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INSTITUTIONAL TRANSFORMATIONS OF THE FINANCIAL SUPPORT OF THE PENSION FRAMEWORK FUNCTIONING

Abstract. The article describes the role of the pension system in providing social development. The directions of maintenance of stability and strengthening of financial stability of the pension system are determined. It is substantiated that in modern conditions the necessity of using effective financial instruments of public administration of pension provision is updated, which will enable to respond to changes in socio-demographic tendencies of social development and economic transformations while maintaining the parameters of stability and stability of pension funds' activity. The analysis and estimation of the correlation between the average pension and the average monthly nominal wage in the CIS countries, and the share of the budget of the Pension Fund of Ukraine in GDP are analyzed. The coefficient of elasticity of the growth of the average pension and the average monthly nominal wage to the real gross domestic product, the coefficient of the ratio of the number of pensioners and the employed population in the CIS countries is calculated. The principles of implementation of institutional reforms of the pension system are described: the stages and system of transformations taking into account social and economic conditions, while preserving the balance of the system of public finances in general; differentiated approach to pensions to different socio-demographic groups depending on their contributions to pension funds; coherence with the processes of reforming other components of the system of public finance and public administration; Balance of distribution of responsibility for pension provision between employee, employer and state; protection of the rights of citizens to material provision in the form of pensions and determination of its level on the basis of substantiated social norms; publicity and transparency of the process of financial support for the functioning of the pension system; the correspondence of the forms and level of pensions to the population of the degree of economic development of countries.

Keywords: financial and economic environment, system of public finances, pension provision, pension system, index of aging population.
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ІНСТИТУЦІЙНІ ПЕРЕТВОРЕННЯ ФІНАНСОВОГО ЗАБЕЗПЕЧЕННЯ ФУНКЦІОНУВАННЯ ПЕНСІЙНОЇ СИСТЕМИ

Анотація. Розкрито роль пенсійної системи в забезпечені суспільного розвитку. Визначено напрями забезпечення стійкості та зміцнення фінансової стабільності пенсійної системи. Обґрунтовано, що в сучасних умовах актуалізується необхідність застосування дієвих фінансових інструментів державного управління пенсійним забезпеченням, що нададуть можливість реагувати на зміни соціально-демографічних тенденцій розвитку суспільства та економічних перетворень, зберігаючи параметри стійкості та стабільності діяльності пенсійних фондів. Здійснено аналіз та оцінку співвідношення між середньою пенсією і середньомісячною номінальною заробітною платою у країнах СНД, частки показників бюджету Пенсійного фонду України у ВВП.

Розраховано коефіцієнт еластичності зростання середньої пенсії та середньомісячної номінальної заробітної плати до реального валового внутрішнього продукту, коефіцієнт співвідношення кількості пенсіонерів і зайнятого населення у країнах СНД. Розкрито принципи реалізації інституційних перетворень пенсійної системи: поетапність і системність перетворень з урахуванням суспільних та економічних умов із збереженням збалансованості системи державних фінансів у цілому; диференційований підхід до пенсійного забезпечення до різних соціально-демографічних груп населення залежно від їхніх внесків у пенсійні фонди; взаємоузгодженість із процесами реформування інших складових системи державних фінансів і сфер державного управління; збалансованість розподілу відповідальності за пенсійне забезпечення між працівником, роботодавцем і державою; захист прав громадян на матеріальне забезпечення у формі пенсій і визначення його рівня на основі обґрунтованих соціальних нормативів; публічність і прозорість процесу фінансового забезпечення функціонування пенсійної системи; відповідність форм і рівня пенсійного забезпечення населення ступеневі економічного розвитку країн.

Ключові слова: фінансово-економічне середовище, система державних фінансів, пенсійне забезпечення, пенсійна система, індекс старіння населення.

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Introduction. The pension system is an important institution of state regulation of social development, as it lays the foundations of social security in the form of pensions. The growing influence of endogenous and exogenous factors on the financial and economic environment of the state, negative demographic trends in society necessitate the development of new approaches to the financial support of the pension system, ensuring its financial stability and rethinking the role in regulating changing social processes. The growing level of the pension burden on the working population in both developed and transforming economies, low wages in countries with transformational economies cause an imbalance in the solidarity system of compulsory state pension insurance. The development of mechanisms that, based on demographic trends and real economic opportunities, will ensure compliance with state guarantees for the realization of citizens' rights to material security in case of retirement age, temporary or permanent disability, loss of a breadwinner, will promote the society.

The main feature of this stage of institutional transformations of financial support for the financing of the pension system is the reduction of the degree of participation of state pension funds. At the same time, in modern conditions, in countries with transformational economies, the issues of ensuring the stability of sources of own revenues of state pension funds and creating conditions for increasing the interest of relevant government agencies in improving the efficiency of their administration are becoming important. This indicates the relevance of this study.

