2005, 2009 and 2012	Include definitions and guidelines for the design and implementation of restrictive measures and also important information on the types of restrictions which may be implemented and ways of their effective valuation.
Guidelines on Implementation and Evaluation of Restrictive Measures	2008	Include relevant information on how to identify correctly physical or legal individuals which are subjected to sanctions and also about administrative procedures of assets freeze and restriction imposing including the procedure of applying exceptions and immunity of sanctioning of measures.

Source: made up by author on the basis of [12, 9–10].

The original document – «Basic Principles of restrictive measures (sanctions) implementation require the use of targeted sanctions and the second and the third documents were adopted to achieve this goal.

The implementation of sanctions is considered to be a foreign political decision because the EU can accept them to achieve any goals: to strengthen democracy, rule of law, universality and indivisibility of human rights and basic freedoms, respect to human dignity, principles of equality and solidarity, respect to the principles of the United Nations Organization Charter and international Law.

It should be noted that not only multinational associations implement the practice of economic sanctions but also separate influential states often use the sanction policy. Most of all among all world states USA uses economic sanctions. The initiators of sanctions can be representatives of both executive and legislative branches of government. The Office of Foreign Assets Control (OFAC) of the US Treasury Department manages and applies economic and trade sanctions based on the aims of the USA foreign policy and national security against specific foreign countries and regimes, terrorists, international drug traffickers, individuals connected with the expansion of weapons of mass destruction and with other threats to national security, foreign policy or the US economy [13].

Currently, twenty-six existing US sanctions programmes are administered by the Department of Control over Foreign Assets of the Office of Foreign Assets Control (OFAC). At the beginning of 2017 the United States applied comprehensive regimes of sanctions against Cuba, Iran, Sudan and Syria, as well as more than a dozen of other programmes targeted at separate individuals and organizations connected with certain political crises or suspects in criminal proceedings. OFAC regularly adjusts the list of more than six thousand physical people, companies and organizations

which are subjected to sanctions. Assets added to the list of individuals are blocked and the American individuals including the American enterprises and their foreign affiliates are prohibited from engaging in transactions with them [8].

On the pages of scientific and analytical literature the effectiveness of economic sanctions is often questioned because of their devastating impact on the peaceful population of the country – the object of sanctions. As professor Adam Roberts, a scientific assistant-worker of Oxford University in the sphere of studying international relations, mentions that: «very often it is the case that the first people to suffer from sanctions are the population generally and the powerful people – the people in the regime – can find ways of getting around sanctions» [14].

For example, a significant place in the arsenal of sanctions measures of UNO has the prohibition on oil supplies which is aimed at weakening the state economy and, as a rule, is an argument in favour of expediency of reducing the military mobility of the country – the object of sanctions. However, the imposition of such type of sanctions often results in complex humanitarian consequences and, as a result, during their discussion they are often a subject of severe criticism or are boycotted by separate members of international community. Although, embargo on oil supplies are not directly related to humanitarian issues but it leads to the prices increase on transport services and, as a consequence, on food. It is obvious that under such conditions the vulnerable groups of population suffer the most, but not the ruling elite of the country – object of sanctions, against which, as a rule, sanctions are targeted.

It should be emphasized that due to the ambiguous evaluation of the effectiveness of economic sanctions after the odious events of the eleventh of September in USA, there is a pronounced shift towards the targeted or so-called «reasonable» sanctions which are aimed on the minimizing the suffering of the civilian population [8].

It should be noted that among economists theorists and practitioners there exist contradictory ideas about the effectiveness of the introduction of economic sanctions in general. Critics point out that the latter often poorly considered and are easily overcome, so they do not change the behaviour of the object of sanctions but, on the contrary, not seldom they are more painful for those who imposes them, but not for those countries whose policy they seek to influence in this way. Indeed, economic sanctions cause considerable damage to that country which imposes them, as this country loses export markets or suppliers of raw materials. In addition, the country, against which sanctions have been imposed, may also implement sanctions in response. One should not reject the risks of criminalization of the country, economy and society both in the country object of sanctions and in neighbouring countries by provoking cooperation between organized crime and international smugglers which leads to the development of corruption and the general level of infringements.

At the same time, despite the fact that the research of the practical experience of realization of sanctions policy proves their questionable effectiveness in achieving of targeted goals, the supporters argue that the use of sanctions remains an important instrument of foreign policy which is confirmed by their widespread implementation in recent years. The study of Abel Escriba-Folch and Joseph Wright on economic sanctions affirms that the effectiveness of sanctions imposing depends on the type of the political regime. The authoritarian regimes within the framework of sanctions

carry significant losses of foreign aid, taxes on international trading and other forms of non-tax incomes. The harmful impact of sanctions on the sources of protection is specially sharply appreciable for personal dictatorships which have limited ability to compensate these losses by increasing incomes from alternative sources. That is, state regimes with one supreme ruler are more sensitive to the loss of funding sources and, consequently, more volatile [15, 355].

We agree with the opinion of specialists who claim that sanctions may be, at least, partially successful and should remain in the sets of instruments of regulating of foreign economy activity. In order to increase the potency, the policy of sanctions should be based on the effective strategy and multilateral support of the members of the world community, the objectives of the sanctions implementation should be clear and achievable, and the measures themselves – flexible and reliable.

A vivid evidence of the need to apply economic restrictions for Ukraine was an example of sanctions imposing on the Russian Federation from the side of the world community due to encroachment on state integrity and sovereignty. And, although the question of their assessment and the effectiveness of achieving the targeted goals is really controversial, but there is no doubt that such sanction policy constrains the country aggressor from further active action and makes them to take into account the position of the world leaders.

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5.3. Tax and labor costs competition for FDI in Central-Eastern Europe. How Ukraine Can Benefit From High Tax and Labor Cost Competiveness?

Central – Eastern Europe attracts a lot of Foreign Direct Investment (FDI). Data presented by OECD show that the total amount of accumulated FDI reached the following amounts at the end of 2014 in Central-Eastern Europe: in Poland 203 USD billion, in Czechia 122 billion, Hungary 99 billion and in, Slovakia 58 billion. Comparatively in some other emerging economies it reached e.g.: in Chile 209 USD billion and 177 billion USD in Turkey (OECD, 2016, 8). The sizes of FDI inflows are comparable to the other emerging economies. In the same time (end of 2014) the total stock of FDI in Ukraine was 46 USD billion. In 2014, Ukraine's major investors included: Cyprus (29,9%), Germany (12,5%), the Netherlands (11,1%), Russian Federation (5,9%), Austria (5,5%), the United Kingdom (4,7%), the British Virgin Islands (4,4%), France (3,5%), Switzerland (3,0%), and Italy (2,2%) (USDC, 2015). The reason why so big FDI inward positions are taken by Cyprus (or British Virgin Island) is that the both countries have concluded Double Taxation Conventions with Cyprus.

The overall result of 46 billion of FDI in Ukraine seems to be quite good taking into account the complicated political situation of Ukraine, at least after 2010. The decision of Ukraine to sign the association agreement with European Union opened good prospects for the development of the Ukrainian economy, including also the acceleration of FDI flows. Analogy to EU Visegrad countries can be the evidence of such observation. Despite the fact the total accumulated flows of FDI did not exceed 50% of the annual GDP in Visegrad countries, FDI changed business, introduced new energy and business patterns and finally strongly contributed to the growth of productivity and the growth of personal incomes. Besides, the most of FDI occurred to be a success for investors what is evidenced by profitability ratios of FDI in Central Eastern Europe. Accordingly to OECD in 2014 the average profitability of inward manufacturing FDI amounted to 13,3% in Poland, 15,2% in Hungary, 13,0% in Estonia, 16,2% in Czechia (OECD 2016, p. 9). This is a very good result in the World scale and can be followed by the new EU associated countries.

It seems that at least some positive experiences of Central Europe countries, which acceded the EU in 2004, can be useful for Ukraine. In this area a matter of special importance are benefits from FDI for the direct investors. Two of the critical factors influencing the size of benefits for the manufacturing investors are labor costs and corporate taxation. The aim of this article is to estimate the economic benefits that Ukraine can assure to foreign direct investors in relation to the neighboring countries: Romania, Poland and Slovakia. This aim will be achieved by the application of the FDI benefits estimation model *IPED 2004* (Kulawczuk and al., 2005) which allows estimating benefits from FDI for foreign direct investors from relocation of manufacturing. The counted results will allow forming conclusions how

FDI attraction policy conducted by Ukraine can be strengthened by information on the profitability of FDI in Ukraine.

Table 1

Rates of return on FDI by sector in 2014, selected OECD countries

	Manufacturing	Services excl. Finance and insurance	Finance and insurance	Other	Total	
					Rate of return	Inward FDI position, USD billion
IRL**	24.7%	5.8%		0.0%	14%	378
CZE	16.2%	10.0%	10.7%	17.5%	13%	122
JPN	5.1%	17.8%	10.7%	18.2%	10%	169
POL*	13.3%	10.3%	7.4%	3.5%	10%	206
HUN*	15.2%	8.4%	5.7%	3.9%	9%	99
EST	13.0%	7.9%	9.9%	4.7%	9%	20
AUT*	18.7%	9.1%	3.5%	7.7%	9%	176
SWE	7.6%	8.2%	8.1%	3.0%	7%	312
CHL	18.0%	11.3%	0.2%	7.4%	7%	209
DNK*	4.4%	3.0%	7.4%		7%	94
GBR*	5.1%	4.0%	8.1%	8.0%	6%	1 177
USA	6.2%	4.7%	5.7%	6.6%	6%	2 901
AUS	7.5%	2.0%	8.6%	4.8%	5%	565
NOR*	4.3%	2.8%	17.2%	5.2%	5%	227
NLD*	3.9%	6.2%	1.6%	9.3%	5%	682
BEL	6.5%	6.1%	4.4%	3.1%	4%	572
ITA	4.2%	2.9%	3.9%	2.1%	3%	340
ESP*	4.7%	4.2%	3.0%	0.1%	3%	605
SVN	12.7%	-2.5%	-17.7%	-7.3%	0%	12
ISL*	1.3%	4.1%	-9.3%	3.5%	-1%	8
KOR*	-0.7%	-0.9%	-0.2%	-0.7%	-1%	169
GRC**	-6.7%	-3.3%		5.0%	-2%	23

Source: OECD international direct investment statistics database, FDI in Figures April (OECD, 2016, 9).

The estimation of the potential profits from FDI located in the given country is one of the most important issues for foreign direct investors. Typically, very precise calculations are done by the investors and they reveal the effectiveness of the concrete direct investments. However, many investors before making in-depth estimations need to have the first idea what size of profitability is assured by the given country. The classic tax literature contains the approach to measuring the effective CIT rates from the scope of view of individual direct investor. This approach takes into account the diversified depreciation rules in the different countries and diversified methods of investment financing (Bond S., Chennels L., 2000). The full methodology of this approach is described in the paper of Devereux and Griffith (1998): *The taxation of discrete investment choices*. In the paper, constructions of two fundamental measures are described: Effective Average Tax Rate – EATR and Effective Marginal Tax Rate EMTR. Especially important is EATR, with regard that it accounts the average rate from the investors’ point of view (including type of investment financing and depreciation

rules)¹. To show how EATR differ from CIT statutory rates, estimations of Bond and Chennels are presented in Table 2.

Table 2

Differences in statutory CIT rates and CIT EATR in 1999

Tax rates	USA	Japan	Germany	France	Denmark	Netherlands
Typical tax rate paid (.) Sequence	39,3 (4)	40,9 (2)	51,6/42,8 (1)	40,0 (3)	32,0 (6)	35,0 (5)
Domestic effective average tax rate-buildings(.) Sequence	35,2 (3)	35,5 (2)	38,6 (1)	33,5 (4)	26,9 (6)	29,6 (5)
Domestic effective average tax rate-plant and machinery (.) Sequence	29,6 (3)	32,9 (2)	31,9 (1)	29,4 (4)	24,3 (6)	26,9 (5)

Source: Bond S. Chennels L. (2000).

The data estimated by Bond and Chennels allow for observation that the tax base can significantly influence on the final tax rate for the investor. Under some assumptions the final rate can be decreased even by 9,7% in comparison to CIT statutory rate. It is mostly due to the narrower tax base which excludes from the tax base significant allowances just in the first years of the exploitation of the asset. Therefore the economic depreciation is slower than tax depreciation and the tax cost for the investor can be reduced. However, generally speaking EATR only slightly changes the sequence of countries. In the list of 6, only two countries changed its position: USA and France, however difference in their statutory rates was below 1%. If we take into consideration USA, additional CIT taxes imposed by the particular states, ranging from 0 to 6%, the actual US statutory rate is higher than French one and the sequence in statutory rates is copied by EATRs. It means that EATR can show the impact of the tax base definitions on tax rates but in none situation this definitions changed the sequence of countries in comparison to statutory rates. Therefore statutory rates have similar value in determining the sequence of countries.

It can also be expected that with time the role of tax base differences will be significantly lower than now with regard for the fact that all countries are accepting international standards of accounting and surprisingly some international companies are not ready to use high depreciation rates, especially when they are not yielding profits. One can also remember that the higher depreciation of assets the lower profit rate and it can significantly influence on the company value when it goes public. Besides, within the EU the cost of capital will be much more similar after full monetary integration. There was (and still is) also a concept of creating so called European Single Tax Base for company taxation, strongly supported by Germany and France. The opposition to this approach came from different EU Countries, taking Britain and Central Europe as the strongest opponents. It seems that may take dozens

¹ Important role in the both constructions is played by factors of assumed inflation, interest and profit rate.

years when the aim of Single European Tax Base would be achieved¹. Without doubt EATR and EMTR measures can better present differentiation of tax costs of investments but they do not significantly change the order set up by statutory rates sequence listings. The most important problem with EATR and EMTR is that they are not broadly used and their definitions are not commonly known outside scientific community. Also estimations of rates for particular countries are very rare; sometimes they should reflect complexity of depreciation rules in particular countries².

This concept of EATR and EMTR (Devereux and Griffith, 1998) was criticized by Römisch and Leibrecht (Römisch, Leibrecht, 2006) in relation to bilateral effective average tax rates BEARTS. They were astonished from the observation that:» the application of the Devereux and Griffith methodology to calculate bilateral effective average tax rates (BEATRs) leads to results indicating that BEATRs for German outbound investment increased sharply from 1999 to 2001, despite a marked reduction of the statutory corporate tax rate in Germany and more or less unchanged tax systems in the other EU countries. In reviewing the Devereux and Griffith methodology we find that this inconsistent result is due to the way split-rate corporate tax systems are accounted for. Thus, in the original Devereux-Griffith framework only FDI home-country tax provisions are considered, while a possible existence of a split-rate system in the FDI host country is completely neglected.» They found that debt financing of an outbound investment is not correctly specified in this methodology. Finally they proposed corrections to those solutions.

In 2008, Demirhan and Masca conducted analysis on the determinants of foreign direct investment flows to developing countries. They formed a cross-sectional regression of 37 countries and came to very surprising conclusion that «low wage has not been a determining factor in attracting FDI to developing countries in the period we have studied. When wage rates vary little from country to country, the skills of the labor force are expected to have an impact on decisions about FDI location.» (Demirhan and Masca, 2008).

Three scientists working for the Oxford University Centre for Business Taxation at Said Business School conducted the research on the corporate effects on the quantity and quality of FDI (Becker, Fuest, Reidel, 2013). They measured the relative importance of quality and quantity effects of corporate taxation on foreign direct investment on the large sample of multinationals. They came to the conclusion that the quantity is affected if corporate taxes reduce the equilibrium stock of foreign capital in a given country. Besides, they observed that the quality effects arose if taxes decreased the extent to which investment contributed to the corporate tax base and the capital intensity of production.

¹ Approaching the European Single Tax Base could be done through application of European Referential Tax Base, which could serve as the reference point for businesses in Europe for comparisons of tax bases in company taxation among countries.

² For e. g. Poland at least two sets of EATRs should be estimated: one for areas with high unemployment which enjoy preferential depreciation treatment and the second for the rest of the country.

Johannes Voegt in his working paper of the University of Mannheim (Voegt, 2015) conducted an empirical survey on the effect of taxes on foreign direct investment. He found that lowering taxes is a viable policy option to attract more investment by multinationals, especially with respect to greenfield investments. He observed that, foreign direct investment is the result of discrete location decisions – not only about the location of production but also about the location of profits. Therefore, the most robust choice for policy implementation would be a reduction of the EATR by cutting statutory tax rates as this is found to be relevant for all decision margins of a multinational investor. Besides he estimated that a reduction of the rate by one percentage point appears to increase the number of foreign – owned affiliates by about 2,5 %; the size of affiliates increases by about 1,6%. Those results showed that CIT statutory rates play an important role in attracting multinationals.

Christian Bellak and Markus Leibrecht from the University of Nottingham conducted the research on how low income tax rates attract FDI in eight Central-Eastern Europe Countries (Bellak, Leibrecht, 2005). They observed that governments in Central and East European Countries (CEECs) intervened to influence the location choice of Multinational Enterprises (MNEs) by various measures. They found that FDI is positively related to both source and host-market size as well as to progress in privatization and that FDI is inversely related to the distance between home and host countries as well as to the effective corporate income tax burden and to unit labor costs. They also observed that the relative importance of the BEATR as a determinant of FDI must not be over-emphasized. Their results revealed that at least during the period 1995-2003 the BEATR had no exceptional influence on FDI flows in the CEEC-8 as compared to other determinants. The results of Bellak and Leibrecht research gave a strong confirmation that statutory tax rates are important and unit labor cost is also an important factor in FDI attraction in this region.

In the literature of industry multi-country competitiveness a method invented by M. Bruno in 1963, called Domestic Resource Cost (DRC) (Bruno 1963, p. 16–33) is very often utilized to compare competitiveness of industries from different countries. DRC counts the economic resource costs of production based on «social prices», i. e. prices of goods that reflect the true economic value ignoring price distortions from taxes, subsidies, price controls, import tariffs, or other government policies. We do not consider using the DRC method to compare competitiveness in attracting FDI between two countries for one main reason. The application of DRC method is based on the valuation of domestic resources used in the domestic (traditional) way.

The concept of so called Net Social Profitability (Pearson, 1973), which can be expressed by the output value minus all resource costs incurred by producing the output plus the externalities is also very academic. It does not present data in the form easy understandable for investors. Different researches on international industry competitiveness and its impact on FDI take into account the differences in labor productivity and in general in productivity between local and foreign industry.

The approach presented in the herewith article (Kulawczuk and al., 2005) is significantly different. When FDI comes, e.g. in the form of greenfield investment, it copies technology patterns and structure of costs of the mother company. Definitely it copies physical labor productivity with regard for the application of similar technologies. It is not the competitiveness of domestic resources used in the domestic

way but the competitiveness of domestic resources used in the capital origin country way. The concept ignores also the meaning of the importance of depreciation and cost of capital when we accept the simplicity of capital flows within the European Union and the tendency of equalization of capital costs. Besides, it can be accepted that multinational company can select financial sources for capital in the cheapest place while depreciation rules problem can be easily solved by transfer prices. In the presented model, it is assumed that the consumption of fixed capital in relation to created gross value added is constant in the similar factories using the same technologies but located in two different countries.

Following numerous suggestions of scientific sources, the Institute for Private Enterprise and Democracy in Warsaw elaborated the mathematical model (*IPED, 2005*) which allowed accounting the average benefits of typical foreign direct investor from re-location of manufacturing operations from one of the countries of «old EU» to one of the EU acceding countries in 2004.

The proposed concept is based on the assumption that the tax and labor advantage from moving manufacturing from one country to another is composed on basis of measurements of differences of due taxes and effected labor costs.

We accept the following assumptions:

- 1) Tax bases of CIT and costs of capital in two countries are the same,
- 2) Physical productivity of labor and fixed capital are the same in two locations,
- 3) Old manufacturing location can reduce its costs proportionally in relation to the reduction of manufacturing,
- 4) New manufacturing location copies structure of costs of old location, but actually additional profits are brought from cheaper labor and lower CIT taxes,
- 5) Fixed capital consumption ratios in output and in gross value added in the FDI supplier country and the in new FDI factory are the same,
- 6) Production of final goods in current prices (gross added value) is analyzed; intermediate consumption is ignored,
- 7) Consumption of capital is reflected in the gross value added; the issue of capital investment is ignored,
- 8) Goods are sold on the uniform European market for international prices.

Tax and Social Labor Cost Advantage from FDI Model

The following symbols are used in the model:

TA_{FDI} – Tax and Social Advantage from FDI

TAI_{FDI} – Index of Tax and Social Labor Cost Advantage form FDI as a result of moving one euro manufacturing gross value added

TSR_i = Tax Statutory Rate in i country, where $i = 1, 2$

EP_1 = Existing Profit Rate per gross value unit in the 1st country

EP_2 = Existing New Profit Rate per gross value added (final sales) unit in the 2nd country

MM – Moved Manufacturing Gross Value Added

a – share of labor in manufacturing gross value added

b – relative cost difference in hourly labor costs between two countries

The model formulation was theoretically developed in the paper: (IPED, 2005), and its final form is the following:

$$TA_{FDI} = MM [(EP_1 + a*b)(1 - TSR_2) - EP_1(1 - TSR_1)] \quad (1)$$

The proposed model allows for estimating the value of the total social labor costs and tax advantage for moving manufacturing from one country to another. However investors may want to know a simple index telling what were the average additional after tax profits from moving 1 Euro of manufacturing from one country to another in the given year. It can constitute a valuable information whether FDI create an interesting option for the investor.

The general formula for the TA_{FDI} index could be transformed equalization (1), when $MM=1$ € (per 1 unit of currency in this case per one euro)

$$TA_{FDI} = (EP_1 + a*b)(1 - TSR_2) - EP_1(1 - TSR_1) \quad (2)$$

Investors can discuss different situations. One of such situations could be the situation when the company is not producing profit and therefore FDI can improve the situation. Let's call this index as FDI Rescue Index, when FDI are used to improve the economic situation of the company whose profitability is equal to zero, therefore $EP_1 = 0$. Such a situation can save workplaces which are in danger with regard for the lowering profitability of the company. If the company would continue manufacturing in old location all jobs could be in danger of liquidation. In the opposite situation a part of workplaces should be transferred to the new location but the remaining could enjoy safety connected with improved business profitability. The mathematic formula for counting the FDI Rescue Index would be:

$$(FDI \text{ Rescue Index}) TA_{FDI} = a*b(1 - TSR_2) \quad (3)$$

To estimate the above indices, the necessary estimations were done and they allowed collecting the necessary input data. Below, in Table 2., the shares of compensations in Gross Value Added, rates for CIT statutory rates and hourly labor costs for European countries (mostly EU) and Ukraine are presented. They include estimated data for years 2014 and 2015.

The sequence of countries in Table 3 was organized by decreasing hourly labor costs in 2014. On the top of the list is Norway with hourly rate of labor costs in manufacturing equal to 63,8 euro per hour and on the bottom are the data of Ukraine with 2,1 euro hourly labor costs. Those data were in 2015 decreased for the both countries due to the decline in domestic currency rates to euro. The above countries can be grouped into four groups accordingly to the hourly labor costs. The top group is 13 EU countries plus Norway with the highest labor costs. It can be assumed that in the most of cases it is profitable to move manufacturing from this group to the lowest one. The second group is very narrow and counts only four countries with moderate labor costs per 1 hour. The third group are the 9 countries which acceded EU in 2004, 2007 and 2015 plus Portugal, with labor cost in manufacturing between 6 and 12 euro. This group can be treated as the group of low labor costs countries. The last 3 countries have very low labor costs.

Table 3

**Shares of compensations in gross value added, CIT statutory rates
and hourly labor costs in 2014 and 2015**

Country	Share of compensations in Gross Value Added in Manufacturing		Corporate Income Tax (CIT) statutory rates		Hourly rates of labor costs in Manufacturing	
	2014	2015	2014	2015	2014	2015
Norway	69,8	66,0	27	27	63,8	60,2
Belgium	62,2	58,8	33,99	33,99	44,1	44,2
Denmark	54,6	51,1	24,5	23,5	42,1	42,9
Sweden	47,6	45,1	22	22	41,8	41,6
Germany	61,8	61,6	29,58	29,65	37,1	38
France	62,8	61,3	33,33	33,33	37	37,6
Finland	56,1	55,4	20	20	35,9	36,8
Austria	55,5	54,6	25	25	34,9	34,7
Netherlands*	58,3	55,9	25	25	33,5	33,2
Ireland	26,6	12,1	12,5	12,5	32,1	31,8
Luxembourg	71,8	68,5	29,22	29,22	32	31,8
Italy	58,6	57,5	31,4	31,4	28	28
Spain	53,2	50,5	30	28	23,5	23,3
United Kingdom	66,1	69,3	21	20	22,6	25,8
Slovenia	58,8	58,4	17	17	15,8	15,8
Greece	39,1	39,2	26	29	15,6	na
Cyprus	72,8	72,3	12,5	12,5	14,8	14,4
Malta	54,7	56,4	35	35	11,8	12,8
Portugal	54,7	54,4	23	21	10,7	11
Slovakia	44,3	44,3	22	22	10,1	10,4
Estonia	61,2	64,8	21	20	9,8	10,4
Czechia	45,7	46,1	19	19	9,6	10
Croatia	65,6	64,8	20	20	8,5	8,7
Poland	45,4	43,3	19	19	8,4	8,6
Hungary	44,0	42,3	19	19	7,7	8
Lithuania	39,4	42,2	15	15	6,3	6,7
Latvia	49,2	50,7	15	15	6,2	6,7
Romania	32,4	na	16	16	4,7	5
Bulgaria	50,3	51,8	10	10	3,7	3,9
Ukraine **	62,2	na	18	18	2,1	1,7

Source: own computations based on Eurostat data, Ukrainian Statistical Office and currency portal xe.com.

* average hourly rate in business sector in 2014 and 2015.

<http://www.xe.com/currencycharts/>; 1EUR = 15,19013 in 2014; 1EUR = 22,57288 in 2015.

** share of compensations in GVA in 2014.

The presentation of the model estimations on will include: 1) profitable production de-localization from the old EU and Norway to Ukraine; 2) unprofitable production de-localization, 3) comparative benefits of moving manufacturing from the old EU and Norway to Ukraine, Poland, Romania and Slovakia in 2014; 4) comparative benefits of moving manufacturing from the old EU and Norway to Ukraine, Poland, Romania and Slovakia in 2015.

The first set of estimations refers the situation when profitable manufacturing production is moved from European countries to Ukraine. The estimations use the form of *IPED 2004* model defined in equation No. 2. We assumed that the profitability rate in the country of FDI origin amounts to 5% of Profit/Gross Value Added ratio.

$$TAIFDI = (EP1+a*b)(1-TSR2) - EP1(1-TSR1)$$

The results of estimations are included in table 4.

Table 4

Average profits from de-localization of profitable manufacturing production from European countries to Ukraine in 2014 and 2015 (cents per 1€ of gross value added de-localized)

Country of FDI origin	Average benefits from moving 1 € of GVA of manufacturing production to Ukraine (in cents per 1€)	
	Year	
	2014	2015
Norway	55,32062	52,56193
Belgium	48,6	46,4
Denmark	42,5	40,3
Sweden	37,1	35,5
Germany	47,8	48,2
France	48,6	48,0
Finland	43,3	43,3
Austria	42,8	42,6
Netherlands*	44,8	43,5
Ireland	20,4	9,4
Luxembourg	55,0	53,2
Italy	44,5	44,3
Spain	39,8	38,4
United Kingdom	49,2	53,0
Slovenia	41,8	42,8
Greece	27,8	na
Cyprus	51,2	52,3
Malta	36,9	40,1
Portugal	36,1	37,7
Slovakia	28,7	30,4
Estonia	39,5	44,5
Czech Republic	29,3	31,4
Croatia	40,5	42,7
Poland	27,9	28,5
Hungary	26,3	27,3
Lithuania	21,5	25,8
Latvia	26,7	31,0
Romania	14,7	na
Bulgaria	17,8	23,9
Ukraine **	0,0	0,0

Source: own computations on basis of IPED 2004 model and statistical data of Eurostat and Ukrainian Statistical Office.

The first observation which is obvious is that Ukraine can be the profitable place of location of manufacturing production coming from all analyzed European countries. The highest benefits from moving manufacturing can be achieved in countries with high hourly labor costs and high share of labor in GVA. It is especially visible in relation to Norway, Germany, France, Belgium, Finland, Austria, the Netherlands, Luxembourg, United Kingdom and even Slovenia. In all mentioned countries the moving of manufacturing can assure profits higher than 40 cents per 1 € of de-localized manufacturing. Besides, there are some European countries which do not have highly developed manufacturing like Croatia, Malta or Cyprus which also offer high benefits from moving manufacturing to Ukraine. This is mostly due to the high share of labor in GVA. Opposite to this, in Ireland, very low share of labor costs in GVA reduces the benefits. Surprisingly, differences in corporate tax rates are not the key reason for profitability: high share of labor in GVA and high hourly labor costs are the most important reasons for high profitability of FDI from European countries. Besides, it must be noted that Ukraine can be a good place of FDI location for manufacturers for «New» member states of EU. This concern May be especially valid when labor costs in Central Europe will increase significantly.

In all cases Ukraine is the most profitable place for moving manufacturing. The high effectiveness to allocate new manufacturing from all analyzed countries suggests that under some «soft» but important conditions (accessibility, safety, stability, zero corruption) Ukraine can be a premium place for manufacturing FDI in Europe.

The second set of estimations refers the situation when «0» (zero profit) unprofitable manufacturing production is moved (de-localized) from European countries to Ukraine. The estimations use the form of *IPED 2004* model defined in equation No. 3. Such a situation reflects the typical phenomenon which exists in numerous industrial activities in Europe of loosing effectiveness. With highly competitive prices on international markets, European manufacturers have only two possibilities: to reduce costly labor and replace it by technology or, if it is not possible to transfer a part of manufacturing activities to countries which own inexpensive labor and offer friendly taxation regimes for FDI. The de-localization of manufacturing production seems to be a rescue for domestic industrial plants which can survive with additional flows of profits from countries with lower costs structure, than the FDI mother country. Therefore de-localization of operations is a realistic solution for companies in effectiveness crisis. This is also a jobs saving solution.

Below is the estimation formulation:

$$TAIFDI = a*b(1-TSR2)$$

The results of estimations are included in table 5.

The first observations on data contained in the table No. 5 suggest that there is a nearly no difference in relation to profits from moving profitable production from European countries to Ukraine. To show the difference the data for Norway was presented in the more detailed way. All observations which were described in relation to moving profitable production are valid in relation to operations with zero profit.

Table 5

**Average profits from de-localization of unprofitable manufacturing production
from European countries to Ukraine in 2014 and 2015
(cents per 1€ of gross value added de-localized)**

Country of FDI origin	Average benefits from moving 1 € of GVA of manufacturing production to Ukraine (in cents per 1€)	
	Year	
	2014	2015
Norway	55,31612	52,55743
Belgium	48,6	46,4
Denmark	42,5	40,3
Sweden	37,1	35,4
Germany	47,8	48,2
France	48,6	48,0
Finland	43,3	43,3
Austria	42,8	42,6
Netherlands*	44,8	43,5
Ireland	20,4	9,4
Luxembourg	55,0	53,2
Italy	44,5	44,3
Spain	39,8	38,4
United Kingdom	49,2	53,0
Slovenia	41,8	42,8
Greece	27,8	na
Cyprus	51,2	52,3
Malta	36,9	40,1
Portugal	36,1	37,7
Slovakia	28,7	30,4
Estonia	39,5	44,4
Czech Republic	29,3	31,4
Croatia	40,5	42,7
Poland	27,9	28,5
Hungary	26,3	27,3
Lithuania	21,5	25,8
Latvia	26,7	31,0
Romania	14,7	na
Bulgaria	17,9	23,9
Ukraine **	0,0	0,0

Source: own computations on basis of IPED 2004 model and statistical data of Eurostat and Ukrainian Statistical Office.

Despite the above observation, which finds that the differences in moving profitable and unprofitable production are slight, the general observation is that Ukraine can be a very profitable place for rescuing unprofitable European manufacturing activities. The location of manufacturing FDI can save jobs in Europe.

The individual profitability assured by de-localization to Ukraine can be confronted with individual profitability of the other countries, which can be an alternative for location of FDI in Ukraine. Three neighboring countries were assigned

to be the comparative alternatives to Ukraine as FDI locations. They were: Poland, Romania and Slovakia. All three countries are neighbors of Ukraine and are important places of manufacturing FDI locations. Those countries are continuously exhausting their industrial labor and after some period of time they will be out of work resources. Besides, the labor costs in those countries are growing, in the fastest pace in Slovakia and Romania, slower in Poland. Therefore Ukraine is the obvious choice for the new FDI investors in manufacturing. The estimations were done for year 2014.

Table 6

Average profits from de-localization of profitable manufacturing production form European countries to Ukraine, poland, romania, slovakia in 2014 (cents per 1€ of gross value added de-localized)

Countries of FDI origin	Countries of FDI location			
	Ukraine	Poland	Romania	Slovakia
Norway	55,32062	49,06625164	54,28295288	45,79787086
Belgium	48,6	40,8	46,7	37,4
Denmark	42,5	35,4	40,7	32,4
Sweden	37,1	30,8	35,5	28,2
Germany	47,8	38,7	45,4	35,1
France	48,6	39,3	46,1	35,6
Finland	43,3	34,8	41,0	31,5
Austria	42,8	34,2	40,4	30,8
Netherlands*	44,8	35,4	42,1	31,8
Ireland	20,4	15,9	19,1	14,2
Luxembourg	55,0	42,9	51,5	38,3
Italy	44,5	33,2	41,0	29,2
Spain	39,8	27,7	35,8	23,7
United Kingdom	49,2	33,7	44,0	28,5
Slovenia	41,8	22,3	34,7	16,5
Greece	27,8	14,6	23,0	10,8
Cyprus	51,2	25,5	41,7	18,0
Malta	36,9	12,8	27,7	6,2
Portugal	36,1	9,5	25,8	2,4
Slovakia	28,7	6,0	19,9	0,0
Estonia	39,5	7,1	26,8	negative
Czech Republic	29,3	4,6	19,6	negative
Croatia	40,5	0,6	24,6	negative
Poland	27,9	0,0	16,8	negative
Hungary	26,3	negative	14,4	negative
Lithuania	21,5	negative	8,4	negative
Latvia	26,7	negative	10,0	negative
Romania	14,7	negative	0,0	negative
Bulgaria	17,8	negative	negative	negative
Ukraine **	0,0	negative	negative	negative

Source: own computations on basis of IPED 2004 model and statistical data of Eurostat and Ukrainian Statistical Office.

The estimations of profits which can be achieved from moving the manufacturing operations from European countries show that Ukraine offers the

highest level of profitability, the second position is for Romania, Poland is the third one and Slovakia is the least profitable in this group. It seems that abstracting from transport location, safety, stability and corruption, Ukraine is the best place for location of new FDI originated from European countries. The economic profitability of locating FDI in Ukraine is however confronted with limited perception of Ukraine as a country with favorable investment climate and limited perception of high profitability of FDI.

This is obvious that as the steady development goes ahead the salaries in Ukraine will be growing up, however the differences in hourly labor costs (between Ukraine and Western EU countries) will remain significant. Despite the substantial growth of economies of Poland, Romania and Slovakia the differences in labor costs between the «Old» and the «New» EU members in nominal values even increased in the last 20 years. Only in relative terms the differences are decreasing but the pace of this decrease is very slow. To extend the life standards the Central Europe countries maintain significantly lower levels of prices for foodstuffs, house maintenance and services. Finally, taking into account purchase parity of Income the differences in life standards between old and new EU countries are not as extreme as the differences in nominal incomes.

Similar comparative estimations were made for 2015. The results of those estimations are included in Table No. 6.

The estimations of benefits from moving manufacturing activities from European countries to Ukraine, Poland, Romania and Slovakia in 2015 changed significantly in relation to certain countries. Profitability decreased significantly in relation to FDI from Norway (due to weakening NOK) and much slower in relation to the Eurozone countries. It is observed that in 2015 Eurozone countries were in stagnation of labor costs. In some of them hourly labor costs even slightly decreased in 2015 in relation to 2014. The strongest impact on the lowering of the profitability ratios of FDI moves from old EU to Ukraine, Poland, Romania and Slovakia was the significant shift in shares of labor costs in GVA. Those shares significantly decreased (year to year) in Belgium, Denmark, Sweden, the Netherlands, Ireland (radically), Luxembourg, Italy and Spain. This can be the evidence that some EU countries effectively replace labor by capital investment.

The estimations done on basis of the applied FDI benefits model show that Ukraine, Romania, Poland and Slovakia provide highly competitive environment for FDI from the most Western European countries. Each analyzed Central – Eastern Europe country provides significant labor social cost advantages and rather moderate tax advantages. In relation to 2004 (Kulawczuk and al., 2005) the CIT statutory rates in Western Europe decreased in numerous countries and the differences in this area between «old» and «new Europe» are not so important. The most important fuel for profitability of FDI location or de-localization of existing manufacturing is build by high share of labor costs in Gross Value Added in Western Europe. It is visible that e.g. Ireland does not offer so high benefits for moving manufacturing to the East because the share of labor in GVA is very low. Of course, the specific situation of Ireland is caused by the fact that US companies locate their labor economic business operations in Ireland due to the very friendly CIT regime. This cannot be repeated by e. g. Germany, France or Italy.

Table 6

**Average profits from de-localization of profitable manufacturing production
form European countries to Ukranie, poland, romania, slovakia in 2015
(cents per 1€ of gross value added de-localized)**

Countries of FDI origin	Countries of FDI location			
	Ukraine	Poland	Romania	Slovakia
Norway	52,56193	45,79700451	50,80773067	42,561201
Belgium	46,4	38,4	43,8	35,1
Denmark	40,3	33,1	38,0	30,2
Sweden	35,5	29,0	33,3	26,4
Germany	48,2	38,6	44,9	34,9
France	48,0	38,3	44,6	34,6
Finland	43,3	34,4	40,2	31,0
Austria	42,6	33,3	39,3	29,8
Netherlands*	43,5	33,6	39,9	30,0
Ireland	9,4	7,2	8,6	6,4
Luxembourg	53,2	40,5	48,5	36,0
Italy	44,3	32,3	39,7	28,2
Spain	38,4	25,8	33,3	21,8
United Kingdom	53,0	37,4	46,9	32,2
Slovenia	42,8	21,6	33,5	15,6
Greece	na	na	na	na
Cyprus	52,3	23,6	39,6	15,7
Malta	40,1	15,0	28,9	8,3
Portugal	37,7	9,6	24,9	2,3
Slovakia	30,4	6,2	19,3	0,0
Estonia	44,5	9,1	28,3	negative
Czech Republic	31,4	5,2	19,4	negative
Croatia	42,7	0,6	23,1	negative
Poland	28,5	0,0	15,2	negative
Hungary	27,3	negative	13,3	negative
Lithuania	25,8	negative	9,0	negative
Latvia	31,0	negative	10,8	negative
Romania	na	negative	0,0	negative
Bulgaria	23,9	negative	negative	negative
Ukraine **	0,0	negative	negative	negative

Source: own computations on basis of IPED 2004 model and statistical data of Eurostat and Ukrainian Statistical Office.

1. It seemed that differences in CIT taxation play important role when there are also big differences in labor costs. Such assumption could be more realistic in 2004 but in 2014 and 2015 it occurred not be the truth. The taxation level in the destination country TSR_2 is much more important than the level of taxation in the capital origin country TSR_1 . It was explained by the sensitivity analysis of the index to both variables (Kulawczuk and al., 2005). TSR_2 is a saturator of profits in the transmission channel from differences in labor costs, share of labor in the product and overall profitability. In this respect the role of TSR_1 is very low or even meaningless. Western Europe countries could not counteract against high profitability of de-

localization through decreasing CIT statutory rates. With regard for the low profitability in the capital origin country and high labor costs, TSR_1 cannot saturate a lot. Through changing TSR_1 a little could be changed what reduces policy alternatives for high labor costs countries.

2. There is not a significant difference in moving unprofitable and profitable production from high labor rates countries to countries with limited labor costs and moderate CIT rates. All manufacturing moves were very profitable. This is a next proof (after 2005) that all types of manufacturing production can be profitably moved. Of course low domestic profitability can be an accelerator for de-localization decisions.

3. There are not doubts now that moving profitable production with regard for only the differences in taxation where there are not differences in labor costs is not logical. On the opposite, there is high logic to move unprofitable production to low labor costs EU country even when there is not big difference in tax rates. Such situation exists in all analyzed countries: Ukraine, Romania, Poland and Slovakia. Moving a part of unprofitable production from old Europe can reduce job losses in countries of FDI origin. It seems that German manufacturing firms found the good balance in keeping production domestically and de-localizing some of it. On the opposite, Great Britain is the highest victim of inelasticity in shaping the production structure. In the negative sphere there are also France and Italy, which transfer manufacturing operations to Central Eastern Europe Countries too slow to maintain high competitiveness of their original industrial brands.

4. The research showed that important factor in facilitating manufacturing capacity moves is the share of labor in manufacturing costs in FDI origin country. Comparing the situation in this area in 2004 and 2014 or 2015 there are very little changes in Western Europe countries. It seems that so high share of labor in GVA is caused by the high role of the social sphere based on strong social demands in Western Europe. Opposite to this in Central-Eastern Europe social sphere is weak and social demands are not too strong. This allows for keeping the competitive labor costs and the shares of labor in GVA are relatively moderate.

5. In this picture the most prominent place is occupied by Ukraine as the profitability leader. However, as shows the example of Visegrad countries the overall profitability of FDI allocations can be modified by two sets of instruments: 1) tax incentives in special economic zones (SEZ) and 2) capital investment subsidies for substantial FDI investors. The first set of instruments: tax incentives in SEZ is used by Poland and it resulted in relatively very high number of diversified investments. The second was extensively used by Czechia, Slovakia and Hungary and allowed for a relatively limited number of large investments, especially in automotive industry.

6. It must be however underlined that estimations of profitability of FDI allocations show realistic differentiation among countries only under assumption that all other conditions of conducting economic activities in Ukraine and by its neighbors are similar. Up to now they are not similar. All analyzed Ukraine neighbors are located closer to old EU countries (especially Poland and Slovakia) so transportation and logistics is a favorable factor for them. Secondly, those countries are well known for FDI investors from EU opposite to Ukraine which is a newcomer in the EU

associated countries family. Thirdly, safety, governance and corruption issues are sometimes risen by investors in relation to Ukraine. Those problems are less important in Poland, Romania and Slovakia. The country must find itself the answers how to solve those problems. Otherwise the estimations showing the potential profitability of FDI location in Ukraine will be of slight importance.

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CHAPTER 6.

Strategic Guidelines on Formation, Functioning and Expansion of Fiscal Space of the State

6.1. Features of tax revenues mobilization in the current conditions

Ukraine has in recent years improved forms of organization, methods and ways of mobilizing its tax revenues, which are the basis of the budget revenue base. Study of conceptual principles and practice of formation and development of tax revenue mobilization system is of great theoretical and practical importance. Review of recent research and publications confirms that in Ukraine people are becoming more interested in the problems of development of the tax system, improving the tax system, thus deepening their research to clarify the nature of taxes and their functions. For the most part these studies are focused on increasing the role of taxes in the society, and their use as a regulator of the state economy and sources of revenue.

It is advisable to consider tax revenues mobilization system in the broad and narrow sense. Describing the system in a broad sense, we understand it as a set of techniques and methods by which the government using taxes affects the economy, social sphere, and regulates GDP distribution and redistribution proportions. Narrow meaning of this system is that it is its components that provide for the functioning of the tax system. The central element and the main lever both in broad and narrow sense are taxes, the nature and essence of which lies in their ability during the distribution and redistribution of GDP to regulate social and economic processes, and to ensure budget receipts of certain GDP shares. Therefore, financial science, exploring the tax revenue mobilization system, is based on the nature of taxes, system of taxation, tax system, and peculiarities of their functioning in society.

Note that on its own tax is the most effective instrument for regulating social and economic processes. The very essence of the tax shows that the state has enormous ability to influence its balanced economic growth, promotion of

entrepreneurship, and improving the welfare of its citizens. Tax instruments, tools and incentives are used to improve the situation in the country. The right choice of means of the tax impact on the development of negative tendencies enhances the effectiveness of economic development, its positive dynamics, thus improving the citizens' welfare.

Under the tax revenues mobilization system, we propose to understand a set of tax methods, instruments, tools, incentives and sanctions, a system of activities and sequence of their execution by taxpayers and tax collection agencies regarding collection and submission of taxes and duties to the budgets of all levels or to state specialized funds.

For the definition of the system in the narrow sense (or taxation mechanism), the authors of the economic encyclopedia use the term mechanism for collecting taxes in Ukraine, which they believe is the aggregate of all the facilities and means of state fiscal service agencies which collect and pay the proper amount of tax, duty (compulsory payment) to the budget or state specialized funds [1, p. 369]. A similar though more accurate definition of this mechanism was given by S. Mochernyi, Ya. Larina, O. Ustenko, S. Yuriy, stating in particular that it is «... a set of legislative measures together with their execution sequence performed by state tax services to ensure collecting and submitting the appropriate amount of tax (obligatory payments) to budgets or state specialized funds» [2, p. 501]. While the first definition presents tax collection mechanism as the totality of tax collection means, the second one in its turn adds to these measures their respective set of legal security and consistency, which we believe is reasonable.

