



Efficiency of Pension Systems

Mamatov Bakhadir Safaralievich ¹

¹ Doctor of Science in Economics, Associate Professor, Tashkent Financial Institute, Uzbekistan

Abstract: The article examines the social security of citizens, in particular, the issues of pension provision. The average monthly wages and pensions, changes in the replacement rate in the pension system are analyzed. The methodology for determining the size of pensions and factors affecting the size of pensions are investigated. Based on the research results, scientifically based proposals and recommendations for achieving a decent retirement have been developed.

Keywords: pension, pension provision, old-age pension, salary, seniority, pension fund, pensioner, pension, coverage ratio, demography, income, financial stability.

1. INTRODUCTION

As world experience shows, the development of the pension system for citizens is one of the most urgent tasks facing any state and society. As noted in the report of the International Labour Organization on social protection in the world in 2020-2022, «in the structure of all social payments, pensions play an important role in reducing poverty, especially among the elderly, and are the only source of income for most pensioners» [1]. Also, «in many countries, the size of contributions is not enough to fulfill their obligations, so the financing of pension payments is increasingly tied to the state budget, and the costs to cover the deficit are from 1 to 5 percent of GDP» [2]. «Currently, 77.5 percent of people of retirement age in the world are not provided with old-age pensions» [3]. There are serious differences in pension provision among regions, rural and urban areas, as well as between women and men. In the member States of the Commonwealth of Independent States (CIS), problems remain associated with the creation of an effective pension system, increasing the financial stability of pension funds, and ensuring international minimum standards (level) of social security. For this reason, in most countries of the world, special attention is paid to the creation and improvement of a multi-stage pension system, its development based on the requirements of ensuring minimum international social security standards.

In world practice, a number of scientific studies have been conducted aimed at bringing the pension system in line with the minimum international standards of social security, and compliance with the principles of social and economic justice. In these studies, such issues as determining the optimal retirement age, achieving decent pension sizes, improving the procedure for accounting for work experience when assigning pensions, effective organization of pension provision, strengthening the investment activities of pension funds have been solved. As well as the issues of improving the social insurance system and the introduction of a multi-stage pension system are identified as the most important direction of ensuring the development of the pension system. However, the problems associated with ensuring the financial stability of the pension system, bringing the size of pensions in line with minimum consumer spending, determining the basis for the basic pension amount, paying a survivor's pension to students and taking into account the period of child care when assigning

pensions to women, the organization of non-state pension funds, raising the retirement age have not yet found their positive solutions.

In Uzbekistan, the reform of the pension system requires a consistent increase in the size of citizens' pensions in proportion to the economic indicators of the country, the introduction of a multi-stage and state-guaranteed pension system, the transition to a pension system through interdepartmental electronic data exchange without the submission of unnecessary documents by citizens. In conditions of increasing life expectancy, the simultaneous increase in the number of pensioners, significant changes in the financial stability of the off-budget Pension Fund resulting from the improvement of tax policy, the achievement of decent pensions, improving the procedure for assigning survivor pensions, strengthening the principles of social and economic justice in the pension system require a revision of the basic approaches to the field of pension provision. In this regard, «revision of the procedure for the appointment and payment of pensions and benefits» [4], «improvement of the pension system» [5] are designated as the most important areas. In turn, these aspects require in-depth research and development of the pension system of citizens.

2. LITERATURE REVIEW

The issues related to the creation and improvement of the theoretical and methodological foundations of the development of the pension system of citizens have been studied by foreign economic scientists, such as G.Tetlow [6], G.Vobruba [7], J.Peng [8], L.Christensen [9], A.Moore [10], C.Campbell, S.Butler [11].

Among the scientists of the near abroad, the scientific works of E.Azarov [12], G.Andryushchenko [13], S.Brovchak [14], S.Orlov, A.Shemetov [15], V.Roik [16], A.Fedotov [17], A.Izhaev [18] investigated issues related to social security, including pension provision, the development of the social insurance system, social protection of the population, concepts of the pension system development.

In the research of domestic economists A.Vakhabov, N.Mazhidov [19], B.Umurzakov [20], R.Dalimov [21], B.Husanov [22], the legal and institutional foundations of the organization of the pension system, theoretical and methodological aspects, development trends, problems, priority areas, reforms in this area are studied.