Research analysis and problem statement. The growing problem of the ratio between age groups, caused by the increase in the share of elderly people, leads to a significant increase in the pension burden on the working population and increases the risks of destabilizing the development of pension systems. Accordingly, the purpose of the study is to reveal approaches to strengthening the financial support of the pension system, to identify priority areas for the development of its institutional framework.

Approaches to the functioning of the pension system and its individual components are revealed in numerous scientific papers. In particular, the impact of demographic trends on the level of pensions is revealed in the works of: Robert Fenge i François Peglow (2018); Osei K. Wiafe, Anup K. Basu, John Chen (2017); Johan G. Andréasson, Pavel V. Shevchenko, Alex Novikov (2017) [1—3].

Approaches to the areas of pension reform based on the cultural characteristics of countries are disclosed by J. A. Rivera-Rozo, M. E. García-Huitrón, O. W. Steenbeek, S. G. van der Lecq (2018) [4]. та Basvan Groezen, Hannah Kiiver, Brigitte Unger (2009) [5].

Examining changes in the level of pension savings in the context of reforming the German pension system, they find that the annual letters of the pension administration, which contain detailed information on the development of the pension system and expected state pension benefits have influenced the behavior of individuals and increased private taxable savings [6]. At the same time, the priority areas for pension reform in Germany, Barbara Engels, Johannes Geyer, and Peter Haan (2017) include: postponing retirement, increasing employment, and reducing unemployment [7].

Taking into account the achievements of previous research, at the same time, important issues are the development of new approaches to strengthen the financial support of the pension system, the disclosure of priority areas for the development of its institutional framework.

Results of the research. In the context of intensifying globalization processes, an important task is to develop mechanisms that, based on the real economic opportunities of the country, demographic trends will ensure compliance with state social standards and guarantees of pensions.

Economic transformations create a fundamentally new socio-economic situation and necessitate the development of adequate the mechanism of financial support for the functioning of the pension system, which should be based on the level of macroeconomic development and not weaken the effectiveness of motives and incentives to work, but to create conditions for their fullest detection.

Important tasks based on economic transformations are to ensure the stability and strengthening of financial stability of state pension funds, optimization of their administrative expenditures; creation of appropriate conditions for the functioning of multilevel pension systems, based on a combination of the distributive and accumulative model of pension provision; improving the mechanisms of state regulation of the pension insurance system, financial risk management in this area.

In order to effectively solve the set tasks, institutional transformations of the pension system should be based on the following principles: gradual and systematic transformations taking into account social and economic conditions while maintaining the balance of the public finance system as a whole; differentiated approach to pension provision for different socio-demographic groups of the population depending on their contributions to pension funds; coherence with the processes of reforming other components of the public finance system and areas of public administration; balanced distribution of responsibility for pension provision between the employee, the employer and the state; protection of citizens' rights to material security in the form of pensions and determination of its level on the basis of reasonable social standards; publicity and transparency of the process of financial support for the functioning of the pension system; compliance of forms and level of pension provision of the population with the degree of economic development of countries.

It should be noted that in countries with transformational economies, financial support for the functioning of pension systems is mainly based on the system of public administration. Whereas in developed economies, private pension funds play an important role. The organization of state pension funds in countries with transformational economies requires: increasing the level of public confidence in them; improvement of the mechanism of management of financial resources of the state pension funds; increasing the efficiency and coherence of the components of the system of state management of pension provision, modernization of its information resources; optimization of the ratio between the average pension and the average monthly nominal wage; strengthening the own revenues of state pension funds and creating conditions for increasing the interest of the relevant public administration bodies in improving the efficiency of their administration. Increasing the level of public confidence in the activities of state pension funds involves establishing cooperation between society and the state, involving the public in the discussion of bills in this area.

Achieving a social effect in the field of pensions is possible due to an effective and efficient financial mechanism of pensions, which is a complex system of influence on the pension system, ensuring the formation of appropriate financial resources taking into account current trends in economic development. The level of development of the pension system as a component of financial-budgetary and socio-economic regulation, especially in the conditions of transformational transformations is influenced by a number of factors, including financial-economic, socio-demographic, taking into account which allows timely adaptation of the current pension system. economy.

Improving the mechanism for managing the financial resources of state pension funds should be carried out by implementing common standards and effective measures in this area; creation of an electronic register of pension provision cases; reduction of the level of wage shadowing on the basis of improvement of the system of monitoring and evaluation of data on wages, its comparison with indicative indicators and data of financial and economic activity of employers.

Improving the efficiency and coherence of the components of the system of state management of pensions provides for: the creation of a single centralized system of financial resources management in this area; improving control over the formation of pension revenues and the implementation of pension benefits; introduction of electronic document management in the pension system.

