

## COMPARATIVE ASSESSMENT OF INSTITUTIONS, INFRASTRUCTURE AND MANAGEMENT OF RA PENSION FUNDS

**Davit KARIMYAN**

Ph.D. in Economics, lecturer at the Russian-Armenian University  
Yerevan, Armenia

Key words: pension, pension fund, stock, fund management

**Introduction.** Accumulated pension system provided by the Accumulated Pensions Law of the Republic of Armenia (hereinafter referred to as “the Law”) includes two important institutions - pension funds and management companies. The pension fund in Armenia is a version of an investment fund, the assets of which consist of accumulation payments collected in the manner provided by the Law and returns on their investment. Pension funds are private structures that act based on clear regulations in the field of investment preventively regulated by a mechanism of quantitative and financial restrictions. Peculiarities of the functioning of pension funds are provided by the Law. Accumulated pension fund managers in RA should act based on an investment fund manager license and a special permit to manage such funds. The criterion for issuing such permit to a manager in RA is the presence of at least one shareholder being a recognized foreign or international financial institution specializing in pension fund management.

**Literature review.** Theoretical basis for solving the problems posed in this study were the general theoretical approaches and aspects of social protection in the market economy presented in the works of Brijesh Mishra, Channarith Meng and Wade Pfau, Gregorio Impavido, Alberto R. Musalem, Thierry Tressel, recommendations of international organizations on the basics of reforming the pension system, including the World Bank, the European Commission, OECD, individual researchers and experts, including domestic ones, expressed in official documents and research materials and publications on this issue. Indian researcher Brijesh Mishra concludes that pension funds have already become significant in financial intermediation in most developed countries. Even in emerging economies, they are destined to become major intermediaries in the not too distant future. The author also notes that there are two opposing views that pension funds can positively influence macroeconomic indicators such as national savings, consumption, capital accumulation and GDP growth rates [Mishra, 2016].

Some experts – Channarith Meng and Wade Pfau argue that the financial assets of pension funds have a positive effect on the depth and liquidity of the stock market, including the private bond market. However, the authors divide countries into two groups according to their level of financial development, and consider the effects significant only for countries with a high level of financial development. Pension funds

do not affect the development of the capital market in countries with a low level of financial development. According to the authors, countries with low financial development should reconsider their management approach and investment strategies for their pension funds [Meng et al., 2010].

Other experts - Gregorio Impavido, Alberto R. Musalem, Thierry Tressel empirically assessing the impact of pension funds and life insurance companies on the securities markets, including on the depth and liquidity of the domestic stock market and the depth of the domestic bond market indicate that the institutionalization of savings could change financial markets by extending maturities of securities [Impavido et al., 2003].

**Methodology.** In the process of research in the article, general scientific methods of cognition and research were used, including: system-dialectical, abstract-logical, comparative, structural, expert, monographic, as well as economic and statistical methods of analysis. The information base of the study was the data of the National Statistical Service of the Republic of Armenia, the Ministry of Labor and Social Security of the Republic of Armenia, the Central Bank of the Republic of Armenia, legislative acts and methodological recommendations of the government, ministries and departments of the Republic of Armenia, as well as studies, publications, official documents on the regulation of the pension system, as well as international organizations, including the World Bank, the European Commission, the OECD, the ILO, as well as scientific monographs and articles by domestic and Western researchers in the field of theory and practice of pension policy.

**Scientific novelty.** In the accumulated pension system (APS) social assignments of the employers (as tax agents) are transferred to the state budget. The state transfers pension contributions to the depository, which maintains the register of APS participants (according to personalized accounting) and stores the pension funds assets. Further the depository transfers the funds to the account of the pension fund, which is equal to accumulation dues, and at the same time credits the shares of this pension fund to the pension account of the APS participant, at the placement price of the pension fund unit, in quantity equal to the accumulation contribution of an individual APS participant.

The beneficiary-participants of the funded system receive units (or shares) of the pension fund, commensurate with their funded assignments, relevant government allocations and the fund incomes. Payments to the fund beneficiaries are made in the form of pensions upon reaching the retirement age and in other cases provided by the Law.

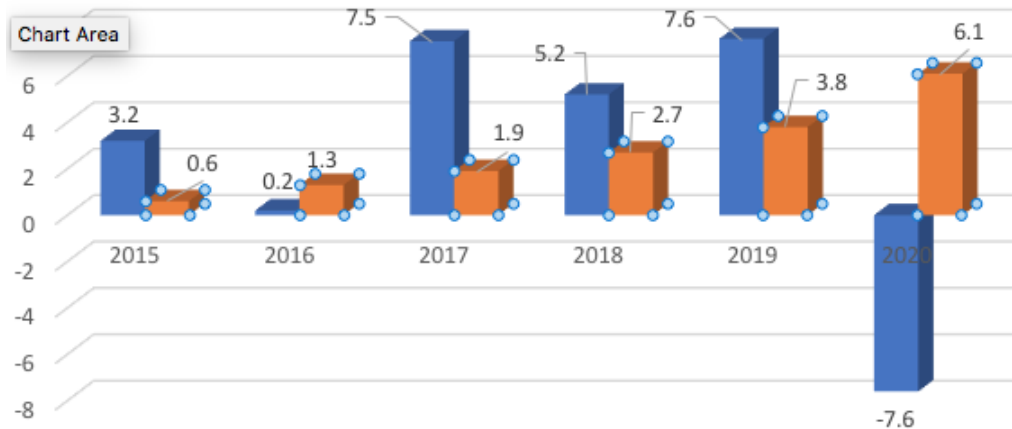
Each APS beneficiary participant has the right to independently choose a pension fund and, respectively, a manager (including via the Internet). Management companies manage their pension funds according to the chosen investment strategy. Thus while

