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WORLD EXPERIENCE OF THE PENSION SECURITY INSTITUTION FUNCTIONING IN THE PUBLIC MANAGEMENT SYSTEM

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Abstract. The authors argue that the most widespread classification of pension systems, which is enshrined in the documents of the European Commission, identifies four main models: the model of O. Bismarck (continental), the model of W. Beveridge (Anglo-Saxon), the private-corporate model (Scandinavian), and the Southern European model. Systems such as radically accumulation-based and accumulation-distribution are characteristic of countries whose economies are at the stage of active development.

The authors note that the O. Bismarck model is used by countries such as Austria, Belgium, France, Italy, Germany, Greece, and others. This model is characterized by the following factors: the share of wages in GDP is 45-50%; the share of funds for pension insurance equals 10-15% of GDP; the share of additional contractual (non-state) corporate pension insurance is 2-3% of GDP.

The authors point out that today the W. Beveridge model is used not only in European countries such as the United Kingdom, the Netherlands, but also in other countries such as the USA and Canada. The average level of pension provision in these countries reaches 50% of the average wage.

The authors emphasize that the largest public pension system in the USA, which covers almost all employees in the private sector of the economy, is based on the distribution principle.

The authors conclude that the global trend in the evolution of pension systems shows a shift from distribution systems to mixed systems, and from mixed systems to private-accumulation systems. Government measures are aimed at encouraging and developing the individual's potential for self-sufficiency.

Keywords: public administration, pension institution, pension insurance, pension system.

Introduction. At the current stage of civilizational development, pension systems in countries around the world are undergoing reforms, which is driven by the need to address problems arising from the spread of social state ideas. These ideas have led to a strengthening of paternalistic views and expectations in public consciousness, as well as to the institutional lag of these systems in the new socio-economic conditions. The above determines the relevance of the chosen research topic.

Literature review. The article (Miloş, Laura & Corduneanu, Carmen, 2011) analyzes the configurations of modern pension systems in different member countries of the European Union. The authors also discussed the importance of the private component in the supply of pensions, summarizing the debate on a certain harmonization of pension systems from the member states of the European Union. The final part of the article also discusses the impact of the financial crisis on current pension schemes.

The article (Mihai Daniel Roman, Georgiana Cristina Toma (Roşu) & Gabriela Tuchiluş, 2018.) analyzes and compares the efficiency of pension systems of 26 countries of the European Union during 2011-2015. Using three economic and social dimensions (static and dynamic ones), respectively, the efficiency of the distribution of GDP, the effectiveness of adequacy and the effectiveness of the labor market, the authors conduct a cluster analysis in order to classify the countries of the European Union in terms of the effectiveness of the pension system. Thus, the Hungarian, Luxembourg and Romanian pension systems are the most effective. On the opposite side are the worst pension systems registered in Greece, Portugal and Italy.

The author (Hinrichs, K., 2021) argues that over the past 30 years, all member states of the European Union have reformed their pension systems. Moreover, since about the beginning of the 2000s, one can observe a movement towards a multidisciplinary pension system in countries that still have the dominant system: private pre-funded professional pensions and individual old-age provision receive larger roles within the public-private combination of pension income. Analysis of reforms shows the final distribution of adjustment options, and specific measures must be adapted to national institutional contexts. Finally, the authors conclude that pension reform focusing on long-term financial sustainability may increase the risk of older age poverty and thus disrupt the central objective of pension schemes.

The contribution of the authors (van Ewijk, C., van Soest, A., 2022) explains the main features of the reform. The article uses a stochastic generational accounting system to analyze how transformation into a new system affects different generations, with particular attention to the solidarity reserve, which aims to strengthen the distribution of risks between generations. The article considers three effective measures: replacement rates, market valuation of pensions minus contributions ("net benefit") and the level of well-being, measured as the equivalent of the certainty of retirement income.

While acknowledging the contributions of the mentioned authors, it should be noted that the theoretical and practical aspects of public management in pension provision have not been sufficiently explored, and thus require further study and substantiation, primarily of conceptual approaches to reform in the context of ongoing institutional transformations, taking into account foreign experience and national traditions. This has determined the choice of the research topic. Considering the above, the aim of this paper is to study the global experience of the functioning of the pension security institution within the public management system, highlighting their most characteristic features, advantages, and disadvantages.