The tax revenues mobilization system has its own structure, which provides for separate elements interconnected with each other (subsystems, forms, methods, instruments, tools, incentives and sanctions). We believe that the system depending on the tasks, set of instruments, available subjects and course of action can be divided into two subsystems: the tax collection mechanism performed by taxpayers and mechanism of tax control and enforcement.

In general, the tax revenues mobilization system covers the process of tax charge and collection, preparation and submitting of tax reporting, and tax control. From a legal point of view, it is the emergence, change and termination of tax liability.

Tax revenues mobilization system performance results are recorded in the amounts of mobilized taxes and share of tax revenues in GDP that are presented in Table 1.

The data presented in Table. 1 show a tendency to increase the share of taxes in GDP. While the GDP during the 2001-2016 increased 11.3 times and in 2016 amounted to 2383.2 trillion UAH, the tax revenues of the consolidated budget of Ukraine grew respectively 17.7 times. The share of tax revenues to GDP increased from 17.3% in 2001 to 27.3% in 2016, indicating the change of public policy towards strengthening the centralization of GDP.

Analyzing the role of state and local budgets in the concentration of part of GDP by the state, we can draw conclusions about the increased influence of the state budget on distribution processes while reducing the influence of local budgets. For example, while in 2001–2016 tax revenues of the state budget increased 22.9 times

and their GDP share increased by 10 points, tax revenues of local budgets for this period increased only 9.9 times, and their GDP share fell by 0.8 points. It describes the negative effects in the tax sharing system between the state and local budgets and the weakening of the revenue base of the latter.

Table 1

Dynamics of GDP, tax revenues of consolidated, state and local budgets of Ukraine for 2001–2016

№	Indicators	Years					Variations in 2016 compared to	
		2001	2005	2011	2015	2016	2001	2015
1.	GDP – bln. UAH	211,2	457,3	1349,2	1988,5	2383,2	2172,0	394,7
2.	Tax revenues of budgets:							
2.1.	Consolidated – bln. UAH.	36,7	89,1	334,7	507,6	650,9	614,2	143,3
	– in % to GDP	17,3	21,5	24,8	25,5	27,3	10,0	1,8
2.2.	State – bln. UAH.	22,0	74,5	261,6	409,4	503,9	481,9	94,5
	– in % to GDP	10,4	16,3	19,4	20,6	21,1	10,7	0,5
2.3.	Local – bln. UAH.	14,8	28,6	73,1	98,2	147,0	132,2	48,8
	– in % to GDP	7,0	6,2	5,4	4,9	6,2	–0,8	1,3

Note: Calculated on the basis of [3; 4].

Analyzing the dynamics of tax revenues for the period of 2015–2016, when Ukraine began the process of decentralization of public finances, we cannot leave unnoticed positive trends in local budgets. While the volume of state budget revenues for the period increased by 23%, and their share in GDP by 0.5 points, the amount of tax revenues to local budgets increased by 50% and their GDP share by 1.3 points.

Similar trends can be seen by analyzing the dynamics of the share of tax revenues in consolidated revenues of the state and local budgets of Ukraine for 2001–2016 (Table 2).

Table 2

Dynamics of the share of tax revenues in revenues of consolidated, state and local budgets of Ukraine for 2001–2016

№	Indicators	Years					Variations in 2016 compared to	
		2001	2005	2011	2015	2016	2001	2015
1.	Share of tax revenues in budget income:							
1.1.	Consolidated	66,9	73,1	84,0	77,9	83,1	16,2	5,2
1.2.	State	59,0	70,7	83,2	76,6	82,6	23,6	–4,0
1.3.	Local	83,2	44,0	40,3	33,3	40,1	–43,1	6,8

Note: Calculated on the basis of [3; 4].

Data presented in Table 2 indicate that tax revenues of the consolidated budget during the period varied within 66.9–84.0% of total revenues, and their share increased by 16.2 points. The share of income tax revenues in the state budget for the 2001–2016 increased by 23.6 points and in 2016 amounted to 82.6%. At the same time there is a negative trend regarding the dynamics of the tax revenues share in

revenues of local budgets, which declined during this period by half (from 83.2% in 2001 to 40.1% in 2016). This reflects the growing dependence of local budgets not on its own tax base, but on the state budget because the reduction of the share of tax revenues was followed by increasing the share of transfers (from 31.2% in 2001 to 53.4% in 2016).

However, since the beginning of the policy of decentralization of public finance, the share of tax revenues in the revenues of consolidated budget in 2016 increased compared to 2015 from 77.9% to 83.1%, and in the revenues of the state budget and local budgets from 76.6% to 82.6%, and from 33.3% to 40.1% respectively. This, in our opinion, can be considered a positive development.

Specific features of tax revenues mobilization are caused by the decentralization of public finances and strengthening of the local finances in the financial system of Ukraine. These features are listed in the amendments to the Budget Code of Ukraine, and have been in effect since 2015 [5]. Out of the 41 kinds of revenues this Code assigned 14 taxes and duties and 21 kinds of non-tax revenues to local budgets general fund.

Nevertheless, amid the strengthening of the tax mechanism's part in the distribution process there are significant shortcomings in the distribution of taxes between certain links of the budget system and tax mechanisms of local budgets.

Let us concentrate on the features of forming the tax system, which should have been used in Ukraine in modern conditions. In our opinion, it is appropriate for the state to make up its mind for the future on what functions it will be willing to undertake and what proportion of gross domestic product for that purpose it will need to centralize. The calculation of this ratio should be based on consideration of optimal proportions that would maximize economic balancing the interests of producers, the public and state interests. It is advisable to determine these proportions not just for one year, but for the long term, making minor adjustments to them, if necessary.

Having defined the share of GDP that needs to be centralized to perform its functions, the state should consider the following: how much of this share it is advisable to centralize using tax method, and what part of it should be centralized by non-tax methods; what should be the prevailing shape of the relationship between the taxpayer and the state (direct and indirect taxation) and in which proportions; what should be the relationship between the subjects of taxation, namely who should pay more taxes, and who should pay less, and in what proportions: whether these be rich, middle-income or poor citizens, legal entities or physical persons; what should be the relationship between objects of taxation (production, income, profit, property, capital, land, resources, etc.); what should be the relationship between state and local taxes.

Only after substantiation of the tax system construction principles and tax mechanism can effective tax system be created.

An important role in the effectiveness of the mobilization of tax revenues to the budget is played by the following: tax structure, the level of tax rates and the principles for providing benefits, forms and methods of control over the payment of taxes. Domestic tax structure can be considered as one meeting the international standards, with the exception of local taxes and duties. The remaining issues are in need of improvement.

In Ukraine the formation of its tax system and tax mechanism has always been based on the liberal theory of economic reform model. Thus, the tax system and its operation principles were based not on its own foundation, which would take into account historical conditions and national peculiarities of economic development, but on mere copying foreign tax systems and mechanisms tried and tested during the last century.

Based on the analysis of general tax principles formulated and developed by global economic thought, domestic economists defined principles of formation of tax policy in Ukraine. Among the organizational principles that should guide the improvement of the tax system and tax policy formation, L.Shablysta offers, in our opinion, justifiably, to define the following ones: the principle of tax multiplicity; internal consistency and integrity of taxation; solvency (taxable capacity); steadiness; reasonable sufficiency; stability; flexibility; efficiency [6, p. 20].

Tax Code of Ukraine defines the following principles of taxation: the universality of taxation; payers' equality before the law, elimination of any acts of tax discrimination; inevitable amenability specified by law in case of violation of tax laws; the presumption of legality of the taxpayer's decisions; fiscal sufficiency; social justice; tax efficiency; neutrality of taxation; stability; uniformity and ease of payment; unified approach to establishing taxes and duties [7].

Exploring contemporary scientific opinion on the formation and development of tax systems, A.Sokolovska identified three major groups of problems that need to be resolved, namely, the problem of the number of taxes, the ratio of direct and indirect taxes and effectiveness of the tax structure [8, pp. 57–65]. We believe that A.Sokolovska drew the appropriate conclusions that tax system is considered to be effective when it includes a large number of relatively low tax rates with a clever combination of direct and indirect taxation together with the tax system's compliance with the basic principles of taxation.

Improving tax mechanism in modern conditions should be preceded by a set of measures related to the transformation of the tax system, particularly setting the specific objectives of tax policy in accordance with the doctrine of the budget of the country, deepening the theoretical basis of tax reforms, establishing clear priorities, the development of specific measures that would be functional for a chosen target.

No one today doubts the need to review financial policy of Ukraine and improve its tax revenues mobilization system. The need for such changes is caused by a variety of objective and subjective reasons. In our view, the objective reasons include lack of financial resources of society, limited distribution of GDP, the excessive use of benefits and transfer the tax burden on law-obedient taxpayers, stimulating tax evasion and capital flight abroad, and others. We believe subjective reasons to be the following: the lack of scientific basis of taxation; practical measures in the areas of taxation without theoretical justification or scientific expertise; deep contradiction between the interests of state, oligarchs and the majority of small businesses, and those of the public; lack of a clear tax strategy; inefficient system of tax administration and others.

By formulating the main trends of development of tax revenues mobilization system, we believe to be appropriate to consider the achievements of domestic

financial science with regard to restructuring of tax policy, tax system and system of taxation, taking into account recommendations by A. Krysovatyi [9, pp. 289–338] P. Melnyk [10, pp. 266–310] A. Sokolovska [11, pp. 103–118] and other scientists.

These trends, that we include, are the following:

- the process of reforming the tax system in accordance with objective laws and regularities on the basis of economic efficiency, social justice and political responsibility;

- formation of the new institutional tax environment, which is based, on the one hand, on the strict observance of the rights of taxpayers and ensuring the relationship between taxes and the counter-flow of public goods, and on the other hand to create a system of adequate institutional constraints of discretionary actions of the executive agencies in tax policy;

- specifying national economic priorities, the implementation of which requires state support, identifying forms of such support, tax instruments, tools and methods of their application as well as tools and instruments of investment and innovation activity of the enterprises;

- introducing changes in the structure of the tax system, including expansion of local taxes at the expense of certain state taxes;

- the transfer of part of the VAT from the state to local budgets as a regulating income, or the introduction of a local VAT surcharge during the sale of products and services in retail trade;

- rationalization of tax incentives, the introduction of new approaches to benefits and public financial reports on the effectiveness of their use;

- a clear legal definition of tax items and tax mechanism, their types and classification criteria;

- diversification of methods and improving the campaign against tax offenses;

- adaptation of tax legislation to the EU;

- improving the efficiency of tax policy, improvement of the tax system efficiency management and mechanism of functioning of certain taxes in order to strengthen their regulatory capacity by optimizing the tax base and simplifying the tax assessment and collection.

The development of the tax revenues mobilization system is directly related to the development of tax relations and socio-economic processes taking place in society. Therefore, it can be considered infinite, with no limits for its improvement. It is important that this system meets challenges to society in any particular historical stage of its development and has clearly defined targets under the state budget strategy.

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6.2. Optimization of residential real estate taxation in the context of increasing efficiency of state regulation of social standards

Tax policy compliance with socio-economic needs of citizens and development requires the formation of real estate taxation, which correlates with the social security system, coordination of economic interests and state regulation in the segment of prevention social conflicts to provide affordable and quality housing. Especially important is to overcome the fragmentation of the legal and institutional framework for the taxation of residential property. Large-scale macroeconomic structural changes pose challenges to the world economy and consequently impede the financial and economic relations. The growth of economic cooperation between the countries is in need of support of the so-called «economic landscape», as well as strengthening the global system of financial protection and efficiency of the tax system [1].

IMF research «Reducing Demand, Worsening Prospects» determined that the current imbalance in the global economy is complicated by the lack of risk-taking in support of growth opportunities [2]. However, the growing excesses in risk taking are causing problems for financial stability, so attention should be focused on the possibilities of tax optimization, increasing capital investment and employment, increasing household consumption, including residential building. Professor of Economics and Demography of the Faculty of Global Health and Population at Harvard University David I. Bloom recognizes that society is experiencing the most significant demographic shifts in human history; Changes in life expectancy and fertility, along with urbanization and migration are powerful factors in forming the future and demographic predictors of serious social, economic and environmental consequences [3, p. 11]. Meeting the demand for housing is essential for high quality and sustainable life.

In convergent economies problems of private property development and real estate are becoming more up-to-date. The tax system characterizes tax law and order in general. Property tax is one of the most common taxes in international tax practice. Property tax is mainly local tax and in most cases is socially just and convenient object of taxation. This is due to its properties such as visual clarity, location consistency, duration of existence, and the need for the state registration of the object of taxation. Specific features of the implementation of property tax are relevant in terms of intensification of fiscal decentralization in Ukraine.

Basic theory of taxes and tax is incorporated in the writings of classical economists, including: T. Hobbes, F. Quesnay, A. Laffer, P. Proudhon, and A. Smith. In the development of scientific thought important contribution to the theory of taxes was made by: A. Hostyeva (the role of property tax in replenishing local budgets) [4, p. 79–84]; M. Carlin, N. Bobokh (theoretical conceptualization of property tax in the social policy of the country); A. Krysovaty, V. Melnyk, T. Koschuk (scientific and methodical approach to tax policy in the European integration processes) [5, p. 35–51]; A. Kulai (specifics of indirect taxation in the EU) [6, p. 98–114]; I. Lunina, N. Frolova (priorities of reforming tax systems in the post-crisis period) [7, p. 7–20]; L. Sidelnikova (efficiency of tax sources of state budget resources) [8, p. 45–60]. Despite significant scientific achievements of economists, there are still many promising areas of research. One of the preconditions of research is complexity and multidimensionality of property taxation in the system of financial and economic relations.

The European choice of Ukraine has to consider the doctrine, chosen by the European Union which stipulates that the EU does not form the revenue base of its members, but its fiscal policy must balance the often conflicting national interests of the participating countries to achieve long-term goals and fulfill their current functional tasks aimed at their development. Current tax policies of the Union are implemented by achieving two vectors: tax harmonization (formation of a common legal taxation framework) and tax coordination (making recommendations to encourage certain changes in national taxation instruments) that should contribute to preventing unfair tax competition and convergence of taxation.

It is important to assess the methodological and practical principles of taxation of real estate and to use new approaches for its improvement in the system of financial and economic relations [9, p. 88–94; 10, p. 90–93; 11, p. 153–157]. The following main taxes are used in the financial segment of the economy: contributions to financial stability objectives, or financial institution balance dues (and some off-balance sheet items) to secure the payment of industry's fair share of the direct costs associated with the settlement of problem institutions, which may include their sale, transfer or liquidation; a tax on financial transactions, which is levied on the value of certain financial transactions, such as transactions with equity instruments; financial activities tax, which is levied on profits and remuneration of the company (and by its economic nature is equivalent to value added tax for the financial sector, the sector which has been traditionally VAT-exempt). In the European Union a real estate tax is introduced in most countries except Ireland and Malta.

In terms of European integration Ukraine is increasing its control over the movement of shadow capital, and is engaged in activities with an objective to

optimize its legislation aimed at reducing the shadow economy and tracking suspicious transactions in the financial and real estate markets [12; 13; 14; 15; 16]. Since most financial transactions are interconnected, then it is difficult to practically distinguish the concepts of «combination of financial services», «direct involvement of financial assets» and «indirect financing». Experts in the field of international taxation are required to implement consulting projects in international tax planning and taxation of foreign legal entities that operate in Ukraine, particularly in the real estate market.

In the process of improving the tax system it is necessary to summarize the tax theory principles of the tax system and to define their essential characteristics to be able to determine the functionality of the tax system and tax policy priorities. We share the view that institutional criteria for the formation of tax policy should be: compromise-admitting nature; complementarity of tax changes; rejection of radical tax initiatives; stability and flexibility [5, p. 36–38].

In the financial decentralization measures are taken to implement the Concept of reform of local government and territorial organization of power in Ukraine and completion of an action plan for its implementation (decrees of the Cabinet of Ministers of Ukraine № 333 from 01.04.2014 and № 591 from 06.18.2014) amended the tax and budget legislation that should facilitate transfer of powers from the central level to the regional level. To increase the sources of revenues of local budgets steps are taken to transfer some income from the state budget, and a new type of tax, excise tax on final sales is introduced; tax base is expanded with real estate tax [17, p. 140–144].

Systemic reform of the national tax system creates uncertainty and risks for entrepreneurs, domestic and foreign investors. The current national tax system cannot effectively predict the possible tax revenues in the budget and has a lot of mechanisms that allow taxpayers to avoid their commitments to the state and society. It has been determined that it is appropriate, while maintaining positive changes in tax legislation, to modify irrelevant fields of taxation system to increase tax revenues to expand social functions of the state, but eliminating any possibility of harassing and oppressing the interests of businesses and citizens.

The housing market plays an important role in the context of political and social stability of society. Real estate market is a system of direct or indirect relationship between buyers and sellers of real estate, acting on the basis of the legal regime of appropriation, social value and economic characteristics of real estate. The real estate market is the place where the interaction and interrelationship of sellers and buyers take place, as well as cash flows, assignment of rights to real estate, and minimization of transaction costs in order to meet the needs of the market. Real estate should be viewed as a system of economic, civil and legal relations arising on real estate and rights to it within which generated demand, supply, price and the cost for these items are formed; coherent system of market mechanisms that enable the creation, transfer, operation, management and financing of real estate, information of these processes and effective cooperation of all market entities.

To strengthen the financial autonomy of local budgets, the Law of Ukraine «On Amendments to the Tax Code of Ukraine and certain laws of Ukraine (on tax reform)» from 12.28.2014, the number 71-VIII introduces the following measures:

– the taxation of commercial (non-residential) real estate (hotel premises, office buildings, commercial buildings, garages, enterprise buildings and warehouses) and local authorities are given the right to set the tax rate on real estate within the limit;

– increasing the marginal tax rate on real property other than land, from 2 percent to 3 percent of the minimum wage for 1 square meter of the total area, while introducing additional tax rate of 25000 UAH for apartments over 300 square meters and houses with dwelling space more than 500 square meters for each such item. In this case, local councils retain the right to decide on the feasibility of the introduction of this tax and determining the size of his rates.

The Law of Ukraine «On Amendments to the Tax Code of Ukraine and laws of Ukraine to ensure the balance of revenue in 2016» from 24.12.2015, the number 909-VIII provides for exemption from personal income tax amounts forgiven by the creditor on mortgage loans in foreign currency received for the purchase of a single home [18]. This will facilitate the restructuring of foreign currency loans for a single housing and reducing social tension in society.

In 2015, the owners paid taxes for apartments ranging from 120 square meters and houses with dwelling space more than 250 square meters, and the owners of apartments and houses (or portions thereof) had tax privileges for 370 square meters. However, the rules were changing during the 2014 tax loophole year: in the I quarter the privilege applied to the residential area whereas in II-IV quarters it applied to nonresidential area. For owners of apartments from 120 to 240 square meters and houses from 250 to 500 square meters in the capital tax rate was set at 1% of the minimum wage for each excessive square meter (12.18 UAH) annually. For property owners with an area of over 500 square meters, the rate for each «extra» meter was 2.7%, or 34.56 UAH.

Property tax paid by individuals in Ukraine in 2015 was only 745.7 million UAH (0.6% of own revenues of local budgets in 2015 or 0.04% of GDP). In regional scale the most funds were collected in Ivano-Frankivsk region, which is characterized by traditionally large houses, and amounted to 2.1 mln. UAH. [19] Note that in other countries, real estate taxes make an average of 1% of GDP and about 10% of the consolidated budget. The main reasons for low collection of funds in Ukraine are the following: first, in 2015 preferential residential area was twice as large and amounted to 120 square meters for apartments and 250 square meters for buildings. This privilege freed from paying the real estate tax a significant portion of the population living in houses built in the second half of the last century, where the area of a two-bedroom apartment does not exceed 70 square meters. Second, the fiscal services did not have enough information for tax assessment. In addition, taxpayers' refusal to undergo the process of reconciliation of their property rights to real estate had no consequences for them. Thirdly, the main tax criterion is the area of the real estate rather than its value.

The list of potential taxpayers in 2016 expanded due to the adjustment of tax assessment rules. Thus, the basic benefit is reduced by half, and for apartments it dropped from 120 to 60 square meters, from 250 to 120 square meters and from 370 to 180 square meters for buildings and for different types of housing respectively.

This will increase the number of taxpayers. The tax rate is 2% of the minimum wage (27.56 UAH per square meter). While in 2015 about 6.4 thousand Kyiv residents paid the real estate tax, in 2016 the real estate tax notifications were received by over 16.5 thousand people in the capital. In 2015, the budget of Kyiv received 14.3 mln. UAH as real estate tax payments, whereas in 2016 revenues amounting to 25 mln. UAH are expected. However, the actual taxation will cover only 1.65% of the housing in the capital. Since the Register of property rights is the only tax base, it contains data of no more than 20% of residential property. The data generally concern new buildings and the housing, which in recent years was the object of transactions.

In the context of political and social stability of the society an important role is played by social responsibility of real estate tax payers [20, p. 702–709; 21; 22, p. 40–47]. According to the paragraphs 266.7.3 of Tax Code of Ukraine individuals – payers of property tax are entitled to apply in writing to the authority of the State Fiscal Service of Ukraine by place of residence (registration) for data verification of their residential and / or non-residential real estate, including their shares, owned by the taxpayer; the size of the total area of residential and / or residential real estate, owned by the taxpayer; the right to use tax exemptions and privileges; tax rate; gross tax amount.

The change of real estate ownership is yet another relevant issue. If the property gets a new owner during the calendar year, the tax is calculated for the previous owner for the period from January 1 of that year to the beginning of the month in which the owner lost the title to the specified object of taxation, and for the new owner the tax calculations begin with the first month of their new ownership. In 2015, 344.6 thousand apartments and houses changed their owners; 216 thousand sales contracts were signed, which is 8.2% more than in 2014. [23] In 2013, only 22% of transactions were made through the exchange and feofment, while in 2015 its number was 28% (92.2 thousand feofment agreements issued). If feofment does not apply to first-degree relatives (husband-wife, parent-child), its taxation is not much different from that of sale, hence the growth of these transactions was only by 1.8%. Meanwhile, the exchange is becoming more popular: in 2015 it grew by 17.4% to 4.6 thousand. It is important to monitor the process of changing the property owner to prevent them from evading taxation.

The concept of «real estate» as the object of taxation is closely related to its evaluation [24, p. 9–12; 25, p. 181–185; 26, p. 119–122]. According to the world practice, to perform taxation, which includes the estimation of the tax base, tax rates and tax administration (the taxation of real estate at market or estimated value), it is necessary to determine the value of real estate on a certain date in accordance with applicable laws and standards of evaluation. Real estate tax exists in about 130 countries. The tax rates in Austria, Germany, France, Switzerland and other European countries vary, ranging on average one to two percent of the real estate value. Ministry of Finance of Ukraine within the framework of reforming the tax system repeatedly offered to change the system of real estate taxation and levy a tax on all houses and apartments, as well as industrial and warehouse facilities.

Specific character of the development of economic and tax systems is defined by synergies, which should take into account the principle of «marginal sensitivity» (overcoming the threshold results in multiple increase of fluctuation effect); the

principle of «small growths» (fluctuation effects increase); evolution path discreteness principle (each time there is a possibility of a full range of trajectories for further development); unexpected (emergent) changes admissibility principle. The market price for residential real estate is defined in the direct or indirect relationship between buyers and sellers of real estate, acting on the basis of the legal regime of appropriation, social value and economic characteristics of real estate. The real estate market is the place where the following processes take place: the interaction and interrelationship of sellers and buyers, cash flows, assignment of rights to real estate, minimization of transaction costs in order to meet the needs of the market.

In the context of national economic and social reforms it is advisable to consider residential property tax system with regard to both the development of areas and favorable living conditions of the population [27, p. 3–9]. Cooperation prerogative of the state and homeowners should be control over security and the technical condition of housing. The state is obliged to monitor the quality and safety of its citizens' living conditions, and control maintenance, repair and renovation of their buildings. Improving the living conditions of the population, increased provision of housing and its availability level, modernization of municipal infrastructure, and housing development are priorities in solving housing problems in most civilized countries. Therefore, while administering the real estate tax, the state should consider the main indicators characterizing the condition and presence of housing, its costs and availability, the degree of population's provision with housing, taxpayer's activity in performing transactions on the real estate market.

We believe that the development of the domestic real estate market in the context of economic and civil relations concerning real estate and rights to them requires determination of the tax system, taking into account demand, supply, prices and costs for these items.

The study leads to the following conclusions on the taxation of real estate in the sphere of financial and economic relations. First, tax reform should promote social focus on steady economic development. In Ukraine in terms of implementing new governance policy measures are taken to revise the basic criteria for evaluating the efficiency of the financial and tax systems. Changing political and economic situation must be accompanied by perfecting monitoring of tax collection. Tax on immovable property other than land, is one of the measures of adaptation of Ukrainian legislation to that of the European Union. Property tax solves tasks such as establishing social justice, replenishment of local budgets, and curbing speculative price surge.

For the collection of property tax, the following parameters of property items should be considered: the legal status of property items; price dynamics of real estate market; real estate financial strength. Despite the fact that the object of taxation is residential and / or non-residential real estate, an important feature of the taxation procedure is to determine the taxpayer, as established benefits are provided to the taxpayer.

The introduction of property tax encourages property owners to use their items of property effectively and prevents the accumulation of property and property items by a single owner; it also allows to reverse the significant level of differentiation of income and its accumulation in the hands of individuals; promotes transparency of property relations by identifying the real owner of the property.

Second, the introduction of property tax partially contributed to the reduction of possibilities of getting unjustified subsidies and social benefits to citizens. While purchasing real estate, its taxation should be done depending on type of the housing, whether it is primary or secondary. In the context of social justice in collecting real estate tax one should take into account the legal status of objects; condition of real estate; price dynamics of real estate market; financial strength of the property items. Despite the fact that the object of taxation is residential and / or non-residential real estate, in the taxation procedure it is important to determine the taxpayer, as established benefits are provided to the taxpayer.

Third, fiscal decentralization needs to determine the real incomes of local budgets. An important source of local budgets should be a tax on real estate; revenues from such a tax should be stable and predictable source of budgets, so it is advisable to set it depending on the commercial value of the property. In the context of the possibility of full or partial exemption from property tax local authorities should be given the right while collecting property tax revenues to take into account the income level of poor people or large families with many children.

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6.3. The creation of fiscal space in the context of ensuring a high level of financial security of the Ukrainian banking system

The need for the formation of fundamentals for development of the domestic economy, overcoming the crisis and its implications for social and economic processes caused diffusion of scientific ideas in the context of ensuring a synergy of fiscal and monetary instruments as key elements of government's strategy.

One of the innovative directions of such a synergy is the scientific study and practical implementation of the creating fiscal space concept. In our opinion, it should be not only a complement to fiscal policy but also a resource buffer between fiscal policy and monetary policy, which can be channeled to financing innovative and investment projects through the channels of fiscal and monetary transmission.

However, a modern economic ideology in the context of the creating scientific and institutional architecture of fiscal space focuses on purely fiscal aspect of this economic category.

For example, one of the founders of the concept of fiscal space is P. Heller who defined fiscal space as freed from the state budget financial resources, which enable it to achieve the desired goal without compromising the stability of its financial position or the stability of the economy. The idea is that extra resources available for appropriate public expenditures must exist or should be created in financial space [1]. Another researcher of fiscal stimulus of economic growth is D. Peters who interprets fiscal space as the difference between the current public debt and the debt, which is sustainable and «manageable» [2]. Using this definition, the scientist narrows the concept of fiscal space to simple arithmetic difference between manageable debt and gross public debt. Ukrainian scientist A. Maiba has broader explanation to what fiscal space is. The author claims that fiscal space is part of public finance freed by reducing costs or increasing revenues, which can be used by the government for innovative and reformation activities [3, p.38]. That is, A. Maiba's idea aimed at justification of specific government actions regarding the formation of excess resources, which can be utilized for innovative and reformation policy to create fiscal incentives for economic development.

In our opinion, Ukrainian scientist M. Dykha explains the nature of fiscal space more widely and thoroughly compared to many other researchers. The author states that fiscal space is potentially possible amount of financial resources, dynamically changing value of which is able to be regulated by the state. The complex of sources for the formation of budget funds, financial and non-financial corporations' funds, businesses' funds, and public funds should be taken into account. These financial resources must be directed at the implementation of strategies for socio-economic development and social issues, innovative modernization of the economy and increase its competitiveness through the establishment of strategic goals and priorities of state development, including innovation model, structural and innovative restructuring of product structure, upgrading infrastructure and basic sectors, forming an appropriate environment of maximum support to businesses, development of

human and social capital, sustainable economic growth, guaranteed execution of its functions by the state [4, p. 81].

In essential dimension, M. Dykha expands the meaning of «fiscal space» significantly because does not understand it as factual but as abstract, desired amount of financial resources which can be created and controlled by the government under certain circumstances and certain actions. The creation of fiscal space should proceed from the overall strategy and desired investment volume to finance priority industries and social sphere. Another advantage of such an interpretation of the definition «fiscal space» is that it covers not only fiscal authorities' and state budget's financial resources, but also financial and non-financial corporations' funds. It can be explained by the government's possibility, as it has power and functions, to direct banks' and para banks' resources at financing innovative and investment projects of state development as a whole.

As the crisis affect the domestic economy, research and development of practical recommendations for the development and use of fiscal space in anti-crisis management is an extremely important objective, taking into account the need to combine and subordinate fiscal and monetary tools to a single vector of the state policy. An effective use of fiscal space to stabilize the economic and financial systems requires finding common ground for both major elements of the financial system (public finance and banking resources) and Government's and National Bank's of Ukraine functions. Simultaneously, it is necessary to distinguish positive and negative effects of fiscal and monetary tools on financial stability, economic and financial security of the state and the banking system as the main transmission system of national economy.

We consider that the creation of fiscal space strategy should take into account aspects of negative mutual influence of fiscal and monetary tools on fiscal and banking system stability as a violation of any of them eventually leads to crisis in the whole economy.

Analyzing scientific publications and practices of implementing fiscal policy in different countries around the world, we can conclude that the concept of fiscal space is based on well-known Keynesian model of macroeconomic regulation. According to the government, public debt and budget deficit are dominant, as they should become the main instruments of implementing public investment processes in order to expand domestic production and stimulate an increase in aggregate demand. However, nowadays, in our opinion, to realize in practice the concept of fiscal space in purely fiscal plane is impossible. Enumerated instruments will affect the scope of monetary policy stimulating inflation and devaluation that create certain imbalances in financial markets and in the whole economy. Therefore, we consider, the use of tools for the creation of fiscal space should be consistent with the strategy of monetary policy.

Common ground for fiscal and monetary instruments in the context of the creation of fiscal space includes public debt, budget deficit, tax incentives and tax rates, monetary framework and refinancing mechanism, financial and banking infrastructure (Table 1).

Table 1

Instruments of the creation of fiscal space, risks and advantages of their performance

Types	Subtypes	Fiscal		Monetary		Instruments
		Advantages	Risks	Advantages	Risks	
Expenditures from the budget	Budgeting loan	Promoting development of important sectors of the economy, development of the internal market and export potential that will increase budget receipts	Stimulation of inflationary processes, misallocation of budget funds that will reduce the effectiveness of monetary policy	Establishing clear criteria for monetary policy and forecasting economic indicators	Rising interest rates, devaluation risks, which negatively affect non-financial corporations' financial provision, and, thus, reduce budget receipts	Inflation targeting
	Budget investment					
	Subsidies, subventions, donations					
Budget deficit	Structure of expenditures (share of economic development)	Promoting development of important sectors of the economy	Stimulation of inflationary processes	Ensuring financial stability and sustainability of business expectations, ability to adjust the balance of payments	Risks of exhausted official reserve assets of the state resulting in the need to increase external debt	Exchange rate targeting
	Size of deficit					
	Method of deficit financing					
Tax rates	Tax burden	Promoting development of important sectors of the economy	The growth of the shadow economy	Ensuring sustainable credit growth to non-financial corporations and rise in state budget receipts	Restrictions on money supply growth that may cause shortage of money in the economy, and hence the need to increase the budget deficit and public debt	Monetary aggregates targeting
	Investment tax credit					
	Investment tax relief					
Tax incentives	Reducing the size of an object of taxation	Promoting development of important sectors of the economy and the creation of innovative and investment model of economic development	Risks of uneven development of regions and industries; Corruption risk increase	Ensuring sustainable credit growth to non-financial corporations and rise in state budget receipts	Restrictions on money supply growth that may cause shortage of money in the economy, and hence the need to increase the budget deficit and public debt	Monetary aggregates targeting
	Tax holidays					
	Tax exemption for certain operations					
Alternative tax regimes	Personal exemption	Promoting development of important sectors of the economy	The growth of the shadow economy	Ensuring sustainable credit growth to non-financial corporations and rise in state budget receipts	Restrictions on money supply growth that may cause shortage of money in the economy, and hence the need to increase the budget deficit and public debt	Monetary aggregates targeting
	Simplified tax system					
	Special (free) economic zones					

Fiscal Instruments

Monetary instruments

The effectiveness of impact of these tools on the creation of fiscal space, financial stability, and financial security of the banking system depends on the existing legal constraints and the level of legal discipline prevailing in society. These two conditions allow providing targeting, endeavor, purpose of tax and monetary instruments, as well as minimizing the risk of corruption and misuse of budget funds and banking resources in the economy.

Public debt, rather the purpose and methods of its formation, plays an important role in the architecture of the creating the mechanism of fiscal space. If public debt is formed by increasing budget deficit to finance critical sectors of the economy, especially investment projects that decrease the country's and businesses' dependence on energy imports, as well as energy consumption in enterprises, increase the number of domestic plants and factories, it allows to reduce the negative balance of payments and ensure the increase in tax revenues due to the expansion of production.

The growth of budget revenues will gradually reduce the budget deficit by expanding the tax base instead of external or internal borrowing. If the deficit is mainly used to finance social programs or social expenditures (the increase in pensions, scholarships, salaries, social benefits), such an approach requires search for sources to cover the public debt that in the case of sovereign downgrades results in the emission of financing the state budget. This mechanism increases the release of domestic state bonds, which return high rate of return in a primary market, where the main player is the banking system in the face of the National Bank of Ukraine and state commercial banks. The need for the redemption of domestic state bonds by the National Bank of Ukraine from the Government causes a rise in inflation through increased emission. This, in turn, will intensify a pressure on the exchange rate. On the other hand, the increase in the profitability of domestic state bonds make risk-free securities more attractive for commercial banks that automatically reduces credit investment into the economy. This leads to lower budget revenues caused by the narrowing of economic reproduction. The increase in inflation and a rise in devaluation owing to inefficient public debt management will affect financial stability and financial security of the banking system significantly, as they result in a drop in confidence in authorities and banks enabling loss-making banking activity. Therefore, the use of budgetary tools to create fiscal space must be clearly accomplished in accordance with a declared country development strategy and be consistent with the monetary strategy.

Tax instruments of the creation of fiscal space in advanced economies have always been powerful levers of economic growth, as tax burden reduction and tax incentives, such as tax holidays, shaped a favorable business environment. Tax credits for small enterprises are the most common tax incentives in international practices, which promote production and increase employment that causes the rise in budget receipts at national, regional and local levels by personal income taxes and social contributions. For instance, in Belgium tax rebate given to small and medium enterprises (SMEs) equals 3% of gross investment (except for investing in patents, research and development of new environmental technologies and investing in energy efficiency projects. Tax rebate given to any enterprises, which realize these projects, equals 13.5%). Excluding tax rebate, small enterprises (businesses with less than

20 workers at the beginning of the year) may use a special discount rate 10.5% of depreciation charged on assets, which are invested for 37500 euro but not more than 50% of profit before taxing.

In the UK, the rate of small enterprises R&D tax credit is 150% (minimum investment £10,000).

Small enterprises in Spain, along with standard tax credit (used by any taxpayers), are able to pay a special 10% tax credit levied on part of expenditures aimed at developing e-commerce, Internet technology, production of computer hardware and software. Besides, benefits expressed through a tax credit set for any companies, which invest in non-financial SMEs that operate in the field of technological innovation. The size of such a tax credit account for 99% levied on investment in the expansion of venture capital (income earned from selling shares and other corporate rights).

In Norway, the rate of SMEs R&D tax credit account for 18–20% if expenditures do not exceed 4 million NOK (in universities and other research institutions expenditures should not exceed 8 million NOK). The exact amount of tax exemption depends on a company's turnover, firms' balance sheet currency and number of employees. In terms of the global financial crisis the experience of Hungary is noteworthy, where SMEs, along with 100% tax credit levied on investment, are eligible for tax relief on the extra 40% in debt owed to financial institutions on loans for the production of tangible assets. At the same time, a special tax credit is limited by the amount. Similar special tax credit for small enterprises is envisaged by Dutch legislation [5; 6; 7; 8].

Thus, developed countries using tax instruments stimulate the development of R&D and high-tech industries, which promote expansion of the output of products with high added value, and this in turn provides a substantial increase in government revenues.

Such tax incentives could be applied in Ukraine, however, in terms of existing legislation and inefficiency of judicial and law enforcement bodies to take advantages of tax incentives is extremely difficult, as most of them are corruption-based and discourages innovation.

For instance, long-standing practice of VAT refunds did not contribute to the modernization of steel plants, coal mines, power plants, as in Ukraine, such incentives promote owners' income, while to increase their financial appetites, mechanisms of the shadow economy, including tax evasion, are used.

This situation aggravates imbalances in the banking sector and monetary policy creating risks related to excessive lending and reduces the effectiveness of monetary transmission channels, as the high level of the shadow economy does not allow the National Bank of Ukraine to effectively detect a nation's money supply.

When monetary policy affects the process of the creation of fiscal space, a monetary regime is an important element as it determines directions of monetary policy and may be a restrictive mechanism for economic growth. A good example of negative impact on the economic development of Ukraine is the introduction of inflation targeting monetary regime, which, to achieve inflation targets, requires higher interest rates and slower growth in money supply thereby creating a shortage

of money in the economy. The declining share of credit-based investment into the economy reduces enterprise opportunities to expand the production and introduce innovations into the production, making impossible to increase profitability and return on innovations. Thus, budget receipts have been reduced significantly because of inflation targeting that, in turn, became one of the main reasons of the narrowing of fiscal space or its complete liquidation.

Misuse of other monetary regimes such as exchange rate targeting and monetary aggregate targeting may reduce government revenues as well. Thus, when using the exchange rate targeting, it is important to ensure devaluation or revaluation of the exchange rate in that amount, which allows, on the one hand, to provide the predictability of monetary policy and minimize the level of panic in the currency market, and, on the other hand, to stabilize the balance of payments and reduce the risks of an increase in government debt. That is, in the conditions of excessive import flow, the central bank must conduct the predictable and controlled devaluation of the currency in order to increase incomes of national exporters, and the government must carry out fiscal stimulation for import substitution. The increase of import substitution flows will create conditions for the expanding fiscal space and ensuring long-term stability of the exchange rate in the near future.

The use of monetary aggregate targeting requires an effective and opportune assessment of the need for money in the economy that will help to establish appropriate targets according to monetary aggregates. However, the ensuring an effective control over target use of refinancing to avoid speculative bubbles in the foreign exchange market is the most important objective during exchange rate targeting and monetary aggregate targeting.

The effective control over targeted use of refinancing allows utilizing a refinance mechanism along with fiscal tools as incentives of economic development that, in turn, will help to create sufficient fiscal space to finance not only business development, but also various social programs.

Hence, summarizing the discussion above, we can conclude that theoretical and practical designs of fiscal space require consideration of banking resources and monetary policy to expand the tax base, increase production of high-tech products with high added value that will ensure a positive dynamics of state budget receipts. Balanced and consistent use of fiscal and monetary instruments for the creation of fiscal space will ensure a high level of financial security of the banking system and financial stability in general.

However, in our opinion, apart from fiscal and monetary instruments, it is necessary to develop an appropriate financial infrastructure in order to provide long-term sustainable economic development. This infrastructure would allow shaping the basis for optimal redistribution of budget funds and bank resources within the economy. Such a financial infrastructure exists in almost all developed countries. It is based on activities of state institutions such as the U.S. Small Business Administration, development banks, export credit agencies, leasing funds, investment banks etc. Availability of public financial institutions in conditions of an effective legal system, financial and public control allows formulating fundamental principles of sustainable economic and social growth.

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6.4. Bank tax in the eurozone countries and in Poland

The purpose of this article is to present the essence of a new bank tax in Poland, the causes and consequences of its introduction. This tax has been presented against similar tax in other European Union (EU) countries. In the first section, the authors analyse history of a bank tax in the European countries and unsuccessful attempts to introduce a single financial transaction tax. In the second section, they present a bank tax which has been introduced in various European Union countries in recent years in accordance with their own legislation. The third and the fourth sections refer to the bank tax in Poland.

As the bank tax in Poland has been introduced fairly recently, it is difficult to comprehensively assess its purposes and effects.

As a result of the global financial and economic crisis of 2008-2009, the governments of many countries and international organizations have begun to look for instruments that would enhance the stability of the financial sector and prevent further crises in the future. In this situation, the idea of James Tobin from 1972, to impose a tax on speculative currency transactions has revived (Earlier, already in 1936, under the influence of the Great Economic Crisis, J.M. Keynes proposed taxing capital market transactions). Tobin assumed that the such a tax would reduce the profitability of these transactions and thus reduce trading volume and trading

frequency, which would have a stabilizing effect on the foreign exchange market [1, pp. 153–159].

In September 2011, the European Commission presented the draft Directive on a common system of financial transaction tax (FTT) in the EU [2]. The proposal involved the introduction of a transaction-based tax, not a revenue based tax. The tax would cover all financial transactions between financial institutions that is the purchase and sale of financial instruments, e.g. shares, bonds, currencies, units in investment funds, structured products and derivatives, however, provided that at least one of the financial institutions resides in a member state of the European Union (EU). According to the proposal of the European Commission, the FTT would therefore cover the financial sector and would only be payable by financial institutions. The FTT would become chargeable for each financial transaction at the moment it occurs. The FTT would be payable to the tax authorities of the participating member state in the territory of which the financial institution is deemed to be established, regardless of the location of the actual trade. With this solution, it would be impossible to avoid the tax by moving transactions offshore. It was assumed that transactions relevant for citizens and non-financial companies (consumer credits, business lending, mortgage lending, insurance contracts) and member states institutions and international financial institutions formed by at least two EU countries in order to mobilize funds and to provide financial assistance to entities with serious funding problems would be excluded from the scope of FTT.

The financial transaction tax rate would not be high. According to the draft Directive, derivative contracts would be taxed at a rate of 0.01%, and other transactions at a rate of 0.1%. The FTT was originally supposed to be implemented in all countries of the EU on the 1st of January 2014. Two thirds of the revenue would go the EU budget, and the remaining part directly to member states. According to the European Commission estimates from 2010, the tax would raise EUR 57.1 billion every year [3, p. 181].

Most euro area countries reacted positively to the proposal to introduce the FTT arguing that the tax could be used as a regulatory tool to minimize excessive risk taking in financial markets. The next argument was that due to the tax, the financial sector, which played a major role in causing the economic crisis, would participate in sharing the burden of the crisis. At the same time, governments suggested that all the tax revenue could go to member states budgets. However, the United Kingdom and Sweden have been staunch opponents of the FTT. The financial industry, for which the tax would mean an additional burden and lower profits, was also against the introduction of the FTT. Representatives of the financial sector stressed that the introduction of the FTT would reduce the volume of financial transactions, not only speculative but also for the purpose of hedging currency risk. In their view, the financial transactions tax will entail a reduction in the scope of the transactions on the interbank market and thus will make it more difficult for banks to manage liquidity. At the same time, they expected to see an increase in operations between commercial and central banks, as these transactions will not be subject to the financial transactions tax [4].

The financial industry also drew the attention to the negative impact of the taxation of financial transactions for long-term savings of individuals for their retirement and long-term placement of funds in the financial market by companies. The FTT will result in an increase in prices of financial instruments used in the process, thereby reducing the attractiveness of saving. Moreover, the FTT will make it more difficult for banks to raise equity capital through retention of earnings, as envisaged by Basel III. In addition, bureaucratic costs of financial enterprises related to the tax, which would be finally passed on to the end customers, would also appear.

According to financiers and bankers, in order to meet expectations, the FTT would have to be implemented at the same time in all EU countries. However, in practice, this is not possible, not only because of the opposition from the United Kingdom but also from the United States, China and other countries. If the FTT is not introduced by all EU countries, it will be simple to avoid it by moving financial transactions to subsidiaries located in countries which do not apply the tax, which of course would be detrimental to FTT countries. The European Commission, which is aware of this danger, has proposed that the financial transaction tax should apply to all residents in the EU countries, regardless of the location of the actual trade.

