Important Factors Affecting For Future Pension

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

1. INTRODUCTION

At a young age, when the eyes shine, strength in the waist and strength in the wrists, most of our citizens are probably not interested in the pension system and how it works. But in the blink of an eye, we don't even realize that we are approaching retirement age. However, how much we will receive depends primarily on ourselves, as well as on the development of the existing pension system in the country.

True, the state also guarantees the social protection of citizens. Although pensions are an important form of social protection, they have their own requirements, procedures and conditions for receiving them. . Therefore, some citizens who have reached retirement age are not even entitled to the minimum pension established by the state. According to the International Labor Organization, "In countries of the world, 68 percent of the population of retirement age receive an old-age pension" [1]. This picture shows that there are global problems in the pension system that need to be addressed.

Identifying the problems of the pension system in Uzbekistan and developing measures to solve them, first of all, requires the study of many socio-economic issues related to the analysis and assessment of the current state of the pension system, the study of its factors, retirement age, pension size, length of service, wages and working conditions

2. LITERATURE REVIEW

Scientists such as O.Bismarck, W.Beveridge, J.Peng, E.Palmer, F.William and others from far abroad were engaged in the issues of pension provision. The problems associated with the pension system were studied by N.Borisenko, V.Roik, S.Brovchak, V.Romanchenko,

A.Shemetov, S.Orlov and others. Uzbek scientists such as A.Vakhabov, N.Madzhidov, T.Malikov, D.Rustamov, Sh.Davronov and others studied the issues of state pension provision.

A pay-as-you-go pension system based on the principle of solidarity between generations was first introduced in Germany in 1889 by O.Bismarck. At the same time, social insurance was compulsory, and pensions were paid at the expense of insurance contributions from employers and employees [2]. W. Beveridge laid the foundations of the social insurance system in Great Britain in 1942. His research focused on the need for public social protection, the need for employers to provide social security for employees, and the need for employees to have additional personal insurance [3]. The scientific work of the American scientist J.Pan investigated the issues of effective management of pension funds [4]. E.Palmer studied a three-tier pension system, which is a mandatory-distributed, mandatory funded and individual voluntary funded pension system [5]. F. William focused on the development of private pension funds [6].

Scientists from the near abroad are also studying the development of the pension system. In particular, N. Borisenko's scientific work reflects the specifics of the pension system, demography and foreign experience of the pension system [7]. V. Roik studied the issues of social insurance, which form the basis of pension provision [8]. In the scientific works of S. Brovchak, a comparative analysis of the experience of pension provision in Russia and foreign countries is given, their features, advantages and disadvantages are determined [9]. Research by V.Romenchenko reveals the international experience of the development of the pension system and is based on the possibilities of its use [10]. The monograph by A.Shemetov and S.Orlov analyzes the current state of the pension system in Russia, identifies the problems of the pension system and their causes, develops scientifically based proposals and recommendations for their positive solutions [11].

Uzbek scientists also studied the issues of reforming and improving the pension system. In particular, A. Vakhabov and N. Madzhidov studied the development of the pension system and the theoretical foundations of non-state pension provision, as well as ensuring the financial stability of national pension systems [12]. In the scientific works of T. Malikov, the content and essence, types and role of pensions in the system of social protection of the population are investigated [13]. The monograph by D. Rustamov investigates the scientific and theoretical foundations of ensuring the financial stability of the Pension Fund in Uzbekistan [14]. Sh.Davronov improved the state pension system, including developed effective mechanisms to encourage the constant participation of citizens in the social insurance system [15]. However, the main factors affecting the development of the pension system in Uzbekistan, the introduction of a three-tier pension system based on international best practice, have not been sufficiently studied.