Methodology. The work uses general scientific and special methods of scientific knowledge, including:

• the method of comprehensive analysis (to ensure the integrity of the study of the research subject);

• methods of comparison and generalization (in the process of forming the theoretical basis of the research based on the analysis of global pension provision experience);

• the method of structural-functional analysis (to study the institutional infrastructure of public management in pension provision);

• the method of historiographical analysis (to study historical and cultural traditions of managing the pension system and to assess the state and determine the directions for further development of this system);

• the method of abstract-logical analysis (to generalize the results of the research and develop recommendations for improving the public management system of pension provision in Ukraine).

Main Part. The most common classification of pension systems, which is enshrined in the documents of the European Commission, identifies four main models: the model of O. Bismarck (continental); the model of W. Beveridge (Anglo-Saxon); the private-corporate model (Scandinavian); the Southern European model, while systems such as radically accumulation-based and accumulation-distribution are characteristic of countries whose economies are at the stage of active development [2; 5].

Regarding the O. Bismarck model, it should be noted that this name was given because in 1889, Chancellor of Germany Otto von Bismarck established the world's first national pension insurance system, which provided insurance for illness, industrial accidents, old age, and disability, and was accompanied by the adoption of corresponding laws. It was based on the principles of "intergenerational solidarity" [1; 4]. All current payments made by working citizens for pension provision were immediately redistributed to pensioners.

Countries such as Austria, Belgium, France, Italy, Germany, Greece, and others use the O. Bismarck model. It is characterized by the following factors:

• the share of wages in GDP is 45-50%;

• the share of funds for pension insurance equals 10-15% of GDP;

• the share of additional contractual (non-state) corporate pension insurance is 2-3% of GDP [5; 8].

For the middle class in these countries, high pension asset accumulation until retirement is typical. On average, pensions amount to about 70% of the average wage.

In a country like Germany, the pension system based on the principles of intergenerational solidarity was introduced in 1953. At that time, income redistribution for the benefit of the elderly was declared, funded by contributions from workers and employers. Pension rights were granted to individuals who reached 65 years of age and had paid insurance contributions for at least 15 years (a further reform in 1972 allowed retirement at 63 with at least 35 years of work experience). Pension funds were subsidized by the state budget \[1; 4].

Pension amounts were calculated individually based on contributions (i.e., work experience and wage levels). Regular pension increases were also planned, depending on the economic situation and wage growth in the country. In other words, pensions were "linked" to the dynamics of current wages and were increased annually by the percentage of wage growth. With average labor income and 45 years of insurance experience, pensions reached about 70% of the last income level before tax [2; 10].

However, demographic issues impacted the functioning of the solidarity pension system, necessitating the introduction of a second-tier system in 2000, based on the principle of individual responsibility for future old age security.

It is worth noting that the O. Bismarck model is based on pension insurance principles and professional solidarity, which involves the creation of insurance funds managed on an equal basis by business owners, organizations, and hired workers. This model is implemented for low-income members of society who cannot receive pension payments due to the lack of insurance experience, with pension provision being realized through a social assistance principle, leading to the modification of the model and an increase in the share of budgetary funding for pensions [2; 5].

Another model is the W. Beveridge model, which was developed and implemented in England in 1942 as a social protection system. Its foundation is the state pension provision institution. The main features of the model include:

• a high share of wages in GDP (60-65%);

• the share of funds reserved for mandatory pension insurance is 12-14% of wages, or 6-7% of GDP;

• additional contractual (non-state) corporate pension insurance is 3-4% of GDP [8; 10].

Today, the W. Beveridge model is used not only in European countries such as the United Kingdom and the Netherlands, but also in other countries such as the USA and Canada. The average pension provision level in these countries reaches 50% of the average wage. Additionally, the middle class has quite high personal savings for the future. The model proposed by W. Beveridge involves providing a minimum and pre-determined level of pension payments to the entire population, guaranteed by the state. Within this system, differences between countries primarily lie in the amount of the minimum pension. The system is funded through the introduction of special taxes ("social," "pension," etc.).

It is worth noting that a feature of the W. Beveridge model is the distribution of insurance responsibility between the state, employers, and employees. For example, the basic pension is guaranteed by the state and corresponds to the minimum living standard for retirees, while the insurance part of the pension is formed by the employer with partial participation of the employee within the professional insurance system, aimed at replacing pre-retirement earnings. Voluntary insurance allows the employee to realize personal opportunities for forming additional pension benefits [1; 4].

The largest state pension system in the USA (the Federal Program – FSP, or Social Security), which covers almost all employees in the private sector, operates on a distribution principle. The program has been functioning under the Social Security Act since 1935. The funds in the FSP cannot be used for any other purposes except those established by law. Specifically, funds can only be invested in government securities. In general, the main state pension system in the US performs a social, rather than investment, function. For two-thirds of retirees, state pensions account for 50% or more of their income. The percentage of elderly people living in poverty was over 40% in the 1950s, but currently it does not exceed 12%. This category primarily includes those who, for some reason, were unable to earn the right to a full state pension.