The Council of the EU had failed to achieve the necessary unanimity to adopt the directive on the EU-wide FTT. In this situation, the 11 member countries: Austria, Belgium, Estonia, France, Greece, Spain, Germany, Portugal, Slovakia, Slovenia and Italy decided to establish «enhanced cooperation» in the field of FTT. According to the EU Treaties, the mechanism of «enhanced cooperation» can be used when the unanimity among the EU member states cannot be achieved. It allows smaller groups of member states to go ahead with projects within the EU framework, while other member states choose not to get involved. In February 2013, the Commission put forward a proposal for a Directive on the FTT in eleven countries, which does not differ substantially from the initial proposal for the EU-wide tax. Finally, 10 eurozone countries have decided to implement the FTT from 1 January 2016 (out of 11 countries mentioned, Slovenia has not joined the agreement on enhanced tax cooperation). Initially, the tax would apply to equities and some derivatives [5]. Disagreements among the countries participating in the system of «enhanced cooperation» made it impossible to prepare the implementing rules and in 2016 a single FTT was not introduced in any EU country.

In 2010-2013, thirteen EU member states (Austria, Belgium, Cyprus, Finland, France, Germany, Hungary, Latvia, the Netherlands, Portugal, Slovakia, Sweden, the United Kingdom) decided not to wait for the implementation of the harmonized FTT within the EU and introduced bank tax in accordance with their own legislation. These solutions vary in terms of tax base, tax rate, qualifying bank's tax expense as deductible expenses and allocation of tax revenue. Ten EU countries (Austria, Belgium, Cyprus, Germany, Latvia, the Netherlands, Portugal, Slovakia, Sweden, the United Kingdom) decided to introduce tax on bank liabilities, and three countries (Finland, France, Hungary) tax on assets or risk-

weighted assets. Furthermore, Germany and Portugal decided that a tax would also apply to derivatives. In seven countries (Finland, France, Hungary, Latvia, the Netherlands, Portugal and the United Kingdom), tax revenue goes to the state budget, in four countries (Belgium, Germany, Slovakia, Sweden) to special stabilization funds, and in the case of Austria and Cyprus to the budget and stabilization funds (see. Table 1).

Three countries (Hungary, France and Italy) also decided to introduce a financial transaction tax [6, p. 17].

The advantage of imposing tax on bank assets is that it reflects the scope of core bank activities. This makes sense especially in countries where the growth in the banking sector is observed. In contrast, the disadvantage of this solution is that it ignores the obligations arising from off-balance sheet operations, which are often associated with high risk for a bank. Additionally, it does not take into account a diversified risk at the different items of the bank's assets, ignores the stabilizing function of a bank tax, which it would have in the case of high taxation of asset items generating high risk and no taxation of items characterized by a relatively low risk (e.g. cash and properly secured receivables). A tax on bank loans carries the risk of harmful macroeconomic effects. Banks may raise their profit margin, increase interest rates on loans and reduce interest rates on deposits. A better solution is to tax risk-weighted assets, as is the case in France and Finland, because it takes into account the risk of losing receivables by banks.

Most countries which have introduced a bank tax have decided to tax banks' liabilities (with the exception of equity). The advantage of that solution is that the amount of tax paid reflects the scale of bank's activity. However, this approach ignores the obligations arising from off-balance sheet activities. Moreover, it does not reflect the risk and does not link the amount of tax paid to the financial condition of the bank. Spain and Cyprus have decided to tax bank deposits. Under this option, the scale of support needed in case of bank failure is properly reflected and there is motivation to recapitalize the bank. On the other hand, a tax on bank deposits skips risky off-balance sheet commitments, applies to long-term deposits, which are necessary for long-term financing of bank assets, and carries the risk of limiting bank lending due to insufficient funding from deposits [7, pp. 100–127].

On February 1, 2016, the Act on Tax on Certain Financial Institutions came into force. It introduced the so-called bank tax in Poland [8]. This causes much controversy in the banking and insurance sectors in this country.

The Act imposes a tax on three groups of institutions with different tax base thresholds:

- domestic banks, branches of;
- foreign banks, branches of credit institutions and cooperative savings-and-credit unions (spółdzielcze kasy oszczędnościowo-kredytowe – SKOK) which are subject to the tax on assets which exceed PLN 4 billion;
- domestic insurers, domestic reinsurers, branches of foreign insurers and foreign reinsurers' branches for which a tax-free asset threshold is PLN 2 billion);
- lending institutions for which the taxable amount will be the excess of total assets over PLN 200 million.

Table 1

Bank tax in the EU countries

Country	Year of implementation	Purpose of implementation	Destiny	Tax base	Tax rate	Exclusions	Tax cost (CIT)
Austria	2011	Banking sector stability, fiscal	Stabilization fund (2012–2017), Central government budget	Liabilities	0.09% – 0.11% (>EUR 20 billion)	EUR 1 billion Capital, insured deposits, some liabilities	Yes
Belgium	2012	Banking sector stability	Deposit guarantee fund	Liabilities	0.035%	Capital, insured deposits	Yes
Cyprus	2011	Banking sector stability, fiscal	Stabilization fund Central government budget	Deposits	0.15%	–	No
Finland	2013	Fiscal	Central government budget	Risk-weighted assets	0.125%	–	No
France	2011	Fiscal	Central government budget	Risk-weighted assets	0.539% (reduction to 0.141% in 2019)	EUR 500 million	Yes
Latvia	2011	Fiscal	Central government budget	Liabilities	0.072%	Capital, deposits covered by the guarantee system, mortgage bonds, subordinated liabilities	Yes
The Netherlands	2012	Fiscal	Central government budget	Liabilities	0.022%–0.044%	EUR 20 billion Capital, insured deposits,	No
Germany	2011	Stabilność sektora bankowego	Restructuring fund	Liabilities Derivatives	0.02%–0.06% 0.0003%	EUR 300 million Capital, insured deposits	No
Portugal	2011	Fiscal	Central government budget	Liabilities Derivatives.	0.01%–0.085% 0.001%–0.0003%	Capital, insured deposits, derivatives for hedging	No
Slovakia	2012	Banking sector stability	Stabilization fund	Liabilities	0.2% (0.4% in 2012–2014)	Capital, debt subordinated, long-term intra-group liabilities	Yes
Sweden	2009	Banking sector stability	Stabilization fund	Liabilities	0.036%	Capital, subordinated liabilities, intra-group liabilities	Yes
Hungary	2010	Fiscal	Central government budget	Assets	0.53% > HUF 50 billion (0.31% since 2016) 0.15% < HUF 50 billion	Interbank loans, loans to financial companies	Yes
The UK	2011	Fiscal	Central government budget	Liabilities	0.21% short-term liab. 0.105% long-term liab. (gradually reduced to 0.1% 10.05% in 2021)	GBP 20 billion Capital, insured deposits	No

Source: [6, p.17].

The tax does not apply to Bank Gospodarstwa Krajowego and taxpayers which are subject to liquidation or recovery proceedings. The value of assets is determined at the end of each month. The tax base is reduced by the value of own funds of the taxpayer, assets in the form of treasury securities gathered by the taxpayer (both deductions apply to the entities in the first group) and the assets acquired by domestic banks, branches of foreign banks or branches of credit institutions from Narodowy Bank Polski (NBP) which secure refinancing credit provided by NBP. Furthermore, in the case of cooperative banks, the tax base is reduced by the value of all funds accumulated on all accounts of the affiliated cooperative banks.

The tax is levied at a rate of 0.0366% on the value of an institution's assets per month which means 0.44% annually. The amount of the bank tax is not a tax deductible cost for purposes of the Corporate Income Tax (CIT).

Tax revenue goes to the state budget. Taxpayers are obliged to calculate and pay the tax to the tax office on a monthly basis by the 25th day of month following the month to which the tax applies.

According to art. 14 of the Act, a tax on certain financial institutions may not be passed on to the banks' and insurers' customers. However, any legal instruments for the control of compliance with this prohibition have been defined in the Act [8].

The Polish government had budgeted PLN 5.5 billion in bank tax receipts for 2015. The government admits that money is needed to finance social projects of the state, including the program 500+. In practise, with the introduction of a relatively high tax-free asset threshold, all cooperative banks (assets of any of them do not exceed 4 billion PLN) and cooperative savings-and-credit unions with the exception of Stefczyk SKOK whose assets amount to about 7 billion PLN have been excluded from the bank tax. Additional taxation would worsen the already difficult situation of many cooperative savings-and-credit unions and cooperative banks, which in 2016, due to the bankruptcy of SK Bank in Wołomin and other entities had to pay large sums to the Bank Guarantee Fund.

The bank tax in Poland is definitely of a fiscal nature. Stabilization of the financial system by limiting speculative banking transactions or acquisition of more stable sources of funding active banking operations were not reasons for its introduction. The Act on bank tax was prepared in haste and is very imperfect, which makes it easier for banks to avoid or reduce taxation. The report on the bank tax prepared by the Centre for Analysis and Studies of Taxation of SGH Warsaw School of Economics suggests four ways to avoid paying a bank tax:

- transfer of tax burden to bank customers;
- artificial transfer of loan portfolio between branches of a bank;
- conversion of taxable assets to non-taxable assets;
- initiating a bank recovery program.

Contrary to the intentions of the legislator, already at the end of 2015, when it was known what costs banks would have to incur due to the introduction of a bank tax, banks raised fees and commissions for services offered to customers transferring the burden of this tax on their clients.

Another practice to circumvent bank tax obligations has been the transfer of loan portfolio to a branch or subsidiary in a state where the tax is lower or is not

applied. The thing is that in this case the (corporate) client signs a credit agreement not with the domestic bank but with the lender headquartered abroad.

An easy way to lower the amount of a bank tax paid is to convert taxable assets into non-taxable assets by acquiring treasury securities. Even if the securities are bought on the last day of the month and then sold at the beginning of the following month, they will lower the tax base. Such actions have a detrimental effect on lending by banks, as bank loans not only carry a higher risk than government securities, but are also subject to the bank tax.

A bank recovery program may also be used to avoid taxation. Banks which implement such programs are fully exempted from the bank tax. A bank is obliged to prepare a recovery program in the event of a balance sheet loss or a threat of its occurrence. For many banks, it is not a big problem to show a loss or a threat of loss – a bank sets high reserves for credit losses, thereby showing high costs, which, with specific revenues, results in a loss [9, pp. 17–19].

According to the report of the Financial Supervision Commission «Synthetic information on the impact of the tax on certain financial institutions on the situation of commercial banks» from July 2016, in the first four months of the year, bank tax revenues amounted to PLN 1,173.1 million. It was almost half the amount assumed by the Ministry of Finance. The revenues reached the highest level in February 2016 (PLN 304.8 million). Although the bank tax covers all commercial banks, due to a number of exclusions and deductions, only 19 commercial banks actually paid it. With the assets of commercial banks amounting to PLN 1.5 trillion, the tax base fluctuated between PLN 920-960 billion. Monthly changes in the amount of bank tax paid were small. For example, in April 2016, banks paid PLN 16.9 million less than in the previous month, which was mainly due to the entry of one of the banks into the recovery process, the reason for tax exemption. Since January 2016, the growing interest of banks in treasury bonds has been observed. From the end of December 2015 to the end of May 2016, the value of treasury bonds in banks' portfolios rose from PLN 163.4 billion to PLN 217.5 billion (an increase by 33.1%). The possibility to reduce the amount of bank tax paid by acquiring treasury securities have affected this trend.

The bank tax, depending on the business profile, has had a greater or lesser effect on the bank's strategy. Relatively large banks with high yields indicated that the introduction of this tax had not affected their current situation, but it would probably reduce profits in the long run and negatively affect the dynamics of lending. Other banks emphasized that the bank tax had influenced both profitability and balance sheet and subsidiary management. It has attracted interest in the balance sheet and subsidiaries. Interest in treasury securities has increased, interbank market transactions have been reduced, deposit rates have been lowered, and concentration on the sale of high-margin products has been observed [10].

As the bank tax in Poland has been introduced fairly recently, it is difficult to determine what consequences it will have for the Polish banking sector. The authors of the report «Development of the financial system in Poland in 2015» believe that it can strengthen the current trends of the growth of banking sector concentration by accelerating consolidation processes. The strongest commercial banks in terms of

capital, characterized by high profitability, will be able to acquire the customers of non-profit banks, whose financial position as a result of the introduction of a bank tax will worsen [11, p. 102].

The bank tax should improve the competitive situation of cooperative banks, which are generally exempted from it. As Tomasz Mirończuk notes, a bank tax is a chance for cooperative banks to make a higher profit. It has forced banks to raise the minimum margin between the interest rates on loans and deposits by 44 bp. This means an increase in costs of borrowing for banks' clients and lower interest rates on deposits. This will benefit co-operative banks, which will also respectively adjust interest rates on loans and deposits. The additional money from these changes will not be used to pay tax but will improve the financial result of the cooperative bank [12, pp. 35–38].

The bank tax is undoubtedly needed in the light of the enormous public funds that many governments spent on rescuing banks during the global financial and economic crisis. In Poland, this was not the case, mainly due to restrictive banking supervision measures, but the government was willing to obtain money from the relatively large profits of banks to implement new social projects.

The bank tax should not destroy the stability of the banking system in a long time. Therefore, a bank tax should primarily apply to banks conducting risky business, posing a threat to the stability of the banking system of the country. Banks that do not pose such a risk should be exempted from the bank tax or charged with a significantly lower tax.

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6.5. Special economic zones in Poland – conditions of business operation

The world economy imposes nowadays many constraints on business, directly influencing their financial results and future development. The ubiquitous competition forces companies to look for new solutions whose primary purpose is to gain new markets, new suppliers and, most importantly, reduce the costs. Such efforts can be supported by a variety of government programs or European Union subsidies that contribute to strengthening the enterprises' competitiveness. In Poland, an important role in governmental supporting programs is given to the Special Economic Zones (SEZs). The preferential business conditions offered within their areas attract investors, both domestic and foreign. The article will cover tax and legal aspects of the functioning of the Special Economic Zones in Poland.

The key legal act governing the establishment and operation of SEZs in Poland is the Act on Special Economic Zones of 20 October 1994 [1] which defines a special economic zone as a «separate, uninhabited part of the territory of the Republic of Poland where business activity may be conducted under preferential conditions set out in the Act».

The common features of economic zones, which include the following elements, are, in a sense, complementary to the definition:

- an administratively separate part of Polish territory,
- being under the management of one authority,
- offering businesses certain benefits such as tax exemptions and reliefs, customs-free zones, development sites ready for use and business friendly environments (form of benefits are granted depending on SEZ's localization).

Investors in the SEZ, after receiving a permission to operate in the Zone, may operate on preferential terms obtaining e.g. public aid in the form of exemption from corporation income tax or personal income tax calculated only on income obtained from activities conducted in the Zone based on the obtained permission.

Special Economic Zones are established in Poland under the regulations of the Council of Ministries, at the request of the minister competent for the economy, after obtaining the opinion of the voivodship authority board and the consent of the municipality council appropriate for the location of the zone. Changes in the boundaries, ie the inclusion and exclusion of new sites, are also made through the regulation. Special economic zones may create sub-zones throughout the country, and there may be more than one area within a municipality incorporated into the zone, as

well as more than one zone may be established in one municipality. This causes a significant SEZ dispersion all over the country. The areas usually included to SEZ are most likely to include, despite their original assumptions, the investment areas that are already of interest to potential investors, rather than areas that really need to be economically developed.

Setting up a zone in such an area is possible when one of the following conditions is met:

- a defined number of new jobs will be created or investments of a certain value will be made because of the investment conducted within the zone;
- the investment will result in starting the production of new or significantly improved goods, processes or services;
- The investment will involve development of such services as:
 - R & D
 - IT,
 - bookkeeping and auditing,
 - accountancy excluding tax returns,
 - call centers,
- the investment will require an increase of the area of no more than 2 ha.

The Special Economic Zones carry out activities that foster business-to-business co-operation and development of the labor market thus limiting the number of unemployed. SEZ actively support development and intensification of existing industrial assets and economic infrastructure in the region and prevents their destruction. The zones activities focus also on expanding export and maintaining ecological balance. Setting up of a SEZ usually results in increasing competitiveness of manufactured goods and services.

Over the past decades, during many years of operation of SEZs in Poland, many significant amendments have been made to both general legislation and regulations on specific zones. The most important legal acts regulating the activity of the SEZ include the following:

- The Council of Ministers regulation of 10 December 2008 on state aid granted to entrepreneurs operating based on a permit to pursue an economic activity in special economic zones [2];
- The Council of Ministers regulation of 10 December 2008 laying down criteria for including land into a special economic zone [3];
- Commission Regulation (EU) No. 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty,
- Act of 30 April 2004 on procedural issues concerning state aid [4];
- Act of 28 November 2014 amending the Act on Special Economic Zones and selected other acts [5], whose provisions took effect on 6 January 2015.

Launching business activity in a special economic zone can be considered in two contexts:

- a factual context (launching an investment project physically in a special economic zone)

– a legal and tax context (obtaining administrative decisions to become entitled to SEZ benefits such as tax exemptions).

When referring to factual context, an investor is required to obtain title to a property through purchase, for instance, of a developed or undeveloped plot or through lease, for example, of a warehouse building or an office. As regard the legal and tax aspects, the investor is required to obtain a special permit to conduct business activity in a special economic zone, granted by the manager of a special economic zone on behalf of the minister of the economy, pursuant to relevant regulations.

In principle, such a permit is granted after the negation process, however, if an entrepreneur also is willing to acquire a property, which is particularly the case with respect to gmina-owned land, the regulations allows to combine the procedures of granting a permit and the gmina tender for the sale into the so-called combined tender. In such situation, an entrepreneur is selected through such tender who will purchase the land and receive the Permit.

The first step in a process of entering an SEZ usually involves initial discussions and arrangements between an investor and the SEZ manager. This stage also involves a pre-review of eligibility of an investment project and its objectives. An investor looking for a new site reviews potential location presented by the SEZ manager and selects a suitable site or building. After such selection, the investor sends a formal letter (i. e. a Letter of Intent) or a written application to the SEZ Manager. The Letter of Intent should officially set out investment objectives and the investor's intention to take part in advanced procedures leading to getting a Permit by the investor.

The Letter of Intent should include the basic data and information about the planned investment project, e. g., information about the applicants, a description of the planned investment (the sector and goods/services), planned capital expenditure, particularly costs eligible for aid, planned dates of commencement and completion of the investment project and commencement of business activity in the SEZ, anticipated number of new jobs and the current average annual employment level, designation of a specific property or specification of demand for a property required to complete the investment project, technical infrastructure requirements, other information required by the SEZ such as the degree of innovativeness of the investment project, an initial declaration about required aid, cooperation for the benefit of vocational schooling, development of network connections, clusters, etc.

If the letter of intent is positively verified and approved, the zone manager shall publish in the national press the invitation to the negotiations or to the combined tender, i.e. the invitation to submit a written offer with a business plan attached and other detailed data. In the case of a combined tender for the sale of land owned by local government, the manager shall announce the tender in consultation and on the order of the relevant municipality, city or county. Such invitation includes information on the real estate to be used to carry out the investment project within the zone, the asking price of the real estate, the amount of security deposit and the date of its payment. In the case of a combined tender, the investor prepares an offer that also includes a price proposition for which he is ready to purchase the site.

All interested parties may participate in the tender provided that such a party purchases Terms of Reference for the Tender and submits a complete offer, including a business plan and information on the source of funding for the project. Negotiations regarding the permit usually last at least three weeks from the date of publishing the invitation. The combined tender procedure last from 3 weeks – in the case of sale of a property owned by the manager – up to at least 8 weeks after the announcement date – in the case of sale of land owned by the municipality or the State Treasury.

After successful verification of the business plan and the investment project objectives by the negotiation or tender committee, the Manager grants the Permit to operate within the zone. Investor can then start the investment. Only after the date of obtaining the permit the investment expenditure – including the purchase of real estate – may be eligible and the investor may conclude contracts related to the investment.

Special economic zones are created to accelerate the economic development of enterprises, especially in particular parts of the country's regions. The enterprises investing in a delineated geographic area are entitled to benefit from preferential business conditions.

The largest group of privileges is called public aid. The European Union law generally prohibits Member States from granting state aid, highlighting the bad influence of such aid on competition in the common market. Under certain conditions, however, it is permissible to provide state aid as a part of regional aid. The basic condition in such case is to support the less developed regions.

The state aid is usually granted after the European Commission's prior consent. One of the exceptions is the state aid granted to businesses in the Special Economic Zones. The maximum allowable amount of aid is determined by the Council of Ministers and are presented on a map of regional aid (a new regional aid map for the years 2014–2020 was adopted in Poland on 1 July 2014)

The regional aid map identifies the regions of the Member State that can apply for national regional investment and specifies the maximum aid levels for enterprises in eligible regions. Adoption of the regional aid map guarantees continuity of regional policy in Poland. The costs eligible for regional aid in special economic zones include the costs of new investment or the labor costs of newly recruited employees [6].

An investor entering a special economic zone under regional state aid is primarily exempted from CIT or PIT income tax. Other important incentives can also be distinguished, the most important of which include following:

- fully prepared investment sites at competitive prices,
- the option to purchase or lease a property located in the SEZ,
- access to government investment grants, subsidies of local employment offices or EU funds,
- full or partial real-estate tax exemptions offered in some municipalities,
- access to know-how and gratuitous with formalities offered by the zone managing authority,

- post-investment assistance, which also involves solicitation of qualified staff,
- proximity of other companies, giving the opportunity to establish business contacts.

Table 1

The state aid level by geographic areas in Poland

State aid intensity per region as percentage of eligible costs (in %)	Voivodeship/sub-region/region
50	Voivodeship: lubelskie, podkarpackie, podlaskie, warmińsko-mazurskie
35	Voivodeship: kujawsko-pomorskie, lubuskie, łódzkie, małopolskie, opolskie, pomorskie, świętokrzyskie, zachodniopomorskie and areas belonging to subregions: Ciechanowsko-Płocki, Ostrołęka-Siedlce, Radom and Warsaw East
25	Voivodeship: dolnośląskie, śląskie i wielkopolskie
20	Subregion: western Warsaw
15	Area belonging to the capital city of Warsaw until December 31, 2017
10	area belonging to the capital city of Warsaw from 1 January 2018

Source: *Prawnopodatkowe aspekty funkcjonowania Specjalnych Stref Ekonomicznych w Polsce*, TAAC Solutions, Warsaw, April 2017, p. 9.

These privileges are not, however, available to all investors. Moreover, not all types of economic activity can benefit from the incentives offered by the zone. Restrictions on type of activities that may be conducted in zones are defined in relevant SEZ regulations.

The right to benefit from tax exemptions for new investments in a special economic zone is vested in the entrepreneur, provided that the investor is obliged to [8]:

- not transferring the ownership of any assets that have been associated with investment expenditure for a period of at least 5 years from the date of completion of the investment project (or three-year period for small and medium-sized enterprises);
- maintain the declared number of jobs for a period of not less than 5 years (three years for small and medium-sized enterprises) when the aid is granted for job creation;
- to run business activity for at least five years (3 years for small and medium-sized).

The law stipulates which expenditures are considered as eligible to obtain state aid in the form of corporate income tax exemption. The entrepreneur's investment costs, deducted by commodity and service tax as well as excise duties, are considered as eligible when incurred in the SEZZ in accordance with the permit obtained. These include the following:

- expenses to purchase land or perpetual usufruct rights to the land,
- expenses to purchase or develop new fix assets,
- costs of upgrading or modernization of existing fixed assets,

– expenses for intangible assets (associated with the transfer of technology through the acquisition of patent rights, licenses, know-how or unpatented technical knowledge),

- expenses incurred to lease plots of land and buildings,
- expenses to buy tangible assets other than land and buildings.

Aid for new investment may be granted provided that the investor's own funds account for at least 25% of the project's total costs. The cost of new investment must not be lower than EUR 100,000. The maximum aid for an entrepreneur, granted in the form of corporate income tax exemption (, ie the maximum amount of income tax from which an entrepreneur operating in a Zone is exempt), results from:

- investment expenditure incurred by the entrepreneur,
- investment expenditure specified in the business permit in the zone,
- maximum aid intensity.

The investment expenses incurred by the entrepreneur results from the method of calculating the maximum amount of state aid. If the total investment expenditure of the entrepreneur does not exceed 50 000 000 Euro, the maximum amount of state aid is calculated as the gross grant equivalent to the entrepreneur's expenditure and it amounts a certain % (specified in the regional map) within each zone (see table 1).

When a permit to operate in the Zone is expired or revoked, the investor loses the right to tax exemption and is required to pay tax for the entire period of tax exemption.

Entrepreneurs conducting business activity in the special economic zone may be exempted from property tax by a decision of local authorities. Such permission is granted when (except incurring investment expenditures and creating new jobs) investor:

- informs the competent tax authority about the intention to use state aid,
- will continue investing in the region for at least 5 years for large companies and 3 years for micro, small and medium enterprises.

A real estate tax exemption depends every time upon the local authority decision and local regulations.

With all the exemptions and tax breaks offered to investors, it is important to remember that special economic zones meet a variety of objectives and cannot be seen only as areas where the tax obligation does not exist. They are primarily the areas of industrial intensification and the fight against unemployment. Companies that consider only the tax exemption, after the expiry of its term, will cease operating in the SEZ, and the zone will incur additional costs. Moreover, when selecting and choosing the SEZ, the investors should pay a special attention to the infrastructure, personnel and market size [6].

The first SEZ in Poland was established in Mielec in 1995. The other Special Economic Zones were launched by the late 1990s and they still operate today: Kamienna Góra SEZ for Medium Business, Katowice SEZ, Kostrzyn-Slubice SEZ, Kraków Technology Park, Legnica SEZ, Lodz SEZ, SEZ EURO-PARK MIELEC, Pomeranian SEZ, Słupsk SEZ, «Starachowice» SEZ, Suwałki SEZ, SEZ EURO-

PARK WISŁOSAN, Wałbrzych SEZ «INVEST-PARK», Warmia-Mazury SEZ. Nowadays there are 14 SEZs located in all the 16 voivodships of Poland, embracing the total area of almost 20 ha.

The economic zones are not a single area. The zones are divided into «sub zones» that can be created throughout the entire country. When assigning a sub-zone to the SEZ, the government usually follows the principle of territorial proximity. However, the Mielec SEZ, which is composed of subzones situated not only in southern-eastern Poland but also in Szczecin in Zachodniopomorskie voivodeship located hundreds of kilometers away.

In 2015, following a systematic growth of the SEZ, the Council of Ministers decided to increase the size of all zones to 25,000 and to extend the date of their activity until December 31, 2026. The structure of investments in SEZ, according to the country of origin, dominates Polish capital. Foreign capital in the zones mainly comes from the West, but the share of investors from the East is growing. The leading investors in the SEZ include: General Motors Manufacturing Poland (USA), Volkswagen Poznań (Germany), Toyota Motor Manufacturing Poland (Japan), Volkswagen Motor Polska (Netherlands), Michelin Polska (Switzerland), Electrolux Poland (Sweden), Gillette Poland International (Luxembourg), LG Display Poland (South Korea).

The Special Economic Zones in Poland has brought many benefits, both for investors and for the Polish economy. Thanks to the already existing infrastructure, the investors are bearing smaller operating costs as compared with other sites. The country's economy benefit's, for example, from social activation of the region, creation of new jobs, development of companies that become attractive to other investors in Poland. Good relationships between investor, local authorities and other companies guarantee the stability and development of the region. However, it cannot be forgotten that the functioning of Special Economic Zones is limited in time. It is important to take care of the investor today so that in the future when the economic zones cease to function in the present shape, they'll stay in their chosen location and will be willing to create new branches in other parts of Poland.

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CHAPTER 7.

Prospects for Improvement of Fiscal Administration: International and National Context

7.1. Institutions of combating tax evasion in Ukraine: retrospective of formation and development priorities

In terms of transformation of economy of Ukraine, availability of sufficient financial base, which is largely based on taxes, is the *condition for achieving* established social and economic priorities of the development of a state. In this context, there is an urgent need for establishment and functioning of the fiscal institutions which, on the one hand, would ensure the full and timely payment of taxes and tax payments by taxpayers, and, on the other hand, would counteract and prevent evasion of tax liabilities.

Chronological analysis of establishment of domestic fiscal institutions confirms a sharpened strategic vision of its accelerated development to achieve the implementation of the parameters and effects of functioning of analog structures of economically developed countries, capable to accomplish the objectives of state development outlined in terms of global increasing challenges and threats. In general, history of formation of fiscal bodies of Ukraine was carried out in several stages, namely:

– *first stage* (1990 – 1996) – establishment of the State Tax Service under the Ministry of Finance. At this stage, legal status, functions and activities of structural units and the State Tax Inspection of Ukraine were defined;

– *second stage* (1996 – 2000) – establishment of the State Tax Administration as an independent executive agency on the basis of the Decree of the President of Ukraine «On establishment of the State Tax Administration of Ukraine and local state administrations (1996), under which tax authorities had been granted the status of executive authority with special powers;

– *third stage* (2000 – 2010) – modernization and reorganization of the Tax Service based on European models, which was based on the implementation of the

Programme of modernization of the State Tax Service. The Programme's implementation involved:

1) establishment of the Department of Development and Modernization of the State Tax Service (2000); Information Department of the State Tax Service (2007) whose objective was to improve a taxpayer service, accelerate the use of modern information technology and create a single base of tax knowledge;

2) the Agreement concluded between Ukraine and the International Bank for Reconstruction and Development on allocating 40 *million dollars loan* to implement in practice a large-scale project, called «Modernization of the State Tax Service»;

3) the Public Board established to promote a partnership between tax authorities and taxpayers in 2002 in the structure of the State Tax Service;

4) in order to eliminate duplication of powers of central authorities, reduce the number of managerial staff and enhancing the effective functioning in 2010 on the basis of the provisions of the Decree of the President of Ukraine «On Optimization of the system of executive authorities», the State Tax Administration was reorganized into the State Tax Service, the main status of which was defined as a service of service-type in 2012;

– *fourth stage* (2012 – 2014) – merging of tax and customs services under the Ministry of Revenue and Duties, to which the functions of administration of single fee for obligatory state social insurance were transferred;

– *fifth stage* (2014 – to present time) – establishment of the State Fiscal Service of Ukraine on the basis of the Decree of the Cabinet of Ministers of Ukraine «On the establishment of the State Fiscal Service of Ukraine» dated May 21, 2014.

Chronology of the development of state fiscal bodies, which demonstrates a long and difficult way of their formation to effectively perform the tasks of monitoring compliance of tax laws, accuracy calculation, completeness and timeliness of payment of the budget, state targeted funds of revenue and duties (mandatory payments), and non-tax revenue, established by the legislation. In each country of the world the subordinate units or separately functioning institutions, whose range of tasks is to fight against and prevent economic crimes in the field of taxation.

Tax offense is antisocial and antifiscal activity that harms society, public relations or humans [1. p. 347]. Criminality is itself a relatively massive, historically changeable and social phenomenon of criminal nature. It consists of the totality of crimes committed in a particular country at a particular time, and crime prevention is defined as a set of interrelated measures taken by public authorities and public to reduce the level of criminality and overcome the causes and conditions that give rise to it.

Prophylaxis (prevention) of fiscal crimes is a special kind of realization of state influence measures, which is designed to ensure the safety of law enforcement values, and aimed to develop and implement special measures meant to identify and eliminate the determinants of crime (i.e. factors) in the field of taxation that cause crime) as well as to conduct a preventive maintenance for those who prone to illegal behavior [2. p. 136].

In Ukraine, units of the tax police is one of the authorities designed to carry out operational-search prevention of economic crimes. It is to be noted that, some separate principles of functioning of the structures were established in the period when our country was a the part of the Soviet Union. At that time, divisions of fighting against

embezzlement of socialist property and speculation were established on March 16, 1937 in the system of the People's Commissariat for Internal Affairs, later in the Ministry of Internal Affairs of the USSR. They were assigned a twofold task: to prevent and efficiently disclose economic crimes. That had enabled the formation of the full range of measures identified to prevent and disclose economic crimes in the operational units of the divisions of fighting against embezzlement of socialist property and speculation; as well as tactics of detection and elimination of circumstances that contribute to crime, identify specific individuals who may commit economic crimes were outlined. For reasons that are well known to all the issue of operational crime prevention in the field of economics were conditional and declarative. On a perfect level, the issue of operational prevention in the activities of units on fighting against crime in the sphere of economy, began to rise in the second half of the 50's, when, in fact, the experience of the divisions of fighting against *embezzlement of socialist property* and speculation was consolidated and creation of theoretical foundations of prevention activities in the field of economics had started, some objective conditions necessary for combination of measures of prevention and detection of crimes in the activities of operational divisions were formed as well as tactic of detection of crimes, establishment and detection of single population engaged in illegal activities in the field of economics.

In 1960–1970 legal regulation of activities of divisions of fighting against *embezzlement of socialist property* had been considerably improved which formed the basis for operational and preventive activities, ensured guarantees in compliance with the rule of law, conspiracy and efficiency. In the nineties the divisions of fighting against *embezzlement of socialist property* had been considerably improved was renamed as divisions of the Service of Economic Protection from Criminal Offenses.

According to the Decree of the Cabinet of Ministers of Ukraine dated July 5, 1993 No 510 with further amendments and completions and the Order of the Ministry of Internal Affairs dated August 10, 1993 No 474 the Service of Economic Protection from criminal offenses was reorganized into the State Service for Combating Economic Crime of the Ministry of Internal Affairs of Ukraine. Furthermore, according to the Decree of the Cabinet of Ministers of Ukraine dated January 31, 2001 No 69 the State Service for Combating Economic Crime of the Ministry of Internal Affairs of Ukraine was reorganized into the Department of State Service for Combating Economic Crime of the Ministry of Internal Affairs of Ukraine [3]. Thus, the process of formation of the tax police in Ukraine started in 1994, when tax police divisions of fighting against criminal concealment of income from taxation were created by the Ministry of Internal Affairs. The next stage of its development was characterized by the adoption of the Decree of President of Ukraine dated October 30, 1996 «On establishment of the State Tax Administration of Ukraine of the Main Administration of Tax Police», according to which the Tax Police and the State Tax Administration were united as one. By means of this Decree the divisions of fighting against criminal concealment of income from taxation of the Ministry of Internal Affairs came under the State Tax Administration.

More than two years the activity of the Tax Police under the State Tax Administration had no existing legislative provisions. On February 14, 1998, with the introduction of the Law of Ukraine «On Amendments to the Law of Ukraine» «On

State Tax Service of Ukraine», uncertain legal status of the tax police was only eliminated. However, at the end of 2016 due to a technical error the tax police had been actually outlawed by the Verkhovna Rada of Ukraine since January 1, 2017, leading to the active search aimed to establish effective national institutions of combating economic crimes in the field of economy.

Today, in Ukraine, among the Department of protection of the economy of the National Police of Ukraine of the Ministry of Internal Affairs of Ukraine, the Department of combating money laundering, proceeds of crime, the State Fiscal Service of Ukraine, there are separate divisions of combating economic crimes within the Office of the Prosecutor General, the Security Service, *the State Financial Monitoring Service* of Ukraine and the State Audit Service of Ukraine. The analysis of the activity of state institutions above mentioned, separate divisions of which involved in fighting against economic crimes against the state, indicates their rather large variety, substantial duplication of procedures for identifying, analyzing, monitoring and combating economic crimes, as well as the evidence of lack of effectiveness, high budget level for maintenance of above named institutions, and using such institution for for protection of political interest groups.

The economic and tax crime is a traditional phenomenon not only for Ukraine but also for developed countries in Europe and even in the world. In the countries of European region the system of fighting against economic crimes consists of the following components: police authorities; specialized law enforcement authorities; tax services; customs services; financial intelligence units; registers of taxpayers that play a role in a «history of tax payers».

It should be noted that, despite the very long experience in combating economic crimes, the institutional model of formation of authority capable of combating fiscal offense has not yet been *definitively recognized as* effective in the world. Therefore, examples of their functioning in different countries of the world are somewhat different, notably with respect to the type of state administration, nature of the distribution of powers of state authorities, parameters of the historical development of fiscal control institutions, legal status and a range of delegated powers of authorities, capable to combat and prevent tax crimes (see. Tab. 1)

The whole set of creating world models of combating economic crimes based on the criterion of authority and division of responsibilities can be summarized in three basic models, namely: 1) functioning of authorities, capable to combat tax criminality within the Ministry of Internal Affairs; 2) within the Ministry of Finance, or 3) as an integrated structure of authorities, capable to combat criminality in the field of economy.

Austria, Denmark, Mexico, Norway and Japan can be attributed to the the countries with the dominant first model that embodies the «police» approach and are characterized by the integration of the tax police in the structure of the police authorities. Therefore, «centralized» approach is presented in Italy, Greece, Turkey and Iceland, in which the tax police is subject to the Ministry of Finance. The symbiosis of combination of approaches above mentioned is a family of fiscal institutions of the Great Britain, Ireland, the Netherlands, Portugal and Spain, in which the differences between the structures of the tax police are to determine a range of functions of financial intelligence and classification of type of economic crimes.

Table 1

**The distribution of powers of authorities, capable
to combat economic crime in some countries of the world**

Country	Authority of subordination	
	Ministry of Internal Affairs	Ministry of Finance
Austria	Pc Fi LEf Fi	
Belgium	Pc Tc	Fi
UK	Pc Fi	
Greece	Pc	Fi LEf
Denmark	Pc Tc Cc Fi	
India	Pc	
Ireland	Pc Fi	
Iceland	Pc Fi	LEf
Spain	Pc	Fi
Italy	Pc	Fi LEf
Canada	Pc	Fi
Mexico	Pc Tc Cc	Fi
Niderdandy	Pc Fi	
Germany	Pc Fi	
Norway	Pc Tc Cc Fi	
Portugal	Pc Fi	
Slovenia	Pc Tc Cc	Fi
USA	Pc	Fi
Turkey	Pc	Fi LEf
France	Pc Tc	Fi
Czech Republic	Pc Tc	Fi
Switzerland	Pc Fi	
Japan	Pc Tc Cc Fi	

Additionally, the spectrum of measures: Pc – property crimes; Tc – tax crimes; Cc – customs offenses; Fi – financial intelligence; LE – law enforcement functions;

Source: compiled by the authors based on [4].

The unique model of creating functioning of the structure specializing in combating and prevention of all types of economic crimes is presented in Italy. Financial police in Italy (Guardia di Finanza), carrying out the functions of the judicial police, ensuring public order in cooperation with the other four types of formed police units, is subject to the Ministry of Economy and Finance, belongs to the Italian armed forces, has the power of the tax police, including preventing and combating currency, financial and tax offenses. The scope of the financial police is quite broad, since it encompassed areas such as protection of national and European financial interests, prevention of tax crimes, fighting against organized crimes, smuggling, counterfeiting of goods and currency, illegal building, drug trafficking, money funds, illegal immigration, fraud and in the Internet and gambling sphere. It should be noted that in Italy, the information received from chambers of commerce industrialists, artisans and *agricultural* workers; financial police; tax archives and card files of taxpayers; registry offices of civil vehicles and others is widely used to counter tax offenses.

The experience of Finland in the area of selection and creating own model of financial investigation service is quite valuable for Ukraine. In this country the special

data bank, that is daily updated with data from credit bureaus, auditors, shareholders registers companies, real estate inventories, information about shareholders, directors, managers, government officials and financial decision-makers is operating. The functioning of the bank makes it possible to obtain and organize relevant information about a particular individual, and its material property, income, expenditure, level of consumption and determine the likelihood of tax evasion [5. p. 69–73].

It is notable that drafted bill on the establishment of the financial police, confirmed in a memorandum with International Monetary Fund, except priorities of changing power approach into analytical; non-interference in the work of business; staff updating through transparent competition and independent selection committee (it is expected that representatives of the power block can not be more than 25% of the state); declared high level of financial support, provides for the staff reduction from 15 000 to 2 500 employees. It is positive development that the number of specialists in Great Britain of 63 million people with the annual average turnover of USD 2.865 trillion comprises 3000 persons. Thus, it is substantially lower than in Ukraine. The number of specialists in Ukraine of 43 million people with the annual average turnover of USD 80 billion comprises 15 000 persons. However, the apparatus of fiscal service consists of only 449 and 610 employees respectively in Lithuania and Georgia.

Undoubtedly, there is no single approach to the structure and quantity of fiscal institutions, however, in the course of introduction a particular model of service of fighting against economic criminality, Ukraine should focus on the examples which have a high rate of performance indicators. In particular, the Internal Revenue Service of the United States of America, being denied forcing functions, is considered one of the most efficient in the world, because it shows minimal expenses for maintaining of the service, including the main office, 7 regional and 58 district tax directorates. Thus, USD 1 is wasted for maintenance of the service, resulting in receiving USD 188.67 into the treasury.

Summing up the aforesaid, we consider that the principles of formation and functioning of effective system of fiscal institutions are essential for security and development. In this context, the model selection and adherence to the optimal and at the same time capable legal, organizational and management principles of activities of authorities of fighting against economic and tax offenses, which in the context of the civilizational transformations aimed to act in the fundamentally new economic and political conditions, comes into importance and becomes particularly relevant.

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7.2. Theoretical and applied paradigm of customs administration in Ukraine

«There is a very simple and obvious explanation for the differences between the two halves of Nogales that you've probably long since guessed: the very border that defines the two halves. Nogales, Arizona, is in the United States. Its inhabitants have access to the economic institutions of the United States... Those of Nogales, Sonora (Mexico) are not so lucky. These different institutions create very disparate incentives for the inhabitants of the two Nogaleses...» [1]

Daron Acemoglu, James Robinson

The modern plot of government actions on social and economic policy formation entails rethinking the role of the traditional methods of public resources accumulation. The search for new approaches that attract public and private mechanisms of influence on the economic sphere, a focus on the provision of modern public services in the developed world has shown itself in the concepts of public management, public administration. The objective necessity of the theoretical substantiation of the definition of «customs administration» is caused by the dynamic reorganization of the power-administrative functions of the customs authorities in the context of the development of the state service provider of the European model.

In the development of domestic financial science, customs administration has not found extensive discussion, but the basic scientific basis for its disclosure has been developed by D. L. Vovk, Ye. V. Dodin, I. O. Ivashchuk, O. F. Zaporozhets, B. A. Kormych, A. I. Kryovatyi, S. H. Levchenko, V. P. Martyniuk, P. V. Pashko, D. V. Pryimachenko, I. P. Yakovlev and others. Customs administration as a segment of theoretical knowledge has not yet become a direct subject of scientific development either at the monographic level or at the level of individual professional articles. However, in the higher school such disciplines «Customs-tariff administration», «Customs administration» are taught, and consequently, certain theoretical, methodological developments in this area take place.

In the economic literature, the administration is directly associated with the administration and management. In itself, these terms determine the existence of certain management activities. Administration (from English «Administration») means management, organization, implementation, performing, supervision (control); in a broad sense, it is the organizational and administrative activities of managers and management bodies, carried out by orders and instructions [2]. In today's economic dictionary, the term is associated exclusively with the management of the use of mandatory forms and methods [3].

The concept of «administration» most fully corresponds to the notion of power, since its main function is to determine policy of a particular social system, and definitions «guidance» and «management» are more related to direct people management, practical organization of the object of social management. Administration is identified as the management activities of managers and governing board, carried out mainly through orders, instructions, most often peculiar to the command-administrative system [4].

According to the popular encyclopaedia of public administration, public administration is a kind of management behaviour of public authority institutions, thanks to which the state and civil society ensure self-government (self-management) of the entire social system and its development in certain, specified direction [5]. The content of public administration is the activity of the subject of public administration aimed at fulfilling the powers of public content and using management tools, provision of administrative services, participation in the relations of the subjects of public administration, application of measures of influence for violation of rules established by the public administration [6].

Some researchers consider the notion of «public administration» as coordinated group actions and interaction of the legislative, executive and judicial branches of government in public affairs that play a significant role in shaping public policy and is part of the political process; differ from administration in the private sector and are connected with private groups and individuals working in various companies and communities [7].

Scientific substantiation of the notion «customs administration» should be made through the evolutionary-theoretical formation of fiscal and tax administration as components of public administration. In this context, the statement of the well-known Ukrainian financial scientist V. L. Andrushchenko: «Today, the doctrine of tax administration is at a high level in Western countries, where it received recognition and status as a separate discipline in the science of public administration. The mission of popularization of the latter on an international scale was undertaken by the United Nations, but this does not remove the task of spreading the world experience in Ukraine, as well as the independent development of issues of the methodology of tax administering at a nationwide scale. It is a question of the conceptual apparatus (key categories, subject and method of investigation) in the form of theoretical scientific knowledge» [8]. At the same time, the author claims that «... the role of the initial moment for the development of the science of fiscal administration is performed by German Cameralistics, which can rightfully be considered the prolegomena of fiscal administration as a branch of modern financial knowledge. In this case, the genetic method of research allows revealing the historical origin of fiscal administration, whose purpose is to find out the origins of certain phenomena, processes, doctrines. In XVII–XVIII centuries the Cameralwissenschaft (Cameral science, Cameralistics, Cameralism) was engendered among university professors – science intended to teach art of managing state property, filling the treasury and the profession of the tax collector».