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

In the Republic of Uzbekistan, men have the right to an old-age pension - upon reaching 60 years of age and with a work experience of at least 25 years, and women - upon reaching 55 years of age and with a work experience of at least 20 years [16]. Persons who do not have sufficient work experience for the appointment of a pension are assigned old-age pensions in an amount proportional to their work experience, if they have at least 7 years of work experience. According to the current legislation, the amount of the pension depends on the length of work experience and consists of:
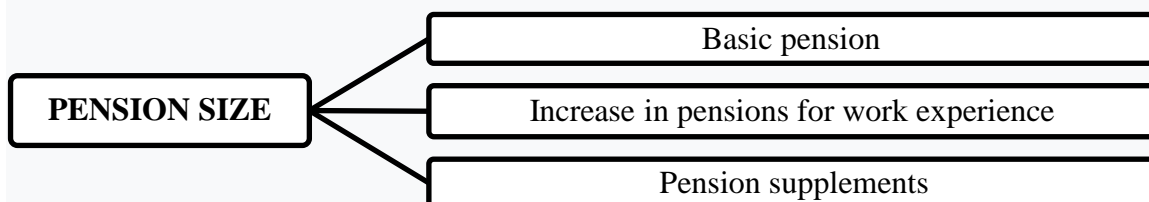

Fig. 1. Amount of pension [17]

It should be noted that in accordance with the Law of the Republic of Uzbekistan "On State Pension Provision of Citizens" the following types of state pensions are established: by age; on disability; on the occasion of the loss of the breadwinner.

1. ***Basic sizes of pensions.*** For old-age pensions - 55 percent of the average monthly earnings accepted for calculating the pension, but not less than 100 percent of the officially established minimum old-age pension.

2. ***Increase in pensions for seniority.*** For each full year of work experience in excess of the amount required for the appointment of a pension, the basic size of pensions is increased by 1 percent of the average monthly earnings accepted for calculating the pension (old-age pension).

3. ***Pension supplements.*** Pension supplements are established in the following amounts: for disabled veterans of the 1st group - 150 percent of the base amount of the calculation of the pension; for disabled veterans of the II group - 125 percent of the base amount of the calculation of the pension; disabled people of group I for vision - 100 percent of the base amount of the calculation of the pension; disabled people of group I - 75 percent of the base amount of the calculation of the pension; lonely disabled persons of the II group - 75 percent of the basic amount of the calculation of the pension; to war veterans and persons equated to them - 50 percent of the base amount of the pension calculation; to persons who worked and performed military duties in the rear during the war of 1941-1945 - 30 percent of the base amount of the calculation of the pension; to parents and unmarried widows (widowers) of military personnel and employees of the internal affairs bodies, whose death is associated with the performance of military service or service in the internal affairs bodies - 30 percent of the base amount of the calculation of the pension; to persons who have special services to the Republic of Uzbekistan - from 100 to 150 percent of the base value of the calculation of the pension, depending on the merits; for artists entitled to a preferential pension, regardless of age - 75 percent of the base amount of the pension calculation; to the artistic and artistic personnel of theatrical and concert organizations, the teaching staff and accompanists of educational institutions engaged in the training of creative workers of theatrical and musical art, according to the list determined by the Cabinet of Ministers of the Republic of Uzbekistan - 50 percent of the base amount of the pension calculation.

This means that the size of citizens' pensions will largely depend on the size of their wages and length of service. However, the size of the pension depends primarily on the size of the salary. But there is another side to the issue. The earnings for calculating the pension are recalculated to bring the earnings of previous years to the level of earnings on the day of the appointment of the pension in the manner determined by the Cabinet of Ministers of the Republic of Uzbekistan. The average monthly earnings for calculating the pension is determined by dividing the total amount of recalculated earnings for sixty calendar months of work in a row by sixty. At the same time, at the request of the applicant for a pension, months with an incomplete number of working days in connection with hiring or terminating an employment contract are counted as full calendar months of work. When assigning pensions to workers employed in seasonal work, the average monthly earnings for calculating the pension is determined by dividing the total amount of recalculated earnings for any five consecutive seasons (at the choice of the applicant for a pension) during the last ten years of employment, regardless of the existing breaks in work, by sixty. To calculate the pension, the average monthly earnings are taken in the amount of not more than ten times the size of the basic value of the pension calculation (262470 soums) [18]. In cases where the average monthly earnings for calculating pensions are below the minimum wage or there is no information on earnings at all, the pension is calculated on the basis of the basic value of calculating the pension. It should be noted here that there is a limitation on the basic amount of pension accrual. This restriction prevents higher wages from guaranteeing that the pension is also higher. In our opinion, this restriction also negatively affects the stimulation of the labor activity of citizens and does not correspond to the principles of economic justice. Proceeding from this, increase the size of the basic calculated value accepted for calculating the pension. In addition, this assumption can be substantiated on the basis of the following analytical data.