In the research of Jun Peng, a professor at the University of Arizona, it is noted that «pensions represent periodic incomes of pensioners, deferred payments, compensation for wages lost due to disability of a citizen, and are interpreted from the point of view of social security» [23].

According to the outstanding scientist in the field of social insurance V.Roik, «pensions are the most important form of social protection of citizens from the risk of material insecurity in old age, disability, in case of loss of breadwinner and represent monthly cash payments aimed at covering part of the lost wages (income)» [24]. This means creating sufficient conditions for the life of citizens in old age or ensuring social security.

3. RESEARCH METHODOLOG

The basis of methodological research is the principles and patterns of the pension system of citizens. The study of the pension system of citizens is based on the collection, processing and analysis of information about the pension system, determining the factors that affect it. In the study there are used methods such as generalization, logical analysis, synthesis, induction and deduction, a systematic approach, correlation and regression analysis.

4. ANALYSIS AND RESULTS

The results of the study show that the main criterion for the effectiveness of the pension system in the conditions of current economic development is the share of public expenditures on pension provision in GDP, taking into account the level of the replacement coefficient and demographic factors. The determination of the effectiveness of the pension system is based on the analysis of coefficients and can be calculated using the following formula:

$$S = \frac{Kz}{Gr} \times \frac{Kn}{Kr} \quad (1)$$

Here: S – is the efficiency coefficient of the pension system; Kz – is the replacement coefficient (as a percentage); Gr – is the state expenditure on pension payments (as a percentage of GDP); Kn – is the number of pensioners; Kr – is is the number of employees.

This formula reflects the size of the pension created per unit of public expenditure allocated to pension provision, taking into account the increasingly complex demographic characteristics of the country. The higher its level, the more effectively the pension system can solve the problem of maintaining the standard of living of pensioners in conditions of increasing life expectancy and increasing the level of pension costs. In Uzbekistan, the level of this indicator is 1.46:

$$S_{2021} = \frac{28,9}{4,98} \times \frac{3424,6}{13538,9} = 1,46$$

This result indicates a relatively low replacement rate in Uzbekistan in the context of high government spending on pension payments and is undesirable from the point of view of ensuring the effectiveness of the pension system. «The level of this indicator is much higher in developed countries (Iceland – 7.44, Canada – 3.96, Denmark – 3.51, Australia - 3.19)» [25]. One of the main reasons for this is the presence in these countries of an effective multi-stage pension system, due to which the replacement rate is 45-65 percent. It should be particularly noted that Convention No. 102 «On Minimum Standards of Social Security», adopted by the International Labour Organization (ILO), and the European Social Security Code provide that all countries must achieve minimum standards for pensioners in social security (Table 1). According to the international minimum standards of social security, it is recommended to keep the replacement rate in the pension system at the level of at least 40 percent.

Table 1. Minimum standards of pension sizes according to international norms [26]

Experience requirements		Replacement coefficient (the amount of material payment relative to previously received income)		
		for a single pensioner, in %	for a pensioner in care, %yes	
International Labour Organization Convention No. 102, 1964	European Social Security Code, 1990	European Social Security Code, 1990	International Labour Organization Convention No. 102, 1964	European Social Security Code, 1990
Old-age pension				
30 years of paying contributions or working or living in the country for 20 years	40 years of paying contributions or working or living in the country	50	40 (for a man of retirement age and his spouse)	65 (for a man of retirement age and his spouse)
Disability pension				
15 years of paying contributions or working or living in the country for 10 years	15 years of paying contributions or working or living in the country	50	40 (a man with his wife and two children)	65 (a man with his wife and two children)
Survivor's pension				
15 years of paying contributions or working or living in the country for 10 years	15 years of paying contributions or working or living in the country	50 (for the widow)	40 (for the widow)	65 (for a widow with two children)

However, in Uzbekistan, from 2010 to 2021, the replacement rate in the pension system did not reach the 40 percent level in any period (Fig. 1). In particular, during 2010-2021, this coefficient

averaged 35.4 percent, which is 4.6 percentage points lower than the required international standard. This circumstance indicates that decent pension amounts have not yet been achieved, which is a negative factor from the point of view of further strengthening the social protection of pensioners.