An important component of public and fiscal administration is tax administration, although this is not the only definition in the segment of fiscal-management relations. As Professor A. I. Krysovatyi fairly observes, «the implementation of the tax policy in the part of tax administration is now associated with at least three terms, which are often used as synonyms.

This is «tax guidance», «tax management», and «tax administration». To elucidate the common features and differences between tax management and tax administration has not yet been given sufficient attention [9].

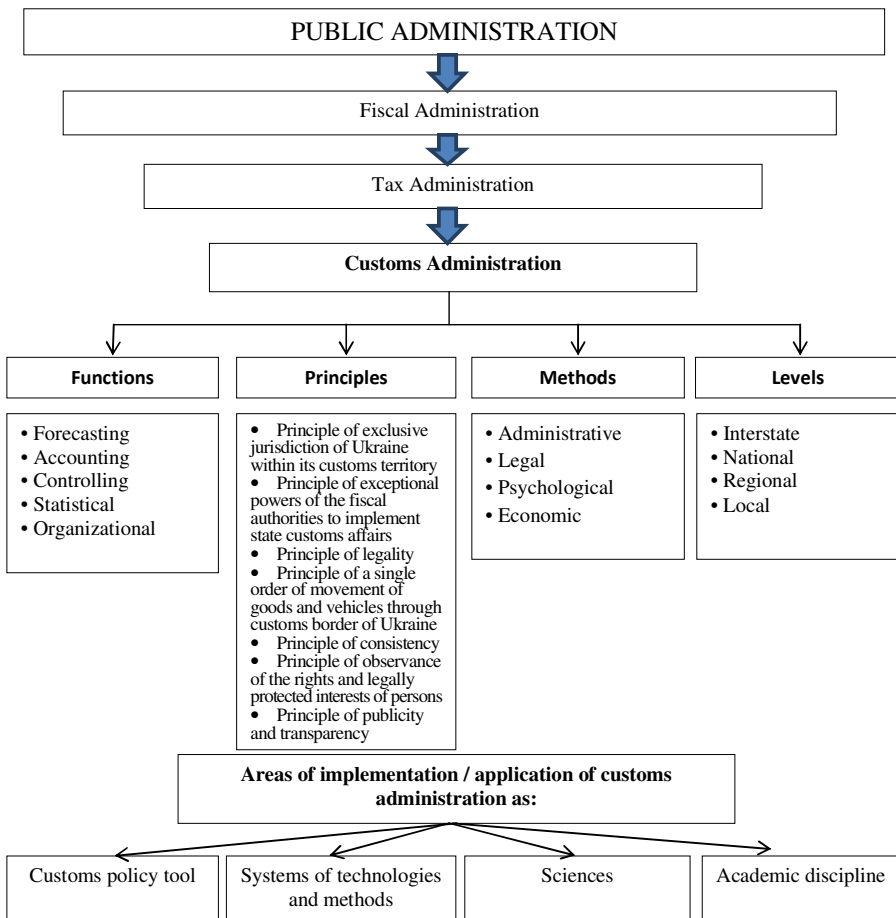


Fig. 1. Customs administration in a hierarchical system of concepts of public administration

Source: compiled by the authors.

The authors of the fundamental monograph «The Tax Policy of Ukraine: State, Problems, Prospects» give the following definition: «tax administration is a logically constructed, scientifically grounded process of state management of tax relations aimed at maximizing the functions of public welfare, provided that the specified budgetary constraint is met. Tax relations are managed by bodies that are delegated by the legislature with powers in the field of taxation. Achievement of the set goal is achieved through scientifically based application of methods, mechanisms, principles, forms and methodological procedures in the field of taxation» [10].

We agree with the position that «when describing the organizational and administrative process of tax administration, use the very notion of «administration»,

thus placing emphasis on the activities of bodies that are vested with certain administrative (imperious) powers. One of the key features of tax legal relations, the subjects of which are the state on the one hand and taxpayers on the other is the inequality of participants: the state in the person of controlling bodies makes a decision (transactions) that are mandatory for taxpayers. Tax relations are inherent in imperativeness, which is present in other types of management relations. In traditional management, as a way to manage production of primary inequality, participants do not exist: manager and employees have both rights and obligations that they took voluntarily (in particular, on the basis of an employment contract)» [11].

Analyzed theoretical arguments allow understanding administration as management, updated on the standards of «service state», open to cooperation with the public. The purpose of administration in the field of taxation is to ensure the repayment of tax liabilities of payers by optimal intervention in their economic activities through the application of legally established mechanisms and procedures [12].

Today, the Tax Code of Ukraine defines the concept of taxes administration, in particular the taxes administration, levies, customs payments,... in accordance with the legislation, the monitoring of compliance with which is entrusted to the controlling bodies is the totality of decisions and procedures of the controlling bodies and the actions of their officials defining the institutional structure of tax and customs relations, organize identification, accounting of taxpayers... and objects of taxation, provide service to taxpayers, organize and control the payment of taxes, fees, payments in accordance with the procedure established by law [13].

In a broad sense, customs administration is a specific methodology for management, a system of administrative methods and technologies to influence the sphere of foreign economic activity, organized and managed to perform the functions of regulation and control qualitatively, and to ensure social and economic efficiency of this sector of the economy. The administrative essence of customs administration is that it is a systemic organizational and technological impact of customs authorities on the scope of foreign economic activity with a view to its effective regulation and control. Such impact is always limited to a certain organization and procedures of implementing procedure and rules governing the right of legal entities and individuals to move goods and vehicles across the state customs border [14].

Administrative and legal nature of customs administration finds its application in the implementation of the main functions: the forecasting (regarding planning and forecasting the volume of customs payments controlled by customs authorities, the volume of goods, vehicles that will cross the customs border, etc.); accounting (regarding registration and account of subjects of foreign economic activity); controlling (regarding control and verification work of customs authorities, the implementation of customs control procedures while crossing the customs border of Ukraine); statistical (regarding maintenance of customs statistics conducting); organizational (regarding implementation of financial and economic activities of customs institutions).

Customs administration can be defined as a basic instrument of the customs policy of the state, which includes planning, organization, management, accounting and control, as well as science that forms principles of effective management of the

customs system in certain socio-economic conditions and socio-political circumstances, assesses the customs system in the light of certain theoretical criteria.

Turning to the disclosure of the specific features of the application of the term «customs administration», it should be noted that its highest prevalence was received as a means of characterizing the collection of customs payments, being harmonized with the features of the conceptual-categorical apparatus of tax law. In addition, there are cases of identification of «customs administration» and «administration of customs payments» in some theoretical developments [15]. We emphasize that it is erroneous to consider the spheres of «customs» and «customs payments» identical, that is why we should give a preference to the interpretations, which confer a relatively large amount of customs administration. Usually, its content lists the issues of organizing the administrative activities of customs authorities and its procedural support [16]. Svitlak I. significantly expands this definition: customs administration is a public administrative activity that is a combination of organizational and legal measures and actions carried out by the customs bodies of Ukraine within the limits of their powers in ensuring customs affairs [17].

Administration of customs payments is a set of norms (rules), methods, and means by which customs authorities carry out administrative activities in the customs sphere aimed at monitoring compliance with customs legislation, the accuracy of accrual, the completeness and timeliness of payment of customs payments (and in cases stipulated by the legislation of other payments, levying of which is laid on the customs authorities).

Customs administration is based on the principles under which it is implemented. The main ones are those that are formed on grounds of the bases for the implementation of the state customs, which are provided in the Customs Code of Ukraine [18], the principles of regulation and taxation in the implementation of foreign economic activity, which are presented in the Law of Ukraine «On Foreign Economic Activities».

Thus, we highlight the key ones among them and design them for the definition of «customs administration»: 1) principle of exclusive jurisdiction of Ukraine within its customs territory – it provides for the priority of national legislative system over all other; 2) principle of exclusive powers of fiscal authorities for the implementation of customs administration – it provides for the implementation of customs administration by the State Fiscal Service of Ukraine (customs authority) and imposition of responsibility for the effectiveness of its conduct; 3) principle of legality – it allows the fiscal tasks of customs administration to be performed solely on the basis, within the powers and in the manner determined by the relevant provisions of the laws of Ukraine; 4) principle of a unified procedure for the movement of goods and vehicles across the customs border of Ukraine – lies in the fact that any goods, or a vehicle, regardless of the purpose, form of property and destination, are subject to the common for all customs control; 5) principle of consistency – on the one hand considers the process of customs administration as the integral unit, consisting of a large number of interrelated elements, and on the other hand – it is the element of a higher level – the mechanism for implementing the fiscal authorities of customs policy; 6) principle of observing the rights and interests of

persons protected by law while ensuring the accrual and payment of customs payments, the implementation of customs control; 7) principle of publicity and transparency of customs administration.

Proceeding from the foregoing, we note that customs administration can be considered as a legally regulated system for managing relations in the customs sphere between the state (represented by fiscal (customs) bodies) and subjects of foreign economic activity aimed at promoting and developing foreign trade and the fulfillment by the customs authorities of fiscal, law enforcement, regulatory and control tasks.

Like any management system, customs administration should be a set of functional elements that can work exclusively in the current regulatory and legal framework, where international conventions, agreements, customs, taxation, budget legislation and other laws should be ratified by Ukraine.

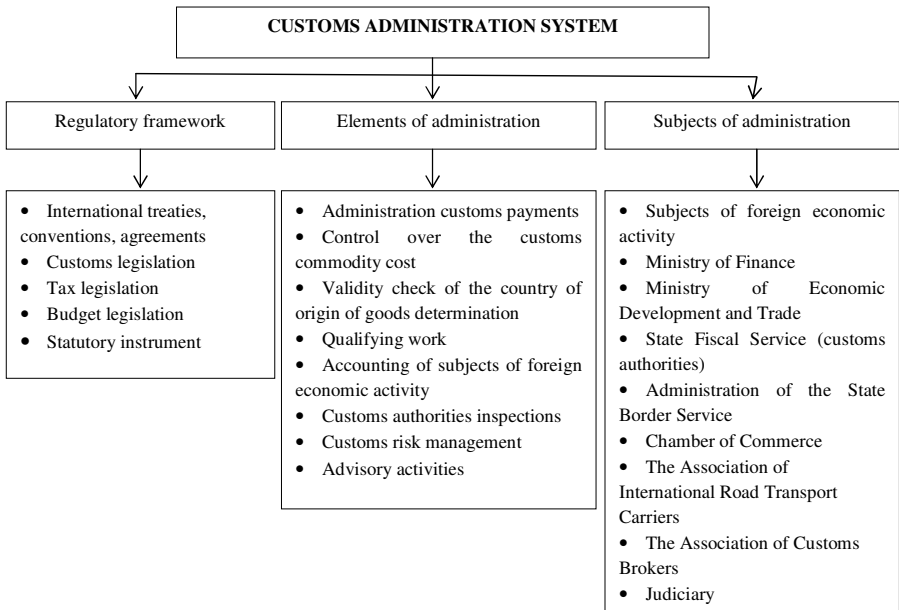


Fig. 2. Component structure of the customs administration system in Ukraine.

Source: compiled by the authors.

Elements of customs administration are reflected through the prism of administrative and legal functions, which are implemented in practice by customs authorities, namely: administration and control of the collection of customs payments; control procedures for determining the customs commodity costs, code and country of origin of goods, selection of customs risks, provision of advice on customs subjects, etc. As to the subjects of customs administration, they are: 1) participants in foreign economic activities, carrying out the movement of goods

across the customs border; 2) the state represented by authorized bodies (ministries of finance, economic development and trade, State Fiscal Service of Ukraine, public institutions, etc.); 3) judicial bodies, in legislatively determined cases, resolve disputes between state bodies and subjects of foreign economic activity and make other decisions in the sphere of foreign economic activity within their competence.

State Fiscal Service of Ukraine for today is dominant state body implementing customs administration in Ukraine. Scientific and practical controversy about the need and effectiveness of the association of tax and customs bodies in Ukraine does not stop. Issue on foreign economic agents and the ratings of international organizations is indicative for the analysis of the effectiveness of fiscal bodies in the customs area. Thus, in the Doing Business ranking of the World Bank of 2017 Ukraine was 115th in the world in the category of international trade – because of the significant expenditures of funds and time associated with the movement of goods across the border. In 2016, in the same category, Ukraine held 110th place. That is, for a year the situation not only did not improve, but worsened. This indicates the ineffectiveness of the activities of public authorities in the field of trade facilitation and customs administration [19].

The Organization for Economic Cooperation and Development (OECD) in 2015 estimated Ukraine on average 0.9 points (on a scale of 0 to 2 points) in terms of trade facilitation. At the same time, Ukraine has a strong position in this rating on such indicators as the availability of trade information and previous decisions of state structures regulating trade, and weaknesses are management and impartiality on the part of customs authorities, as well as internal and external cooperation of these bodies.

In 2016, surveyed subjects of foreign economic activity differ in assessing how effective the work of customs authorities. Only 13% of the enterprises surveyed consider the work of customs bodies to be effective and such that does not need any changes. 44% – the largest proportion of respondents – on the whole assess the work of customs as effective, but add that it requires some modifications. The rest of the enterprises give more critical assessments. 36% of the respondents believe that the customs authorities work inefficiently, but large-scale reforms can improve the situation. And 7% see the need to completely change the work of customs authorities, because, in their opinion, it is completely ineffective.

Imperfect customs legislation is the major problem for the surveyed enterprises, connected with the work of customs. 56% of the surveyed enterprises reported about this problem – this share is much larger than the proportion of respondents who pointed to other problems at the customs. 30% consider insufficient transparency and publicity at customs to be a problem, while 28% consider deliberately overstating the customs commodity cost, which, in their opinion, occurs at the customs to be a problem.

Approximately every fourth respondent pointed to such problems at customs as corruption and bribery (26%) and constant changes in the structure and leadership at customs (24%). 22% consider obsolete technical equipment, including computer equipment and software to be the problems of customs.

For today, another acute problem is being actualized: the reorganization of customs authorities. On March 29, 2017, the Government adopted Decree No. 237 «On Reforming Certain Territorial Authorities of the State Fiscal Service» [20], which modifies the peculiarities of customs bodies functioning.

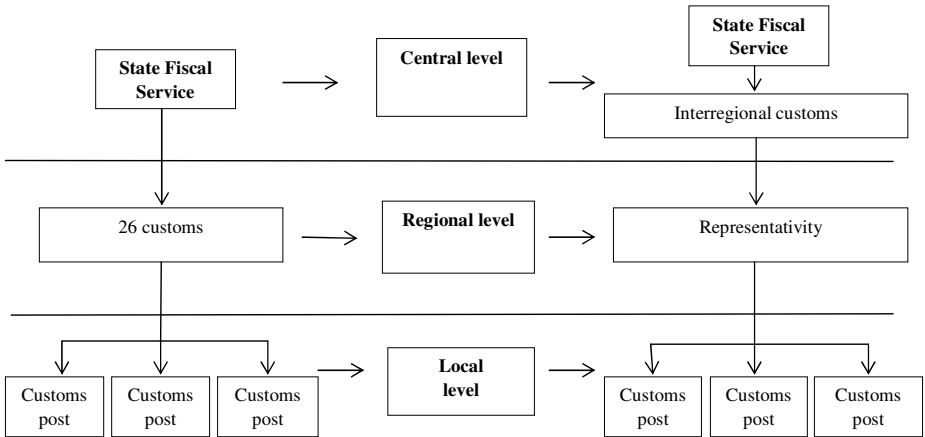


Fig. 3. Model of the reorganization of institutions implementing customs administration in Ukraine.

Source: compiled by the authors.

Thus, the Ministry of Finance has decided to centralize customs to strengthen control and manageability, while at the same time to centralize all customs processes. This is proposed to be done through liquidation as per May 1 of the current year the existing 26 regional and specialized customs and setting up one interregional customs in Kyiv with representative offices in the regions. We consider that this approach to the reorganization of bodies attending customs administration is not entirely justified. A new model of customs institutions will create certain inconveniences for the subjects of foreign economic activity and for the citizens, for example, on the speed of customs clearance, administrative appeal of actions of customs officers, litigation in cases of violation of customs regulations and the like.

It is known that more than 20 articles of the Customs Code of Ukraine describe the cases in which actions and decisions can only be taken by the head of the revenue and fee authority. Currently under such a head the heads of 25 customs are meant. After the reorganization, consideration of such cases will be difficult.

Representatives of a single Interregional Customs will be created at the regional level. It is difficult to say about their effectiveness, but the reorganization of the customs bodies is presented as another quasi-reform. We believe that a certain strengthening of the authority of customs at the central level is necessary, since now the customs component is represented by several departments that have been put on the back burner as part of the fiscal service.

In general, this approach of the Ukrainian authorities does not sustain improving the efficiency of customs administration in Ukraine, and therefore requires real and not «illustrative» modifications. Otherwise, the standards of customs administration in the European Union and Ukraine will bring the situation of the American-Mexican city of Nogales, when the border, the difference in institutions and approaches form a happy and unhappy population of the states.

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7.3. Individual social responsibility vs. tax behaviours of Poles

*«It is easy to spend money – everyone can do it.
But not everyone can decide to whom, how much,
when, for what purpose and how to transfer it.
This is, therefore, a rare, praiseworthy and noble skill»
Aristoteles*

A socially responsible individual should present care for both, the quality of life of his / her household members and the concern for proper relationships with the milieu, i. e. the society and the natural environment in which he/she lives. One of the dimensions of human activity is mutual help, which is carried out through the implementation of pro-social activities. The willingness to help and its actual realization for the benefit of someone in need is one of the fundamental moral standards. This attitude manifests itself in various forms of intensity: from selfless support and concern for the wellbeing of another person, through help resulting from one's own interest, which does not require giving up individual benefits or which provides mutual profits, down to reluctance in supporting others.

In Polish tax system charity activities are rewarded by the legislator, who allows taxpayers to take advantage of income tax preferences. The donor can deduct from his/her income/revenue the donations provided for statutory purposes, thereby optimizing his/her tax burden. It is also possible to submit the annual tax return and indicate an organization of public benefit, or even the specific person to whom 1% of the annual income tax should be dedicated.

The main purpose of this article is to discuss the rules and scope of deducting donations from income/revenue of a natural person in Polish tax law and to present the essence of «1% mechanism» transferred for public benefit organizations. Moreover, the author of the paper attempted to answer the research question – whether Poles, when engaging in helping other people, are guided to a larger extent by altruism or rather by pragmatism, which allows them to optimize their tax burden.

The basic research methods applied in the study are as follows: the critical analysis of legal acts and the subject literature, descriptive and statistical methods. The empirical data necessary for the analysis were collected, among others, from the reports of the Ministry of Finance published in the period 2014–2016.

Along with the development of sustainable development concept the new model of a human being emerged – *homo cooperativus*, which is in contradiction to the classical one – *homo oeconomicus*. It became the main link and a guarantee of the principle of justice realization, inspired by J. Rawl's theory of justice [21] and the theory of providing opportunities for self-fulfillment by A. Sen [24]. This new image recognizes limited rationality, responsibility, honesty and reciprocity as the qualities specific to an individual, it also reflects the ability of a person to cooperate, without excluding the desire to fulfil one's own interest, to show empathy, and also indicates the need for carrying out individually recognized values. Such person presents an inclination for selfish actions, but also the ability to follow the ideals of altruism and sacrifice [23, p. 192].

Homo cooperativus constitutes the manifestation of the concept referred to as Individual Social Responsibility (ISR). This concept describes the behaviour of people who care about proper quality of life (welfare and wellbeing) of their household members, however, while pursuing these intentions individuals should show concern for members of the society in which they live and act in harmony with the natural environment. ISR encompasses such activities as e. g.: upbringing of young generation, volunteering, charity actions support, blood donation, investing in socially responsible entities or consuming organic products [4, pp. 2–3]. In accordance with the aforementioned concept a socially responsible individual strives for proper relationships with the immediate and more distant milieu. The first includes e. g.: relatives, close friends, acquaintances, neighbours, colleagues, whereas the latter covers labour market entities, consumer goods and services, state and local government, as well as other members of the society.

One of the aspects of human activity is mutual help carried out through the implementation of pro-social activities, which are commonly referred to as any actions dedicated to the benefit of another person or a group of people [5, p. 13]. J. Reykowski classified human behaviours by taking into account the relationships between what is achieved as a result of an activity carried out by a given entity and what is achieved by others. According to him, pro-social behaviours include the following types of activities [22, pp. 27–28]:

- Altruistic – organized in such way that it is mainly someone else (another person, community) who gets the benefit, while the individual who helps in it bears the cost, sacrifices important personal goods (e.g. money, wealth, health, good name);
- Helpful – organized in such way that someone else gets the benefit, whereas the individual offering help bears only the natural costs of the activity performed (devotes time, effort);
- Co-operative – organized in such way that neither the subject nor the others benefit or suffer losses.

On the grounds of social psychology pro-social behaviours are most often defined as «the activities resulting in the success of another person, even if the act itself is performed based on the intention of obtaining an external reward (money or social approval) or an internal reward (e.g. improving one's mood)» [42, p. 400].

Many contemporary scholars argue that human actions are often motivated in a complex and multifaceted way, since they aim at both self-interest and the good of others (cf. [2, pp. 93–123; 8, pp. 557–570]). Thus, they fit in the concept of individual social responsibility and it is wrong to inquire whether rivalry or cooperation, competing with one another or helping each other, pursuing one's own or common interest, altruism or rather pragmatism remain the actual driving forces of human civilization.

Charity is the activity of a person or an institution consisting in providing selfless help to those who are in need, the willingness of making a sacrifice for the benefit of someone or something. Its definition shows that it is a broad concept, which covers different forms of activity for the benefit of others, taking the form of monetary, in kind or service oriented actions, as well as personal involvement of the donor [15, p. 127]. Sometimes charity is identified with philanthropy, even though it is not entirely

correct, since charity is understood as untargeted donation, whereas philanthropy (in Ancient Greek *φιλάνθρωπος philánthrōpos* – loving mankind) represents a specific goal-oriented behaviour [16, p. 134]. In the strict sense of this word, philanthropy is a secular idea inspired by the thought of humanitarianism, unlike such religious orders as: Christian *charity*, Muslim *zakat*, or *tzedakah* in Judaism.

As part of an ongoing research on citizen involvement in the affairs of the country and local communities, Public Opinion Research Centre (CBOS) checks the extent to which Poles support those in need, what are the forms and scope of such assistance [26]. In January 2016 a survey was conducted in a representative sample of 1063 random adults residing in Poland, which results show that – as in previous years – also in 2015 the vast majority of Poles (78%) tried, in some way, to help those in need (fig. 1).

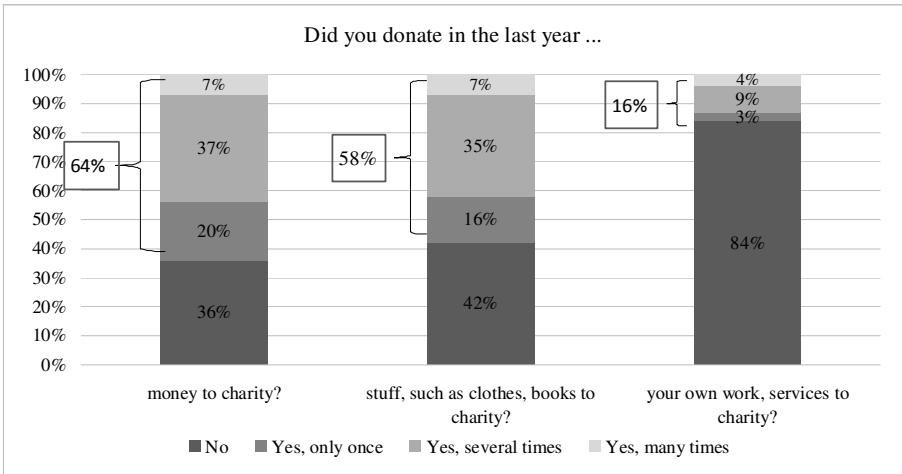


Fig. 1. Financial, in kind and service type of help offered by Poles in 2015.

Source: [26, p. 90].

Almost two-thirds of Poles (64%) donated money to charity, at least once, more than half (58%) provided aid in kind by donating to those in need e.g. clothes or books, and roughly every sixth Pole (16%) offered his/her own work or services for charity at least once [26, p. 91].

The forms of granted charity support, and especially their frequency, are extensively socially diversified. In 2015 the individuals who assess the income situation of their household as best, those earning the highest income per capita and presenting higher education acknowledge offering money and material goods relatively most frequently and, moreover, the inhabitants of the largest (over 500,000 inhabitants) and the smallest (less than 20,000 inhabitants) cities and also people who practice religiously several times a week. On the other hand, due to their professional status, they represent primarily: management staff as well as senior and middle level experts, and also administration and office workers. In addition, the financial support for those in need is slightly more often declared by the respondents

aged 35–44, whereas support in kind – respondents aged 45–54, more often women than man [26, p. 91].

Operating on the financial market is a certain set of financial behaviours performed by individuals. However, the term – behaviour is interpreted in the subject literature as «specific, physical and observable behaviour, as well as the accompanying mental processes, their motives and causes» [7, p. 38]. Some of the most important areas of consumer behaviours include financial behaviour. They represent such actions as e. g.: managing one's cash budget, saving, borrowing, investing, paying insurance and taxes, managing wealth [3, p. 439]. The subject literature distinguishes six types of tax related behaviour: tax compliance i.e. fulfilling tax obligations, tax shifting, legal tax evasion, tax compensation, illegal tax evasion, giving up the activity subject to taxation [19, pp. 65–66].

In the next part of the study the focus is on consumer behaviours related to taxes, which manifests itself in e.g. the possibility for optimizing tax burdens. The ultimate effect of such optimization depends on knowledge about the design of particular taxes, the rules of procedures and the institutions which create, enforce and control public-law obligations. The diversity of tax environment components related to households and their individualized nature result in taxpayers being able to adopt passive or active attitudes towards tax obligations [7, p. 310]. Passive attitude of a taxpayer towards tax liability is related to shifting the imposed burden without attempting to change the actual or legal circumstances which the legislator defined as subject to taxation, not applying tax reliefs and exemptions provided for in the tax structure, even if the taxpayer meets all the requirements entitling him to a relief or an exemption. Taxpayers' active attitude is tax oriented planning aimed at ensuring tax optimization, which means a legitimate choice of the model of action, which allows minimizing the total tax burden, e.g. by taking advantage of tax preferences.

A donation represents the method of providing financial or material support for an individual who needs help. It is an example of the so-called unilateral commitment agreement, i.e. only the donor is committed, whereas the beneficiary is not obliged to provide any reciprocal contribution to the donor, or any other person indicated by him/her [9, p. 48]. A measurable benefit to the donor, apart from the sense of satisfaction from helping another person, is the possibility of deducting the granted donation from income/revenue, thereby reducing the tax payable.

Taxpayers settling their income may take advantage of a donation deduction under the Personal Income Tax Act [35], the Flat Rate Income Tax Act on certain incomes earned by natural persons [29] and based on the laws regulating the relationship between the state and the church [27; 28; 30; 31; 32; 36; 37; 38; 39; 40; 41]. The fundamental difference arising from these legal acts concerns primarily the purpose and the amount of the donation deduction. In the first case, the donation deduction is restrained by the 6% limit of the income earned, and in the second case – i.e. donations for charity and care activities – no restrictions apply and therefore a taxpayer may transfer his/her entire income for this purpose, reduced only by the social security contributions [9, p. 48].

Art. 1 par. 1 point 9 letter a) of the Personal Income Tax Act [35] provides that income before tax (in case of flat rate payers income is crucial) is reduced by the

amount of **donations given to non-governmental organizations** which carry out charity oriented goals by performing **public benefit activities in the sphere of public tasks**. Such socially useful activities are defined in the Public Benefit and Volunteering Act [34]. They include activities in the area of e.g.: social assistance, fighting occupational exclusion, charity activities, health protection and promotion, activities for the benefit of people with disabilities and pensioners. Moreover, the Act lists many other activities in the field of culture, national heritage, education, lifesaving, or even tourism etc. [6, pp. 75–76].

Donations are not subject to deductions if they are granted to political parties, trade unions and employers' organizations, occupational self-governments and foundations established by political parties, but also the ones donated directly to natural persons. In order to deduct, in the annual PIT, a gift bought for a particular poor child, it would have to be donated to this child through a public benefit organization.

In formal terms, to deduct the received donations, the donor has to have the documents confirming granting the donation and indicating its value. The donation in cash has to be confirmed by the proof of payment to the beneficiary's bank account (adequate institution). In case of donations in kind the donor must have the proof which clearly presents the data identifying the donor and the value of the donation made, along with the statement of the beneficiary about accepting it.

The average number of Poles including donations to public benefit organizations in their income tax settlement was 120 thous. in the period 2013–2015, i.e. approx. 0.48% of all taxpayers (tab. 1). The amount of such deductions was increasing year by year across the country, so that in 2015 it amounted to PLN 113 884 thous., which is PLN 865 per taxpayer using the discussed preference.

A relief for religious worship is income deductible. Unfortunately, the legislator does not specify how this term should be understood. Therefore, administrative courts and tax authorities attempted to explain what exactly religious worship is by providing guidance in the issued decisions and tax interpretations. According to Tax Chamber in Katowice, the donations for religious worship represent the means dedicated predominantly to: construction or renovation works, furnishing a church or the purchase of liturgical items. This institution explained that donations can be dedicated to e. g. churches, religious associations or church legal persons (convents, parishes etc.) [25]. The First Tax Office in Łódź-Górna decided regarding the interpretation of the tax law that the relief covers donations provided for the purchase of liturgical vestments, liturgical vessels, communicants, altar wines and also the expenses for church decoration, heating, water, cleaning agents, electricity or the expenses related to the remuneration of people working for the parish.

Similarly to the donations made for public benefit organizations, a taxpayer attempting to take advantage of income deduction must complete the formalities, i.e. have documents showing – to whom, how much and for what purpose the donation was made.

The number of taxpayers reporting donations for religious purposes in their income statement was, in the period 2013–2015, very similar to the number of taxpayers who reduced their income before tax by the donations granted to public benefit organizations, i. e. amounted to approx. 0.52% of all taxpayers (tab. 1). The average amount deducted by a taxpayer was slightly higher reaching the amount of PLN 1107 in 2015.

Table 1

**Donations included in the annual tax settlement in Poland
in the years 2013–2015**

Donations	For the purposes defined in the Act on Public Benefit and Volunteering, provided to organizations carrying out public benefit activities in the field of public tasks implementing charity goals			For the purposes of religious worship			For the purposes of blood donation			For charity and care activities of church legal persons		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Number of taxpayers included in the donation tax settlement (thous.)	108,3	114,1	131,6	120,7	126,2	135,1	113,3	121,2	133,7	23,6	22,3	23,8
% of all taxpayers	0,44	0,47	0,54	0,50	0,52	0,55	0,47	0,50	0,54	0,10	0,09	0,10
Deducted amount (PLN million)	90,3	100,4	113,9	134,9	139,1	149,5	24,1	25,4	28,2	78,1	71,8	73,0
Average amount deducted by a taxpayer (PLN)	834	879	865	1 118	1 103	1 107	213	210	211	3 308	3 220	3 071

Source: Author's compilation based on: [11, pp. 17–18; 12, pp. 17–18; 13, pp. 23–24].

In Poland about 600 thous. people become honorary blood donors every year. Not many, however, take advantage of the preference commonly referred to as the «**relief for blood**» – approx. 20% (tab. 2). According to the Ministry of Finance data each year the relief for blood is accounted by only about 120 thous. taxpayers. The donations provided for the purposes of blood donation centres, carried out by the honorary blood donors in accordance with the Public Service Act of 22 August 1997, are deductible from income [33]. Preferences may be given to those paying flat rate on the recorded revenues, and also the ones who are taxed according to the tax scale. The first deduct the relief from their revenue, the latter from income. The relief is calculated by multiplying the volume of blood, or its components, donated free of charge in litres by the amount of PLN 130 (i.e. the amount of statutory compensation) [20].

Table 2

**The number of honorary blood donors and the number
of taxpayers deducting the relief for blood in Poland in the years 2013–2015**

Year	The number of honorary blood donors (thous.)	The number of taxpayers deducting the relief for blood (thous.)
2015	605	134
2014	590	121
2013	616	113

Source: Author's compilation based on: [18; 20].

A woman can donate the maximum of 1.8 litres of blood per year, whereas a man 2.7 litres. Thus, tax savings will not be too big and will amount to approx. 200–230 PLN, i. e. as much as an average honorary blood donor deducted from income (see tab. 1). In order to take advantage of the relief for blood the PIT/O form has to be filled in and included in the annual tax return. The name and address of the public unit, where blood was donated, has to be entered in the column entitled «information about the beneficiary». The required document, confirming the donation is a certificate issued by such unit about the volume of blood or plasma donated free of charge.

The fourth of the presented tax preference refers to the **donation for charity and care activities of church legal persons**. It can be deducted as the total amount, even up to 100% of the income earned. The relief refers to the support provided by the taxpayer in particular for: running establishments for orphans, physically or mentally handicapped people and other categories of people in need of care; running hospitals and other medical facilities as well as pharmacies; running crèches, shelters, dormitories and hostels; providing holiday support for children and young people in need; promoting the idea of helping fellow human beings and social attitudes which favour these ideas.

The right to deduct donations for charity and care purposes results from the so-called «Church Laws» regulating the approach of the Republic of Poland to the following types of churches: Catholic Church, Polish Autocephalous Orthodox Church, Seventh-day Adventists, Baptist Christians, Evangelical-Augsburg, Evangelical-Methodist, Pentecostal, Old Catholic Maravite, Catholic Mariavite, Polish Catholics and Evangelical-Reformed Church [27; 28; 30; 31; 32; 36; 37; 38; 39; 40; 41].

The statistical data published by the Department of Income Taxes in the Ministry of Finance indicate that the fewest taxpayers used this kind of taxation preference in the years 2013–2015, i. e. approx. 23 thous., but the amounts written off by them were relatively high since they ranged from PLN 3 071 to PLN 3 308. The reason for such situation may be, firstly, the fact that the deductible limits on income do not apply in this case, and secondly, the condition for using this relief is to provide tax authorities not only with the documents confirming the donation, but also with a report on the donation being used for church charity and care oriented activities, which the beneficiary has to supply the donor with within two years from receiving the donation, and the letter is obliged to present this document in the tax office.

The «1% mechanism» is an institution introduced to the tax system in Poland on 1 January 2004. It regulates the transfer of 1% of personal income tax by taxpayers (i. e. natural persons) to an individually selected public benefit organization (OPP). Initially, i. e. until 2006, the mechanism of subsidizing OPPs with 1% tax due was quite complicated and took the form of a typical tax relief. A taxpayer, only after making a donation to a public benefit organization of his/her choice, could deduct no more than 1% of the tax due. Such construction certainly did not have positive impact on taxpayers' interest in this form of subsidy for the benefit of OPPs, as it required covering additional costs and investing time to be spent on donating a particular amount to the individually selected OPP. Furthermore, a taxpayer had to have free financial means at the disposal to make the payment first, which was later deducted from tax. The condition for applying the deduction was also documenting the payment made to the OPP's bank account in the given tax year [17, p. 292].

Since 2007 taxpayers no longer transfer 1% of their tax directly to the selected organization, but use tax authorities as an intermediary. It is based on an application for donating 1% of the tax due, which is an integral part of the tax return. The money is transferred to appropriate entities, through the head of tax office, within three months of the deadline for submitting the tax return.

The statistical data collected by the Ministry of Finance show that there is a steady growing trend in the number of taxpayers in Poland who have donated 1% of their personal income tax to public benefit organizations (see fig. 2). The largest increase by 320% occurred in 2008 and was the consequence of changes in the way of allocating 1% tax. Each year an increasing amount of money is donated to public benefit organizations and as of 15th September 2016 it was PLN 617,5 million. The number of taxpayers who submitted applications for donating 1% of their tax due to public benefit organizations in 2015 amounted to 13,2 million, which accounted for 49% of the total number of taxpayers [10, p. 2]. Moreover, in the first years of the analysed period, i.e. until 2011, there was a decreasing tendency in the average amount transferred for the benefit of OPPs calculated per one taxpayer declaring the payment, whereas in the subsequent years an increase to PLN 46,85 in 2016 was recorded.

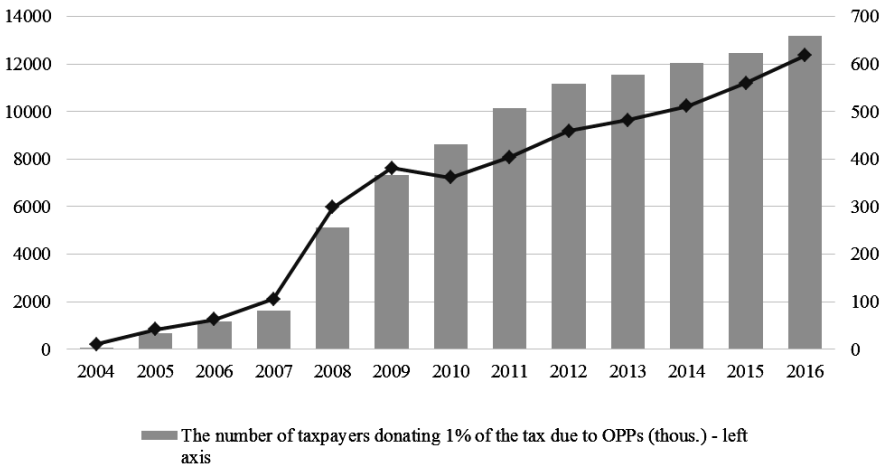


Fig. 2: Taxpayers and amounts of 1% personal income tax in Poland in 2004–2016.

Source: author's compilation based on [10, p. 6].

According to the reports by the Ministry of Finance, in 2016, as in previous years, most of the taxpayers' money was paid to several dozens of the largest out of the 8108 OPPs eligible to receive 1%, which earned the total of PLN 617,5 million. The amount of funding for one public benefit organization in 2016 ranged from PLN 144 082 857,97, which was donated to the Foundation for Children «In time with Help», to the amount of PLN 1,30 donated to the Voluntary Fire Brigade in Majdan Kawęczynski. The foundations focused on supporting sick and disabled children were most often supported.

It is interesting to find out why half of those eligible refrain from subsidizing public benefit organizations. Klon/Jawor Association attempted to answer this question in the report entitled «Social involvement of Poles – volunteering, philanthropy, 1% and the image of NGOs», which was published in 2014 [1, pp. 86–87] and identified the reasons for refraining from the provision of 1% to OPPs (fig. 3).

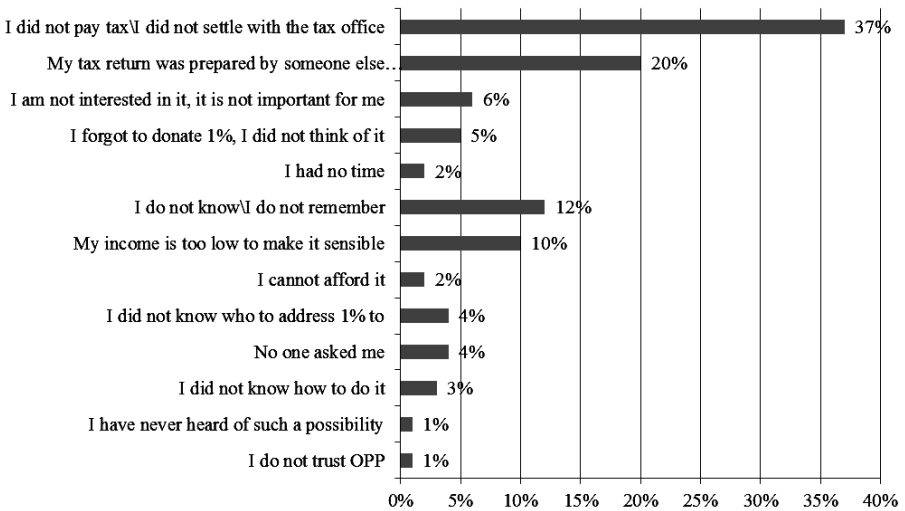


Fig. 3. Reasons for non-transfer of 1% to public benefit organizations.

Source: [1, p. 87].

The respondents who declared refraining from the donation of 1% tax to OPP were providing a variety of reasons for such decision: from external factors and lack of interest, to ignorance, low income and no trust. More than half (57%) of all respondents replied that they did not donate 1% of their tax due to anyone because of external factors: 37% of them did not settle with the tax office at all, whereas one fifth (20%) answered that their settlement was prepared by someone else, therefore they did not have an opportunity to make such a deduction. Among them there are mainly senior citizens who do not settle with the tax office directly (they are not obliged to submit tax return because they are settled either by the Social Insurance Institution or by the Farmers’ Social Security Fund) and in order to donate 1% tax to OPP they would have to report specifically such a desire in the tax office. A similar situation referred to those who submitted appropriate applications authorizing their employer to settle them with the tax office on their behalf. What is more, this group of respondents included Poles not earning any revenues, e.g. young and inactive on labour market, as well as those working abroad or performing «undocumented work».

In total, more than one eighth (13%) of the respondents showed the absence of socially responsible attitudes. Among them were those who simply declared no interest in an opportunity to support OPP activities (6%), 5% of the respondents did

not think or forgot about it, whereas 2% claimed they had no time. In total, more than one tenth (11%) of the respondents reported having too low income as the reason for lack of donation to OPP. One in ten (10%) decided that due to low earnings transferring 1% of their tax would be useless, as the support would be insignificant. Other reasons why Poles did not donate 1% tax to public benefit organizations in 2013 are presented in fig. 3.

To sum up, the absence of active participation of Poles in the «1% mechanism» results primarily from external causes, independent from them, and also ignorance, which should be counteracted and, to a much lesser extent, from reluctance in providing help to those in need.

Nowadays, a human being and the motives of his/her actions are analysed not only through the prism of maximizing usefulness, but also in the context of individual social responsibility. This attitude manifests itself in e.g. mutual help, which is beneficial for all members of the society. The beneficiary receives material or non-material support and the donor feels satisfied with following a path that is friendly to others, which is a reward for him/her for the costs incurred and the invested organizational effort.

Donations, apart from improving the self-esteem of donors are also not indifferent for the economy of the country. The gift of one person translates into economy as a multiplier. The provided donations serve equalizing opportunities, fighting exclusion, striving for social cohesion and increasing the availability of public goods. One charity action usually affects more than one entity. It has been found that large-scale charity activities supersede budgetary resources. The reverse is also true. The state budget support transfers funds originating from donations to other purposes (less supported from the budgeted). Hence, public finance is interested in tax solutions supporting charity activities of their taxpayers.

In Polish tax system charity is rewarded by the legislator, who allows taking advantage of income tax preferences. A donor can deduct from his/her income/revenue the donations provided for specific statutory purposes, thereby optimizing the amount of tax burden. A donor can also submit the annual tax return and indicate the public benefit organization to which he/she wants to transfer 1% income tax.

At the same time, the statistics and data presented in the article show that Poles, when engaging in helping others, are more altruistic and willing to help one another than pragmatic to benefit from tax reliefs and to optimize their tax burden. The number of people declaring that they provided financial or non-material support in 2015 (more than 50% of Poles) was much higher than the number of taxpayers who used the fact of helping another person in order to reduce their obligations to the state treasury, since as the collected data show only approx. 0.5 % of taxpayers deducted donations from their tax due. In the same year over 600 thous. people donated blood, but only about 130 thous. took advantage of the so-called «relief for blood». Finally, the dynamically growing scale of 1% personal income tax transfer to the chosen OPP – in 2015 49% taxpayers benefited from this possibility – demonstrates the involvement of Poles in the socially significant matters. Only a small percentage of taxpayers, who did not support any public benefit organization with one percent of their tax (13%) did it purposefully and thus showed no social responsibility.

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7.4. Formation of tax culture in context of American and Ukrainian experiences

The fundamental feature of a democratic state is compliance with laws by citizens, including fulfilment of constitutional duties to pay taxes in the manner and amounts which are prescribed by law. This issue is particularly important for Ukraine today, in the period when the tax system does not meet the real demands of society, is destructive and the public and private sectors are not able to provide sufficient and stable tax revenues. At the same time tax payments is not associated with getting benefits or preferences, social benefits and services are not available directly to consumers [1, p. 231].

The main function of the Ukrainian tax system is fiscal. It aims to increase budget revenues for any reason and without compromise. Most taxpayers hold in distrust with the system of distribution of budgetary funds. High taxes affect the economic behaviour of citizens. They change their ethical standards and ideals, forced to adapt to the strict fiscal conditions. Thus, individual pragmatism is opposed to the principles of social

ethics, expediency rub shoulders with selfishness in the tax system, according to the authors of the monograph «The State – Taxes – Business» [2, p. 228].