The most important indicator of the level of economic development of a country, the standard of living and well-being of the population is the average wage in the country. The ratio of the average pension to the average wage in the country plays an important role in expressing the general socio-economic situation of pensioners in the country. That is, the change in the size of the pension in accordance with the change in the average wage in the country and their interdependence are important. That is, if wages in the country are growing steadily, and pensions do not grow accordingly, the standard of living of pensioners deteriorates, and if they change, then these two factors are synchronized.

There is a theoretical basis for believing that there is a relative relationship between these two factors:
− firstly, when indexing the salaries of employees of budgetary organizations in Uzbekistan, the size of pensions is also indexed in the same coefficients;
− secondly, according to the current rules, when calculating pensions, the salaries of pensioners for the last decade are taken into account;
− thirdly, the income of the Pension Fund is formed from the contributions of employees and employers, which are calculated and paid depending on the wages of employees.

These aspects lead to the hypothesis of a relative relationship between wages and pensions. We will analyze the interdependence of these two factors based on data for the last 2010-2020 for Uzbekistan. In particular, the average salary in the country in 2020 amounted to 2,660,000 soums, an increase of 11.6 times compared to 2010, and the average pension increased by 4.7 times, respectively (Table 1).

Table 1 Average monthly wages and pensions in the Republic of Uzbekistan
in 2010-2020 [19] (in thousands of soums)

Indicators	Years										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Average monthly salary	228,1	312,2	484,3	726,5	895,4	1123,4	1274,3	1457,8	1609,1	2320,0	2660,0
Average monthly pension	171,9	218,5	274,0	330,8	404,3	438,2	494,2	556,7	640,5	705,0	812,6

Based on the data in Table 1 above, we determine the replacement rate.

If we talk about the situation in the country, as of 2020, according to the State Statistics Committee, the average monthly salary was 2,660,000 soums, the average pension was 812,600 soums, that is, the ratio is 30.5%. According to statistical analysis, the presented data have a normal distribution. The correlation coefficient between the average salary and the average pension is 0.9865, from which it can be concluded that these two indicators have a very strong correlation. Let us construct an econometric model of the correlation of the average monthly wage with the change in the size of the average monthly pension. According to the inductive analysis of this model, the indicator representing the statistical significance of the above model is less than 0.05, therefore, this model is statistically significant. The coefficient of influence of the independent variable (average monthly salary) on the associated variable is also less than 0.05 and is also statistically significant. An econometric model of the relationship between the average monthly pension and the average monthly salary:

$$PM = 151{,}72 + 0{,}258\, IH + e$$

Here: PM – is the size of the monthly pension;
  IH – is the size of the monthly salary;
  e – factors not taken into account.

This model was obtained as a result of calculations in the Stata software package. The coefficient of determination of the constructed equation is 0.9865, which can explain the change in the size of the average monthly salary by 98.6% of the size of the average monthly pension. The coefficient before IH (monthly wage) (0.258) is the change in the average wage per unit, which means a change in the average pension of 0.258 units. The normal distribution coefficient of the residuals between the regression line and the points of compatibility of the two factors is 0.38, so both residuals are considered to be normally distributed.