While the main state pension program in the US is distribution-based and primarily serves a social function, almost all other pension systems in the US, on the other hand, are based on the accumulation principle. Their investment function plays a key role, primarily for the funding of the programs themselves. At the same time, these pension funds are the largest source of long-term investment in the economy.

It is important to note that the ideas on pension provision proposed by O. Bismarck and W. Beveridge laid the foundation for two key methodological approaches on which the pension systems of Western countries were built and further developed. Under the O. Bismarck model, the task of pension insurance is to maintain the level and quality of life of the worker after retirement (the replacement rate is 60-70%). The state's role in this model is minimized, while there is a high degree of participation in pension provision by the workers themselves (pension insurance is based on the solidarity responsibility of employers, employees, and the state).

Pension systems based on the W. Beveridge model addressed the task of protecting the population from poverty after retirement. Therefore, the replacement rate is not as high as in the Bismarck model. The state takes on the function of providing pensions to the population. The role of the state in pension provision is high, while the degree of employee participation in their own pension provision is minimized.

The next model, the private-corporate model, is characteristic of Sweden, Denmark, and Finland. In these countries, social protection for retirees is viewed as a legal right of citizens. In 1913, Sweden introduced a new model of the pension system, which became the world's first example of universal social insurance. Starting from the 1950s, Sweden combined the ideas of O. Bismarck and W. Beveridge into a "universal model" of social protection [5; 8].

The "universal model" provides support to all citizens without exception. The level of compensation depends on the income of the recipient. The "universal model" was also implemented in Norway and Finland (social protection in Denmark was built on the "basic protection" model, which is characterized by low levels of payments not related to the income levels of the recipient). The decisive steps in creating the Scandinavian "universal model" included the introduction of a national pension in 1948 and its expansion with a general pension system in 1960 [4; 10].

The financing of the social protection system, including pensions, in the private-corporate model is primarily carried out through taxation. However, the insurance contributions from employers and employees also play a role. Until recently, hired workers were practically exempt from paying insurance contributions and participated in the social protection system through taxes. However, in the 1990s, there was a trend toward gradually increasing the share of hired workers' participation in financing insurance programs and raising insurance deductions from wages. A similar trend is also observed for employers, while the state's social expenditures have decreased [2; 8].

In the private-corporate model, pension insurance is mainly the domain of commercial activity by private companies. It involves personalized accumulation schemes for social insurance contributions managed by non-governmental pension funds and insurance companies. In addition to the contributions of workers, sources of social insurance funds include insurance contributions from employers, capital interest, and rent \[1; 10]. Companies are required to invest the insurance funds in national and international financial markets in order to protect these funds from inflation and achieve a higher growth rate of savings. The main principle of this model is the equivalence of insurance contributions and pension payments.

This model, known as the Southern European model, is used in Spain, Italy, and Portugal. Only in recent decades, due to social, economic, and structural changes, have these countries implemented changes in their pension systems. The level of social protection within the Southern European model is relatively low, and social protection is often viewed as a family responsibility. The main feature of this model is the asymmetric structure of social expenditures. In Italy, this is evident in the fact that the largest portion of social spending is allocated to pension provision – 14.7% of GDP, while the average for Central Europe is 12.5%. Around 1% of GDP is spent on education, family support, maternity, and employment policies [1; 5].

As we can see, pension systems in economically developed countries have basic distribution systems, but there are also other types of pension models.

It should be noted that today countries in Latin America such as Chile, Argentina, Bolivia, Colombia, Costa Rica, Peru, El Salvador, and Uruguay have modified their pension systems. These systems are fully privatized and are funded solely through contributions deducted from employees' wages. Each worker's funds are placed in individual accounts with one of the pension companies, and employees regularly receive reports on the status of their account. Employees are required to contribute 10% of their wages to one of the designated pension funds. Hired workers are subject to mandatory insurance until they reach retirement age. Insured individuals have the right to choose their fund, change it, and retain their accumulated capital. The self-employed can voluntarily insure themselves with these funds. In addition to pension insurance, workers must also insure themselves against the loss of a breadwinner and disability. For this, 3% of their wages are deducted.

Upon reaching retirement age, the insured individual has the following choices:

• Use the accumulated capital;

• Purchase a lifelong personal pension from an insurance company;

• Negotiate with the company for specific disbursements of the accumulated sum over a period of time.