It is also necessary to notice that taxpayers do not accept the basic principles of taxation, one of which is the following paradigm that the taxes are the basis of prosperity of state and society. Most of them do not understand why they are forced to pay taxes, and thereby deprive them of a large part of earned income. Tax evasion practically does not influence the business reputation in Ukraine, and the number of penalties for tax crimes is too small. Unfortunately, society indirectly supports those who do not pay taxes which are established by law. The issue of tax culture is extremely relevant in this context, during the formation of a democratic state.

The eccentric phrase of Oliver W. Holmes Jr. (USA Supreme Court Justice): «I hate paying taxes. But I love the civilization they give me» [3], have burnt into the souls of the Americans. The process of taxation is understood as socially useful action, by the Americans, in spite of the excessive tax burden. Tax mechanism in the USA is formed in a way that each citizen, when pays taxes, feels the cash flow in all level of the budget system. Any expenditures, such as on defence, economy, education, social protection, health protection etc., they call as taxpayer money.

The Ukrainians instead understand the tax as required, gratuitous, irrevocable and unconditional payment as a result of the payment of which attempts to get in return public goods and services do not have practical realization. The fact that filling of the budget is due to the payment of taxes (as is shown in Figure 1, they include 26.4% of GDP in the USA, 32.9% of GDP – in Ukraine, 34.3% of GDP – in OECD countries) shows that this opinion is wrong, and there are no other such important sources actually. Therefore, the role of taxes should increase in the formation of civil society and ideology of payers should be changed towards the realization of the necessity of its payment.

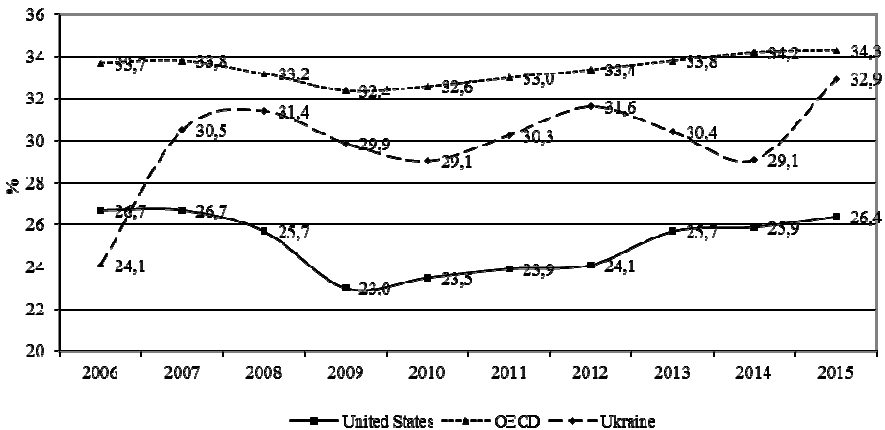


Fig. 1. Tax-to-GDP ratio over time.

Note. Is based on [4].

The duty of paying taxes, which is equivalent to such fundamental principles of the functioning of a democratic state as the protection of the state, its independence and territorial integrity, equality of men before the law, observance of rights and freedoms of citizens, formed over the centuries, in the USA. The process of taxation was considered as robbery by the state for a long period of time. Authentic origin of this hypothesis is connected with coercion, in other words, deprivation of citizens of income or ownership right in profit of state. Therefore, taxes are considered as great evil, it was necessary to draw attention to them temporarily, if it was special conditions or when there were not alternative ways to finance the outlay.

Any innovations in the tax area have always met with taxpayers' resistance, even in the USA. «I am proud to be paying taxes in the United States. The only thing is – I could be just as proud for half the money» [5], as Arthur Godfrey wrote. He is right in some way, because this is no ideal tax, therefore the tax work of democratic governments and totalitarian regimes does not stop all over the world until this day. They try to form, in this case, such architecture fiscal relations, which would allow by its similarity, mobilize to the budget amount of funds which will be enough for financing of public goods and services without oppressing of economic development at the same [6, p. 345].

However, it was not possible at all time, as a result tax evasion is prevalent both the United States and Ukraine. If we take into account our country, gaps in fiscal policy are one reason of low level of payment of taxes it should be noted because it is not clear far for citizens almost. Small and excessive tax evasion took hold in society too much and it is very difficult to overcome this tendency for today. It is appropriate to think that tax evasion together with black economy and organized crime fills the gap between legal laws and the moral principle of society [2, p. 316].

Moral and psychological condition of taxpayers is one of reasons why this is a tax crime in society. People have a negative attitude towards the tax system. Legal nihilism together with this provokes a massive noncompliance with the laws which regulate the tax relations and have caused material damage to the state. Society does not understands that the income reduction or other objects of taxation, non-provision of documents which are necessary for tax computation, submitting of fake data, illegally obtaining of tax benefits are crimes. This situation can be easily explained by the fact that the Ukrainians have very low level of tax culture.

Other situation is formed in the USA. For example, taxpayers can file a claim with the state administration as to prevent the waste of budget funds, if they prove discrepancy of this waste. It is because financing of social requirements provided by taxpayers finally. The ability to file such claim significant consolidates their status and allows use their constitutional rights in full and fell themselves as a citizen with full rights. Tax culture lies as deep in the minds of Americans as it seems that it enshrined in their genes [7].

They realized long ago and comply with the opinion, that progress of democracy is impossible without mutual trust between the state and citizens, without deepening of the dialogue between tax authorities and taxpayers, without compliance with the high level of tax culture. IRS monitors execution of the taxation laws, lays down the rules for taxpayers, as the state agency of the Federal Government of the USA, which provides the tax collection. (Table 1). If you perform these rules, it is possible to organize tax relations, because the right to honest and fair tax system is in their basis.

The fundamental rights for American taxpayers

Rights	Characteristic
Taxpayer Bill of Rights: #1, The Right to Be Informed	Taxpayers have the right to know what they need to do to comply with the tax laws. They are entitled to clear explanations of the laws and IRS procedures in all tax forms, instructions, publications, notices and correspondence. They have the right to be informed of IRS decisions about their tax accounts and to receive clear explanations of the outcomes.
Taxpayer Bill of Rights: #2, The Right to Quality Service	Taxpayers have the right to receive prompt, courteous, and professional assistance in their dealings with the IRS, to be spoken to in a way they can easily understand, to receive clear and easily understandable communications from the IRS, and to speak to a supervisor about inadequate service.
Taxpayer Bill of Rights: #3, The Right to Pay No More than the Correct Amount of Tax	Taxpayers have the right to pay only the amount of tax legally due, including interest and penalties, and to have the IRS apply all tax payments properly.
Taxpayer Bill of Rights: #4, The Right to Challenge the IRS's Position and Be Heard	Taxpayers have the right to raise objections and provide additional documentation in response to formal IRS actions or proposed actions, to expect that the IRS will consider their timely objections and documentation promptly and fairly, and to receive a response if the IRS does not agree with their position.
Taxpayer Bill of Rights: #5, The Right to Appeal an IRS Decision in an Independent Forum	Taxpayers are entitled to a fair and impartial administrative appeal of most IRS decisions, including many penalties, and have the right to receive a written response regarding the Office of Appeals' decision. Taxpayers generally have the right to take their cases to court.
Taxpayer Bill of Rights: #6, The Right to Finality	Taxpayers have the right to know the maximum amount of time they have to challenge the IRS's position as well as the maximum amount of time the IRS has to audit a particular tax year or collect a tax debt. Taxpayers have the right to know when the IRS has finished an audit.
Taxpayer Bill of Rights: #7, The Right to Privacy	Taxpayers have the right to expect that any IRS inquiry, examination, or enforcement action will comply with the law and be no more intrusive than necessary, and will respect all due process rights, including search and seizure protections and will provide, where applicable, a collection due process hearing.
Taxpayer Bill of Rights: #8, The Right to Confidentiality	Taxpayers have the right to expect that any information they provide to the IRS will not be disclosed unless authorized by the taxpayer or by law. Taxpayers have the right to expect appropriate action will be taken against employees, return preparers, and others who wrongfully use or disclose taxpayer return information.
Taxpayer Bill of Rights: #9, The Right to Retain Representation	Taxpayers have the right to retain an authorized representative of their choice to represent them in their dealings with the IRS. Taxpayers have the right to seek assistance from a Low Income Taxpayer Clinic if they cannot afford representation.
Taxpayer Bill of Rights: #10, The Right to a Fair and Just Tax System	Taxpayers have the right to expect the tax system to consider facts and circumstances that might affect their underlying liabilities, ability to pay, or ability to provide information timely. Taxpayers have the right to receive assistance from the Taxpayer Advocate Service if they are experiencing financial difficulty or if the IRS has not resolved their tax issues properly and timely through its normal channels.

Note. Is based on [8].

«The Right to Be Informed» means that taxpayers have the right to have complete and accurate information about their actions for execution of the taxation laws. They have the right to an explanation of the laws and procedures of the IRS in all tax forms, instructions, publications, reports and correspondence. Taxpayers are obligated to be informed about the decision of IRS in relation to their tax accounts and clear explanation about completion of the consideration of their matter in accordance with this law. This is achieved through the development of online services and networks of financial consultants in terms of development of information technology.

This is one more rule for taxpayers. It is «The Right to Quality Service». They have the right in particular, get priority, polite and professional help communicate in the language which is simple and understandable for them, receive messages and explanations which are clear and understandable for them, file a complaint to the management if they were serviced in inadequate manner, in their relations with the IRS. Deep trust and organic relations between taxpayers with employees of tax service bodies is felt today in the organization of tax relations in the USA, in this context they ensure compliance with the requirements of a high level of tax culture.

If we take into account Ukraine, taxpayers are almost helpless before the tax authorities. This is because any mistake in the payment of taxes is punished by financial penalties. Tax authorities are not interested in helping to business entities and citizens to perform tax regulations. If proceed from interest of the tax authorities, by contrast, the worse taxpayers know the tax laws and make more mistakes, the better for them because part of back taxes and penalties goes to the financing of the tax service.

The rule «The Right to Pay No More than the Correct Amount of Tax» is quite logical. Taxpayers have the right, according to it, to pay only that amount of taxes that is required by law, including interest and penalties, and expect that the IRS will take into account all taxes paid in the prescribed manner. There are similarities in this rule with rule which was developed in the Ukrainian legislation. First similarity is the generality of taxation – each person must pay taxes which are established by the Tax Code of Ukraine. Second similarity is a common approach to the establishment of taxes – determination of all required elements of tax in terms of legislation [9].

«The Right to Challenge the IRS's Position and Be Heard» means that taxpayers have the right to raise objections and show additional documentation in response to the already made or only offered official measures of IRS, count on the fact that the IRS will consider objections and documents which have been filed on time without delay and fairly. Taxpayers have the right also on the fair and impartial appeal of most IRS decisions, including many kinds of penalties administratively. It is written about it in the separate chapter, particularly «The Right to Appeal an IRS Decision in an Independent Forum».

«The Right to Privacy» is also the important rule. Taxpayers have a right to expect that, that any request consideration of case or enforcement measure on the part of IRS will be conducted according to the law without exceeding of required limits of intrusion in the private life, in full compliance with all appropriate legal procedures, including protection against searches, and in cases which are stipulated by the rules

expect to collections if the objection will be considered properly. Taxmen are representatives of public interests, of course, they should to strengthen the positive image and authority of the Tax Service by means of their acts and actions, and they should value their name and reputation.

The rules of conduct which are respected by tax officials in Ukraine, should promote to compliance of the principle of protection of tax information. For example, taxpayers have the right to expect that any information which is provided to IRS will not be disclosed without the consent of the taxpayer or without the approval of the law in the USA. This means «The Right to Confidentiality» in tax laws. Taxpayers have the right, in addition, expect that IRS employees will bear appropriate penalties if they disclose or use information from the tax declaration.

«The Right to Retain Representation» is one more rule. Taxpayers have the right, in other words, to hire an authorized representative for representation of their interests before the IRS. If the taxpayer cannot allow it, they can apply to the Low Income Taxpayer Clinic or if they struggle financially they can apply to the Taxpayer Advocate Service. «The Right to a Fair and Just Tax System» means that, taxpayers have a right to expect that the tax system takes into account the facts and circumstances that could affect their status of debtors, paying capacity or the ability to provide information timely.

All in all, there are some principles in the Tax Code of Ukraine which USA tax authorities can take on board. This is because competence, legal certainty and equality before the law are main principles in highly developed democratic society. They provide priority of rights and freedoms of man and citizen. That is why equality of all taxpayers before the law, prevention of any form of tax discrimination means that the same approach will be provided to all taxpayers independently from their social, racial, national, religious affiliation, ownership of legal entity, individual citizenship, etc.

This is also one more important rule in the Tax Code of Ukraine it sounds like presumption of legality of decisions of a taxpayer if the rule of law or other legal act adopted on the basis of the law, or if the rules of different laws and different regulations allow mixed (multiple) interpretation of the rights and duties of taxpayers or regulatory authorities, resulting in ability to take a decision in favour of the taxpayer as well as the regulatory authority [9]. This rule can be easily adapted to the organization of tax relations in the USA but the problem is that it is not valid in Ukraine. Level of prosperity depends, however not only on the quality (not quantity) level of taxes, but also on the existence of social institutions.

Relevant departments of the State Fiscal Service of Ukraine involved in the formation of high tax culture of the population and support efforts aimed at filling of budget revenues. The main areas of their work are active explanation of the order of laws application and other regulatory legal acts which are related whit questions about taxation in the media. Social activist and volunteers are involved by tax authorities in addition, with the purpose of implementation of public awareness work among large sections of the public [1, p. 231].

So why is it the high level of tax evasion in Ukraine? There are some problems which could not be solved during the longstanding history of Ukrainian

independence, as follows excessive share of informal connections between government and business, low level of financial literacy of people and low level of tax payment culture [10, p. 173]. Initial step on the road to constructive changes is the understanding of the fact that it is necessary to pay timely and in full, in other words take part in supporting of state affairs. It is much more difficult to follow the dominants that lie in virtues of conscience, consciousness and obligation to dispose a part of property and income in profit of state. (Figure 2).

Each person should develop common human values such as conscience, consciousness and responsibility, in order to the process of tax payments gets features of voluntarily, unselfishness and understanding. The word «conscience» is considered in the dictionary as the awareness and sense of moral responsibility for own behavior and actions to oneself, to people and to society in general [11, p. 838]. Thus, conscientious taxpayer is a person who brings a moral obligation to the fore, want to show oneself as a law-abiding citizen by means of coordination of perception what is right and what is wrong in behavior.

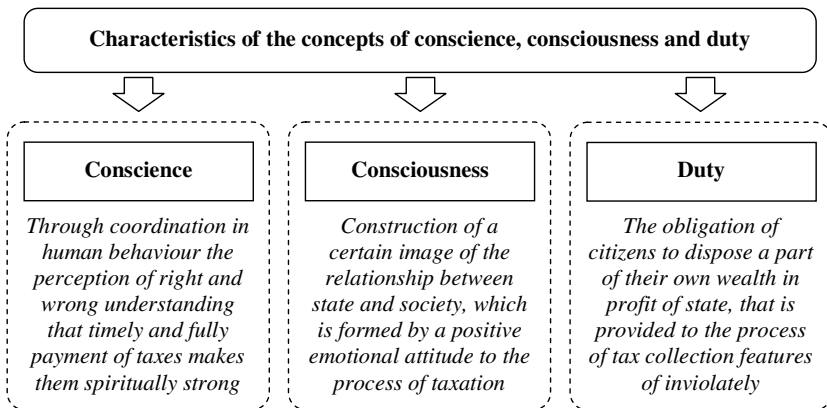


Fig. 2. Characteristics of the concepts of conscience, consciousness and duty and also their relation to taxation.

Note. Is based on [11, p. 838, 77; 12, p. 548].

Consciousness is a process of reflection of reality by the brain, which covers all forms of mental activity and leads to purposeful human activity [11, p. 77]. If we are talking about payment of taxes, this feature demonstrates cognitive function, which lies in creation of certain image of relations between state and society, by means of which positive emotional attitude to the process of taxation is formed. The following issues are faced in this case. There are the question of free will to pay taxes which are introduced by law and question of responsibility of person for tax evasion. Consciousness requires the taxpayer to act rationally even when he is under the influence of irrational factors.

Duty is something that should be strictly followed, something that should be done without refusal according to the requirements of society or based on own conscience

[12, p. 548]. As already noted, taxpayers carry out their activities base on the principle of compulsory of payment of taxes, what is provided by the constitution and on the tax laws of all democratically developed countries. That is why the activities of tax authorities can be effective only when they become law-abiding citizens. Law-abiding majority can appear only if society will reach a high level of tax culture.

It is necessary to form a tax culture of the population from an early age. Experience has shown that it is impossible to bring up the virtuous taxpayer if examples of clear and correct application of tax law do not show. Purposeful educational work is carried out with different groups of citizens, mostly with young people focused on fair payment of taxes in the USA. Special classes and meetings with representatives of tax authorities are carried out in schools and universities. Various informational and educational departments, television and radio, social networks are also involved in order to educate law-abiding citizens.

Organization of classes on education of tax culture in schools – is the job for the future, because only the legislative field cannot give necessary result if law-abiding citizens will not be prepared to its perception. As is well known, the model of managing of personal finances has formed from school. Unfortunately, teachers do not have the appropriate level of preparation and informational and methodological support in modern Ukrainian schools and because of it educational work and elective course in this field do not carry out almost. All training programs of multilevel education system should contain at the same time, elements of financial literacy.

Thus, level of tax culture of Ukrainians should increase on the model of organization of tax administration in the USA. Low ethical and moral quality of taxpayers, however and systematic and massive violations of tax laws, as a result prevents this. The primary task of all institutions of government is solving these problems at the present stage of state formation. Tax relations should become the dominant in terms of democratization of public life, and based on the fundamental principles of taxation such as necessity, generality, fairness, clearness, equality, and non-discrimination.

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7.5. Strategic directions of improvement of property tax administration for strengthening its stimulating effect on economic development of the region

One of the priority areas of taxation in Ukraine is developing the property taxation methodologies such as: development and evaluation the real estate objects within the current economic conditions; criteria differentiating approach to taxation of different objects taking into account functional characteristics, physical condition and other features of property.

The system of property taxation in the current tax system of Ukraine is the most poorly tax brunch. However, property taxes are stable in the tax base, the least prone to fluctuate and do not depend on the results of financial and business activity of taxpayers. That allows considering it as a stable source of income for local budgets.

The strategic goal of the State Fiscal Service of Ukraine as for the property taxation is increasing the role in the formation of local budgets revenue.

Nowadays within the property taxes administration in Ukraine there are three main groups of problems:

- imperfection of registration and accounting of taxpayers procedures, which does not allow to carry out the effective fiscal control;
- imperfection of relations between the taxpayers and tax administration that does not meet quality requirements;
- complication of local tax administration.

Such challenges underline the necessity to improving of methods and tools of tax administration. In this context, the unity of theory and practice allows to justify the need for a substantial change in the structure and functions of the fiscal authorities, areas of tax policy and methodic bases of tax proceedings. These developments are the basis for the adoption of drastic measures, even before the next stage of tax reformation.

Tax administration improving is possible through systematic monitoring of all areas of taxation. In theory, these areas are combined into a single body, called the tax potential. The essence of this determination known as for the level of management, underlying tax potential of: state, region, legal entity or separate taxpayer. As a detailed area of tax administration is possible in the certain sphere of taxation there is separate tax potential in the property taxation. Elements and indicators of tax potential characterize the state and dynamics of property taxation, control, planning, analytic work of fiscal authorities as for the tax bases of property taxes, which form key elements – performance system of the property taxation.

In the scientific literature is the most common position, which determines the tax potential as a long term supported quantified optimal relationship between business entities and government as for the removing of value added in the form of taxes and using them for stable playback [1, p. 54]. The model of tax potential of property taxation, including quantitative and qualitative characteristics is shown in fig. 1.

The optimality criterion basis is the indicators of the dynamics of the productive forces of society such as economic growth and efficiency of social production.

Until recently the administration of property taxes carried as a residual, as the cost of administration were higher than revenues from them. Today the situation has radically changed. However, the lack of an integrated approach to the three major components of property taxation – accounting, evaluation and taxation on the whole – do not suggest the seriousness of the fiscal and regulatory capabilities of property taxes.

At the stage of accounting of the tax object and formation of tax base (evaluation) it is possible to identify the features of property taxes in comparison with other types of taxes (income, value added tax, etc.). The state has to carry out the strict accounting of tax objects and its control from the start levying of property taxes. This requires the creation of public land and property inventories containing information about such objects, set up responsibilities as for the establishing of legal registration of land and property objects which are subject to taxation. It is necessary to determine the methodology of forming the cost of property and public authorities has to perform its calculation. The results of the assessment must reflect the real value of property.

Significant increasing of property objects, as well as a variety of taxpayers, types of property and features of their taxation demand reformation the process of «Accounting – Evaluation – Taxation». Besides, huge array of data generated at all stages of the property existing requires the creation and use of adequate information and technical tools that can more fully and accurately reflect information about certain objects with the different purposes, including taxation. This information has not only static nature (the possession of property, land, transport, etc.), but also dynamic – change of owner demand paying income tax; in many countries – inheritance tax, capital gains; in the case of rent – income tax, individual income tax etc. [3, p. 135]. For the state it is important not only detect the presence of the object of taxation, its physical and economic characteristics, but also to compare the object with the person or entity that owns the rights to it, to identify of taxpayer.

Thus, describing the specifics of each component of property tax mechanism, it is necessary to form a new property tax model that focuses on the use of information environment objects of property. It does not immaterial whether common accounting, evaluation and taxation of two components of real estate – land and property associated with it.

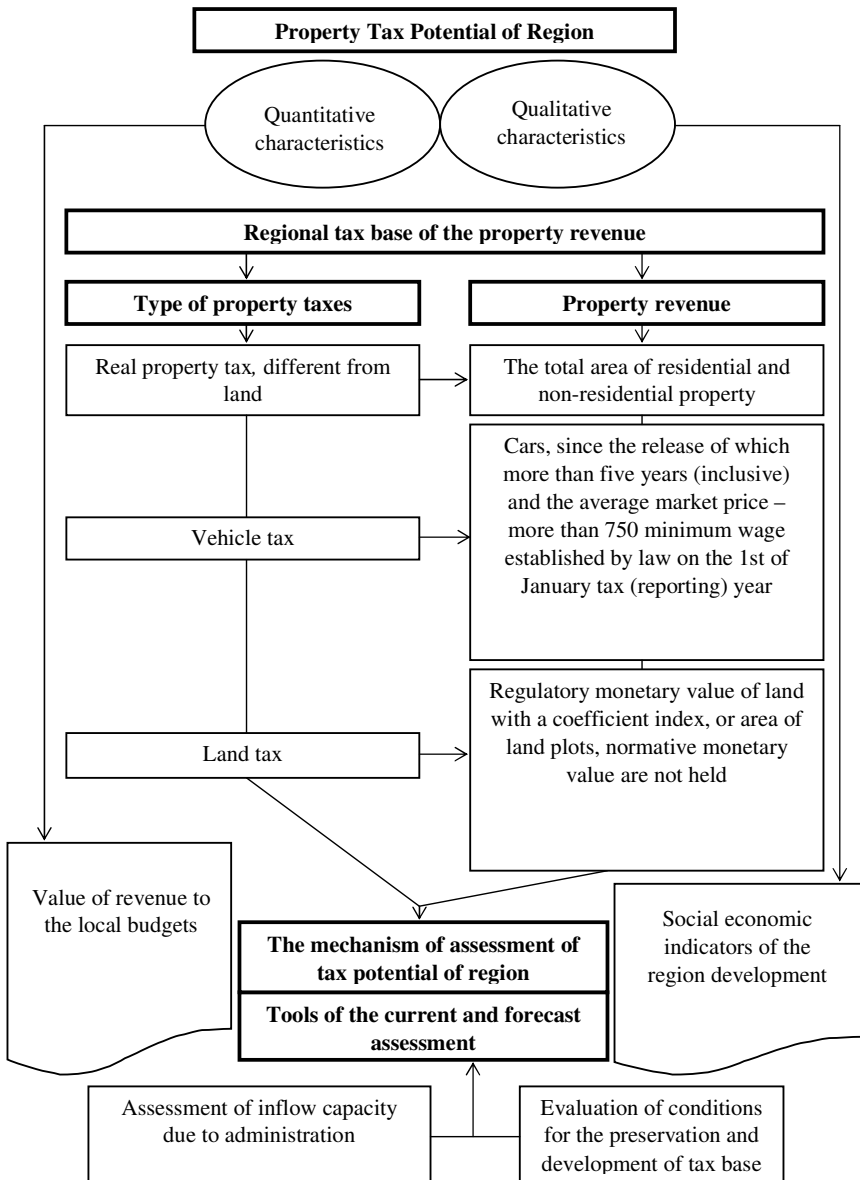


Fig. 1. Model of the Property Tax Potential of Region.

Source: developed by the authors on data [1].

In the case of considering of the system of accounting of property object it is very important to distinguish the organization of it accounting and registration. Thus, the first component can exist independently of the other. Analysis of the current

system of property accounting shows that the first step is to change the methodological approach to the processes of recording the property (firstly – real estate and land) and registration, which will form an information system object property. The basis of this process must be taken the double accounting: items property of their physical characteristics and rights to these objects. Forming the first part of the information system based on continuous initial accounting of land on a territorial basis. This mechanism is used now, but without focus on the territorial boundaries of urban and rural settlement area, etc. To improve the quality and speed of land surveying and external characteristics of the property object need to use modern electronic systems, including satellites.

This database should be formed on the basis of solid accounting outside the procedure of declaration of property registration. It is the base of formation of the second level of information environment of real estate objects, which includes all objects associated with the specified land. This must take into account of separate property object (based on the physical, not cost performance), not the user.

As a result, a single information database of property objects will appear Land (in terms of inventory quarters, numbers and owners) and immovable property located on it, with a possible breakdown in parts of the property, separated by owners. As a result, a single information database of objects of property such double-counting procedure will take into account all objects, regardless of the existence of rights to them (their part) and diversity of these rights and owners, certain categories of users of property objects and also timely and accurate transformation of rights.

An important component is the mechanism of formation of the tax base of property. Thus, there are two challenges: how to form separable or inseparable estimation of the two components of real estate – land and buildings, how and who should perform it.

Today, the tax base of the real property tax, different from land in Ukraine, is the total area of residential and non-residential property, including its shares. The tax base for immovable property different from land, including individual's shares of this property calculated on the basis of the State Register of Property Rights to Immovable Property. These services provide free state organs of registration of rights to immovable property according to the original taxpayer documents, including document of title. Legal entities identify the tax base for immovable property different from land property for entities by themselves, according to the total area of each object of taxation on the basis of documents that prove ownership.

An important thing for optimization the administration of property taxes is the introduction of transparent mechanisms (for taxpayer) to agree the price of an object with the current market level of such price. This should alleviate the problem of mass estimate related to the imperfection techniques, inadequate database, etc., and help restore justice to those taxpayers who already complain about the excessive, in their estimation, requirements. So taxpayers will be able to prove their case. This procedure will help alleviate the difficulties of the transition and make the market redistribution of ownership more transparent and effective.

As a result of the application of these approaches, the process of calculation and payment of real estate tax should become extremely simple and transparent:

payer receives a tax bill with the calculation of tax and pays, or challenges the assessment according to the procedures and pay, taking into account its results.

Administration will not include inspections, except for an exhaustive list of special situations (for example, identifying inconsistencies in the documentation or qualification visible satellite facilities); eliminates direct contact taxpayer with the employee of fiscal services, accept the appeals process, which also should not remain spacious for arbitrary decisions; must be very hard to defaulters; verification and agreeing of tax liability should be carried out by specially embedded software through the electronic office of taxpayer on the state fiscal service of Ukraine site. The amount of tax payments of each owner is not a trade secret, because it does not depend on income, so it should be public – such as the information in the public register of owners of real estate and land.

Another vital factor for considering with the purpose of effective property taxation is the mechanism widely used abroad, and closed in Ukraine. This is the practice of accounting of fiscal needs in the process of setting rates and exemptions of local taxes. It is necessary to identify opportunities and options related to the ratio of income from tax to the needs of the region. The obligatory part of the implementation of this method of organization of tax administration is the development and adoption the mechanism of control over legality measures in tax policy, implemented by local authorities, including the implementation of the principle of fiscal needs and degree of responsibility for the violation (errors) in the area.

Moreover, considering the fiscal potential of property taxes, should be anchored in law correlation amounts of taxes derived from the property with the expenditure incurred for certain purposes (the socio-economic development of territories, providing the required services to the population, etc.). At the same time at the state level should be established limits (thresholds) of such correlation. As a result of changes, local government will be able to justify a change in tax rates and benefits, and taxpayers on a psychological level and in the economic calculations will be able to understand the areas of consumption from tax deductions.

Another important problem of tax administration of property taxes is the lack of interest of citizens and businesses in the paperwork as for their property rights. This problem occurs because of significant costs for inventory accounting of these objects, opacity, and complexity of the procedure of forming appropriate documents.

According to the Tax Code of Ukraine only commissioned homes are taxed. However, in towns there are enough private houses, which are inhabited by people, but not commissioned or their owners are not properly issued documents. This situation arises because of the complexity of putting house in operation associated with significant costs of time and money. Thus, for the commissioning of a residential building need: a document certifying the ownership of land; declaration of the beginning of construction works; technical passport of a building.

Today, the greatest citizen's difficulties arise in production of document which certifying the ownership of land, because of the Article 24 of the Law of Ukraine «About regulation of urban development». According to it, for the manufacture of corresponding document, in addition to the general plan of settlement, also need the detailed plan and zoning plan of settlement. Today, less than 50% of settlements have

a new master plans and only about 5% have developed zoning plans. This situation has led to the suspension of any action on production of documents certifying the ownership of the land within these settlements. The lack of official recognition of real estate rights leads to the fact that part of the residential real estate (which is actually used for its intended purpose) can't be taxed. According to this, local governments receive less tax revenue than they have to.

Solution of this problem could be the adoption of the program of budget co-financing of surveying work to motivate individuals and businesses to register the rights for the real estate. In this program is logical to provide co-financing the costs of cadastral real estate with the help of funds of: subjects of law, territorial unit and local budget. Obviously, without such motivation of subjects of law to draw of real estate, administrative enforcement measures are ineffective. This criterion should also be taken into account in the allocation of fund for co-financing in equalization of budget subsidies to local community.

All of these measures, amendments to the taxation mechanism can not be done without proper systematization and sample of information, providing of automatization, processing and control. In addition, the current requirements relating to tax administration and control show that the tasks of fiscal authorities have not only to receive any information from the various information resources and also receive consolidated information from multiple sources and make them comprehensive analysis. In the absence of all data that reflect all areas of ownership and using of property, as well as some controversies of data, Fiscal Service can not use the available information for analysis and planning, and very often can not write a property tax notification. Thus, it is necessary to create an information system that provides a generalization of all available public and private information about property objects and their owners and also develop a common terminology as for the data from various information resources, providing of its uniform interpretation, exactly precision, compare and timely updates.

In our opinion, the strategic goal of property taxation in Ukraine within the stimulation of development of the region and improvement the efficiency of state control is the formation of unit information environment of geographically distributed state property accounting system, which will provide a generalized picture of the available information about the objects of taxation.

This problem can be solved by forming a regionally unified information platform (regional geographically distributed platforms), including specific details of the new resources, and special programming software. It should provide data reduction from created information resources to a common terminology, their interpretation and the exact matching, the transfer of certain information resources, created on different platforms and in different programming environments, in the independent objects of property database for fiscal authorities. At the state level is creating the software and technology that allows combining and analyzing information of regional information platform.

Creating of complete database does not mean the creation of a single centralized database of all items of property located in Ukraine. World practice proves the ineffectiveness of attempts to construct a database of over-centralized and

monopolization of information activities. The biggest impact of the wide data banks achieved when organization the collection, storage and processing of information carried out by specialized bodies at a lower level. At the regional level should accumulate information that would contain information about storage resources, form and method for data objects.

Without changing the established rules of distributed resources in the bodies of registration, evaluation and other, such approach will create an integrated information environment with clearly defined powers for the introduction, modification and destruction of information within the powers of the relevant bodies. At the same time will be provide completeness, operational update and a high probability of data, decrease costs, will increase the interaction of different government agencies. Moreover, creating a complete electronic information database of real estate is only the part of the complete informatization of process of property taxation.

According to this it is advisable to build a model of property tax, which takes into account the special relationship of all key elements of the tax environment, the principle of the fiscal needs of the local budget, the economic potential of the taxpayer, and provides by legislative information environment of property objects. This is the basis for definition of the subject to taxation, its comparison with the subject to taxation, forming the final size of the tax base and the tax amount and the timely receipting of the taxpayer and the fiscal authorities information about the required amount and terms of payment (Fig. 2).

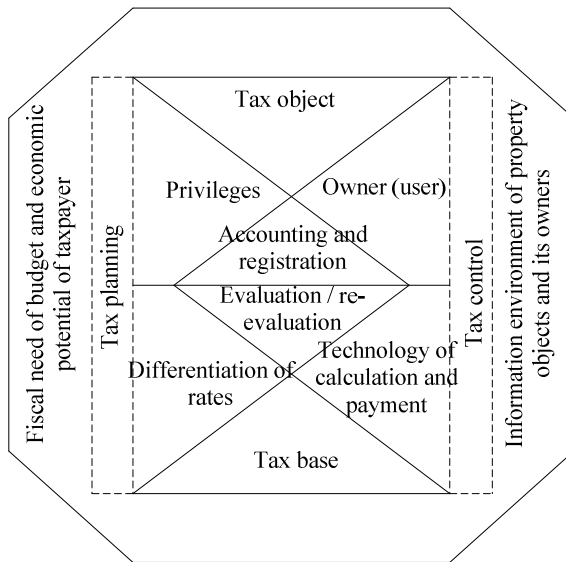


Fig. 2. Property Tax Model.

Source: developed by the authors.

The proposed model of property tax allow rethink the role and place of property taxes in the state tax system, and to clarify the relationship these payments with other taxes.

The strategic goal of the State Fiscal Service of Ukraine in the field of property taxation is to increase the role of property taxes in the revenue part of local budgets. According to this, the tax authorities of the country should make comprehensive measures to provide: improve the property tax administration methodology; improve the quality of inter-agency exchange of information used to calculate property taxes; improve the quality of relationship between the fiscal authorities and taxpayers on the basis of coordination (synchronization) of data contained in information resources of fiscal services and other information resources.

The current model of tax policy as for the property taxation has to be improved (Fig. 3).

Quality management is rather costly and complex. For the correct calculation of tax it is need collect, process and periodically update a significant amount of information. Real estate appraisal procedures require both adequate regulatory support and highly qualified professionals involved in the assessment.

Therefore, to optimize the administration of property taxes must:

- finish the work related to the implementation of the land law (separation of right land ownership, land surveying, registration of land rights, etc.);
- create a single register of real estate;
- develop a method of mass evaluation of real estate and the appeal mechanism (including pre-trial) assessment results;
- provide the cooperation between fiscal authorities and bodies which are carry out cadastral and technical accounting of real estate and bodies, which perform state registration of real estate rights and transactions on it.

Taking into account that payments on property taxes should be the main source of revenues of local budgets, in the process of foundation the methodic of real estate evaluation is advisable to remove the uncertainty in the real estate taxation and provide greater differentiation of these options by expanding the tax number of intervals valuation, increase the real estate differentiation criteria, taking into account type of buildings and purpose of using, rising the property tax rates that are not only for taxpayers, and also introduction of flexible benefits.

Therefore property tax is not only regulative instrument and also social because of the individual property tax mechanism do not fully meet the requirements of social justice.

The most important aspect of real estate taxation in terms of social orientation is redistribution of income of rich population groups that have expensive and large-sized property, to the poorest. Property tax in developed countries has an important role in social terms, because it allows to significantly increasing budgetary revenues with the help of income of wealthy people, balancing social interests.

The argument in favor of a real estate tax is carrying out of benefit principle of taxation. The financial recourses accumulated with the help of this tax are used on the assignation of local services.

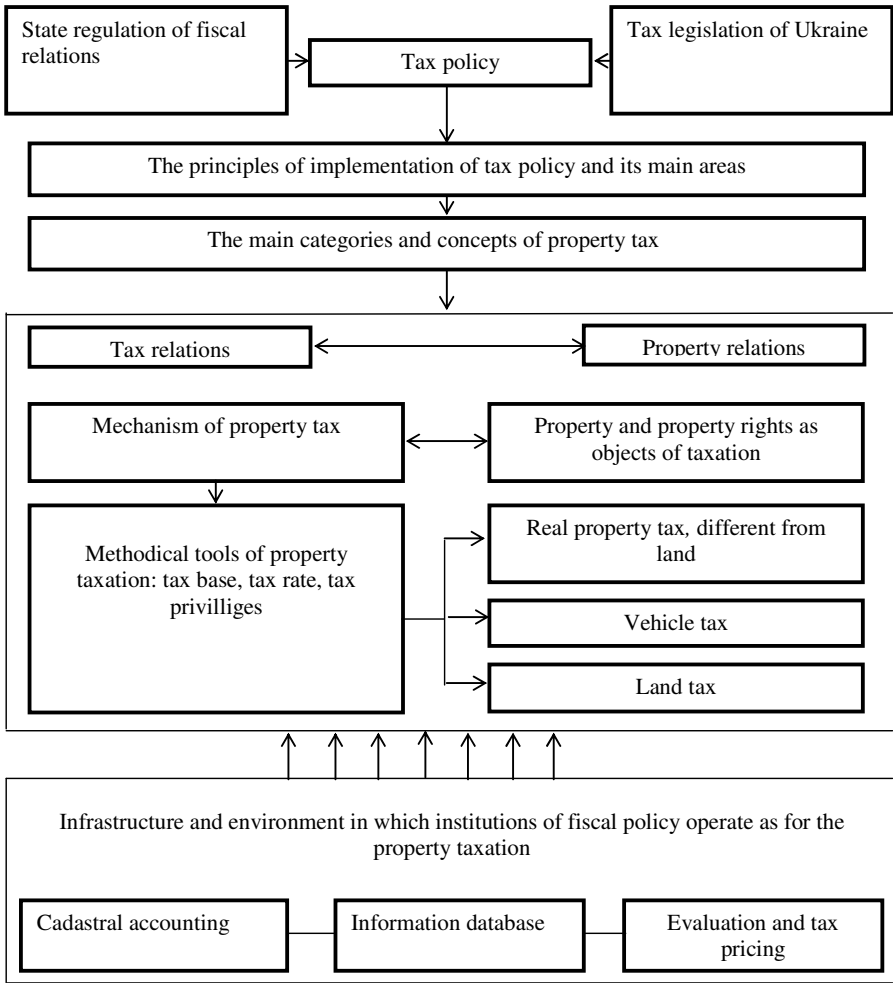


Fig. 3. Tax Policy Model in the System of Property Taxation.

Source: developed by the authors.

For taxpayers whose property value increases due to taxes, property taxes associated with fees, which provide authorities. This tax is justice because the ownership of land, real estate, vehicles are some revenue which are taxed without taking into account solvency of taxpayers.

With the purpose of tax privilliges it is need avoid of registration of property rights by owners of land, real estate, etc. on the third persons. This method is practiced by wealthy citizens at the moment. Benefits must be available for categories of taxpayers (vulnerable taxpayers (generally, pensioners and disabled people), in addition, in some countries in the provision of benefits is taken into account marital

status of taxpayer income levels), or by the nature of property (real estate which is in the state (municipal) property with the purpose of avoiding the «shifting money from one pocket to another») [2, p. 135].

The effectiveness of monitoring the property tax potential depends on the development of information and communication technologies in the fiscal authorities. According to this it is need carry out a full-scale modernization, which involves the use of modern information technologies and contributes to the solution of important challenges: automatization of information exchange with other agencies and organizations; development of the information and technological structure of the State Fiscal Service of Ukraine; automatization of document's requirements; introduction of a single system catalogue; introduction of management and monitoring system; improvement of software system with the purpose of visual analysis of information; automatization of archive storage of information.

Implementation of these measures will increase the efficiency of the tax administration of property taxes and strengthening the tax base of local budgets.

Therefore, solving of these problems will reduce the risk of collection and administration of property taxes. Today, they are: risks related to the registration of assets and incomplete view of real estate; risks of double taxation; risks associated with the inappropriate of tax base and identical tax bases of real estate and more. Increasing the revenue from property taxes by replacing other sources in terms of Ukraine, generally, has more advantages than disadvantages, and it is a perspective way with the purpose of reformation the tax system within the creation better business climate and accelerating of economic growth.

Thus, property taxes perform both fiscal and regulatory function. By the way, in the market economy value of regulatory function shall prevail. Fixed income of the local budget will stimulate the implementation of socio-economic projects with the purpose of improving the living standards of the population.

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7.6. Taxation features of agricultural producers

In the context of the deteriorating a geopolitical situation in the world, as well as conducting an import substitution policy in Ukraine, the development of agriculture as a strategic sector of the economy is the top priority of the state policy. It meets the requirements of population needs for food, provision of industry with agricultural raw materials and food security. All this leads to the necessity to strengthen state support for agricultural producers who are not fully cope with provision of domestic needs, lagging behind in terms of innovation development and foreign investment attractiveness. The support of agricultural producers becomes more important both due to the provision of the trust funds and the development of the tax system. Now the latter does not fully take into account the specificity of agricultural production, dependency on climatic conditions, soil fertility, seasonality of production, etc. All this leads to the necessity to conduct an analysis of the current system of taxation in the agricultural sector of Ukraine's economy, the assessment of its efficiency and impact on the level of agricultural producers.

Tax regulations in the agricultural sector is a natural process, regulated by laws and regulations of regional and municipal authorities, carried out by the state in terms of tax policy. Its aim is to provide tax revenue and at the same time to stimulate innovative and investment activities of agricultural enterprises through redistribution of the profits of business subjects, as well as provision of the changes in the level of tax burden according to the pace of the national economy.

On the contrary, the interests of taxpayers are to minimize costs, including and the cost of paying taxes, that is why the tax liberalization by decreasing the tax burden objectively helps to strengthen the financial situation of taxpayers, to saturate the markets in goods and services and to create a competitive environment. The labour costs are also increasing that enhances the welfare of employees and their consumption. This stimulates the expansion of aggregate demand, which is the most important factor in sustainable economic development [1, p. 6].

The functioning of the agricultural sector as a system deals with the existence of the following specific features: the dependency of production on climatic conditions, seasonality and uneven flow of financial resources during the calendar year, the use of land as an object and means of labour, higher level of agricultural producers' credit, specific of formation of production costs and so on. The discovered features have a significant impact on the functioning of agricultural enterprises and determine a specific mode of taxation.

Due to the results of the implementation of agricultural activity for the last reporting (tax) period of stay on a special regime, the negative difference between tax liability and the tax credit were declared by farmers, such amount of tax is transferred from a VAT return represented for the last reporting (tax) period of stay on a special tax regime to a VAT return for the first reporting period of 2017 (January 2017 / first quarter of 2017).

The dependency of production on climatic conditions is the root cause of high probability of getting loss and it is necessary to use the deferred tax payments in the process of financial and business activity, as well as to expand the list of grounds for granting investment tax credit, changes in rates and terms of loans.

The seasonality of agricultural production, the uneven flow of financial resources during the calendar year and often their complete absence until the end of the tax period lead to untimely tax obligations fulfilment, penalties and fines accrument, tax arrears increase, as well as they require the determination of possibilities of postponement of tax income, personal income tax, single tax at the end of the calendar year.

Last century modern tools of fiscal regulation system of agriculture were formed as an integral component of the state support of subjects of agro-industrial production in conditions of the reformation changes in the industry.

The establishment of fixed agricultural tax, a special tax regime to VAT of agricultural enterprises from 1999 to 2015, as well as agrarian countervailing measures (by the representatives of small businesses) working on a simplified system of taxation may be included to the system of tax incentives for the agricultural sector.

The application of the above-mentioned instruments of state regulation helped to reduce the tax burden on farmers and thus create conditions for the development and intensification of their activities. The state regulation of the agricultural sector through tax measures are represented in Table 1.

The introduction of special tax regimes played a positive role in the development of domestic production. First of all, the positive trend in agricultural production was renewed. Not only low onerous tax rates should be distinguished among the main advantages of the use of special regimes of taxation for agriculture, but also the ease of tax administration, minimization of subjective factors in the organization of the tax process.

In recent years, agriculture is the leading budget-sector, which provides GDP growth and inflow of foreign currency into the country. According to the State Statistics Service, Ukraine exported agricultural products in 11.8 bln. USD., that is 40.7% of the national exports from January to October of 2016. Export potential is ensured by the growth of crop production. According to aggregated data, the harvest of grain and leguminous crops in a test weight was 64.2 mln. tons in 2016, i. e. it was 4 mln. tons more than in 2015. But the harvest should be 44.8 c/ha (it is more at 3.7 c/ha than in 2015). This negative trend only amplifies in livestock: in comparison to last year the reduction of the number of cows was 3.9%, pigs – 5.5%, sheep and goats – 2.9%, poultry – 4.1% [3].