Optimizing the ratio between the average pension and the average monthly nominal wage will help maintain the adequacy of pensions to the level of economic development of countries and the implementation of its minimum standards provided by international standards. In 2009—2016, among the surveyed CIS countries, the largest share of the average pension in wages is observed in Kyrgyzstan — 49.33%, Belarus — 44.55%, and Ukraine — 43.83%. The lowest in Armenia — 23.35%, Moldova — 27.27%, and Kazakhstan — 31.20% (*Table 1*).

Table 1

The ratio between the average pension and the average monthly nominal wage in the CIS countries for 2009—2017

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017
Azerbaijan	33,69	34,01	39,86	38,19	40,12	38,97	38,03	38,44	39,40
Belarus	43,76	48,03	49,50	51,29	43,60	43,68	41,78	41,10	38,20
Armenia	25,54	26,41	25,04	21,10	19,88	22,58	23,56	23,16	22,85
Kazakhstan	27,47	29,00	31,65	30,34	30,55	31,29	32,68	31,99	35,80
Kyrgyzstan	29,83	32,72	55,57	58,48	57,20	54,52	53,83	51,28	50,51
Moldova	28,24	27,29	28,73	28,29	27,79	26,60	25,67	25,51	27,35
Ukraine	52,41	50,11	46,45	47,26	45,54	44,14	39,50	34,44	34,60

Source: compiled according to data [6].

The highest ratio of pensioners to the employed population for the corresponding period is observed in Ukraine — 0.66, Moldova — 0.56, and Belarus — 0.55. The lowest in Azerbaijan — 0.29, Kazakhstan — 0.30, and Kyrgyzstan — 0.31 (*Table 2*).

Table 2

The ratio of the number of pensioners and the employed population in the CIS countries for 2009—2017

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017
Azerbaijan	0,31	0,30	0,29	0,29	0,28	0,28	0,28	0,28	0,27
Belarus	0,53	0,52	0,53	0,54	0,55	0,56	0,58	0,59	0,53
Armenia	0,45	0,44	0,43	0,43	0,44	0,41	0,43	0,47	0,45
Kazakhstan	0,30	0,30	0,29	0,29	0,30	0,31	0,32	0,32	0,33
Kyrgyzstan	0,28	0,29	0,29	0,30	0,31	0,31	0,31	0,32	0,32
Moldova	0,53	0,55	0,55	0,57	0,57	0,57	0,57	0,57	0,59
Ukraine	0,65	0,65	0,65	0,64	0,63	0,64	0,71	0,70	0,69

Source: compiled according to data [6].

Thus, important tasks are to optimize the ratio between the average pension and the average monthly nominal wage (it is important to take into account purchasing power, the size of goods and services that can be purchased with appropriate funds); reduction of the ratio of the number of pensioners and the employed population, which provides for the creation of conditions to stimulate the population of retirement age to economic activity and promote their financial literacy.

It is advisable to take into account the coefficient of elasticity of growth of the average pension and the average monthly nominal wage to the real gross domestic product:

$$Ke = \frac{(\overline{\Pi 2} - \overline{\Pi 1}) \cdot BB\Pi 1}{(BB\Pi 2 - BB\Pi 1) \cdot \overline{\Pi 1}} = \frac{\Delta \Pi}{\Delta BB\Pi}, \tag{1}$$

where Π — the corresponding growth rate of the average pension or average monthly nominal wage; $BB\Pi$ — real gross domestic product.

Elasticity is possible in the following forms: positive, in which the corresponding growth rate of the average pension or the average monthly nominal wage increases with the growth of real gross domestic product (the coefficient of elasticity is positive); negative, in which there is a decrease in the corresponding growth rate of the average pension or the average monthly nominal wage with the growth of real gross domestic product (the coefficient of elasticity is negative); zero when the change in the real gross domestic product does not affect the change in performance. If the coefficient of elasticity is less than zero, the corresponding indicators decrease in proportion to the growth of real gross domestic product (Ke < 0); the coefficient of elasticity is more than one, the indicators are growing faster than the real gross domestic product (Ke > 1); the coefficient of elasticity is greater than zero but less than one, the growth rate is slower than the real gross domestic product (1 > Ke > 0) (*Table 3*).