Additionally, the insured person can opt for a lump-sum payment on the condition that the remaining amount in the personal account is enough to provide a pension that is no less than 120% of the basic amount and no less than 70% of the last income before retirement. After completing active working life and reaching old age (the retirement age in Chile is 65 for men and 60 for women), the capital returns to the individual or, in the event of death, to the heir, who has the right to receive the accumulated funds. The possibility of inheritance further emphasizes the fact that pension savings are not a form of tax deduction [2; 10].

The new Chilean pension system does not contain a distribution mechanism. The accumulation system is not a supplement to the distribution system but the basis of all financial provision for old age in Chile. In the strict sense, the state does not concern itself with the problems of the individual, although it plays a significant indirect role in organizing the pension system.

The most important feature of the Chilean pension insurance system is its state regulation. The current regulatory mechanism does not lead to the monopolization of contribution accumulation, and, moreover, it acts as a significant barrier to potential abuses.

Now, let's consider the experience of pension system reforms in Central and Eastern European countries. It should be noted that most countries initially had proportional pension systems, which absorbed a significant portion of budgetary income. Pension systems were financed through employer contributions within the state budget, and workers did not personally participate in providing for their future pensions. There was a weak link between contributions and payouts. Only workers in hazardous working conditions or privileged social groups had higher pensions.

By the late 1990s, the need for pension system reform became an urgent issue for Central and Eastern European countries. The result of these reforms was the consolidation of pension systems, which are based on financing future pensions according to the levels into which the system is divided. The consolidated pension system consists of three levels. The first level is solidarity-based and formed on the basis of post-Soviet pension systems. Contributions to this level are used to pay pensions to current retirees. At this level, the worker cannot influence the size of their future pension. This level ensures the payment of the minimum pension, guaranteed to all citizens upon reaching retirement age. The second level is the accumulation level, which functions on a mandatory (or, less often, voluntary) basis. This level is financed by wage deductions and provides workers with an additional pension income. It depends on the amount of monthly contributions and the returns guaranteed by the administrators of private pension funds. The funds collected by these funds are used for investments and operations in financial markets. The activities of the first two levels are strictly regulated by law.

The consolidated pension system also includes a third level of pension provision, participation in which is voluntary. Through this level, an employee can secure an additional income for their pension. Participation in the third level is realized through life insurance, participation in private investment funds, special deposit programs, and personal pension insurance funds. Aside from voluntary participation, the difference between the second and third levels lies in the responsibility for the selected investment and management decisions: in second-level funds, the responsibility lies with the fund administrator, whereas in the third level, each contributor is personally responsible for the decisions they make or the investment strategy they choose by default [1; 2].

The first of the countries mentioned above to reform its pension system was Hungary. Since 1998, the country has had a three-tier pension system: the first is a state solidarity level, while the second and third are private accumulation systems. The total contributions amounted to 26.5%, with 8% allocated to the second level. Participation in all levels was mandatory for newcomers to the labor market. For economically disadvantaged citizens who, by the end of their working life, do not have sufficient evidence of pension contributions, a "zero" level of the pension system is in place, which guarantees them a minimum provision. Voluntary supplementary pension insurance has existed since 1994. However, in 2010, the Hungarian government decided to abolish mandatory contributions to the second tier of the pension system, and these funds were transferred to the first level, which negatively affected the citizens' trust in the pension system as a whole [4; 8].

The Bulgarian pension system contains a general social security scheme at the first level, mandatory accumulation pension funds with defined contributions at the second level, and voluntary individual insurance plans at the third level. The first level provides the main pension related to income, and its payment is managed by the state administrator. Contributions to the first level amount to 17% of total earnings, with 60% paid by the employer and the remainder by the employee. The second and third levels include both mandatory and voluntary pension insurance. The second level includes two types of pension funds:

◦ Universal mandatory participation funds with defined payments, introduced in 2002 for citizens born after 1959;

◦ Occupational pension funds with defined contributions, introduced in 2000 for special categories of workers in hazardous and dangerous working conditions.

The third level is also represented by two types of pension funds: private pension funds for personal insurance, which have been operating since 1994, and occupational pension funds specializing in corporate programs, which have been operational since 2007. A distinctive feature of the Bulgarian pension system is the high level of worker participation in the accumulation component of the pension system. The second level covers 81% of all workers, which is higher than similar figures in other Eastern European countries. The primary reason for this difference is the small informal sector in Bulgaria's economy. Contributions to the second-level funds are set at 5% of total earnings, split between employer and employee in the same proportion as the first level. Contributions to pension funds at all levels are exempt from taxation, as are investment earnings and pension payments. Investments made by Bulgarian pension funds are predominantly concentrated in the real economy, with only 20% of the funds circulating on the country's financial market. Assets accumulated by the second and third-level funds together account for 4% of the country's GDP and are growing rapidly [2; 8].