It has been formally annexed to the simplified system of taxation, accounting and reporting in the form of single tax payers of the fourth group according to the law «On Amendments to the Tax Code of Ukraine and some other legislative acts of Ukraine concerning tax reform» [4] since 2015. Single tax payers of the fourth group were also exempt from the duty on calculation, payment and tax filing of the corporate income tax, property tax (in terms of land tax, except for land tax for land that are not used for agricultural commodity of production) and rental fee for special use of water. In comparison to the fixed agricultural tax only land was allocated to

taxation. The rights for their use were registered according to the land legislation. The taxation base was also changed. If the fixed tax is determined based on the regulatory and monetary value of land as of January 1, 1995, the regulatory and monetary value as of January 1 of the reporting year based on indexing was used for the calculation of the single tax. As a result, the tax base has increased seven times [5].

Table 1

**Comparative Characteristics of Special VAT Regime
until 2016 and from 2016 to 2017 [2, p. 25]**

<p align="center">Special VAT tax regime according to the old regulation (its activity was terminated on 01.01.2016)</p>	<p align="center">Special VAT tax regime according to the new regulation (its action came into force from 01.01.2016 to 01.01.2017)</p>
<p>Businesses supplying dairy and meat products of own production, wool of own production, as well as dairy products and meat products corresponded to this regulation: a) accumulation regime of VAT sums;</p> <p>1) VAT that should be paid to the budget concerning transactions for the sale of agricultural goods / services of own production, except for transactions for the sale of milk and meat to processing enterprises.</p> <p>These funds are available to agricultural producers and are used for the purchase of capital goods; the order of use of VAT has changed since 2004 – first funds are used to refund VAT sums paid in the price of production factors, and if there is a balance of such amount of tax for other factors of production, this regulation based on the Tax Code (Article 209);</p> <p>2) VAT that should be paid to the budget by agricultural enterprises for the sold milk, livestock, poultry, wool, domestic production, as well as dairy products and meat products produced in its own processing shops remained completely at the disposal of agricultural enterprises and was directed at supporting own livestock production; this regulation has concerned only to agricultural enterprises since 2009, that have not chosen a special tax regime activity in agriculture, forestry and fisheries. This regulation has been extended (Article 209.18) when the Tax Code 3 came into force;</p> <p>b) VAT at the zero rate concerning sales of milk and meat in live weight by agricultural producers of all forms of ownership and management to processing enterprises (cancelled according to the Law N 639-YI dated from 31.10.2008).</p>	<p>Law No. 909 introduced amendments to point 209.2 of Article 209 of the Code, according to which within the special tax regime partial payment of VAT sums and the special accounts have been introduced to the budget in 2016. The amount of VAT payable to the budget and transferred to special accounts, depends on the type of sold agricultural products. Thus, the positive difference between the amount of tax liabilities of the reporting (tax) period and the amount of the tax credit for the reporting (tax) period is defined by:</p> <p>1) transactions with grain crops in 15% are directed to special accounts of agricultural enterprises, but in 85% it is directed to the state budget;</p> <p>2) transactions with meat products in 80% are directed to the special accounts of agricultural enterprises, but in 20% it is directed to the budget;</p> <p>3) transactions with agricultural products / services, except for grain and technical crops and livestock products (hereinafter – other agricultural products / services) such distribution is 50/50 within activities of the special tax regime.</p> <p>To ensure these payments to the budget and to transfer the funds to special accounts to agricultural enterprises subjects of special tax regime by Treasury extra e-accounts were created to which funds are transferred in accordance with the above-mentioned interest.</p>

The rates of single tax payers of the fourth group were increased at 3 times higher in comparison to the fixed agricultural tax. It was 0.45% (for mountain and forest areas – 0.27%) for arable land, hayfields and pastures, 0,27% (for mountain and forest areas – 0.09%) for perennial crops, 1.35% for land and water fund and 3% for closed ground.

Thus, the tax burden for agricultural enterprises increased at 21 times. The recent changes in 2016 regarding the single tax for agricultural enterprises dealt with regular increasing of rates. It was 0.81% (for mountain and forest areas – 0,49%) for arable land, hayfields and pastures rate, 0,49% (for mountain and forest areas – 0.16%) for perennial crops, 2.43% for land and water fund and 5.4% for closed ground. Thus, the tax rate for this tax to agricultural producers has increased at 1.8 times in comparison to 2015 [6].

In exchange, the government proposed the allocation of subsidies based on submitted documents to the supervisory authority, which automatically leads to corruption by officials of the Fiscal Service. While the moratorium on the introduction of penalties and fines is determined for agricultural enterprises that used special VAT tax regime for understatement of VAT payers' liabilities or under their budgetary compensation arising from the breach of the distribution of the tax credit for the reporting (tax) periods from 01.01.2016 to 01.01.2017.

The procedure of taxation influences economic processes both at the macro- and microeconomic levels. Tax policy of the country concerning agricultural production shall deal with two tasks: to optimize the level of taxation in order to stimulate business development and to provide income to the budget from the enterprises of the agricultural sector.

The Article 209 of the Tax Code of Ukraine has repealed since January 1, 2017. It regulates the conditions for the application of special tax activities in agriculture and forestry, as well as in fisheries. At the same time, the Law of Ukraine on December 20, 2016 «On Amendments to the Tax Code of Ukraine and laws of Ukraine to ensure the balance of revenue in 2017» comes into force on January 1, 2017. It introduced a number of amendments to the Tax Code of Ukraine regarding the settlement specific issues related to the cancellation of a special regime. Thus, taking into account the above-mentioned changes, the following things are expected, such as [7]:

- cancellation of registration of subjects of special regime and their transfer to common system of taxation;
- closing the accounts in the system of electronic tax administration, which were additionally opened by agricultural producers;
- limitation of the registration tax bills stacked by agricultural producers for transactions on supply of agricultural products / services in terms of the special regime;
- transfer of the negative value of the difference between tax liabilities and tax credit, formed as a result of agricultural activities, to the VAT tax return, according to which the calculations of the budget are made;

– provision of budget subsidies to agricultural producers listed in the Register of recipients of budget subsidies according to the Law of Ukraine «On State Support of Agriculture of Ukraine»;

– since January 1, 2018 allocation of budget subsidies will be in an amount not more than 150 mln. UAH per year per one agricultural producer based on persons who are connected with such producer;

– addition of function of regulatory bodies in the formation and maintenance of the Register of recipients of budget subsidies for agricultural producers.

At the same time, a minimum limit of the land tax for agricultural land has been set at least 0.3 % of the regulatory and monetary value.

Reform of the special VAT tax regime according to international obligations, including the Association Agreement between Ukraine and the EU, envisages cooperation and application of the principles of good governance in the tax, especially the principles of transparency, exchange of information, fair tax competition, increasing of tax revenues and tax control, arrears avoidance, provision of efficient tax collection and strengthening the fight against tax fraud.

Today tax policy of most countries, unlike the Ukrainian, aims at facilitating administration, simplifying and lowering tax rates. For example, in Poland taxes were reduced from 19% to 15% for entrepreneurs, whose income does not exceed 1.2 mln. euros per year. It will boost the economy and help business entities to grow. The second example is Romania, because it is even more indicative for Ukraine. VAT rate was reduced at 4% in Romania in 2015, as well as the rate of income tax, the «special construction» tax was abolished. Thus, in the first quarter of 2016 the Romanian economy grew at 4.3% in comparison to the first quarter of 2015 and at 1.6% in comparison to the fourth quarter of 2015. Due to this solution Romania became the second EU country after Ireland in terms of GDP growth.

However, in our opinion, change of special VAT tax regime for agricultural enterprises led not only to a significant reduction of state support of agricultural enterprises, but also to a significant complication of tax administration and inability to clear division of tax credits between the three areas of agricultural production: due to the transactions with grain and industrial crops, with livestock production and other transactions.

Ukrainian scientist O.M. Mohylnyi gave his opinion concerning the negative side of simplified tax system as a single tax for agrarians, saying the following: «A tax does not include production costs and level of profitability of agricultural producers; calculation of tax rates is implemented based on the imperfect monetary value through undeveloped land market; it puts tax payers who have different gross production value of crop and livestock production in the unequal conditions; not all included taxes in its composition depend on the size of agricultural land, that is why the principles of justice are being violated» [8, p. 125].

High level of credit and loss of agricultural producers is causing preferential taxation procedure. However, in spite of the existing benefits, lack of financial

resources, original structure of production costs, high capital intensity industry and low turnover rate of capital make the agricultural sector less attractive for investment in comparison to other areas of the economy. That is why, it is necessary to integrate agricultural enterprises into cluster structure with stated tax holidays concerning above-mentioned taxes.

The specifics of formation of the cost of production determines the choice of optimal regime of agricultural commodity of production. At the same time, in order to maintain agricultural land in fertile and clean conditions the measures for tax incentives for production and consumption of alternative energy sources from renewable raw materials are to be offered instead of introducing additional environmental taxes and fees. A change in tax policy approaches of tax incentives exporter is observed among the ways of reduction of the severity of the problem of VAT reimbursement for agricultural exporters and increasing of fiscal efficiency. Imposition of VAT zero rate of exports of all products is considered to be impractical because it contributes to the preservation of the existing structure, and thus the extensive model of economic growth. Moreover, it has negative impact on the efficiency of fiscal tax.

Therefore, there is an urgent transition to differentiated export incentives policy that would facilitate progressive changes in its structure and the structure of national production as a whole. Taking into account this aim, it would be useful to keep a zero VAT rate for export goods with high VAT and exempt other production from export tax. It would mean classifying the tax paid in the price of material resources in production costs and would allow to abandon the VAT refund to exporters of products with low VAT [9, p. 45].

Besides, it is necessary to establish a procedure for collecting VAT on the actual implementation of FDI in which the right to VAT refund arises from the registration of a tax payer. It should be the responsibility for untimely reimbursement of VAT by the state in the form of penalties (fines).

Thus, the amendments represented in the Tax Code is closely related to the budget of the country and it is its foundation, forming a part of the expenditure of the main financial document of the state. At a time when tax reduction is complicated by significant needs of budget revenues, in the first stage of tax changes the focus should be on components reducing the transaction costs of agricultural business concerning tax payment without affecting their own financial means. In particular, they are represented with expenses for accounting and reporting, service of tax audits, training of accountants of agricultural enterprises or use of third-party accountant (for small businesses) and so on. To solve these problems is ensured by the improvement of procedures and introduction of modern information technology. The content of the tax changes for agricultural producers should be represented with moderate attitude towards reduction of taxes, introduction of efficient taxation mechanism in which taxes, serving as a source of fiscal resources should properly fulfil socio-levelling, regulatory and catalytic functions.

Evolution of fixed agricultural tax and later evolution of tax for the fourth single group indicate the following: this tax gradually lost its regulatory function, while changes in taxation strengthened its fiscal value. The noticeable increase in the tax burden concerning agricultural enterprises is the result not only of government's desire to increase the level of budget revenues, but also the fact that the tax rates and base were not reviewed and they were not brought into conformity with current economic conditions for a long period of time.

The gradual withdrawal of extra budgetary contributions from the FAT to trust funds was also a factor in increasing fiscal pressure, perhaps even more dramatically than the change in the tax base and rates. Due to the burden growth and a difficult economic situation in Ukraine, the topic is the dilemma concerning optimal tax level and structure for agriculture, which is one of the few sectors demonstrating about positive growth dynamics.

The increasing of the tax burden without adequate indulgence in other aspects of agricultural enterprises could lead to a slowdown of the industry. On the other hand, tax preferences for agricultural lead to the tax burden on other taxpayers, which also discourages the economic growth. The analytical basis for resolving the issue is adequate assessment of the real tax burden that was formed in the agricultural sector today, as well as the comparison of values with international counterparts.

Thus, today the tax measures introduced by the government is very controversial for the further development of the agricultural sector. The agricultural producers for export of grain and oil products have been deprived of funds in the form of VAT refund for these operations since 2015. At the same time, it increased by 25% tax rate for the lease of agricultural land. The accumulation of VAT measures that led to reduction has been reduced since 2016. At the same time, tax rate increased at three times. Therefore, it is necessary to apply the tools of state regulation of the agricultural sector which would promote and enhance the development of the agricultural business.

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CHAPTER 8.

Global Challenges and Modern Trends in Finance of Business Entities

8.1. Current trends and prospects of insurance mediation development in Ukraine

Effective functioning of the insurance market depends on the development of its infrastructure as it creates the opportunities for realization of insurance services, mediates, accelerates and facilitates the reinsurance agreements of the insurance contracts, predetermines the coordination of institutions at the insurance market. Among the insurance market infrastructure institutes a special place belongs to the insurance mediation institute, which is characterized by the incompleteness of each item: imperfect regulatory support, incomplete information base, low level of staff potential.

We share the position of academics and practitioners that the institute of the insurance mediation is represented by three institutions: insurance agents, insurance and reinsurance brokers. Herewith, at the insurance market the mediation activities are carried out by the insurance agents and insurance brokers, and at the reinsurance market – by the reinsurance brokers. So, at the reinsurance market the insurance mediation provides only brokerage activity, which has some differences that distinguish the activities of the insurance and reinsurance brokers.

We believe that a significant advantage and the main functional feature of the insurance broker is that his activity is beneficial for the insured and insurance companies, and also for the entire insurance market. Firstly, the insurance brokers following the specific needs of the insured develop the individual programs of risk management for them, manage the progress of the insurance contracts and losses if there are; analyzing the information of different insurance companies, operating at the insurance market, they provide complete and accurate information about the insurance services they propose, they also help the insured-customers to make a choice in favor of the most advantageous offer of payments guarantee. Secondly, the insurance brokers help the reliable insurers to develop their business and encourage them to work towards improving the quality of the insurance services, expanding

their product range, and developing the innovative products focused on the target audience of consumers.

Therefore, we disagree with the basic positions of Directive «On insurance mediation» [1], the key provisions of which are aimed at creating of the conditions for protecting the interests of the insured, as it does not fully provide the development of the mediation activities at modern insurance (reinsurance) market. That is, the insurance agents are considered only as a channel of trade/distribution of the insurance (reinsurance) products.

Certainly, one of the objectives of the insurance agents is the sale of the insurance (reinsurance) products, attracting of new customers, promotion of the insurance (reinsurance) services from the insurer (reinsurer) to the consumer, consulting of the consumers during the concluding, execution and termination of the insurance (reinsurance) contract, and therefore focusing on the customer needs. However, the main functions of the reinsurance brokers are: analysis of all insurance risks, determination of the required amount of the reinsurance protection, searching for the reliable reinsurer and placing of the insurance risks on mutually beneficial terms for the assignor and reinsurer, settlement of the losses in case of the insurance event under the terms of the reinsurance contract. Thus, the essence of brokerage in today's insurance and reinsurance lies in the harmonious combination of interests of the insurance and reinsurance markets, rather than meeting the needs of one of them.

In order to determine the current state of the insurance mediation we analyze the key indicators of the insurance agents' activities and define the insurance market share that they served during 2010–2016 (table. 1).

Table 1

Dynamics of the insurance premiums received by the insurers under the insurance contracts that were concluded by agents in favor of the insured during 2010–2016. *

Indexes	Years						
	2010	2011	2012	2013	2014	2015	2016
Insurance premiums received by the insurers with mediators, thousand UAH, including:	42358,2	29859,9	30146,7	84381,1	67613,1	101674,5	92697,4
– residents	39875,8	28441,0	28773,5	77079,2	66706,5	99405,5	88365,8
share of residents, %	94,1	96,7	95,4	91,3	98,7	95,0	95,3
– non-residents	2482,4	1418,9	1373,2	7302,2	906,6	2269,0	4331,6
share of non-residents, %	5,9	3,3	4,6	8,7	1,3	5,0	4,7

*Source: according to Natskomfinposluh [<http://www.dfp.gov.ua>].

Due to the analysis we have made the following conclusions: the amount of the insurance premiums received under the insurance contracts that were concluded by the agents has uneven dynamics. Thus, in 2010-2011, it decreased from 42,358.2 thousand UAH to 29,859.9 thousand UAH (almost by 1.5 times), but during 2012–2013 it increased to 84,381.1 thousand UAH (by 2.8 times). During 2012–2013 the value of premiums under such contracts increased due to the insurance contracts, concluded with residents by the agents. And the residents were transferred the vast

majority of the insurance premiums. Thus, over these years there was a tendency, where the share of premiums received by foreign insurers increased from 4.6% in 2012 to 8.7% in 2013. The insurance income under the contracts concluded with the help of agents increased a little in 2015 to 101,674.5 thousand UAH due to both residents and non-residents. However, during these years the share of premiums decreased, which were transferred to national insurers with the help of agents, due to significantly higher growth rates of premiums passed to non-residents. In 2016 the amount of insurance premiums decreased to 8977.1 thousand UAH, which were received with the help of agents, due to a reduction of these premiums from residents.

Having observed the structure of the insurance premiums under the insurance contracts involving mediation, we note that the insurance agents operate in all segments of the insurance market, but the high proportion of premium income they provided by property insurance in 2010–2012, the risks of which were characterized by high cost (table 2).

Table 2

Dynamics of the structure of premiums by the type of insurance, which were received by the insurers with the help agents during 2010–2016, %

Types of insurance	2010 p.	2011 p.	2012 p.	2013 p.	2014 p.	2015 p.	2016 p.
<i>Voluntary insurance, including:</i>	89,9	89,7	90,3	44,1	95,2	96,2	98,7
– life insurance	0,8	1,3	1,7	0,8	1,1	1,2	2,0
– personal insurance	16,9	13,4	18,4	24,8	52,7	59,5	78,2
– property insurance	66,3	68,5	62,1	16,2	39,4	31,2	11,6
– responsibility insurance	5,9	6,5	8,1	2,2	2,0	4,3	6,9
<i>Compulsory insurance</i>	10,1	10,3	9,7	55,9	4,8	3,8	1,3
TOTAL	100,0	100,0	100,0	100,0	100,0	100,0	100,0

**Source: according to Natskomfinposluh [<http://www.dfp.gov.ua>].*

However, during 2013–2016 the insurance brokers prefer the insurance contracts of personal insurance, where the share of premiums concluded by the agents increased from 24.8% to 78.2%. 2013 was a special year, when the agents concluded the contracts mostly on compulsory insurance of civil responsibility of vehicle owners (55.9%).

Having analyzed the dynamics of the insurance payments under the insurance contracts concluded with the help of agents, we should note that mainly they concern the contracts with residents. Under the agreements with non-residents the insurance payments are not available. Herewith, the amount of the insurance payments increased from 770.3 thousand UAH in 2010 to 15,328.0 thousand UAH in 2013. In 2014–2016 there were no insurance payments. On the one hand, this shows that the insurance agents «worked» in favor of insurers, concluding profitable insurance contracts, on the other hand – the inefficient insurance protection under the insurance contracts concluded with the help of agents.

The mediation activities in reinsurance helps the insurers to choose the most advantageous proposals for the establishment of additional guarantees of the insurance obligations and strengthen the trust and relationship between the reinsured

and the reinsurers, improves the quality of the reinsurance services and development of the insurance and reinsurance business, provides the creation of favorable competitive environment at the insurance market.

However, at the Ukrainian insurance market the institute of the insurance agents remains essentially formal, and their members organize the reinsurance relations mostly without the reinsurance brokers due to several reasons:

1. In terms of low capitalization and financial capacity of the national reinsurance market the increasing of the reinsurance services cost in the amount of a brokerage commission for the reinsured or reducing of the same amount of the reinsurance premium for the reinsurer deny the «usefulness» of the reinsurance broker as a seeker of the reinsurance capacity.

2. The reinsurance activity at the national market is mainly done on the principles of «mutual risks exchange» in order to balance the cash flows according to outgoing and incoming reinsurance. This negative experience of the participants of the reinsurance processes completely prevents the need for the insurance mediation represented by the reinsurance broker, that prevents the development of the competition and mediation as an integral part of civilized and capable reinsurance market.

3. The usefulness of the reinsurance broker is largely justified if there are high risks that are typical for the market of obligatory types of reinsurance, and according for the wholesale market. However, low capitalized national reinsurance market is represented mainly by facultative reinsurance, and its risks are small, so the market is not focused on the brokers.

4. According to the Tax Code, the main principles of which involve the significant changes in the tax regulation of the insurance mediation at the national reinsurance market, there is a number of problems that may negatively affect business of the reinsurance brokers. In particular, it concerns reflected commission fees under the reinsurance contracts in the tax registration of the insurer.

Despite the problematic tendencies that impede the full development of the insurance mediation at the national reinsurance market, there is a positive dynamics of the main indicators of the reinsurance brokerage (table 3).

Table 3

Dynamics of the reinsurance premiums received by the reinsurers under the reinsurance contracts that were concluded by a broker in favor of the reinsured during 2010–2016. *

Indexes	Роки						
	2010	2011	2012	2013	2014	2015	2016
Reinsurance premiums received by the reinsurers with the help of brokers, thousand UAH, including:	228211,7	97137,2	368905,9	428112,1	354229,3	832017,0	1241384,7
– residents	12515,4	4161,3	4859,7	5593,9	8957,8	5574,1	10579,0
share of residents, %	5,5	4,3	1,3	1,3	2,5	0,7	0,8
– non-residents	215696,3	92975,9	364046,2	422518,2	345271,5	826442,9	1230805,7
share of non-residents, %	94,5	95,7	98,7	98,7	97,5	99,3	99,2

* Source: according to Natskomfinposluh [<http://www.dfp.gov.ua>].

So, the amount of the reinsurance premiums received under the reinsurance contracts and concluded by the brokers increased during 2010–2013 from 228,211.7 thousand UAH to 428,112.1 thousand UAH (almost by 1.9 times), but in 2014 it decreased to 354,229.3 thousand UAH (by 1.2 times), and in 2015–2016 it increased dramatically by 2.3 and 1.5 times. During 2010-2016 the value of premiums under such contracts varied due to the reinsurance contracts concluded by the brokers with the reinsurers-non-residents, who were transferred the majority of the reinsurance premiums. Thus, over these years there was a trend stating that the share of premiums, received by foreign reinsurers, increased from 94.5% in 2010 to 99.2% in 2016.

However, over these years the amounts of premiums dramatically reduced, which were transferred to the national reinsurers with the help of brokers. This fact meets the same trends of the development of the incoming reinsurance Ukrainian market as a result of the negative impact of the crisis on the financial ability of the reinsurers to take the responsibility for the insurance risks. In 2014 the negative changes were due to a decrease of the amount of the reinsurance premiums transferred to both the reinsurers-residents and non-residents. But under the reinsurance contracts with the reinsurers-non-residents the premiums reduced slower than under the reinsurance contracts with local insurers. Accordingly, in 2015 the share of foreign reinsurers in the reinsurance premiums, obtained with the help of the reinsurance broker, increased to 99.3%.

Having reviewed the structure of the reinsurance premiums under the reinsurance contracts involving mediation, we must note that the brokers operate in all segments of the reinsurance market, but the high proportion of premium income they provide by property insurance, the risks of which are characterized by high cost. In particular, the property insurance has the largest share of voluntary types with a tendency to increase in the structure of the reinsurance premiums from 41.3% in 2010 to 56% in 2015 and to decrease to 48.8% in 2016. However, the share of compulsory insurance of civil aviation decreased and it was 26.0% in 2016, where 99% of such reinsurance contracts were concluded with the reinsurers-non-residents by the brokers. This is obvious because the aviation insurance is characterized by high level of risk and cost, and such risks can only be accepted by highly capitalized foreign reinsurance companies.

There was a lack of development of the brokerage in life reinsurance in 2010-2016, as there were no insurance contracts.

We should note that the dynamics of the reinsurance premiums transferred to the reinsurers with the help of brokers was similar to the changes in the number of the reinsurance contracts signed through their dealership. Accordingly, the share of the reinsurance contracts concluded with the reinsurers-non-residents by the reinsurance broker notably increased (from 98.9% in 2010 to 99.3% in 2015), but in 2016 a number of contracts increased, which were concluded with the reinsurers-residents by the brokers.

Such dynamics is evident because under the impact of the crisis on the national reinsurance market, characterized by low level of its capacity and capitalization, the broker's «usefulness» decreases while signing the reinsurance agreements between the Ukrainian participants of the reinsurance processes, due to the necessity of

additional costs to attract him. Therefore, the market is dominated by the reinsurance relations based on the principles of «reciprocity».

The high proportion of the reinsurance brokers in the process of signing the reinsurance agreements with the reinsurers-non-residents is explained, on the one hand, by the presence of cheap reinsurance capacity at foreign reinsurance markets, the possibility to place large and valuable risks according to the obligatory programs, guarantees to provide a reliable and professional reinsurance protection, and on the other hand, the risks at foreign reinsurance markets are usually placed with mandatory participation of the brokerage companies. Accordingly, in 2016 the share of premiums received by the reinsurers-residents under the reinsurance contracts, which were concluded by the brokers, was only 21.4% in the total amount of the reinsurance premiums of the local reinsurers. In the structure of premiums transferred to foreign reinsurers the proportion of the reinsurance premiums obtained with the help of the reinsurance broker was much more higher.

The analysis of the dynamics of the reinsurance payments under the contracts concluded with the help of the reinsurance brokers shows a sharp increase in the level of payments from 5.1% in 2011 to 25.2% in 2015 and decrease to 1.9% in 2016. It was a positive trend in 2015, indicating the growing role of the broker while signing the reinsurance contracts, improving the quality and professionalism of such mediation services at the national reinsurance market. It should be mentioned that 90 percent or more (in 2016 – 100%) of the reinsurance payments are provided by the reinsurers-non-residents; this confirms the high level of their reputation and qualifications. In 2016 property insurance had the largest share (88%) in the structure of payments that were compensated by the reinsurers under the reinsurance contracts, concluded by the brokers. However, the income of the reinsurance premiums was only 48.8% due to this type of insurance, indicating high loss of the risks reinsurance under the property insurance.

In national statistics, according to the current insurance legislation, there is an indicator of the compensation amount for the provision of the intermediary services in the reinsurance, received by a broker from the reinsured. Let us analyze this figure and determine its dynamics in 2010–2016 (tab. 4).

Table 4

The commission compensation of the reinsurance brokers received from the reinsured for providing the reinsurance intermediary services in 2010–2016, thousand UAH.*

Indicators	Years						
	2010	2011	2012	2013	2014	2015	2016
Compensation for the reinsurance intermediary services	10020,0	19204,8	15613,6	17158,4	16743,6	24059,3	24693,7
The share of the commission compensation of the broker in the reinsurers' premiums, %	4,4	19,8	4,2	4,0	4,7	2,9	2,0

* Source: according to Natskomfinposluh [<http://www.dfp.gov.ua>].

Accordingly, the profitability of the reinsurance brokers at the national reinsurance market is low, but it increased to 19.8% in 2011 and decreased to 4.7% in 2012–2014. During the last two years, the share of commission compensation of the reinsurance brokers in the reinsurance premiums decreased more than doubled and in 2016 it was only 2%. This tendency is explained by the increasing dynamics of the reinsurance premiums received under the reinsurance contracts, concluded with the reinsurers with the help of brokers, as if compared with the amount of commissions.

So, the negative aspect of the mediation activities development at the market is the reducing of the percentage of the brokerage commissions in the premiums of the reinsured, indicating the decrease of the role of the reinsurance brokers at the reinsurance market of Ukraine. The lack of awareness of the role and place of the insurance agents in the sale system of the reinsurance services and balancing the interests of the participants of the reinsurance processes, inadequate legal regulation of the mediation activities at the national reinsurance market needs to find the alternative variants of the realization of the economic interests of its members with professional agents.

The results of our research confirm the existence of problems relating to such an insurance market infrastructure element as the insurance brokerage. This can be explained by the lack of state concept and program of creation of the insurance agents institute, by ignoring the role of the insurance broker in improving the quality of the insurance services, by low insurance culture of the population, and negative attitude of the society to the insurance in general and dealership directly.

Another problematic aspect is the fact that, according to the norms of existing regulations, the insurance mediation in Ukraine is aimed at strengthening the protection of property interests only of enterprises, institutions, organizations and citizens while obtaining the insurance services through the insurance agents [2], and according to Western practice the insurance mediation provides the economic interests not only of the insured persons, but insurers as well. And it helps the realization of the insurance services, mediates, accelerates and facilitates the conclusion and implementation of the insurance contracts, leads to the coordination of the insurance market members [3].

Some scientists mention the fact that in the leading world countries the institute of the insurance mediation has a positive effect on the labor market, including the emergence of the majority of jobs (full-time and freelance), promotes the increasing of the employment, because about 1–1,5% of the population work in this sphere, including the independent agents, part-time members and the participants of the multilevel marketing networks [4, p. 164]. We may note that the imperfect legislation is a major problem that doesn't help the growth of the insurance brokerage role as a realization channel of the insurance products, which can have a significant impact on the balance of interests of the insurers and reinsurers. In this context it is necessary to amend some changes in the current regulations in terms of such issues concerning: requirements for the experience and the relevant qualifications of insurance (reinsurance) broker; basic obligations and restrictions on the activities of the insurance (reinsurance) brokers; provisions that explain the broker what he should do in case of controversies with the insurance companies and brokers, and the other

customers as well; receiving the compensation by the insurance brokers exactly from the insurance companies, due to the international practice.

Implementation of all the above mentioned measures will provide the development of the insurance mediation as a professional institute of the insurance market, which in turn will improve the interaction between its main participants and attract a broader range of insurance services consumers; it will also simplify the concluding and maintenance of the insurance contracts, and allow to invest the main part of the insurance reserves costs into the financial and banking system of our country, and provide a growing of the insurance market share in Ukraine's GDP.

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8.2. Life insurance market in Ukraine: problems of functioning and the European development vector

Social and economic transformations taking place under the influence of globalization and internationalization, cause the need to change the development vectors of some ecosystems. An important role is assigned to the insurance market, which makes it possible to bring to a higher level of development its economic component. Its effective operation contributes to economic stability and financial security of business entities. At the same time economic agents are provided with insurance protection against the many risks of both natural and anthropogenic origin. Moreover, the country's investment potential is improved through funds accumulated by insurance companies in the form of insurance reserves.

Ukraine's participation in the world economic system necessitates the development of all components of the insurance market. Priority role among them is played by life insurance market. This will allow the state on the one hand, to continue performing its assigned social tasks problems, and on the other hand, will boost the activities of its related areas. For citizens, life insurance is an effective tool for their insurance coverage and the source of future wealth. Therefore, the formation of highly organized and well-functioning life insurance market in Ukraine is an appropriate infrastructure corresponding to the chosen European vector of development, and is timely and important task today.

An important contribution to the study of theoretical and methodological principles of the functioning of life insurance market is made by such domestic and foreign scientists as T. Artyukh, N. Vnukova, O. Kashkaryova, H. Kulyna, N. Nalukova, D. Hofmann, R. Pukala and others. While acknowledging the existing achievements and not diminishing their value, one should focus on finding possible ways of evolution of life insurance market in Ukraine to overcome the problematic aspects of its operations and make it comply with European vector of development.

The aim of the study is an analysis of the main indicators of the life insurance market in Ukraine, identifying its present stage operational issues and, taking into account international experience, defining implementation prospects of the European vector of development.

Insurance relationship emerged as a means of protection from adverse circumstances (insured events/accidents), natural or anthropogenic disasters faced by people, society and wealth accumulated by them [1, p. 16]. The emergence of life insurance is caused by the development of insurance and the need for more systematic social security. In essence, it embodies civil relations between insurers and policyholders resulting in protection of insured persons' property interests in relation to their life and health insurance, as well as accumulation of their specific savings in the form of insured capital and investment income. Unlike the classic risk insurance, life insurance «does not provide compensation for material damage but guarantees insured citizens or their families ability to get financial assistance» [2, p. 10].

We believe that life insurance enables citizens to address a whole bunch of social and economic issues such as:

- financial protection of family in case of losing its breadwinner and the deceased family member's income, or in case of temporary/permanent disability;
- supplementary pensions;
- accumulation of funds to financially support children when they reach adulthood;
- insurance coverage of private business, inheritance, etc.;
- increasing personal incomes by providing bonus taxation benefits and life insurance premiums.

Thus, the role of life insurance market effectively operating in the country can hardly be overestimated. As for Ukraine, the activation of the life insurance is very urgent because of the problems that have developed in the domestic social sphere, and whose solution the state is trying to provide. This includes coverage of personal financial expenses due to contingencies that adversely affect people's lives or health. It is also the right to participate in the profits of the insurer and the possibility of attaining a comfortable old age.

As for the domestic life insurance market, it should be emphasized that by 2000 it was in a state of decline. Only starting in 2001 the situation began to somewhat change and the proportion of net premiums on life insurance in the total volume of collected insurance premiums of the country began to rise (from 0.59% in 2001 to 10.4% in 2016) (Fig. 1). Only 30 life insurance companies that operated in 2001 managed to reach this.

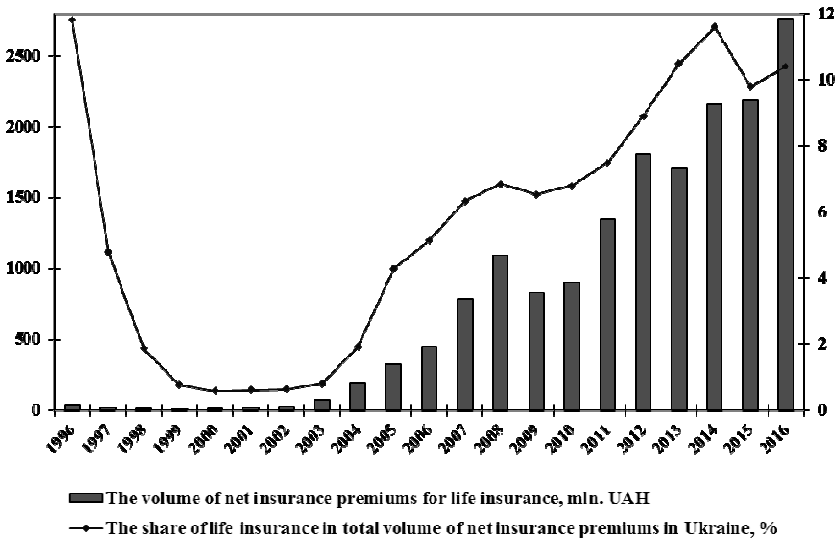


Fig. 1. Dynamics of net insurance premiums and life insurance share of life insurance in total volume of net insurance premiums in Ukraine for 1996–2016.*

* Developed by the author based on [3].

Fig. 1 shows that in the period from 1996 to 2001 life insurance market was in decline. It was only after the adoption of the Law of Ukraine «On insurance» from 04.10.2001 Number 2745-III, when situation changed for the better. This lasted until 2008, when the country was engulfed in global financial crisis, and volume of life insurance agreements fell sharply from 1095.3 to 826.9 million UAH (by 268.4 mln. UAH, or 24.5%). Later trends in the market showed upward dynamics, indicating a recovery of people’s confidence in the listed financial services and improvement of their own financial position. However, due to the policy of changing life insurance standards for life insurance companies in order to provide their additional capitalization, by 2017 23 companies left the market. Moreover, the number of individuals insured under life insurance contracts, reduced (Table 1).

The number of insured persons in 2012 was 1.81 million, in 2013 it was 1.77 million, in 2014 – 1.29 million, in 2015 – 1.38 million, and in 2016 – 1.38 million. Compared to 2012, it shows the decrease by 430.9 thousand people. Overall domestic life insurance market has the following characteristics and operational issues:

1) high concentration of total premiums. In particular, 99.5% of their volume is accumulated by the top 20 market leaders, 89.4% account for the top 10 insurers and 43% of the market are covered by the top 3 insurance companies. As for 2016, the top 10 largest life Insurance companies include:

- «MetLife Ukraine» IC with its 433.4 million UAH net premiums;
- «TAS» IC – 209.8 mln. UAH;

- «UNIQA Life» IC – 191.7 mln. UAH;
- PZU Ukraine Life – 169.5 mln. UAH;
- «ASKA-Life» IC – 169.5 mln. UAH;
- AEGON Life Ukraine – 110,3 mln. UAH;
- «Life Insurance Classic» IC – 58.5 mln. UAH;
- AXA Life Insurance – 29.3 mln. UAH;
- «INGO Life Insurance» Stock IC – 17.4 mln. UAH;
- «Tecom-Life» IC – 1.3 mln. UAH [4].

2) moderate monopolization of the market (oligopolistic competition), as indicated by the Herfindahl-Hirschman Index (HHI), which in 2016 amounted to 1079.59, while in 2015 it was 982.98. Therefore, the leading insurance companies in fact act like oligopolists in the market whereas other participants primarily serve the interests of their shareholders, and hardly ever develop [5, p. 106]. However, a positive factor is that life insurance companies with 100% domestic capital are among the market leaders.

Table 1

Indicators of development of life insurance market in Ukraine for 2012-2016.*

Indicators	Years					Change 2016/2012	
	2012	2013	2014	2015	2016	absolute	%
1. The number of companies, units	62	62	57	49	39	-23	37,1
2. Gross premiums, mln. UAH, of them:	1809,5	2476,7	2159,8	2186,6	2756,1	+946,6	53,2
– from individuals	1667,6	2337,4	2040,4	2067,1	2636,9	+969,3	58,1
– from individuals	141,9	139,3	119,4	119,5	119,2	-22,7	16,0
3. The proportion of individuals in gross premiums, %	92,2	94,4	94,5	94,5	95,7	+3,5	3,8
4. The share of legal persons in gross premiums, %	7,8	5,6	5,5	5,5	4,3	-3,5	44,9
5. Gross insurance payments, mln. UAH	82,1	149,2	239,2	491,6	418,3	+336,2	409,5
6. The level of gross payments, %	4,5	6,0	11,1	22,5	15,2	+10,7	377,8
7. Net premiums, mln. UAH	1809,5	2476,5	2159,7	2186,6	2754,1	+944,6	52,2
8. Net insurance payments, mln. UAH	82,1	149,2	239,2	491,6	418,3	+336,2	409,5
9. A number of concluded insurance contracts, thousand units	320,6	356,8	481,0	1087,3	846,4	+525,8	164,0
10. The amount of reserves on life insurance, mln. UAH	3222,6	3845,8	5306,0	6889,3	7828,2	+4605,6	142,9
11. The number of individuals insured at the end of the reporting period, thousand people	1809,5	1771,7	1285,2	1549,4	1378,6	-430,9	23,8

* *Compiled by the author based on [3].*

This demonstrates the effective use of internally raised free cash by insurers in the financial system of the country, and their efforts to be competitive and financially stable.

3) negative growth value of insurance reserves for life insurance. Despite the increase in gross premiums in 2016, the magnitude of change in life insurance reserves amounted to 1.0007 bln. UAH. In 2015 its size was 1,719,500,000. UAH, and in 2014 – 1,461,400,000. UAH. This is due to early termination of life insurance

contracts. As a result, 13 insurers in Life Insurance business received a negative growth of their life insurance reserves totaling 37.2 mln. UAH, and only three insurance companies declared their growth in the size of 271.6 mln. UAH, 270.6 mln. UAH, and 210 mln. UAH respectively.

4) legislation lacks expressly regulated restrictions on the transfer of reinsurance risk on types of life insurance. This leads to the fact that insurance companies are turning to foreign reinsurers in order to solve this problem, thus letting some insurance obligations to flow out of the country. However, the presence of non-resident reinsurers in the life insurance market demonstrates high efficiency of external reinsurance.

5) low level of financial security and insurance culture of the population makes it impossible to increase the number of insured individuals. These include low levels of public confidence in insurance companies, long terms of life insurance contracts (3 years being the minimum period), and informational limits of their activities.

6) as a separate item we single out poor quality of risk management and managerial component in companies; limitations of investment programs attractive for placement of the insurance reserves on life insurance; imperfect legal framework regulating the operations of insurance companies in the area.

Global situation with life insurance is also ambiguous. Industrialized countries in particular are experiencing slower growth of its volume. The trend is reversed only in developing countries. The largest insurance life insurance companies in the world in 2016 were Axa, Zurich Insurance Group, China Life Insurance (Group) Company (LFC), Berkshire Hathaway Inc. (BRK.A), Prudential plc (PUK), the UnitedHealth Group Inc. (UNH), Munich Re Group, Assicurazioni Generali, Japan Post Holding Co., Ltd. and Allianz SE [6].

Overall in 2016, global life insurance premiums have risen 5.4% on an inflation-adjusted basis, up from 5% growth in 2015, and relative to an estimated 3.1% GDP growth rate of the global economy [7].

Table 2

In-force real premium income growth for life insurance, % [7]

Country	Years				
	2014	2015	2016	2017 F	2018 F
1. US	-1,7	4,36	1,6	1,7	1,7
2. Canada	7,6	3,5	3,0	3,6	3,7
3. UK	-11,9	17,6	2,2	1,5	2,0
4. Japan	6,8	1,5	2,6	2,0	1,3
5. Australia	26,5	-7,4	-5,7	4,1	4,1
6. France	8,4	1,3	1,4	1,4	2,6
7. Germany	2,4	-2,7	-2,3	0,9	1,3
8. Italy	29,5	4,0	-2,1	0,2	1,1
9. Spain	-2,5	3,4	23,9	1,5	0,9
10. Netherlands	-4,6	-16,9	2,9	1,6	1,6
11. Advanced markets	4,0	3,4	2,0	2,1	2,1
12. Emerging markets	7,8	13,2	20,1	14,9	10,9
13. World	4,7	5,0	5,4	4,8	4,2

In advanced markets, premium growth has slowed to 2% in 2016 from 3.4% in 2015. According to Swiss Re, emerging markets, in particular emerging Asia, were the main drivers of growth for the global life sector. Emerging market premiums for the full-year 2016 are projected to have grown by 20.1%, up from a 13.2% increase in 2015. Life insurers' net investment yields have been declining gradually in many countries. In Germany, for example, they have declined from 7.5% in 2000 to 4.5% in 2015. For about 5 years, the 10-year German government bond yield has been below the current guaranteed rate offered by German life insurers. Life insurers' net investment yields have been declining gradually in many countries. In Germany, for example, they have declined from 7.5% in 2000 to 4.5% in 2015. For about 5 years, the 10-year German government bond yield has been below the current guaranteed rate offered by German life insurers. This means that only investing in German government bonds while paying customers the minimum rate would lead to a loss [8].

The low yield environment is affecting the guaranteed rates of many European life insurers, not only in Germany [9]. The median guaranteed interest rates decline gradually over time. Since the beginning of 2014, the guaranteed rates are well above the Euro area 10-year government bond yield. The gap between life insurers' investment yield and the guaranteed rate has declined, but stays positive.

In Europe, the number of active insurance companies has declined continuously since the crisis. According to Insurance Europe data, the number of domestic active European companies operating in the domestic market declined by 6.9% from 2010 to 2014. As life insurers shift investment risk back to policyholders, they face greater competition from other financial institutions, including banks and asset managers. It is also questionable whether, from a societal perspective, individual policyholders are more suited to take long-term investment risks than life insurers. In many countries, life insurers are selling fewer products with sensitivity to interest rates and equities, and switching to lower risk products, including retirement-related business, with limited or no guarantees. They often shift the focus of new business towards unit-linked policies where the amount policyholders receive at the end of the term or in retirement is linked to the change in the underlying value of the investments they chose. Policyholders thus bear the investment risk.

In Europe, life insurers are gradually withdrawing from the provision of longer-term return guarantees [8]. In France, in 2015 net inflows to unit-linked products almost doubled compared with the previous year, while inflows into euro-denominated products declined by 25% [10]. At the euro area aggregate level, unit-linked insurance constitutes about 20% of life insurance policies.

Despite the very low level of interest rates, there is relatively limited evidence of an industry-wide shift of assets to «riskier» categories [11]. There are indications that some insurers have redirected their investment strategies towards some riskier asset classes and activities, but aggregate numbers do not indicate a widespread and materially significant practice [12]. This may, however, be reflecting the challenge of identifying empirical evidence of a search for yield/increased risk taking, given that changes in aggregate asset allocations tend to be limited over time and can result from a range of different factors. For some European countries, it may also be related to the

advent of Solvency II, which introduces risk-sensitive capital requirements and market-based valuation.

The low level of interest rates and investment yields puts tremendous pressure on life insurers to improve their expense management and to reduce costs. According to McKinsey, the average costs of equity for a cohort of life insurers in the years from 2000 to 2013 was 9.6%, exceeding the average return on equity of 8.8% [13]. Thus, tackling cost issues is likely to be a top priority. A negative gap (ie cost of equity exceeding return on equity) is not sustainable in the long run since life insurers will not be able to deliver the return required by equity investors. Over time, this will make it difficult for life insurers to attract capital and finance their growth. According to data for a cohort of 30 global life and composite insurers, the gap did close and the return on equity exceeded the costs of capital in 2015, owing to an improvement in life insurers' earnings and favourable equity market conditions, but widened again in the first half year of 2016.

Global premiums in traditional life reinsurance, consisting of mortality and morbidity, are estimated to have grown by 1.5% in real terms in 2016 [7]. Standard & Poor's observes a continued shift to proportional and primary lines of business from non-proportional reinsurance business, as price reductions in the former lines of business are less severe than in the latter [14]. In the first half of 2016, publicly listed reinsurance companies have returned more than 70% of their earnings to shareholders via share buybacks and ordinary and special dividends [15].