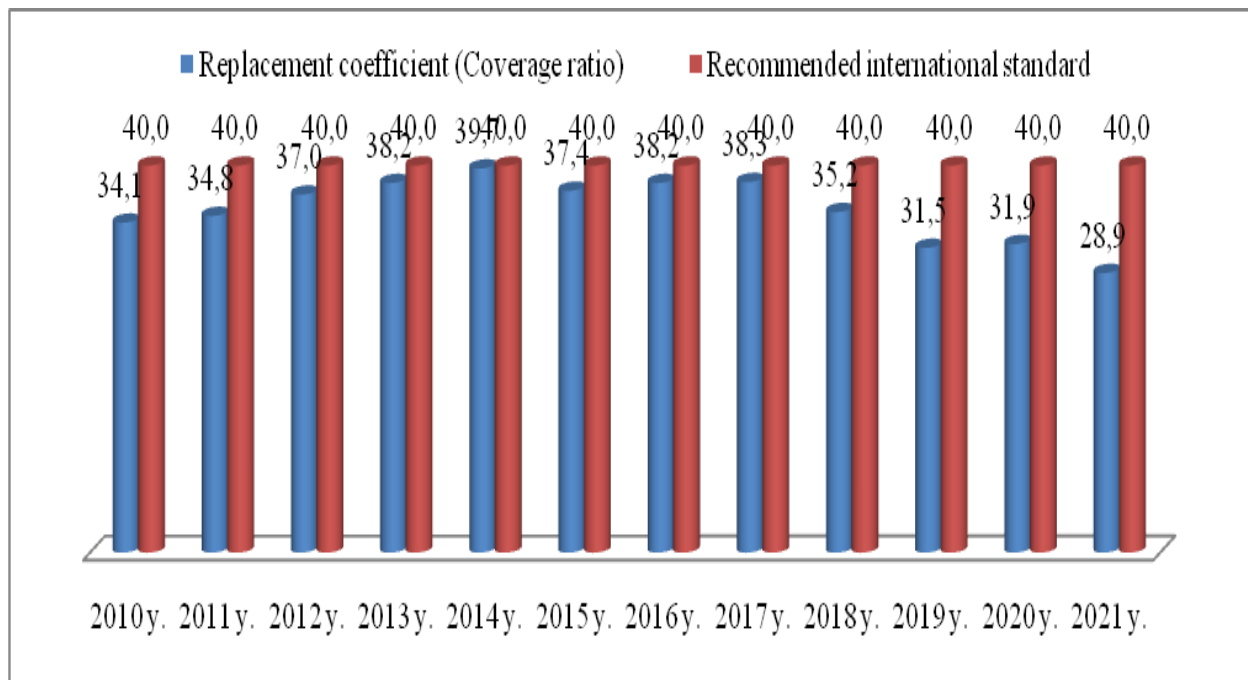


Fig. 1 Replacement coefficient in the pension system [27]

In the countries of the Eurasian Economic Union (EAEU), the replacement rate in the pension system in 2016-2020 did not reach the level of 40 percent. However, «in European countries, the replacement rate ranges from 60 percent, and in OECD member states it averages 54.5 percent» [28]. Life expectancy is also increasing in all EAEU countries. In 2021, the average retirement age was 63 years in Armenia, 60 years in Belarus, 61.5 years in Kazakhstan, 60.5 years in Kyrgyzstan and 59 years in the Russian Federation. «In the EAEU countries, the share of the population over the working age is more than 7 percent of the total population» [29]. This circumstance indicates the need to improve national pension models in terms of ensuring the financial stability of the pension system and improving the welfare of pensioners.

The current value of the replacement coefficient in the pension system also indicates that the amount of pensions assigned is small. «The size of the pension depends primarily on the length of service, for men – at the age of 60 with at least 25 years of experience, for women – at the age of 55 with at least 20 years of experience» [30]. However, if in Uzbekistan, as of January 1, 2010, the number of part-time pensioners was 2.7 percent of the total number of pensioners, then by January 1, 2021 it reached 29.2 percent, that is, their share increased by 26.5 points or 10.8 times. This growth can be justified mainly with the non-payment of insurance premiums to the Pension Fund by employees and employers, as well as with the fact that enterprises do not archive information about work experience and wages. At the same time, this situation, among other factors (informal unemployment, etc.), led to a decrease in the size of the average pension in the country.