The pension reform in Poland was a result of World Bank demands in 1994. The proposed reform aimed to balance the redistribution of funds within the system and establish a three-tier pension structure. The reform applied to citizens who were under 30 years old at the time of its introduction (1999), while citizens aged 30 to 50 were given the right to choose which contributions to make and which pension to receive in the future. The country now has a three-tier pension system. Participation in the first and second levels is mandatory, while participation in the third is voluntary. The old pension system has been transformed into the first level of the reformed pension system. This level is state-run and functions as a redistribution mechanism, ensuring minimal pension provisions for all citizens. However, during the transitional period, when the contributions to the first level are highest, it forms the basis of the pension. The second level is represented by public pension funds managed by private investment companies. In the event of the contributor's death, their savings are not lost – one half is directed to pension payments for the surviving spouse, and the other is inherited by the remaining heirs. Additionally, the country has a third level of pension provision, participation in which is realized through membership in mutual insurance funds, life insurance policies, and investments through private investment funds. All financial institutions within the pension system are deprived of tax benefits. The pension investment market is oligopolistic: two of the largest funds control more than half of the market, and the next two largest control a quarter of the market. Despite rapid accumulation of funds, the functioning of the second level has not yielded the expected results. During the first three years of the system's operation, financial operations led to a gross capital increase of 17.2%, which did not even meet the pessimistic forecasts of fund administrators. However, the savings in pension funds have one significant advantage – they protect participants from the risk of losing savings due to bank bankruptcies, fraud, or financial market force majeure events [5; 10].

Due to the high saturation of the internal investment market, high administrative costs, and low returns, in 2013 the Polish government decided to withdraw part of the capitalized funds from the second-level pension funds and use them to finance pensions at the first level. This effectively halted the shift in funding from state to private sources and paused to address the shortcomings identified during the system's operation.

The Baltic states transitioned to mandatory consolidated pension systems in the early 2000s. Latvia was the first to reform its pension system by replacing the solidarity-based model with a consolidated one, which was partially privatized in 2001. The total pension contribution in the country amounts to 27.1% of an employee's gross income. Contributions to the second level gradually increased from 2% to 10% between 2001 and 2010. Participation in the second level became mandatory for individuals under the age of 30 as of July 2001. Participants are allowed to choose between private and state pension funds. The voluntary (third) level has been operating in the country since 1998 [1; 4].

Estonia introduced a three-tier pension system in 2002. Of the 33% social tax deducted from salaries, 20% is allocated for pension funding. Of that, 4% was originally directed toward financing the second tier (this rate was later reduced to 2% [65]), and an additional 2% was used to fund professional pensions (the "workers' fund"). Participation in the second level of pension provision is mandatory for employees born in 1983 or later. The country also has a high level of participation in the third tier, with 55% of workers aged 18–60 currently enrolled. To achieve this result, the government offered tax incentives and covered the administrative costs associated with the transition between systems. Voluntary supplementary pension insurance has existed since 1998.

Lithuania reformed its pension system more recently, introducing the second level of pension provision in 2004. Contributions to the pension system total 25% of gross earnings, of which 5.5% was initially allocated to the second tier, although this rate was later reduced to 3%. A distinctive feature of Lithuania's pension system is the voluntary participation in the second level. The third level has been functioning since 2000 [2; 8].

Conclusions. Thus, the evolution of pension systems shows a global trend shifting from pay-as-you-go schemes to mixed systems, and from mixed systems to privately funded pension models. Government policies are aimed at encouraging and developing individuals' potential for self-provision.

The current situation is complex: fully funded pension systems have proven to be ineffective and have failed to ensure an increase in the replacement rate, while the high administrative costs of maintaining private pension funds reduce their efficiency.

The functioning of global pension systems and the extensive experience of these countries - if not in full, then at least in part- can be useful for Ukraine as it undertakes its own reform or implements the much-needed changes.

Discussion. Considering the results of the conducted study, it should be noted that the experience of countries in implementing public administration reforms has shown that a cultural shift is necessary for introducing innovations and for reforms to become part of the everyday routine. This requires training and support for civil servants throughout the reform process. Many countries are making efforts to expand the scope of training in order to assist organizations in reforming or developing know-how, gaining experience in cultural transformation, and changing attitudes toward various innovations.

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