Reinsurers' profitability is under pressure. Combined ratios in the first half-year of 2016 increased to 94.1% due to slightly higher natural catastrophe losses (H1 2015: 91.5%). Investment yields, excluding realised and unrealised capital gains, remained modest at 3.1% (H1 2015: 3.3%). On average, reinsurers in the first half-year of 2016 reported an annualised return on equity of 8.3%, down from 10.4% in the same period last year. Results continue to be bolstered by releases of prior year reserves which represent around a third of net income, according to estimates by Willis Re.

Conditions in the global reinsurance market are expected to remain competitive and challenging. Reinsurers' earnings have been heavily supported in recent years by benign catastrophe experience and significant prior-year reserve releases. These trends are, at least in part, due to luck. Although this has allowed reinsurers to consistently maintain relatively comfortable profitability measures in recent years, the returns may not be sustainable.

As a result, we note that both regional and global life insurance markets are actively developing. Growth of the aging population, natural and anthropogenic disasters, resulting in significant human and material losses, contribute to this. Dominant market positions are occupied by Britain, the US and Japan, due to national features of these countries, and the mentality and the insurance culture of their population. Ukraine is also an active participant in globalization and European integration processes. This requires the unification of life insurance market operating foundations with European standards and directives. The principles of Solvency II are not perfect but they do represent genuine progress: investment freedom in return for compliance with the «prudent person» principle, joint valuation of insurance assets and liabilities, and the taking into account of «long-term guarantees» to mitigate the

effects of financial market volatility on capital. That said, there are a number of developments that would be desirable. A review phase of the standard formula and the long-term guarantee package is scheduled at the European level for 2018–2020. This step provides an opportunity for improvement in at least three areas [10]:

– firstly, the simplification of the regulatory framework. The complexity of the standard formula is neither desirable for the industry which has to produce these new calculations, nor for supervisors, nor for financial markets.

– secondly, insurers should remain a genuine lever for financing the economy. The insurance sector is the largest institutional investor in the European Union, with almost EUR 9,800 billion invested in the economy in 2015. You have often brought this issue up with me... and it has now been clearly identified at the European level. There are already plans for improvements in two areas, upstream of the review phase: infrastructure corporates on the one hand – EIOPA has proposed a revision; highquality securitisation products on the other. More generally, it is essential to consider the potential deterrent effect of Solvency 2 on more «risky» investments, which are necessary to ensure the proper functioning of our economy: equities, whether listed or unlisted, loans to SMEs and MTEs but also green assets or investments in innovative companies.

– finally, we know that Solvency II is more volatile than the previous regime. Measures have already been integrated to limit the procyclical effects of a market value-based balance sheet. It is worth mentioning the matching adjustment, the volatility adjustment and the symmetric adjustment for equity risk, which complement a set of transitional measures to ensure a gradual entry into force of the new regime. The effectiveness of these measures should be assessed in the coming years, and if it proves inadequate, amendments should be proposed.

In this context it is necessary:

1) firstly, to introduce effective state regulation of life insurance according to EU standards to protect the interests of insurance consumers and restore confidence in the insurers. It should take into account:

a) the criteria for evaluating the effectiveness of state regulation, providing high quality insurance services; simplification of dispute settlement procedures; ensuring fair competition among insurers; increasing the solvency requirements for insurance companies;

b) efficiency evaluating indicators: the ratio of consumer complaints to the amount of insurance regulatory impact activities, growth of insurance customer satisfaction index; the share of consensus-reaching cases by means of pre-trial settlement of insurance services consumers' disputes; compliance of own funds with the required solvency ratio; c) a set of measures for compliance with EU standards [16, p. 55];

2) improve the quality of insurance products of life insurance and insurers skills in this area of insurance, especially medical underwriters. Active introduction of life micro-insurance services;

3) improve risk management mechanism through maximum automation of life insurance, which will enable insurers to quickly process large amounts of medical databases (automated underwriting);

- 4) development of insurance mediation assistance of life insurance brokers.
- 5) create a system that guarantees payments on insurance contracts, which will help implement the European vector of development of life insurance market, insurance programs and modernization of the state regulation in this sphere.

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8.3. Formation of company's effective financial policy

Building an effective economic environment in Ukraine is impossible without improving of financial system. Today an important place is given to the processes of the resource management. The ability to stabilize an economic activity, using modern technology and experience depends on the continuous improvement of the financial system. Overall, the efficiency of business activity depends on the level of informational and resource support, theoretical basis of which is constantly changing. Each operating manager knows that effectively organized finance can significantly increase the chances of success of his company.

Key aspects of the development of financial policy described in the writings of scholars: Blank I., Brigham E., Korobov M., Stoyanov E., Holt R. and others. They have formed the basic principles of the processes of implementing of financial policies. However, even until today, there is no clear criteria of effectiveness of financial policy. The main purpose of the investigation is to consider the basic aspects of performance criteria of implementation of financial policies of an entity.

A major precondition for Ukraine development is an enhancement of business activity. This can be achieved by improving processes of assets managing. That is the right choice in financial, investment area. This thing requires a constant search for the most appropriate methods to ensure manufacturers by sufficient amount of resources. And an important place here plays a diversification of their sources.

In general, the implementation of new methods of money management of company can ensure to it rapid development, high levels of turnover, profitability, liquidity and commercial, informational competitive advantages on the markets of goods and services.

Unfortunately, a large number of companies operate in conditions of constant uncertainty. They have a lack the financial and material resources. In addition, the current legal system in Ukraine is ineffective.

Many of companies do not have the scientifically based long-term development plans. They have not formed their own policies and aims. This is not to allow them to develop rapidly, directing efforts to normalize the structure of equity, increasing the efficiency of its management system. In that case they are not able to normalize the structure of their capital. We believe that normalized asset structure can provide an optimal income in a short time.

It should be noted that the current practice of financial and economic activity contains a number of shortcomings in the process of implementing new information systems of assets management [1]. It can reduce the effectiveness of their development and asset use. The problem is in choosing the most productive capital management mechanisms. Here, the enterprises face with two questions:

- how to choose the most appropriate methods of asset management;
- how the resources must be invested to ensure an acceptable level of economic efficiency.

In any way any improvements of assets cycle are able to increase effectiveness of financial activity and optimize profitability and to minimize risks. In other hand,

implementations of the main goals of financial policy of entity is possible only to commit through the financial subsystem of enterprise [1].

Type of organization of system of tangible and financial management can impact on the planned result. The entire life cycle of the company is accompanied by periods in which the lack of resources changes on their surplus. Their value determines what assets are used in the process of reproduction. If the price of external resources is such that dramatically reduces the amount of profit, the company is not able to cover current operation gaps in the financing of tangible flows. This situation leads to slower of asset turnover. Overall, all these things can effect on the final results of operation and reduce the overall efficiency of financial and economic activity. In that case the manufacturer has to respond quickly to the changes in current operating plans. He must restructure a composition of assets in circulation, increasing their worth and the level of liquidity.

Typically any changes in the structure of resource lead to lower planned level of profitability of the production cycle [2]. In this case the company tries to follow the short-term development plans. In such circumstances, the current efficiency of activity is reduced and negatively affected on the overall performance. The whole system is resource management is changing, accumulated experience partially is losing. Enterprises are forced to make adjustments in their own financial policies, using various methods of monitoring the factors that hinder the process of financial and economic activity.

On the other hand, concentrating on major aspects of normalization of asset management, company becomes less vulnerable on a market by optimizing its own profitability. The process of financing is a result of the effective organization of financial flows that are functionally coupled with strategic and tactical objectives. It should stick to the one of the basic principles of economic activity – coordination of economic interests of participants, using techniques of long cost optimization for material and financial needs. This method can stabilize the effectiveness of the entities activities.

The financial policy are materialized through a number of methods, which are used to sustain optimal level of profitability in the longer period of time. This tactical and operational work of the enterprise must be made to ensure rationalization of financial, information and human resources. It is formed on the basis of basic development goals and uses a set of methods to implement these aims, using processes mediating the relationship with the state, other companies and organizations [3]. Here the maximum attention is paid to the efficiency of capital turnover, which in turn, should correlate with the end results of financial and economic activity.

The main objective of the entity on a market is maximum realization of its potential and at for his expense achieving optimal levels of profitability throughout the life cycle. To make a way simple, financial policy should include a clear list of goals and methods to achieve them, the list of sources of financing of current and capital expenditures, the effective methods of optimizing the processes of formation and use of material and financial resources, the criteria of effectiveness of mechanism for implementing the company's plans, functional control methods, criteria for evaluation of achieved results.

Using the newest methods of capital management, the company is able to fully materialize its potential using the optimum amount of time and resources.

The process of development and materialization of financial policy begins with the formation of development plans [4]. The company must quickly maneuver, keeping the optimal cost of capital, the rate of development, using the optimal methods of planning and resource management. All efforts should be made to achieve the stated objectives.

Directing the efforts on cost optimization, the entity must choose the most effective financial management system that includes the possibility of adjusting its own activities in the case of need for rapid changes on a market. From another side, if resource management mechanisms are ineffective, it leads to synergies in the process of accumulating losses. False solutions generate an atrophied system of financial management. Its essence is reduced not to implement the strategic objectives of the entity, but to a constant correction of errors. Resources that could be aimed at the realization of objectives of enterprise are used for the purposes of normalization. Costs are rising, but result cannot be obtained, the efficiency is falling.

Moreover, this form of financial management, usually, is accompanied by an increase in losses and a reduction in profitability. In this case, production costs rise, cycle slows down.

As the company reduces the effectiveness of own activities, it is forced to adjust its long-term goals. Its tactical tasks will vary.

Tactical aspects of the strategic goals constantly change, because the entity has to operate under uncertainty. It does not control all conditions of activity.

Under such circumstances, the entity should constantly monitor the level of return of capital. It should maximize the benefits in the market by controlling the structure of money flows, being involved in new experiences.

Each company must constantly follow for innovations in the system of management of assets. The aim is to increase scientific and production potential, reaching key financial goals.

List of the conditions that allow the company to stabilize an activity:

- timely adaptation to the constant changes;
- diversification of production;
- finding new areas to realize the potential.

Optimization of the processes of money management system are the main driver of profitability. Thus we can normalize financial relations with other entities, which can effect positively on solvency and financial stability.

Effective turnover promotes of accumulating resources and is accompanied by their distribution and deployment. Conversion of financial current assets into the planned amount of profit serves as a resource for increasing economic potential of the company. The remaining revenue is used to fill fixed and current assets and is a part of the stabilization of financial and economic activity [5].

Given the uncertainty, companies usually concentrate efforts on optimizing profitability in the short period of time, keeping part of the excess profits in the stabilization fund.

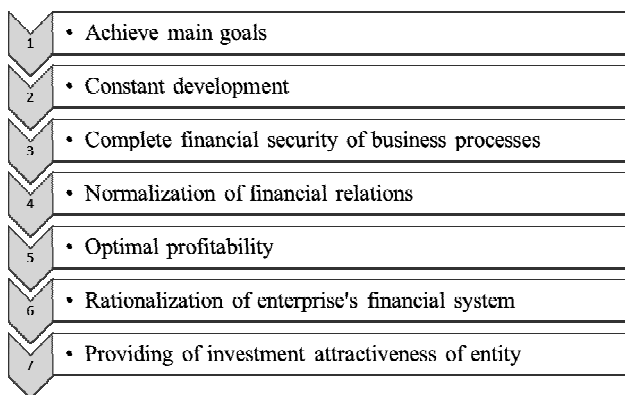


Fig 1. The main goals of financial policy of entity.

Financial manager that directs its activities to increase asset value should take into account that the nominal financial systems of management can bring only the minimum level of profitability, because current assets reversibility has been normalized. In such circumstances, it is necessary to restructure the resources, ensuring optimal profitability to achieve planned growth rates.

Current practice shows that today a large number of domestic enterprises has unbalanced structure of assets, which reduces the efficiency of all activities. Deterioration of quality and cost characteristics of the production cycle can decrease profitability. Therefore, in order to stabilize the main characteristics of the production cycle, manufacturers often use accounts receivable. It leads to a decline in financial discipline, revision of viewing the basic forms and methods of relationships with suppliers and customers, can increase the duration of payments and complicate them. The result is low efficiency of operation. If the conditions persist for a long period of time, the company loses resources. It should find the cheap resources, reducing all worth of liquidity.

The main reasons that negatively affect the financing of economic activity are:

- low financial and payment discipline;
- Imperfect tax legislation;
- Improperly formed prioritize of using of existing resources;
- poorly selected or implemented policies to promote products on the market;
- low liquidity,
- ineffectively planned and implemented processes of reproduction.

The scientists have generated information system of identification and elimination of constraints in funding of production cycle.

Its essence is as follows:

- we should originally calculate need for financial resources to finance the next production cycle;
- to define sources of funding, their cost, terms of turnover, profitability targets, the final level of liquidity in circulation;

– to calculate what percentage of redundant resources can be capitalized in the production cycle.

Much attention is paid to the cost of resources in circulation. At the same time each company should take into account that it must stabilize an activity in a long period.

Usually using only own resources, enterprises can reduce the cost of production in the current time. But sometimes it could be useful to use mixed funding. Its application process should begin with the calculation of future profitability using alternative sources of informational support.

In general, significant potential for raising the efficiency of asset management is in:

- optimization of liquidity;
- accelerating the turnover;
- improving the system of management of external cash flows;
- seeking opportunities to increase return of resources;
- improving production processes.

Unscheduled need on financial resources can be covered by credit. It can facilitate a filling the production processes by optimal amount of assets. In addition, company almost always requires a lot of money to support the process of circulation of capital assets. This is the main condition of performance.

There is a correlation between «short» and «long» money. Its essence is to ensure that one type of resources contributes to the restoration of another, ensuring their reversibility. The entity will be able to normalize the flow of financial resources if it can accurately predict and implement plans by the formation of parities between «short» and «long» money.

All investment business processes alter the structure of production factors. However, the efficiency of financial and business transactions does not directly affect the implementation of the strategic objectives of the entity. If the structure of functional assets not related to main objectives, the company will have to spend more time to decide its own problems.

An entity should watch that any investment would be profitable. The process of reinvestment of the revenue should stabilize the level of return on investment operations. It is this condition is a major factor of efficiency of finance of companies.

It should take into account that receives funds only in those areas that provide an adequate level of return on their investment.

Factors which determine the attractiveness of an entity include:

- the ability to set goals and achieve them;
- the skill to realize its potential;
- the knack to maintain a high level of liquidity;
- the art to develop a methodological framework for implementing investment and financial programs;
- the proficiency to ensure effective management of financial flows.

The implementation of financial plans also can be done because of the harmonization of financial relations. Herewith the major strategic objectives of the company are:

- achievement and maintenance of an acceptable level of profitability;

- normalization of financial relations;
- stabilization of money and material flow;
- optimization of processes of capital management;
- searching for suitable risk management techniques;
- increasing the profitability of financial and investment operations;
- introduction of monitoring the efficient management of resources;
- normalization of information processes in the enterprise.

There are several factors that hinder the development of business processes and achieve the objectives of financial policy. These are the personal and objective factors. They can impact unpredictable on business activity.

If these factors value increases over a long period of time, then the company should reorganize external relations, which may result in the loss rate of development in the short and medium term. This mechanism is often used to diversify supply and payments process. Herewith, the amount of current expenditures will increase only until moment of normalization of money and cash flows of the entity.

Sometimes entities have a need for forming such a capital structure that is functionally not linked to their main tasks. It is usually necessary to achieve short-term goals. In this case, the time of this type of activity should be minimized. After this a company must turn back to the processes of its development.

In general, clearly formed financial policy should take into account asset management processes to improve profitability and normalization of costs. In addition, it must contain the principles and methods of capacity implementation of entity, taking into account its features.

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8.4. Tax risks in the system of financial risks of enterprise

Enterprises come in contact with lot of risk situations in the market conditions. The variability of the economic situation in the country, changing of financial market conditions, expansion of financial relationships of economic entities, new financial technologies and tools are the main factors that lead to increasing of financial risks in the economic activity of enterprises.

The term «risk» is multifaceted. The existence of different opinions concerning the definition of its essence testifies to this. Thus, the following positions are considered when the term «risk» is interpreted. Firstly, risk is the probability of losing of the resources by the enterprise, as well as the possibility of profits' shortfall. Secondly, risk is the action which carry out under conditions of choice, if the action is not perform this is a threat to receive the unwanted result. Thirdly, risk is the process of overcoming of uncertainty in the situation of inevitable choice, in which it is possible evaluate the probability of obtaining of the planned result, suffering a repulse etc. Fourthly, risk is the instability, uncertainty about the future. Fifthly, risk is the uncertainty which is related with any event, some processes, as well as unfavourable conditions and consequences of carrying out the activities by the enterprise [1, p. 84–85]. Approaches to defining the essence of the term «risk» which are given above, form a system scientific views on the investigated problem.

It is one most unusual, among the approaches which are given above to the interpretation of the term «risk»: risk is the action which carry out under conditions of choice, if the action is not perform this is a threat to receive the unwanted result. This means, that when performing certain action it is possible to obtain the desired result. This approach is confirmed by the following definition: a financial risk is the probability of losing of the resources as well as the possibility of profits' shortfall and, at the same time, it is the possibility to obtain additional income which is associated with risk [2, p. 249].

So, financial risks are considered as speculative risks of the enterprise. This is because the, realization of financial risks may cause both losses and winning. In other words, speculative risks can lead to both positive and negative results, in contrast to the pure risks that lead to the obtaining only negative or null results.

It is one most common, among the definitions which are given above to the interpretation of the term «risk»: risk is the probability of losing of the resources by the enterprise, as well as the possibility of profits' shortfall. Specifically, such losses may occur in the company as a result of financial risk: reduce the amount or complete loss of profits; shortfall in planned income; occurrence of unexpected costs; loss of part of income or total equity capital [2, p. 248].

So, approaches that formulate the essence of risk which are examined above are to be noted, and they complex make this term multilateral. When we have examined the term «risk», it is advisable to define the essence of the concept of «financial risk». It will be possible to understand the concept of the term which is investigated more fully, with such chain of definitions.

It was found above that, firstly, the financial risk is defined by speculative risk of the enterprise, because it can lead to both positive and negative, and secondly, because of the realization of the financial risk the enterprise can be subject to different losses, even lose equity capital. It will be marked the summary formulation of essence of this concept later on: financial risk is the type of the risk, which occur in the economic activity of enterprises in the condition when a result that is obtained is different from the planned value, and the existing deviation is expressed in value terms [3, p. 133].

Different type of financial risks can occur in the economic activity of enterprises. Their main composition is shown on the Figure 1. One of them are systematic, or non-systematic, risk, because they are caused by unfavourable changing of different kind of the financial market conditions, on the other are non-systematic, or specific, risk, they occur because of ineffective economic activity of enterprises. Other reasons of their occurrence are related with the person of the entrepreneur, lack of information about the condition of the environment.

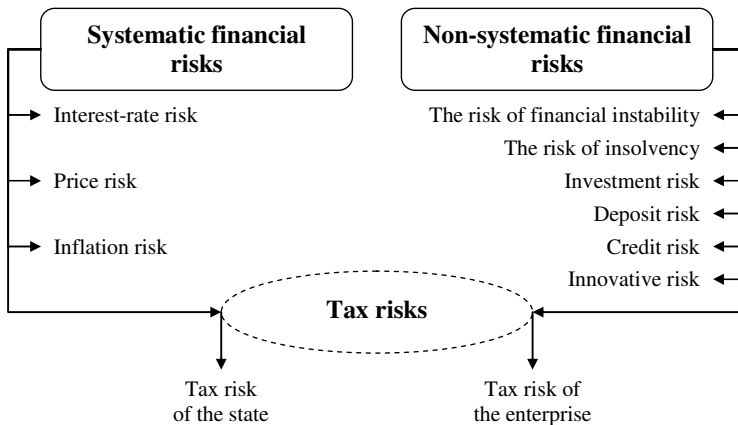


Fig. 1. Composition financial risks of the enterprise.

Note. Created by the author on the basis of [4, p. 23–26; 2, p. 249–252].

The enterprise can come into contact with interest-rate risk during the economic activity. Such financial risk occurs because the unexpected changes in deposit and loan interest rates in the financial market. Other reasons why interest-rate risk occurs are the following: changing of financial market conditions under the influence of state regulation; increase or decrease of offers of free cash flow, etc.

The enterprise can come into contact with another type of financial risk; it is price risk during the economic activity. When it is realized, the company sustains a financial losses which are connected with unfavourable changes in price indices for assets such as stocks, derivatives, gold, etc., which are traded on financial markets.

Inflation risk of the enterprise is quite topical today. Its essence is the threat of devaluation of the real cost of capital of the enterprise, and the expected income from implementation of financial transactions in terms of inflation by this economic entity.

Tax risks in the form of losses which may arise because of changing in tax legislation and errors which he made when calculate his tax payments threatens to the economic entity. If take into account reasons of tax risk occurrence, it is referred not only to the systematic financial risks, but also is found as the kind of non-systematic financial risks of the enterprise.

The risk of reduction of financial stability is the most dangerous financial risk for enterprise because it threatens to it by bankruptcy. The essence of this type of financial risk is that it occurs because of a suboptimal capital structure, in other words excessive proportion of borrowed funds are used by the enterprise. It leads to imbalance amounts of positive and negative cash flows of the enterprise in this case.

The risk of insolvency is also the composition of the most dangerous financial risks of the enterprise. The main reason of its occurrence is to reduce the liquidity of current assets, which leads to imbalance of positive and negative cash flows of the entity on time.

Investment risk is dangerous as well as previous enterprise financial risk. Such risk events indicate its occurrence: late preparation of investment projects; late completion of the design work; loss of investment attractiveness of the project through possible reduction of its effectiveness, etc.

An enterprise may fall under the influence of deposit risk when it will carry out deposit transactions. Incorrect evaluation and an unfortunate choice of banking institutions for deposit operations are the causes of occurrence of this type of financial risk. Deposit risk threatens the enterprise by the fact that the banking institution will able to not return its deposits.

An enterprise may come into contact with credit risk when providing trade, in other words commercial, or consumer loan to customers. Such risk is pronounced at non-payment or late payment for the end product, which are sold on credit by buyers.

If the enterprise wants to improve its products, it will threaten the innovation risk, because it is possible that the renewed range of products will not be in the expected demand. Such kind of financial risk can occur in the economic activity of enterprises in such circumstances as if it implements a cheaper method of manufacture of products in comparison to that which is already used; if the new products will be manufactured by means of the old equipment; if the new products will be manufactured by means of the new techniques and technologies [5, p. 28].

So, investigations of the composition of the main kind of financial risks, which can occur in the economic activity of enterprises, and also their essence and forms of occurrence, give the opportunity to make the conclusion that all of them are significant danger for this entity that is why the latter should be considerate to each of them. Consider the essence and forms of occurrence, of the financial risks in the economic activity of enterprises, taking into account the object of our study.

The scientific problem which concerns the determination of the merits of tax risks and identifying of forms of their occurrence is considered to be investigated on an insufficient level until now. But it should be noted that researchers of theory and practice of taxation pay more attention to the tax risk at the level of taxpayers in these days. Tax risks should always be in the field of view of researchers from the scientific community, because in the system of financial risks of an enterprise they rank among quite dangerous, because they create a menace for the stable activity and development of the enterprise.

It should start with reasoning about correctness of referring the tax risk to the group of financial risks of the enterprise. It is necessary to give the meaning which was expressed in scientific circles for it. This meaning according to which the most tax risks affect the final financial results of the enterprise activity directly and can be evaluated in monetary terms. Tax risks lead to direct financial losses that have monetary terms, and in addition they occur on the results of administrative decisions in field of finance of the entity. This give reason once more the idea that tax risks are financial risks of the enterprise again [6, p. 101].

It is necessary to distinguish the concept of the state tax risk and the entity tax risk, as it is shown in the Picture 1 i and as it was mentioned above, in this case the enterprise – the taxpayer. These concepts are different by the content, because subjects of tax relations which was mentioned, show different interests, so they require the use of different forms and methods of protection against current dangers and potential risks. State fiscal authorities want provide regular and full implementation of the plan of centralized funds of financial resources, as well as find ways to mobilize to this funds the additional costs. Whereas, economic entities as taxpayers want to minimize the tax burden in the form of fiscal payments both legal and illegal ways [6, p. 101–102].

If we're talking about the state tax risks, they are realized from the implementation of certain actions by the taxpayer, through which certain payments to the budget may come in late or incomplete, or with violation of tax laws, which can lead to loss of budget. The term «the state tax risks» are specified as causes of these types of financial risks and consequences to which they lead in the submitted definition.

If we are talking about the term «entity tax risk» it should be noted the following components in it as factors, which cause the occurrence of tax risks, and also results or consequences of their realization in the activities of the subject of tax relations (Figure 2). It is reasonable to quote the following definition which is proposed in the circle of local scientist: «Tax risk of a business entity is a type of financial risk, which has the objective and subjective nature and occur in the process of execution by the business organization of the taxpayer obligations» [6, p. 107]. All factors which can lead to the occurrence of tax risks are generalized by objective and subjective nature, of the latter, in this definition.

When continue to fill with meaning the theme of tax risks, it should be noted that their realization can lead to negative results, in particular, it may find that the financial results after the taxation of economic operation or economic activity of the enterprise as a whole, are not as expected [7, p. 119]. Realization of tax risks can lead in addition to financial losses also to other consequences like as general economic (for example, reducing of the efficiency of business); procedural law (such as the suspension of operations on bank accounts); social (including loss of business reputation now) [6, p. 105, 107].

If take into account that tax risks are speculative financial risk of the enterprise, their realization can lead not only to different losses (losses, unused opportunities, lost profits), but also to the opportunity to get additional benefits (income profit, cost savings, additional opportunities). This is probably a result of, respectively, the positive and negative deviations from planned goals of tax activity of entity which was mentioned [6, p. 107].

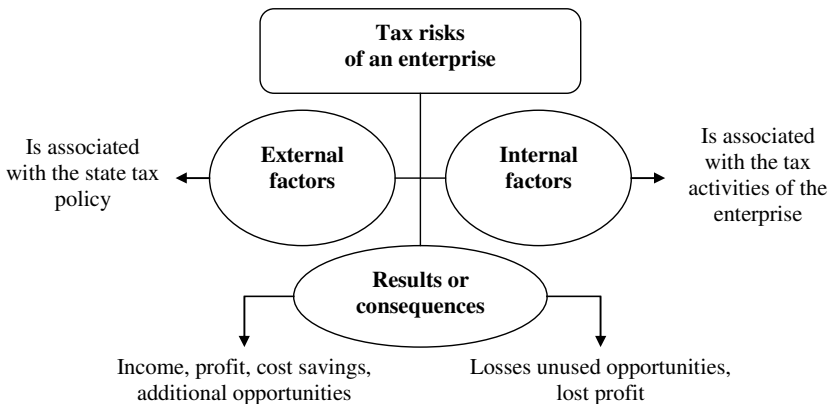


Fig. 2. Factors results and consequences of tax risks of the enterprise.

Note. Created by the author on the basis of [6, p. 104, 107].

It is necessary to remember the following definition of the term of tax risks: tax risk is the threat of occurrence of undesirable legal consequences for the subjects of tax relations, which are related to the process of taxation that is caused by negative deviations from projected scenarios in future periods [8, p. 154]. The definition of «tax risk» which was noted, according to our opinion, is general, so, it can be used both at the level of the state and at the level of the specific entity – the enterprise.

It is specified in the scientific literature that the tax risks of the enterprise can occur because of different reasons both external and internal. Therefore distinguish external and internal tax risks of the entity in accordance with them. The main causes of early risk are innovation in the tax policy of the state, in particular, introduction of new taxes; increase of tax rates; changing of methods of calculation of the tax base, terms and conditions of separate tax payments; cancellation of existing tax benefits in economic activity of the enterprises. Other risks can occur instead because of disagreement of accounting and tax calculations, absence or imperfection of tax planning at the enterprise, etc. [9, p. 207].

The view that presented above is not isolated in the scientific literature, because a lot national scientists think the same. So, all factors which determine the tax behaviour of the entity and lead to occurrence of the tax risks in it, are divided into external and internal. Thus, external factors that are independent of the taxpayer is, in particular, the current tax legislation and internal factors that caused by the work of the entity which includes internal management policy of the taxpayer [10, p. 66].

If give one of the scientific opinions, it is necessary to repeat once again that all the factors on which depends the occurrence of tax risks of the enterprise should be divided into external, that is exogenous and internal, that is endogenous. The first of them are not depend on the tax of the enterprise and related to the functioning of the tax system in general and the state tax policy for taxpayers as participants of tax relations. The second of them depend directly from the tax activity of the enterprise which provides fulfilment of tax obligations and their optimization [6, p. 104].

It should be noted in the course of scientific research that is very important defined objective and subjective factors that lead to the occurrence of tax risks clearly during researching of the theoretical tax risks of the enterprise. It will allow making provision for realization of tax risks and preventing their occurrence in economic activity of the enterprises. First of all we are talking about other factors because the first of them are related to conditions of realization of the tax policy in the state and are not affected by the enterprise.

If we talk about subjective factors of occurrence of tax risk of enterprise, an effective tax policy should be realized on this entity for their neutralization. It will be an opportunity to identify tax risks in time, analyse, and apply appropriate methods of management by them under such conditions. In other words, to prevent and eliminate tax risks is necessary to develop and realize the prudent fiscal policies on the enterprise with its effective measures and effective instruments of influence on the negative effects of these financial risks.

Finally, repeat the opinion of national scientists, which proves the importance of management by tax risks of the entity. In other words, taxes and fees is one of the major cost items for most entities. If tax risks in economic activities of the enterprise are ignored, it can lead to significant negative effects, including reducing the financial result, an increasing of tax expenses, the payment of financial penalties. So, the process of management by tax risk is actual and necessary on the level of the enterprise.

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8.5. Motivation of initial public offering of corporate rights on the stock market: global trends and Ukrainian realities

In terms of theory of finance financial market includes part of the free market economic system in which individuals and legal entities may trade securities and other specific financial instruments at prices that represent supply and demand. Financial markets, including stock markets have certain specific features, which are due to realization of specific financial products as well as the nature of interaction between buyers and sellers. Stock market facilitates the mobilization of capital and the development of international trade through the currency markets, increased liquidity, risk transfer, which significantly increase global operations integration level.

Initial public offering (hereinafter – IPO), is the first sale of corporate rights in the stock market. IPO process has many positive aspects for companies. The successful placement of securities on the stock market can provide companies with opportunities to increase their capitalization, improve diversification of their resource base, and gain access to cheap financing. The companies, whose shares are sold in the early days, are usually in the best situation. However, IPO may not always be successful. If the shares are not realized for a long time, investors may lose confidence and in this case the price of shares will be reduced, resulting in a failed IPO.

Nowadays the issue of involvement of IPO funds by companies is extremely important, due to the dynamic development of both domestic and international capital markets. The analysis of publications focusing on the development of the corporate securities market shows that scientists in their works particularly emphasize certain technical aspects of placement of shares, their registration procedures, forming offering prospectus, clarifying the conceptual apparatus in the relevant field, improving regulation system of banking transactions in the market for corporate securities, etc. In Ukraine, the issue of stock market entry for companies is investigated in the works of such economists as O. Androshchuk, O. Kovalyuk, N. Kuznetsova, D. Leonov, A. Moroz, O. Mozhovyi, M. Prozorov, V. Sutormina, O. Tereschenko, V. Fedosov, V. Shapran and others.

However, review of relevant scientific works shows that such issues as optimization of the IPO process and arrangement of the IPO work stages are given insufficient attention that is decision-making on primary placement of corporate rights in the domestic and international markets does not get enough scientific support. The lack of scientific justification in decision-making is one of the reasons why there is a relatively small number of Ukrainian IPOs, very little capital mobilization and high cost of its placement.

The purpose of the proposed research is to study the advantages of public offerings, as well as arrangement of the IPO work stages, and offer conclusions and proposals to improve the overall efficiency of the IPO.

Analysis of both global and domestic practices of raising funds through public offering of corporate rights over the period of 2006-2017 shows that in 2006 the number of companies that made their international IPO increased compared to 2005 by more than 30%. In Germany there were more than one thousand corporations

whose shares circulated in the organized financial market, whereas in the US its number was more than 7000 and in the EU about 5000.

Most of the IPO operations were carried out by US companies. For example, in 2006 US companies made 187 IPOs totaling more than \$34 billion USD. Among the countries of European region in that year the largest number of placements was made by companies registered in the UK (151 initial placements totaling more than \$17 billion USD). French companies raised almost 13 billion USD as a result of 75 IPOs. German companies carried out 63 IPOs resulting in over 8 billion USD. However, it was the Russian companies that accounted for the largest amount of capital mobilization among European countries in this period. Their 18 IPOs raised more than 18 billion USD. A total amount of funds raised through IPOs in the world amounted to 246 billion USD [1].

The financial market crisis of 2007-2009 slightly adjusted the quantitative and qualitative indicators, but did not change the IPO market main trends, which emerged in the last decade. 2007, despite the unfolding US mortgage crisis, became a record year for the number of performed IPOs and capital raised. 2014 IPO agreements worldwide amounted in 295 billion USD. The fall of the market in 2008-2009 was due to the global financial crisis.

Global IPO market suffered a significant drop in the volume and number of transactions in 2008 due to deterioration in the dynamics of the secondary market. In the first half of 2009, it was extremely inactive and gradually began to revive only in the second half of 2009. Secondary Public Offering (or SPO) market was recovering faster than IPO markets, since it is easier for the companies that are already known to investors, to raise capital. The reason is that IPO investments are riskier compared to SPO. In 2008-2009, more than 80% of transactions in the public equity markets were made in SPO. The total amount of IPO significantly increased only in the third quarter of 2009, when there was confidence in the global economic recovery.

Increased volatility in the secondary securities markets was the main reason for the suspension of operations in the primary market. In early 2009, investors could buy shares of public companies 50-70% cheaper than the previous year. This led to a widening gap between the expectations of shareholders and investors. The shareholders were not prepared to sell their corporate rights at low prices, whereas investors were unwilling to buy at prices offered by shareholders.

In 2010, the stock market almost approached its pre-crisis indicators in terms of capital raised. The increase in the average size of IPOs was associated with market appearance of large companies that set records in terms of capital placement. Issuers from Asia attracted the largest amounts of capital. In 2010, the Agricultural Bank of China made the largest transaction in the history of the global IPO market, when investors bought shares totaling 22.1 billion USD.

During this period the IPO market was entered by subsidiaries of large corporations that had already been made public, because for large companies with complex structures it is a tool of financing subsidiary business. Thus, one of the largest IPOs in history was the placement of shares of AIA Group (22,1 billion USD), the Asian subsidiary of AIG Group. Other major placements were made in 2010 by Samsung Life Insurance (4,4 billion USD), Enel Green Power (3,4 billion USD) [2].

In 2013, a two-year phase of reduced activity in the IPO market was over. Improving macroeconomic indicators, global currency market recovery, stabilization of the political situation and strengthening investor confidence in key markets were the factors that ensured increased activity on the IPO market by year's end, and whose results exceeded all expectations. Necessary conditions for further development of the outlined trends in the leading countries of the world were created. During this period in the US and European markets, where private equity funds were the major driving force, 182 agreements for 56.4 billion USD was signed, thus representing 35% of total global revenues for the mentioned operations.

According to the EY report «Global trends in the IPO market in 2013», by the end of 2013 the number of transactions reached 864, and the amount of capital raised amounted to 163 billion USD. In Asia, before the resumption of China's stock market in the first quarter of 2014 more than 700 companies were preparing to enter the IPO, which was the impetus for further strengthening of the activity throughout the region [3].

The total amount of funds raised by companies through IPO globally in the first quarter of 2014 totaled 47.2 billion USD, which was almost twice as big (by 98%) as in the first quarter of 2013, and by performance this period ranked the best first quarter since 2010. Most funds were raised by American companies: 10.7 billion USD, followed by Chinese corporations and Japanese companies, 8.5 billion USD and 4.9 billion USD respectively. European issuers increased their share considerably: from 22% in early 2013 to 35% in the first quarter of the same year. During the first quarter of 2014, European companies mobilized a total of 16.3 billion USD, which since 2000 for Europe was the best indicator of the beginning of the year for the last 14 years.

Notable growth was also demonstrated by Asian IPO market, whose total volume of transactions amounted to 12.7 billion USD in the first quarter of 2014, which is four times more than the previous year (3.3 billion USD).

However, in 2015 decline trends began to appear in the IPO market. These trends were characteristic of 2016 as well. The IPO volume in global markets in 2016 fell to the lowest level in 4 previous years.

In 2016 Global IPO volume fell by a third compared with 2015, to 141 billion USD, which was the minimum level since 2012.

The total volume of initial offering on the New York Stock Exchange (NYSE) and NASDAQ in 2016 totaled 24.6 billion USD, whereas on the Hong Kong Stock Exchange it was 24.5 billion USD. The volume of IPOs on the stock exchanges of New York only slightly exceeded the level of Hong Kong in 2016. The competition between these stock markets may increase in 2017, because at least three major Chinese technology companies that are ready to perform IPO, are choosing between New York and Hong Kong. For the American market the volume of IPOs has been the lowest since 2003.

In Shanghai in 2016 IPO volume reached 16 billion USD, and in Tokyo and Copenhagen it was 9.6 and 5.9 billion USD respectively. Over this period London stock market dropped to the eighth place in terms of IPO (5.5 billion USD).

The biggest IPO in 2016 was that of Postal Savings Bank of China Ltd (PSBC), which took place in Hong Kong in September, when the Chinese bank raised

7.4 billion USD. PSBC shares are currently traded at about 10% below their placement price.

Among the biggest IPO in 2016 we also note the IPO of Danish company Dong Energy, operating in the field of renewable energy, totaling 2.6 billion USD. Another leading Danish corporation, Net A/S offered securities amounting to over 2 billion USD in September of the same year, which allowed the Copenhagen stock exchange to enter the top five by IPO volume.

In this period in Japan the biggest IPO was that of a rail operator Kyushu Railway totaling 4 billion USD, held in October 2016, and in London that was IPO of ConvaTec in the amount of 1.5 billion GBP (about 1.9 billion USD).

For the NYSE the largest IPO was that of the Chinese company ZTO Express in the amount of 1.4 billion USD, held in October 2016 This placement was also the slowest in terms of the dynamics of the shares on the first day of trading, when ZTO equity securities fell in price by 15% [4].

The IPO results of the companies in leading world economic powers in the first quarter of 2017 are reflected in Fig. 1.

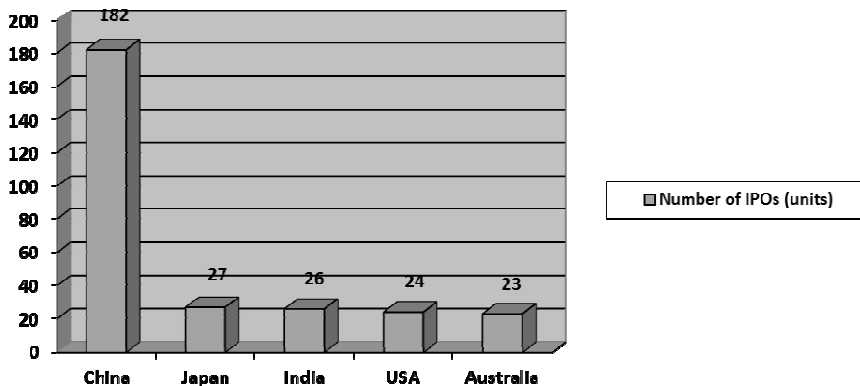


Fig. 1. Leading countries by the number of IPOs of companies in the first quarter of 2017 [5].

Analysis of the data presented in Fig. 1 shows that the first quarter of 2017 the leader in the number of IPOs among the leading countries is China, a representative of Asia.

According to most experts, 2017 should be more favorable for the IPO market. In particular, the stock exchanges of New York and Hong Kong will lead in terms of IPOs.

IPO history in Ukraine includes 11 years since the first Ukrainian placement, on 11 February 2005 on the alternative platform of London Stock Exchange (AIM LSE). Ukrainian issuers conducted capital raise through IPO in most cases using trading platforms in London and Frankfurt. Several then successful Ukrainian companies placed their securities in these markets. In 2005 Ukrproduct Group subsidiary, which was part of the group «Ukrproduct» (a large dairy producer) placed

its shares on the London Stock Exchange. The company sold a stake of about 27% for 11.3 million USD. The shares were purchased by 18 institutional and 33 private investors. The market capitalization at the time of placement amounted to 43 mln. USD, however at the end of 2006 its market capitalization fell to 32 mln. USD.

In the same year the company «XXI Century» (through its subsidiary XXI Century Investments) placed on the above mentioned stock exchange about 35% of its shares, thus raising 139 million USD. The company's shares were bought by 95 investors from 12 countries. The market capitalization of the company in 2006 increased from 370 million USD since the initial placement up to 540 million USD in 2007, thus indicating steady increase of its shares market value. In April 2005 Cardinal Resources LLC engaged in energy resources in Western Ukraine performed IPO on AIM LSE. The company sold 39.7% stake for 20 mln. USD. However, the market capitalization of Cardinal Resources LLC, which at the time of initial placement was 54 mln. USD, by the end of 2006 fell to 41 mln. USD.

In 2007 TMM Construction and Investment Company (through its subsidiary, a Cyprus company TMM Real Estate Development) successfully placed on the Frankfurt Stock Exchange 13.11% securities and raised 104.9 million USD. According to its IPO results the total capitalization of TMM Company was estimated at 800 mln. USD. The overall placement of securities was purchased by well-established and long known investment funds. Immediately after the public offering the corporation's capitalization increased to 866 million USD. In the same year on the London Stock Exchange 100% stake in the investment fund Dragon-Ukrainian Properties & Development PLC, which also specialized in real estate investments, was sold for 208 million USD. After the public offering quotations of shares increased by more than 34% and its market capitalization reached 280 mln. USD. IPO of Ferrexpo AG, which owned 86% stake in Poltava GOK, was also carried out on the London Stock Exchange platform. 26% of its shares amounted in 420 mln. USD [6].

The most successful Ukrainian IPO was completed by «MHP» JSC in 2008, amounting to 322 million USD on the London Stock Exchange. During the IPO the corporation was estimated at 1.7bln. USD and became the first Ukrainian agricultural company which conducted an initial public offering on the London Stock Exchange.

In 2008 domestic companies carried out 40 IPO altogether, the major trading floors being LSE, WSE, NASDAQ OMX, WSE Catalyst, LSE AIM, Toronto SE, Frankfurter Wertpapierbörse, Stockholmsbörsen, Euronext, Paris Bourse. Top IPO performance on the Ukrainian market was observed from 2005 to 2011 with two stages of its maximum amplitude: 2005-2007 and 2010-2011 [7].

As a result, by 2008 Ukrainian IPO market was marked by soaring of its all possible indicators. During this period, businesses in Ukraine tried to operate and improve their financial parameters with new capital raised, not their own revenues. At the same time, investment business, being a new kind of business, was actively forming in the country; and amounts of capital markets were increasing until the onset of the global financial crisis.

The capital market in Ukraine from 2009 to 2015 fluctuated sharply, which was reflected by the opposite trends. As a result, large volumes of attracted investments turned into losses (in 2011 and 2014-2015). The negative effects were

also caused by global adverse conditions and poor professional training of managers in the fields of economy and politics.

Thus, Ukraine has formed a significant pent-up demand for IPOs as a tool to attract capital, because due to the high financial risks in Ukraine the IPO of domestic companies in global financial markets remains fairly remote possibility. The described situation in the stock market forces companies to look for alternative sources of funding, such as investments by investment funds, joint ventures with strategic investors or selling them their controlling stakes. It is expected that after the negative fluctuations (both political and economic) Ukraine will experience new growth, including the IPO market, with Warsaw and London stock exchanges traditionally being the most popular sites.

The main reasons that motivate management and owners of companies to IPO are caused by the desire to improve the financial and economic situation of a company as well as its owners. The essence of main advantages to the issuing company, which is achieved due to its entering the organized financial markets, can be described by the following theses:

- improved opportunities to raise equity capital, including available additional source of financing in the form of emission premium;
- the conditions for the formation of favorable prices to attract both own and borrowed capital;
- increased level of financial independence and flexibility of the company by reducing the need for credit resources;
- the stock market makes it possible to always have adequate information on market capitalization of a company, and a company listed at the stock exchange gets an extra premium to its cost due to the company transparency;
- primary distribution is carried out among a large number of investors, many of which do not claim control over the company;
- diversification of financial risks is ensured;
- company's status, its image and its investment rating increase, which greatly facilitates its activities in the capital market as well as in other markets, including commodity and labor ones.

The main reasons for company owners to perform IPO are as follows:

- increasing the value of the share of corporate rights resulting from the use of the above benefits for the company;
- ensuring a high level of corporate rights mobility, resulting in minimal costs of transfer of ownership, simplifies the inheritance procedure and enhances their market value;
- a relatively low level of information asymmetry reduces the risks arising from principal-agent conflict and minimize the so-called problem of «lemons market»;
- in case of IPO there is a possibility to list less than 50% of the total statutory capital, which makes it possible to maintain control over the company.