In accordance with the ILO Convention on Social Protection of 1955, the country's pension system must provide a pension replacement rate for previously received wages of at least 40% [20]. However, according to the data in Table 2, the replacement rate tended to decline in 2010-2020 (Figure 2).
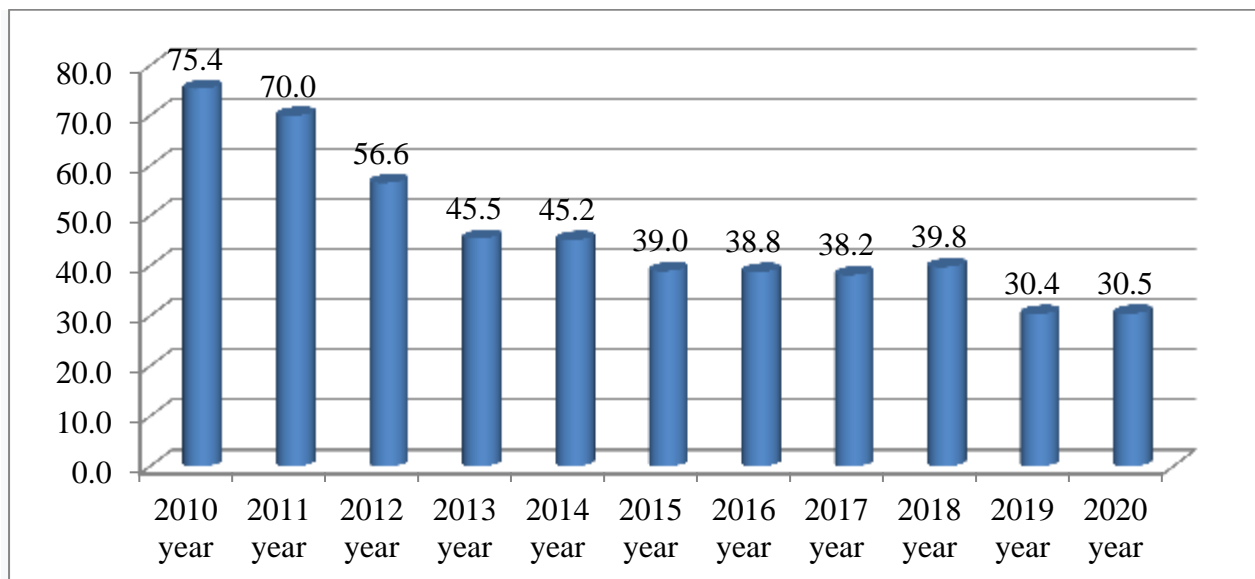
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Fig. 2. Changes in the replacement rate in the pension system
(in percents)

This picture shows, firstly, that the growth rate of the average wage is higher than the growth rate of the average pension, and this is a positive situation in terms of increasing incomes and living standards of the population, strengthening their social support. Secondly, the limitation of the basic amount of pension accrual prevents its overestimation, which is a negative factor from the point of view of social and material protection of the elderly population.

The amount of the pension is actively influenced by the length of service. For example, the difference between the pension of a citizen with 30 years of experience and the pension of a citizen with 15 years of experience (without changing the size of the monthly salary) is insignificant. The current pension system provides for the appointment of pensions to persons with a work experience of at least 7 years [21]. The presence of a minimum requirement for 7 years of work experience negatively affects the participation of citizens in the state social insurance system and does not stimulate them to increase their work experience in order to receive a larger amount of pension in the future. ILO Convention No. 102 "On Minimum Standards of Social Security" establishes the minimum length of service required to receive an old-age pension, equal to 15 years. In many countries of the world, including the Commonwealth of Independent States (CIS), the minimum required work experience is 10-15 years.

5. CONCLUSION

The size of citizens' pensions depends mainly on the size of their wages and length of service. Restrictions on the accrual of pension in relation to its basic size does not allow to increase the size of pensions in proportion to salary. In our opinion, this restriction also negatively affects the stimulation of the labor activity of citizens and does not correspond to the principles of economic justice. Therefore, at the next stage of the pension system reforms, it is advisable to completely abolish these restrictions.

The presence of a minimum requirement for 7 years of work experience negatively affects the participation of citizens in the state social insurance system and does not stimulate them to increase their work experience in order to receive a larger amount of pension in the future. This situation shows the weakness of mechanisms to encourage long-term and continuous

participation of employees in social insurance and has a negative impact on the financial stability of the pension system. Based on the results of the analysis and foreign experience, it is advisable to gradually increase the minimum length of service to 15 years required for the appointment of an old-age pension.

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