This is due to the fact that according to the current legislation, old-age pensions for persons who do not have sufficient experience to receive a pension are calculated in proportion to the current work experience. As a result, the number of citizens receiving low pensions will increase. This, in turn, requires the state to take the necessary measures to provide material and social support to citizens receiving low pensions. One of such measures is the «introduction into practice of the procedure for calculating the cost of minimum consumer spending in our country» [31].

World experience shows that in most developed and developing countries, a minimum amount of consumer spending is established, which is used as a criterion for determining the poverty line, determining the low-income, setting the minimum amount of pensions and social benefits. It should be noted that in Kyrgyzstan, Moldova and the Russian Federation, the minimum age pension is lower

than the subsistence minimum, and in Belarus and Kazakhstan it is higher, which is a positive phenomenon from the point of view of material provision of pensioners and improvement of their standard of living. In Ukraine, the minimum age pension is equal to the subsistence minimum. «This indicator has positive growth dynamics in Azerbaijan» [32].

Studies by experts of the International Monetary Fund show that automatic regulation of the retirement age depending on life expectancy has not yet been sufficiently implemented in Asian countries. In addition, in countries such as Singapore, Thailand, Brunei, Sri Lanka, Malaysia, the average life expectancy after retirement is 25-28 years, which has a serious negative impact on the financial condition of the pension systems of these countries. Naturally, in these countries, raising the retirement age is the only way to achieve a balanced pension system or you will have to increase the amount of pension contributions.

Research shows that one of the main factors for ensuring the efficiency and financial stability of the national pension system is the «pension model». In the USA, Germany, the Russian Federation, Latvia and Kazakhstan, there is a state-guaranteed, social insurance-based and accumulative (private) multi-stage pension system. In 34 OECD member countries (USA, Australia, Canada, Great Britain, France, Germany, Poland, Hungary, Slovenia, Estonia, etc.), priority areas and experience of pension policy should be noted: a multi-stage pension system combining accumulative schemes and effective distribution of the burden of pension payments by sources, levels and forms of financing of the pension system; gradual increase in the retirement age based on life expectancy after reaching retirement age; encouragement of late retirement; strengthening control and monitoring of the financial activities of pension funds; increasing the amount of funds for mandatory pension insurance and additional pension payments; strengthening of the insurance mechanism for financing pension programs through the legalization of informal employment, coverage of the employed population with various pension programs; gradual increase in the minimum length of service required to receive a pension.

5. CONCLUSION

In the OECD member countries, the most important factors for ensuring the financial stability of the pension system and further improving the welfare of pensioners are the following: development of a multi-stage pension system combining a distribution scheme providing minimum guarantees and a funded scheme; gradual increase in the retirement age based on life expectancy after reaching retirement age; encouragement of late retirement; stimulation of work activity after reaching retirement age; strengthening control and monitoring over the financial activities of pension funds; increase in the volume of funds for compulsory pension insurance and additional pension provision; strengthening of the insurance mechanism for financing pension programs through the legalization of informal employment, coverage of the employed population with various pension programs; gradual increase in the minimum required length of service required for pension assignment; distribution of the burden of pension payments by sources of financing (private/public), levels (state/corporate/personal) and forms of financing (distributive/accumulative) within pension systems.

According to the international minimum standards of social security, the replacement rate in the pension system should be at least 40 percent. However, in our country from 2010 to 2021, this coefficient did not reach the level of 40 percent in any year. One of the main reasons for this is the high proportion of pensioners with part-time work experience (an increase from 2.7 percent in 2010 to 29.2 percent by 2021). This increase can be explained mainly by the fact that employees and employers do not pay insurance premiums to the Pension Fund, and enterprises do not submit information about work experience and wages to archival agencies. This circumstance has led to a decrease in the size of the average pension in the country and an increase in the number of pensioners receiving a small pension. In connection with the introduction into practice from July 1, 2021 of the procedure for calculating the cost of minimum consumer spending in our country and using this indicator as a poverty line in world practice, in order to bring the established minimum age pension and pensions of persons receiving an even smaller pension into line with minimum consumer spending, it is advisable to introduce an additional payment to the basic the amount of pension calculation for pensions of this type in the amount of 20 percent.

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