Table 3

The coefficient of elasticity of growth of the average pension and the average monthly nominal wage to the real gross domestic product in the CIS countries for 2009—2016

		Azerbaijan	Belarus	Armenia	Kazakhstan	Kyrgyzstan	Moldova	Ukraine
2009	pension	23,0	0,8	3,1	-0,1	0,4	1,6	-1,0
	salary	11,1	1,1	2,2	0,9	1,3	0,3	3,0
2010	pension	-1,9	3,1	0,0	-0,9	0,0	-0,2	4,1
	salary	-0,6	1,3	0,7	0,0	0,6	-0,1	-0,6
2011	pension	-3,1	-8,9	43,8	-11,1	-2,8	-4,0	11,0
	salary	0,3	-12,7	6,5	-9,2	-1,9	-0,6	1,7
2012	pension	-8,8	-6,8	6,1	-0,2	-1,6	4,2	7,8
	salary	-0,7	41,9	-3,6	-0,2	20,4	0,2	-0,8
2013	pension	2,0	60,5	0,6	-0,3	37,0	3,1	-1,3
	salary	-0,7	41,9	-3,6	-0,2	20,4	0,2	-0,8
2014	pension	3,3	3,4	-2,7	0,0	0,1	262,9	0,0
	salary	0,7	-19,0	-1,7	-0,6	0,3	40,8	-0,4
2015	pension	-0,4	2,1	1,5	-0,1	-1,3	21,2	-51,5
	salary	-0,2	1,3	2,1	0,1	-4,0	0,0	-1,9
2016	pension	-1,4	-66,6	-21,3	0,4	0,0	4,0	33,3
	salary	-0,5	-2,2	-89,4	-0,2	0,2	2,1	-15,3

Source: compiled according to data [6].

On average, during the period under study, a proportional decrease in growth rates with the growth of real gross domestic product is observed (Ke < 0): the average pension in Belarus and Moldova; average monthly nominal wages in Kazakhstan, Moldova, and Kyrgyzstan; slower

growth rates (1 > Ke > 0): average pension in Kyrgyzstan; average monthly nominal wage in Belarus; faster growth rates (Ke > 1): average pensions in Azerbaijan, Kazakhstan, Ukraine, and Armenia; average monthly nominal wages in Azerbaijan, Ukraine, and Armenia.

Thus, for most of the studied CIS countries, an important task is to optimize the ratio of the average pension and the average monthly nominal wage and ensure their consistency with the level of economic growth. Given the current economic conditions of the CIS countries, the coefficient of elasticity of the average pension to the real gross domestic product should be — (1 > Ke > 0).

The issues of ensuring the sustainability of the sources of own revenues of state pension funds are becoming important. In particular, in Ukraine in recent years the share of own revenues of the Pension Fund has almost halved, which was one of the reasons for the difficulty of ensuring the balance of the state budget and the stability of the budget system as a whole (*Table 4*).

Table 4

The share of budget indicators of the Pension Fund of Ukraine in GDP, %

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Own income	11.31	11.02	10.68	11.19	11.47	10.46	8.54	4.69	5.33	6.55	6.58
Funds of the State Budget of Ukraine	5.31	5.92	4.48	4.57	5.72	4.78	4.77	5.98	4.48	4.86	4.95
INCOME	18.54	17.89	16.29	15.87	17.37	15.45	13.40	11.18	9.83	11.47	11.83
Expenses at the expense of own receipts	14.46	14.30	12.58	13.56	13.71	12.12	10.60	8.48	7.60	8.40	8.25
Expenditures at the expense of the State Budget of Ukraine	3.65	3.35	3.56	2.96	3.49	3.21	2.76	2.15	2.17	3.22	3.31
EXPENSES	18.15	17.69	16.18	16.56	17.21	15.34	13.36	10.63	9.77	11.62	11.86

Source: compiled according to data [7].

At the same time, the aging index continues to grow. On average for 1990—1999 it was — 60.79, for 2000—2009 — 92.09, for 2010—2019 — 99.22:

$$ICH = \frac{ЧН >= 65}{ЧН < 15} \cdot 100,$$
(2)

where $ЧН >= 65$ – population aged 65 and over;

$ЧН < 15$– population aged zero to 15 years.

In order to increase the efficiency of administration of state pension funds' own revenues, it is expedient to improve the methodology of managing the process of state pension insurance contributions, including mechanisms for collecting and accounting insurance premiums, methods of accounting for pension formation and investment operations, and applying high-quality financial and economic forecasts. state pension funds.

Conclusions. Strengthening the financial support for the functioning of the pension system will provide an opportunity to improve the level and quality of life of the population, to create conditions for effective modernization of the social sphere. In modern conditions, the need for effective financial instruments of public pension management is relevant, which will provide an opportunity to respond to changes in socio-demographic trends of society, economic transformation while maintaining the parameters of stability and stability of pension funds. Given the dynamics of growth of the population aging index, important tasks are: creating conditions for the development of the accumulative model of pension provision; optimization of the ratio of the average pension and the average monthly nominal wage, and their coordination with the level of economic growth.

The coefficient of elasticity of the average pension to the real gross domestic product should be greater than zero and less than one. The use of high-quality financial and economic forecasts in the planning of budgets of state pension funds will help increase the level of transparency in the functioning of the pension system and improve the mechanism of its financial support.

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