The issuing company's dominant motive for IPO is using an attractive source of funding in order to implement the strategy of economic growth and improve its capital structure. All other advantages are attendant. For owners the priority is the

motive to increase the market capitalization of the company. Along with the undeniable advantages of IPO this financing tool also has some problematic aspects that need to be considered when making relevant decisions.

First, the initial public offering of corporate rights in the stock market is accompanied by significant costs. According to various estimates, the overhead costs associated with the IPO, range from 1.5 to 15% of securities issue volume, depending on company size, volume of issue, the need for transforming the reporting and business restructuring, and the stock exchange on which the planned public offering of corporate rights is going to take place. However, the IPO charges are one-time, while the capital is raised for an unlimited period. Thus, the nominal price of capital raised through IPOs, in any event, will be lower than the percentage of bank loans or bonds issued. On the other hand, from the company's standpoint the cost of its own equity capital as such, includes the remuneration of its owners. With that in mind the price of its own capital mobilization is always higher than the price of loans attraction. However, in terms of ownership, cost of capital includes only the overhead costs associated with the deployment of corporate rights and other concomitant events.

Second, the preparatory and organizational activities of the IPO have significant duration. According to experts, the time of the decision to raise funds through an IPO before the first day of listing for Ukrainian companies can take up to three years (for reputable foreign companies this period lasts just over six months). This is caused by considerable preparatory work, which is necessary to do before the public offering of shares. Here the determining factors are the transition to International Financial Reporting Standards and compliance with all preconditions for the organization of business, which are regulated by national legislation of the country of origin of the stock exchange on which the planned public offering is going to take place, such as SOX requirements in the US.

Third, it is mandatory to comply with disclosure requirements and ensure effective communication of information and effective corporate governance. With this end in view, it is necessary to implement a clear division of responsibilities among the management of all parts, and to introduce rules of procedure, which will clearly define who takes decisions, and when and to whom reports. The corporate governance includes a wide range of relations between a company management (administration), the board of directors and shareholders. It is, above all, to provide an effective risk management and internal control, which increases the likelihood that the assets of the company will be used for the benefit of its shareholders and not the management, as it often can be observed in domestic practice. If a holding company, which unites a set of companies that operate in different markets, starts the IPO, it is necessary to demonstrate the need for such diversification and the ability of consolidated reporting.

Clear systematization and organization of tasks and functions to be performed in the IPO will help to some extent find the solution to these problems. Let us formulate the main stages of work on the initial public offering of corporate rights, the implementation of which will help to optimize the entire process of IPO and achieve the maximum economic benefit from the placement.

First stage: decision of the appropriate authority of the company about open (public) placement of its securities and preliminary examination of its readiness for

IPO. The decision is taken in the context of the strategic goals of attracting resources in the financial market. Project team, which will directly deal with the implementation of the decision on initial public offering, is appointed. At this stage the preliminary assessment of the company readiness to initial placement is made, the weaknesses in organizational, financial, manufacturing and management areas that need to be removed to perform successful placement, are revealed, and legal actions designed to fulfill all the prerequisites to enter the stock market are taken. If necessary, the company reorganization is carried out by converting the existing organizational and legal forms of business into a public limited company. Particular emphasis is placed on the competitive position of the company, the feasibility of achieving company's strategic objectives and expectations of its rising cost.

Second stage: choosing of consultant and underwriter. Initial public offering generally should be carried out with the assistance of investment banks acting as underwriters and lead managers. The main function of the issuing bank as a lead manager is that it usually buys all the issued shares from the issuer and carries out a range of measures concerning the further offering of shares to institutional and private investors. In case of large volume IPO, a lead manager creates a bank consortium. To coordinate favorable conditions for cooperation with the bank of circulation, the issuer has to prove itself an attractive investment company with high growth potential market value. The choice of bank underwriter is recommended to be made on a competitive basis.

Third stage: the development of the concept of initial placement of corporate rights, which should include common recipes to solve major problems arising during the IPO. In particular, the concept must contain a schedule of work on the IPO, the procedure of choosing a stock exchange, the main parameters of emissions, the use of targets, strategy of choosing major groups of investors, information and communication work strategy. The concept should be developed for in accordance with the placement advisor and the underwriter.

Fourth stage: in-depth analysis of all the key aspects of the company, its cost and readiness for initial placement (due diligence). The main purpose of due diligence (DD) is to minimize risks for the investors and the bank acting as IPO lead manager when making investments in securities of the issuer based on the analysis of opportunities and risks associated with the relevant investments. DD results should answer the question what is the real market value of the company and what are its prospects for growth. Due diligence should be conducted by a lead manager or IPO consultant.

Fifth stage: the contract with the underwriter to repurchase and placing emission on the market (or other forms of underwriting) and preparation of the prospectus agreed with the underwriter and the disclosure of information covered in the prospectus. The prospectus must be audited. It should contain information about the issuer, its financial and business position, and securities, which have been decided for the IPO. In Ukraine disclosures about the issuer and its financial and business position are established by the National Commission on Securities and Stock Market (SSMNC). The approved SSMNC Regulation on the approval of the increase (decrease) in share capital public or private company describes all elements of the prospectus with enough detail [8].

Sixth stage: taking mandatory measures for registration and admission of securities to exchange trading in accordance with Ukrainian regulations. If public offering takes place on international markets, entries must be done in accordance with applicable regulations of the country where the stock exchange is located.

Seventh step: financial marketing and investor relations activities. In Ukrainian practice, investor relations can sometimes be also denoted as «financial PR». During this phase, the lead manager (together with the consultant) meet with key investors where present their evaluation results and analysis of enterprise and receive preliminary applications concerning possible acquisition amount of shares and desired rate issue. Pricing indicators obtained as a result of communication with investors serve as a basis for the formation of the price range of the offering. The main direction in case of initial public offering is focused on presentations of the company and so-called «road shows» held by the management of the issuer.

Eighth step: issue rate setting. Issue rate is one of the key factors that determine successful initial placement of corporate rights. By setting issue rate, the issuer faces the risk of not fully satisfying the demand of all investors seeking to buy shares (undervalued issue rate) or that expected volume of issue will not be redeemed (overvalued issue rate). In international practice, three main methods of issue rate setting are used: the method of «portfolio» (also called «application collection method») and auction (bidding) method. However, in theory and practice in recent years more prevalent is modified method of «portfolio», the so-called «Accelerated Bookbuilding» [9]. This method makes it possible to more accurately determine the mood of the market and expectations of the investor community about the issue options, its differences from the «portfolio» method are also associated with reduced subscription terms.

Ninth stage: performing necessary technical measures regarding the listing on a stock platform and allocation of shares among investors.

The proposed IPO scheme, which includes nine steps, is formed on the assumption that issue rate setting is performed using either portfolio method or accelerated bookbuilding method.

At the next stage after the offering it is recommended to take measures to stabilize the securities rate, which should be the common task of both underwriter and issuer. Such measures should include active investor informing and using financial interventions by the lead manager on the market to maintain issue rate.

Based on the study and analytical processing of theoretical material and empirical data describing companies' IPO processes, we can draw the following conclusions.

Market entry of the company is beneficial for the issuer, company owners and its potential investors. The dominant motive of an IPO for the top management of the issuer is the use of an attractive source of funding to implement the strategy of economic growth and optimization of capital structure, and for the owners the priority is the desire to increase the market capitalization of the company.

Solving problems of raising funds through the IPO to some extent can be achieved by means of systematizing and organizing the package of functions and tasks, which should be implemented in the course of such offering of corporate rights.

Thanks to precise regulation of operations at certain stages of the IPO and their strict enforcement, one can optimize the entire process of IPO and achieve the maximum economic benefit from such placement.

Thus, the current situation in Ukraine and the unwillingness of domestic companies to enter the global capital markets demonstrate their negative volatility, due to a certain negative factors ranging from the instability of the political situation to defaults of corporations that conducted IPOs on international stock markets, which ultimately, caused considerable damage to the reputation of Ukraine, and accordingly, to the companies that had previously planned their IPOs in global financial markets. Any negative incidents involving Ukrainian companies or ill-calculated policy decisions will affect the further opportunity to raise funds on international capital markets.

Another serious obstacle to the IPO of Ukrainian companies, on both domestic and foreign financial markets are also shortcomings in national legislation regulating the activities of corporations, financial intermediaries, taxation on the purchase and sale of corporate rights and relations of ownership and corporate governance. Further research in this field should aim at addressing these issues, because it will strengthen the foundation for sustainable long-term growth of the national economy and inflow of investments in Ukraine.

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8.6. Role of banks as main financial market intermediaries

An objective basis for the functioning of the financial market is the discrepancy between the needs for financial resources and the available sources of satisfaction of these needs. The financial market is one of the mechanisms that ensures the competitiveness of the country's economy, since the distribution of financial resources on it takes place on a competitive basis. This sometimes even cruel competition makes it possible to direct investment flows into the most attractive segments of the economy and thereby facilitate economic growth.

The leading place in the system that forms the market infrastructure belongs to the financial market intermediaries. The activities of these intermediaries help to reduce the cost of financial transactions, to increase the liquidity of financial assets, help in diversification of risks, to create conditions for the activation of work of other participants of the financial market. The intermediaries of the financial market play a key role and occupy one of the central places at all market segments.

A large number of scientific papers are devoted to the theoretical aspects of the functioning of financial intermediaries in general and banks as the main financial intermediaries. In particular, in Ukraine this problem was investigated by O. V. Dziubliuk, V. V. Korneyev, B. L. Lutsiv, M. I. Savluk and other scientists. In their scientific works the essence of banks as the main financial intermediaries, their functions and features of activity in Ukraine is revealed. At the same time, since the functioning of domestic banks as the main financial intermediaries is now in the process of development, it certainly needs recommendations for further improvement.

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The main purpose of financial intermediaries is determined by their ability to finance economic activities and ensure an effective redistribution of capital in society. Financial intermediaries serve the movement of almost all cash flows in the economy. They create the basic prerequisites for production, namely for all stages of the process of social reproduction – distribution, exchange and consumption. Financial intermediaries play a major role in the market infrastructure, since they are the necessary element of interaction in the sphere of monetary relations between market entities that carry out the reproductive process both at the macro and micro levels.

Domestic legislation identifies two groups of financial intermediaries: the banking system, which includes the National Bank, universal and specialized banks; and non-banking financial institutions, which include insurance companies, credit unions, non-state pension funds, loan banks, leasing and factoring companies.

It should be mentioned that there are certain differences between banking and non-banking financial intermediaries. In our opinion, the most complete generalization of institutional differences between banking and non-banking financial intermediaries is proposed by V. V. Korneev in his monograph [1, p. 248–249].

First, only banking institutions can open and maintain current accounts of their customers, deposit funds and lend to borrowers in cash (whereas credit unions give credit only to their co-founding members).

Second, banking institutions assume responsibility with a fixed amount of debt to their customers, who placed funds in the relevant bank accounts. In this case, the entire risk of liquidity is assumed by the bank.

Speaking about non-banking intermediaries, they redistribute all risks of changes in the value of net assets equally between the founders and participants.

Third, if the special feature of banking activity is the fact that the insolvency of the bank precedes the state of illiquidity, then non-banking institutions have minimal problems with banking-type liquidity (since banking institutions work primarily with cash, and non-banking institutions with cash documents).

Fourth, the difference between the banking and non-banking institutions lies in the plane of characteristics of the financial portfolio: credit, investment, securities, insurance, indicating a professional occupation.

Fifthly, in most cases, the institutional subordination of licensing indicates the difference in the form of mediation: for example, the National Bank issues the right to provide banking services, and the National Commission for Regulation of Financial Services Markets issues insurance services. Administrative disunity of the licensing policy certainly indicates the nature of mediation.

In Ukraine, a key role in the implementation of intermediary activities on the financial market belongs to the banking system.

The banking system is an important element of the economic basis of society, which develops according to the laws of a market economy. It is the basis of credit and financial system. The functioning of a modern economy is impossible without it. As an integral part of the economic and credit and financial system, the banking system not only depends on them, but also contributes to their development. Quantitative and qualitative changes occur both in the banking system and in the credit and financial system as a whole along with the economic development.

The banking system is a complex of various banking institutions and their properties, which have different forms of ownership, organizational and legal status, areas of activity, that interact with each other as one entity. It is internally organized, all its structural elements are interconnected, it is specifically arranged system of links between banks, their creditors and borrowers [2, p. 353].

The banking system has a common goal and objectives. Its main purpose is to regulate credit and cash flows, to promote economic growth.

Although in the foreign and domestic economic literature the concept of «banking system» is quite common, but there is no single approach to its identification. There are broad and narrow interpretations of it. In the broad sense, the banking system is understood as a credit and financial system in general. It is considered as an aggregate of different types of banks and credit institutions, through

which it is possible to mobilize funds and provide a variety of services for accepting deposits and providing loans.

In the narrow sense, the banking system is viewed only as a set of different types of interconnected banks that function as a single organism in a certain historical period and perform their respective functions related to mobilization of funds, providing various services (accepting of deposits and providing loans) in order to obtain income [2, p. 353].

The main reason for the existence of diversity in the understanding of the concept «banking system» is its complexity, which is increasing with the development of the economic system and the acquisition of new properties.

Modern scientists-economists also believe that the banking system is not a simple set of banks. They make comments to each other about the inaccurate definition of this concept. However, the definitions that they give by themselves, change a little, but often make it more difficult to understand this concept. According to Professor M.I. Savluk, «... more legitimate is the formulation of the banking system as a legally defined, clearly structured and subordinated set of financial intermediaries carrying out banking activity on a permanent professional basis, that are functionally interlinked into one independent economic structure» [3, p. 564].

Professor S. V. Mochernyy in the economic encyclopedia interpreted the banking system as «the aggregate of financial institutions of the money market (engaged in banking activities) in their interrelations and interactions, whose activities are legislatively determined» [4, p. 86].

Professor B. L. Lutsiv affirms that the banking system of Ukraine should be understood as a set of commercial banks and NBU, which are in constant development and interact with each other and the external environment, forming a single unit [5, p. 13].

The analysis of these definitions allows us to identify common features and differences in the interpretation of the nature of banking system. In our opinion, we should consider the interpretation of the banking system as a set of banks. The specificity of individual definitions lies in the expanded interpretation of the banking system or by adding additional elements that are associated with it, but do not directly and immediately participate in the creation of system properties, or on the basis of introducing elements that perform certain banking operations, or in accentuating the specialization of banks.

In accordance with the provisions of the Law «On Banks and Banking Activities» there is built a two-tiered banking system in Ukraine, consisting of the National Bank of Ukraine and other banks, as well as branches of other banks established and operating on the territory of Ukraine. Relations between the banking systems are built in two planes – vertically and horizontally [6].

The first level of the banking system is occupied by the National Bank of Ukraine. It is responsible for the stability of the national monetary unit, is the emissive center of the state, the bank of banks, the bank of the government, it fulfills the function of the main regulatory body of the system, it pursues monetary credit policy that takes the leading place in regulating the entire economy of the country.

An important role in ensuring the functioning and development of the banking system is played by the banks of the second level.

Banks are the main component of the banking system of the state and belong to a special category of business enterprises, which are called financial intermediaries.

The role of banks as the main financial intermediaries is manifested through the main functions they perform:

1. Attraction of temporarily free cash funds of individuals and legal entities and their effective placement on their own behalf, on their own terms and at their own risk. It is the ability of banking institutions to accumulate the necessary resources that is key to the level of ensuring the need of market participants for additional funds, as well as the ability of these entities to operate in all sectors of the economy. This helps to overcome the recession of the domestic economy caused by the global economic crisis.

2. The function of mediation in payments comes to the conduct of settlements by banks between the subjects of the market. Such settlements are made by means of transferring funds to the accounts of the latter or offsetting of mutual claims. Execution of the mediation function involves the transfer of funds by the payer to the recipient. The transfer of funds happens when you pay for received goods, provided services or performed work, mainly in a non-cash order. This practice provides for mandatory intermediation of banks in settlement of transactions, as banks, accepting deposits and opening accounts to legal entities and individuals, can make payments by transferring deposit money from one account to another.

3. The function of regulating of monetary circulation lies in servicing the payment turnover of business entities. Regulation of monetary circulation is carried out by emission of payment instruments (own bills of exchange, certificates, checks, etc.).

It should be emphasized that the completeness of the implementation of these functions is able to reflect the role of banks as the main intermediaries in the financial market of Ukraine.

We fully support the thought that incomplete, adequate to the economic development, performance by banking institutions their functions led to shortcomings in their functioning, namely [7, p. 221]:

- insufficient crediting of the real sector of the economy, inconsistency of reserves and possible losses from active operations because of high credit risk;
- the presence of a significant amount of unorganized savings of the population, which banks could not attract as financial intermediaries;
- poor provision of inter-branch capital overflow, transformation of savings into investments, which characterizes banks as weak financial intermediaries;
- insufficient liquidity transformation – transformation of short-term deposits into long-term assets, that in practical terms determines the terms of lending not by the needs of debtors, but by the terms of the attracted resources;
- a high degree of concentration of assets around large enterprises and interested parties, that undoubtedly causes a conflict of interests between bank staff and their owners on the one hand, and the forming of industrial and financial capitals and the creation of banking holding structures – on the other;
- decrease in the role of intermediary functions of banks with small and medium intermediary structures, low level of mutual relations between them.

The reduction in production, inflationary pressure on the economy, a decrease in investment activity, and the loss of the main sales market have complicated the functioning of the entire banking system. Therefore, we have the right to assert that the banking system today does not fulfill the main task entrusted to it, since it does not finance or credit the real sector of the economy.

In 2016, the National Bank of Ukraine almost completed the cleaning of the banking sector. The number of operating banks that have a banking license of the National Bank of Ukraine over the past ten years has decreased from 175 in 2008 to 96 in 2017. As of the date January 01, 2017 in Ukraine there were functioning only 38 banks with foreign capital [8].

It is pertinent to note that as a result of the withdrawal of many banking institutions with Russian capital from the domestic market, as well as with the proposal of the National Bank of Ukraine to fulfill the decision of the National Security and Defense Council of Ukraine to apply sanctions against Ukrainian banks with Russian state capital, in future we will see further decrease of banks with foreign capital.

Since 2016, the number of functioning banking institutions has decreased by 21 units, and in general, from the beginning of 2014, as a result of solvency deterioration, the NBU Board adopted 82 decisions to classify banks as insolvent and introduced temporary administration in them [8].

A significant reason for the recognition of banks as insolvent, apart from the violation of the legislation regulating the prevention and counteraction to legalization (laundering) of proceeds from crime, was the insufficient level of their capitalization and the inability of shareholders to provide an adequate level of financial support.

Resolution of the NBU Board No.242 dated 07.04.2016 confirmed the schedule for increasing the minimum volume of the authorized capital of banks. According to this resolution, the minimum amount of the authorized capital of banks in the amount of 120 million UAH is valid only to July 10, 2017. After this date, the minimum volume of the authorized capital of the bank must be at least 200 million UAH, and by July 11, 2018 its volume should be increased up to 300 million UAH. [8].

Thus, the banks of Ukraine will need to dramatically increase the size of regulatory capital, which, despite the current trend, can be difficult and in the future we can expect new cases of self-liquidation of commercial banks in Ukraine or their association with other market participants.

Summarizing the results of 2016, the net assets of the banking system of Ukraine increased insignificantly – from 1,254 billion UAH at the beginning to 1,256 billion UAH at the end of the year. One of the key factors that influenced the change in the volume of assets of the banking system in the analyzed period was the dynamics of the national currency rate. Also, the change in the volume of bank assets is connected with the withdrawal of a part of commercial banks from the market, the movement of client funds and the reduction of loan portfolios. The significant influence of the fluctuation of the national currency on the volume of assets of the banking system of Ukraine is explained by the significant share of assets in foreign currency in their total volume (41.8% as at the beginning of 2017).

The total volume of liabilities of Ukrainian banks in 2016 decreased by only 1.6% and as of January 01, 2017 amounted 1,133 billion UAH.

By the end of 2016, the income of Ukrainian banks, compared to the same period last year, decreased by 4.3% and amounted 190,69 billion UAH. The expenses of the same banks for the same period increased by 31.7% – up to 350,08 billion UAH. The financial result of activity of the banking system of Ukraine following the results of 2016 was a loss in the amount of 159,39 billion UAH. [8].

Summarizing the results of the analysis of the main indicators of banks' activity of Ukraine, it can be argued that the banking system today is going through hard times, reacting to changes in the economic and social environment by reducing the number of banks, which function there, and reducing their regulatory capital. The annual build-up of liquidity stocks by domestic banks, the consequence of which is a decrease in profitability with a simultaneous increase in expenses, led to a substantial decrease in revenues and even to the occurrence of permanent losses in the banking system of Ukraine.

So, strengthening of the role of banks as the main intermediaries in the financial market of Ukraine should be viewed from the following positions:

First, banks as financial intermediaries occupy market share and redistribute loan capitals.

Secondly, taking into account the functional purpose, banks actively participate in the formation of the money supply and can significantly affect the economic situation as a whole.

Thirdly, banks provide a wide range of services to the subjects of the market, which also affects the economic processes in the society.

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8.7. Self-assessment of business skills and knowledge – comparative study of Polish and Ukrainian students

Today, entrepreneurship is defined as a discipline that uses resources of numerous sciences and there is still no explicit answer about its genesis [7]. In entrepreneurship studies, knowledge from economics, management, mathematics, biology, psychology, and sociology is used. As entrepreneurship is immanently related to a person of an entrepreneur, much focus in literature has been on people who are responsible for initiating a business and its skilful handling. Consequently, a set of personal characteristics that contribute to pro-entrepreneurial attitudes is broad, including both knowledge in the above-mentioned disciplines and numerous practical (utility) skills.

Katarzyna Szelągowska-Rudzka has determined twenty entrepreneurial characteristics [10], of which the most important seem to be decision-taking, problem-solving, independence, courage, pursuit of development, activity, creativity, strong will, consistence in actions, ability to bear risks, stress management, organizational capacities, and persuasive powers. On the other hand, Jerzy Cieślak indicates the need to achieve something substantial, the willingness to keep control over one's fate, the readiness to accept risks, belief in one's power, and the ability to fulfil set tasks [5].

The self-assessment observations among students of different courses show that there is differentiation in self-assessments with respect to the level of own knowledge of entrepreneurship among students from business faculties vs. non-business faculties (the former perceive their knowledge as much better) and that there is no such dependence with respect to the self-assessment of entrepreneurial skills. Moreover, while self-assessment of one's knowledge corresponds to objectivised results, with respect to self-assessment of entrepreneurial skills it is apparent that students who were positive of having characteristics typical for entrepreneurs achieved low scores in tests that measured their actual level. On the other hand, persons who were convinced of possessing such qualities to a lesser degree proved to be leaders in objectivised studies [3].

Hence, being entrepreneurial and conducting business activities are related to the occurrence of a specific set of characteristics. The study has also shown that among young people who enter the labour market in Poland and Ukraine the fact of being an entrepreneur is seen as explicitly positive in both groups, although their opinions vary as regards the characteristics that should be (or are) possessed by good entrepreneurs. The cause of this situation can certainly be found in cultural differences and historical reasons. Moreover, both markets have operated in different periods and in different environments [1].

Considering the differences in entrepreneurship development in Poland and Ukraine as well as the different operational models of both economies and the definitely different perception of characteristics to be held by a good entrepreneur by persons who are entering a job market, the purpose of the presented study was to

determine the self-assessment level among business students in Poland and in Ukraine with respect to two basic issues that are related to establishing a business activity by young people. The first was the self-assessment of one's skills, which are accepted as important and useful in conducting a business activity. The second issue was the declared knowledge related to initial steps when creating a new business.

240 persons participated in the study (fall 2015) (120 persons from business studies in Poland, the University of Gdansk, and 120 from Ukraine, the Ternopil National Economics University). Both groups featured the same gender structure (70 women and 50 men in each group).

It was anticipated that due to numerous differences in the perception of entrepreneurs as well as in the condition and structure of economies in Poland and Ukraine, the level of self-assessment in skills and knowledge necessary for starting one's business will differ significantly between the two groups. Therefore, the two research hypotheses were formulated:

H1: The self-assessment of one's own entrepreneurial skills and predispositions is different among Polish and Ukrainian students.

H2: The self-assessment of one's own knowledge of how to run a business is different among Polish and Ukrainian students.

An attempt at a comprehensive presentation of one's own skills considered crucial and useful for running a business, as well as of the level of knowledge connected with the first steps taken in a currently created company may be developing scales consisting of questions related to those two areas. Therefore a measure based on questionnaires to test declarations of students from Poland and Ukraine was used, and scales characterised by an acceptable level of validity and reliability were created [2].

Likert five grade scale was employed to create questions for the questionnaire. Each question was allocated a choice of one of the following options: (1) absolutely disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) absolutely agree. The questionnaire's structure is reflected in Table 1.

The assessment of the accuracy and validity of the proposed test was carried out in the study on a group encompassing 240 persons in total; therefore, it can be ascertained that the group was numerous enough and suitable for this analysis [9].

In order to verify the theoretic accuracy of the test, a factor analysis was carried out on each part of the scale, where the factors were distinguished with the principal component analysis. The validity of the factor analysis conducted with this method was proven with the Bartlett's test, assuming that the matrix of variable correlation would not be a unit matrix (i.e. where there is one in the diagonal and zeros in other fields) and with the Kaiser-Mayer-Olkin coefficient (KMO) [11], which tests the adequacy of correlation matrixes, assuming 0.7 as a threshold value.

In the accuracy assessment, it was assumed that:

- the own values of distinguished factors would be higher than one (Kaiser's criterion), and
- the variables that create individual scales would correlate at minimum 0.6 with the first main component that forms the scale (the value of factor loads above 0.6).

Table 1

Questionnaire testing the level of declared level of crucial skills useful for operating a business (UM) and declared level of knowledge connected with the first steps taken in a currently created company (W)

Symbol	Question	Possible answers: (1) absolutely disagree (2) disagree (3) neither agree nor disagree (4) agree (5) absolutely agree
Scale (<i>skills</i>) UM		
UM_1	I have all the essential features of a good entrepreneur	(1) (2) (3) (4) (5)
UM_2	I think I am characterised by courage	(1) (2) (3) (4) (5)
UM_3	I think I am characterised by the ability to take risks	(1) (2) (3) (4) (5)
UM_4	I think I have good communication skills	(1) (2) (3) (4) (5)
UM_5	I have considerable professional experience	(1) (2) (3) (4) (5)
Scale (<i>knowledge</i>) W		
W_1	I know how to obtain initial capital	(1) (2) (3) (4) (5)
W_2	I know how to obtain indispensable subsidies	(1) (2) (3) (4) (5)
W_3	I know the essential necessary procedures connected with establishing business activity	(1) (2) (3) (4) (5)
W_4	I know the environment an enterprise might operate in	(1) (2) (3) (4) (5)

Source: Own elaboration.

The validity was tested with the method of internal cohesion of the scale. It was assumed that:

- individual scale variables would be correlated to the total result for the scale at minimum 0.4 (Kleine's criterion [6]), and
- in the tested scales, α Cronbach's coefficient would be above 0.7 (Nunnally's criterion [8]).

The validity of performing a factor analysis via distinguishing the principal components for *skills* scale is proven by the results of Bartlett's Test of Sphericity and KMO factor value. The test resulted in $\chi^2=2540$ ($df=10$, $p=0,00$) statistic value, which allows for accepting the hypothesis that the data may be used to perform a factor analysis. KMO value of 0.868 is higher than an assumed threshold value. The factor analysis performed for *skills* scale has led to distinguishing one factor of eigenvalue higher than 1 (4.48). Variables included in the scale have loading values ranging from 0.79 to 0.99. It is an evidence that questions have been well adjusted. The distinguished factor accounted for more than 89 percent of the total variance. The variables correlate with an aggregate result of the scale at the level ranging from $r = 0.71$ to $r = 0.96$ and thus Klein's criterion is satisfied. Cronbach's α ratio was 0.96 but removing variable UM_1 would cater to its increase. However, despite these objections, due to the very high (desirable) levels of coefficients referring to accuracy and reliability, the process of reduction of variables was abandoned. Detailed data is presented in Table 2.

Table 2

Matrix of non-rotated principal components and results of inner cohesion analysis for the scale defining students' declared level of crucial skills useful for operating a business (UM)

Variable	Factor loading value	Question – scale correlation	α following removal of question
UM_1	-0,788846	0,706012	0,992579
UM_2	-0,985185	0,958830	0,935593
UM_3	-0,977348	0,946360	0,937186
UM_4	-0,987130	0,961851	0,935343
UM_5	-0,976052	0,947257	0,936859
Eigenvalue			4,4752
Participation in total variance accounted for			0,8950
Cronbach's α			0,9571

Source: Own elaboration.

For variables included in «knowledge» scale, the value of χ^2 statistic in Bartlett's Test was 282.4 (df = 6, p = 0.000), and KMO = 0.735, and what follows from the aforesaid, a factor analysis could be initiated. In the case of this scale, the analysis has also led to distinguishing only one factor of eigenvalue higher than 1 (2.44). Variables included in the scale have loading values ranging from 0.74 to 0.82. The distinguished factor accounted for 61 percent of the total variance. The variables correlate with an aggregate result of the scale at the level ranging from $r = 0.71$ to $r = 0.75$ and thus Klein's criterion is satisfied. Cronbach's α ratio was 0.79 and, simultaneously, removing any variable would not cater to its increase. Detailed data is presented in Table 3.

Table 3

Matrix of non-rotated principal components and results of inner cohesion analysis for the scale defining students' declared level of knowledge connected with the first steps taken in a currently created company (W)

Variable	Factor loading value	Question – scale correlation	α following removal of question
W_1	-0,794937	0,604691	0,727481
W_2	-0,816608	0,634715	0,711703
W_3	-0,765791	0,578474	0,741137
W_4	-0,744582	0,554383	0,752324
Eigenvalue			2,4396
Participation in total variance accounted for			0,6099
Cronbach's α			0,7857

Source: Own elaboration.

Considering the accepted criteria, the values for individual scales were estimated; as a result, the comprehensive value was obtained that reflects the «skill» scale and the «knowledge» scale. This is an average value for the set of questions

(five or four) that measure the same characteristic; in this case: declared entrepreneurial skills and declared knowledge about initiating a business activity.

Table 4 presents the average results for each of the above-mentioned characteristics for Poles and Ukrainians, using the non-parametric tests for the mean (U Mann-Whitney) [4].

Table 4

Average result of assessment of one's own skills and entrepreneurial knowledge Polish vs. Ukrainian students (U Mann-Whitney test)

variable	mean POL	mean UKR	st.dev. POL	st.dev. UKR	sum.rang POL	sum.rang UKR	U	Z	p	Z corr.	p
average UM	4,49	3,37	9,08	0,56	15559,50	13360,50	6100,500	2,04	0,041	2,06	0,040
average W	2,89	3,20	0,85	0,67	13034,00	15886,00	5774,000	-2,65	0,008	-2,67	0,008

Source: Own elaboration.

The score given in columns «mean POL» and «mean UKR» is to reflect the average declared level of one's own skills useful in conducting a business activity that is held by students. The data shows that Polish students assess the level at 4.49 in the 1-5 scale, while for young Ukrainians the same value is 3.37. In the mean score of declared knowledge, the score was 2.89 for Poles and 3.20 for Ukrainian students. For the variable that describes the average skills, the p-value in the U Mann-Whitney difference test amounted to 0.041, while for the variable that concerned the average knowledge it was at 0.008, which enables to recognise the scores (in both cases) as statistically significant.

The analysis of answers given by the respondents shows major differences in the declared level of entrepreneurial skills and knowledge between the students from Poland and Ukraine. It is explicit that young Poles perceive the level of their skills to be much higher than among their Ukrainian peers. However, the situation is opposite with respect to knowledge. Therefore, both hypotheses are to be deemed as fully proven, showing not only the differences between the two studied groups, but also identifying the group with higher self-assessment.

It seems justified to look for the causes of differences in the approach to the problem of academic education and the characteristics of the present situation in both countries. The much higher results of self-assessment of entrepreneurial skills among Poles may reflect the high self-confidence and the promotion in Poland of developing academic soft skills among young people in recent years, such as teamwork (which requires the ability to communicate effectively). Moreover, average Poles have much higher professional experience than their Ukrainian colleagues, which probably contributes to the more realistic and at the same time positive assessment of their opportunities in the business environment. However, with respect to the results of knowledge self-assessment, it can be supposed that education in Ukraine focuses much more on formal aspects related to establishing and conducting a business activity, such as documentation and financial matters. Therefore, in the light of obtained results it can be concluded that young Ukrainians are much more convinced

than their Polish peers that they know WHAT is to be done to start and conduct one's own business activity (they have know-what), while Poles declare that they have the necessary characteristics that would let them act in the same way AS GOOD (effective) entrepreneurs could (they have know-how).

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8.8. Intellectual and innovative development of economy in Ukraine: realities and prospects

1990s have been marked a qualitatively new wave of radical transformations in the global economic system in world civilization history – a change of social development paradigm took place, in which the factor of human progress became a condition, purpose and driving force of development. Implements understanding of the fact, that modern knowledge-based economy, is not continued trend of world development, but a principal new phenomenon, leading to a fundamental change in basic economy foundations and society in general, a new paradigm of economic and social development establishing and requires a new paradigm of scientific knowledge. In other words, this is another world, another social system, a new system of relations, another consciousness, other principles of interaction, another time benchmarks, related to the dynamism of living space. Therefore, one of the knowledge-based economy concept development areas, enabling prevent an acute post-industrialism conflict, should be such a model of the economy, which is based on a fundamentally new approach, new thinking, perception, new philosophy.

Theoretical, methodological and practical aspects of intellectual-innovative economic development was covered with such foreign scientists, as B. Barber, D. Bell, P. Drucker, E. Carayannis, R. Chase, L. Edvinsson, R. Florida, M. Hight, B. De Jonge, S. Schwaag Serger, J. Schumpeter, P. Strassmann and other. These economy areas were studied with native researchers: Y. Bazhal, I. Bril, A. Chukhno, L. Fedulova, V. Geyets, A. Kolot, V. Vernadsky and other economists.

The modern epoch is characterized by a change in paradigms, by trajectories of socio-economic policy, values, largely due to major transformations in the world economy weaving together. Notably, that the XXI century was managed to express itself, as an epoch characterized by technological structures, innovative development dynamism, resulting from the objective tendencies of globalization, information, intellectualization. Under these conditions the structure of the global economy gets transformed by its transition to a new technological base, the role of knowledge, new ideas, innovations, intelligence grows.

Given the above, we offer to isolate a range of knowledge-based economy patterns.

Valorization of knowledge (fr. valorisation) is the transfer of R & D knowledge and results into commercially viable products or services [1, p. 23]. High level of knowledge required for leading industries, as noted by N. Beck, is an essential economic feature of modern society. So in the raw economics (1880–1918) The Knowledge Index was 14.7%, in the industrial (1918–1981) – 18.0% in technological (1981–2035) – 48.9% [2, p. 40].

Knowledge-based economy is *cognitive* in its content: cognitive potential of society, the ability its business to generate, store, use rationally, update the cognitive knowledge, ability to work with implicit knowledge. J. Beckman believes that the technological breakthrough of many leading countries associated with cognitive techniques, that embody ideas, ways and means of creating «useful skills», body of knowledge on useful industrial product [3, p. 14].

A significant role in knowledge-based economy a *knowledge value* plays. Practice proves that the leading European country for its growth steadily increase the value added – in priority high-tech industries – an average of 3%, versus 2.2% in traditional industries. For example, the share of total value added in innovative sectors was increased from 51% up to 60% in Germany, from 45% up to 51% in the UK and from 34% up to 42% in Finland. At the same time, 85% are investing into science of the country – OECD. 11% – China, India, Brazil and the modern technologically developed countries of East Asia, and only 4% – other, to which now Ukraine belongs [4]. Thus, the number of the world's scientific and technical workers in the late twentieth century. averaged approximately 23.5 thousand. per 1 million of population. Indicated figure in the US exceeded was over 126 thousand. At the same time we recognize that OECD countries control 87% of the registered patents total number in the world [5].

In the new environment *education* takes significance and priority. With this knowledge began to focus on economic results, and education – to the demands of the labor market. Interaction of education and science will promote the use of knowledge to create new ideas, products and technologies, the formation of human resources to innovation economy [6, p. 327]. The final report of the US National Analytical Council (National Intelligence Council) «Global Trends 2025 – a Transformed World» leading experts are focusing on education, noting at the same time that «... with the growth of cross-border nature of modern business and the labor market an education has become «the leading determinant» of the world community economic potential «[7]. When developing priorities improving the quality of education must be considered that, first, its nature and objectives are determined by the needs of companies in highly creative professionals; secondly, the quality of education is determined by the compliance needs of individuals, society and economy [8, p. 138]. Regarding the position of Ukraine in the international rankings, they are low, although the «islands» of quality education are present. As a reaction to these hardships, currently the Ministry of Education and Science of Ukraine initiates the project of Ukrainian school, which is called «New School» with a view to radically restructure the entire educational process and change the attitude of the Ukrainian community to the high school [9].

Intellectualization of economy as a factor, that regulates the production and social relations in society, associated with the development of institutions that ensure the production of knowledge (science), reproduction of knowledge (education), the preservation of knowledge (culture) and dissemination of knowledge (information). Intellectualization suggests that the main element is the product of intellectual activity, intellectual resources – scientific knowledge. According to Western economists, each unit of rational intelligence (IQ) adds 6% to medium personnel GDP and 0.1% – its average year growth. Fair and «inverse» relationship: investment funds in growing economy science are followed with increase of the national intelligence [10]. In advanced countries with knowledge-based economies, such as Japan and Germany, the proportion of human capital in national wealth amounts to 80% [11]. However, Ukraine occupies 81 place among 188 countries according to the Index of Human Capital 2015 – 2016 (The Human Development Index) [12], which

is a significant barrier to entry of our country into the developed countries complement.

According to the theory of technological gap in international relations the tendency *hightegration* appears ever stronger. High technologies (high-tech, HT technologies) – the latest and the most advanced technologies of our time, which give the effect of different fields of their application. Over the past two decades, the share of GDP growth due to «progress of knowledge», innovation technologies, approaches up to 90% in United States [3, p. 14]. Indisputable is the fact, that the last century is called the century of high-tech in industry, in agriculture etc., then it is obvious, that XXI century will be the century of high-hume – high humanitarian technologies, which are aimed at the development and effective use of human capital abilities [13]. In passing, we note, that Ukraine in the ranking of countries with WEF Technology Readiness Index at 2015–2016 is ranked as 86 position among 140 countries [12]. In order to reduce the technology gap, Ukraine should create conditions to interact with leaders through international-innovative and technological cooperation and technology transfer mechanisms.

Researchers at the current stage of development (B. Barber, K. Koyama, W. Martin, R. Pass, P. Strassmann, A. Touraine) consider such a pattern as *informationality* at position of technologies effect upon human development, livelihood, working and living conditions change. Expanding the strategic nature of infrastructure problems, an American researcher P. Strassmann notes, that the transformation of informational work is seen as an event, that the one can fully understand only from a historical point of view. According to the rating of the researcher, for more than 2/3 of all labor costs is accounted for informational work, that is expressed in value terms; about 70% of labor costs is accounted for intellectual work in the USA [14]. Informational technologies are exactly an improving tool of interaction between economic entities and overcoming of management environment heterogeneity for modern companies efficiency growth in conditions of globalization. Given this, US direct into IT-technology 6.6% of GDP, Japan – 5%, Korea – 4% of the EU – 3.8% [15]. Indisputable is the fact, that large-scale introduction of modern information and communication technologies, the global increase in the production and transmission of information led to the so-called «informational explosion». The last 30 years produced more information than the last 5000 years in the world [16, p. 19]. We must agree, that the prospects for knowledge-based economy development, will depend on the pace of innovations development and the rate of new technologies diffusion. However, these prospects will come positive only when the nature of innovation gap reduction globally.

At the stage of technological evolution in the economies of many market-developed countries, there is a process of *de-industrialization (servization)*, characterized by the rapid development of services, reflects the unique individualized approach to individual customers needs, tend to a growing and comprehensive implementation of the requirements of specific customer product for the benefits amount and positive effects, received by others [17, p. 61].

Knowledge-based economy, is creative industries constructed, and is production and dissemination of knowledge sector specialized. Creative economy

sectors give the highest rates of growth in the global world economy (10 – 25%) and make the greatest contribution to the total GDP in developed countries [18]. So, the talent is promoted with an environment, that develops the intellect, encourages the responsibility, rises career potential and provides good compensation – they thrive in an atmosphere of healthy competition and continuous improvement.

Innovativeness is based on the needs and abilities of entrepreneurs-intellectuals to produce, use and disseminate innovations in the economy and other spheres of life, and knowledge only has value in economic term, when it is realized in the form of innovation. According to the theory of innovational system, the innovation and technology development is the result of complex interactions between the system subjects, which cover enterprises, universities and research institutes[19]. According to expert ratings, the most promising innovations costs in Japan consists – 95%, in USA – 62% [20, p. 57].

Let's note that innovative development in Ukraine is under adverse conditions. The structure of this growth does not fit the structure of knowledge-based economy formation. Scientific and technological progress and innovation, in accordance, were not growth factors in Ukraine. It's presented very narrowly in markets innovative products and actually loses positions, it once occupied. In particular, Ukraine ranks 56 position among 128 countries by the Global Innovation Index 2016 [12], and indicates a low level of innovation in the country. Intellectual potential is the only source that can provide a stable social development and economic growth without a commensurate increase in expenditure of resources. However, the intellectual potential of Ukraine, which has been accumulated over centuries, was suffered a fracture in the process of transformation and economic crisis in recent years. In our opinion, in light of limited natural resources and energy economy growth is possible only if the capitalization of the company intellectual capital that enables to provide strategic development of the company and the efficiency of the national economy and the state in the long term aspect.

They are kept a number of conditions, that hamper the development of the knowledge-based economy in Ukraine today. Firstly, the unwillingness of the domestic industry to new knowledge transformation into new products and technologies (the gap between science and industry). Secondly, the lack of adequate state superstructure, expressed in the goals and mechanisms of scientific, technological and innovational policy and able to provide the interaction between science and business in addressing social and economic problems. Thirdly, poor governance and lack of a system, that meets modern requirements of all administrative levels public administration employees training and retraining.

New business environment in Ukraine, ie knowledge-based economy requires adequate new leadership. Leaders, whose activity is based on the constant use of modern knowledge and intellectual capital, deeply understand the essence of the modern business, which is based on knowledge and ability to apply this knowledge in combination with other company resources. In addition, new leading specialists have to be a creators of so-called modern cost generation context. The main in this work is the focused qualitative workers and the company environment change, corporate culture so, that qualitatively new environment and culture directly «raise and cherish

the intellectual capital». The key criteria should become the basic in the drafting of a new Ukrainian high school educational process managing model, as soon as at subsequent stages of intellectual capital formation and using.

These features of the current state of innovative knowledge-based economy formation allow the prospects of its development in Ukraine:

- financial and organizational of high-tech industries support, areas of research and production diversifying in accordance with the priorities of modern technologies; state co-funding of R & D, which are performed in the order of business research priorities for the sector; development of public-private partnerships for common R & D realization;

- the introduction of tax incentives to innovative activity of enterprises elevation; innovative risks and high-tech companies risks insurance mechanism creating;

- creating the favorable to innovative institutional and legal environment development, including systematic legal framework, market institutions and innovative mechanisms; formation of an effective regulatory framework in the field of intellectual property;

- diversification of services – increasing the share of telecommunicational, financial, consulting and other kinds of high-tech kinds in their structure by developing nonproductive economy sectors;

- the creation and promotion of the «cult of education and education», improve the quality of educational services, their matching to the labor market needs; increase in funding of education;

- the introduction of public-private partnerships, primarily, promoting cooperation within the triumvirate «education-science-production»;

- scientific and educational institutions stimulation and world advanced forms of intellectual capital and enhance innovative activity concentration, proven at this basis, formation – technological parks and clusters – «areas to promote the development of high and new technologies»;

- the development of venture capital and the venture capital funds activity legal regulation improvement;

- the state programs for the development of students innovative business operation and implementation (student business-incubators and laboratories); research and educational programs by support of private;

- intensification of cooperation between business and educational institutions, theoretical developments in the field of knowledge economy supporting, managers advanced training programs in innovative areas operating, «knowledge management» and its implementation in enterprises studying;

- creation of an unified state system of technical regulations and their harmonization with international to stimulate innovations and adequate assessment of their implementation effectiveness;

- new outlook of Ukrainian society formation, innovative culture at all levels of management development, tolerance as the basis of a new society promoting.

To create conditions for sustainable economic growth, mainly in areas where Ukraine is still competitive, precise coordination is required, which is aimed at modernizing the economy and society in the scientific, technological, organizational and industrial areas with the dominance of education, science and innovations.

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