choosing a pension fund, an APS participant chooses also the strategy of the funds placement. If the APS participant does not independently choose a fund then a conservative fund of one of the management companies is to be selected on program basis (on the principle of random choice). An APS participant may, at his/her own will, transfer (fully and/or partially) his accumulated means from one pension fund to another, implemented as an exchange of shares. In this case the participant is charged a fee for shares to be exchanged amounting to 1 percent of the estimated value of redeemable shares. Such a fee shall not be charged to a participant transferring units (shares) of his pension fund to another pension fund of the same manager or exchanging his units (shares) for the units of another pension fund once a year.

The Law sets three investment models for management companies - a pension fund: 1) with stable returns, 2) a conservative fund, 3) a balanced fund. According to the rules stable income fund assets cannot be invested in equity securities and derivative financial instruments. According to the rules of a conservative fund the weight of equity securities and derivatives (purchased for the purpose of hedging them) in the fund's assets cannot exceed 25%, while in the case of the balanced fund the latter, respectively, cannot exceed 50%.

Mandatory pension funds in Armenia are managed by two licensed organizations - Amundi-ACBA Asset Management CJSC and C-Quadrat Ampega Asset Management Armenia LLC. Each of them manages 3 mandatory pension funds - with balanced, conservative and stable income. In addition, Capital Asset Management CJSC is the manager of a voluntary pension fund with two voluntary pension funds: KAMavor 1 and KAMavor 2 [Financial report and the Opinion of an independent auditor concerning KAMavor 1 and KAMavor 2 for the financial year ended on December 31, 2020], the total assets of which at the end of 2020 amounted to 163,688 thousand AMD, or just 0.04% of the value of assets of the compulsory insurance pension funds, which actually are incomparable values.

During the period under study the assets of mandatory insurance pension funds and the ratio of assets of the mandatory insurance pension funds to GDP showed stable growth rates and in 2020 the index reached 6.1% (Figure 1). This indicator will tend to increase along with the increase in the scope of beneficiary participants of the accumulated pension system during the following years.



**Figure 1.** GDP Growth Rates and the Ratio of Assets of Compulsory Insurance Pension Funds to GDP (%).

An important indicator for assessing the pension system is the pension replacement ratio, which shows how effectively the pension system ensures pension income instead of wages. The gross replacement rate (GFR) is defined as gross pension requirement divided by gross income before retirement. In accordance with the International Labor Organization Convention this indicator should amount to at least 40% of the level of employee’s wages (income) in the working period [Social Security (Minimum Standards) Convention, 1952 (No. 102)]. The average GFR in OECD countries is 49% [Gross pension replacement rates, OECD, data,] and the net replacement rate (NFR) of the average worker in mandatory (public and private) plans is 59% [Mandatory and Voluntary schemes, Pensions at a Glance 2019: OECD and G20 Indicators]. The NFR is defined as an individual’s net retirement claim divided by net pre-retirement income, taking into account the personal income tax of the population and social security fees paid by employees and retirees. Otherwise, the definition and measurement of NFR is the same as for GFR. For low-income individuals, the difference between the GFR and NFR averages eight percentage points [Pensions at a Glance 2019: OECD and G20 Indicators].

At the top of the range of the replacement rate over 75% are Austria, Italy and Luxembourg. However, it should be pointed out that this indicator does not reveal the true state of affairs, since low-income workers will receive a higher gross replacement rate. For example, in OECD countries low-income workers will receive on average a 60% gross replacement rate as compared to 49% for average-wage workers. There is very little difference in net replacement rates across the entire income range within non-OECD countries. However, there is a significant variation between countries, ranging from 19% for average earnings in South Africa to 95% in India. In the countries where

pensioners pay only premiums and receive income tax relief, the tax expense and income tax progressivity, combined with a gross replacement rate of less than 100%, means that retirees enjoy a lower income tax rate. As a result, the NFR is usually higher than the GFR.

Armenia's replacement rate is inferior even to the EAEU countries. Thus, in 2016 Armenia's factor was 21%, while in Belarus it constituted 42%, in Kazakhstan - 34%, in RF - 37% (which decreased to 34% in subsequent years), in Kyrgyzstan – 53%. According to our calculations, the replacement rate in the Republic of Armenia for the study period was 22-23%, and it does not mainly include the pensions paid from the mandatory accumulated pension funds (their regular payment to those born in 1974 will begin in 16 years). Although the replacement rate indicates the ratio of the pension to individual's earnings is not an exhaustive indicator of the accumulated pension payments. To get the complete picture international practice also suggests taking into account the life expectancy, normal retirement age and indexation of pension benefits using the retirement wealth indicator. Retirement wealth is the measure of the volume of future discounted pension cash flows that takes into account the above factors. It can be considered a lump sum necessary at retirement age to buy an annuity that provides the same flow of pension payments promised by mandatory pension income plans. Altogether they determine how long will the pension benefit be paid and how will it change over time.

After the legislative introduction of the APS in 2014 significant pension assets have already been accumulated. Over the period under review the total assets of compulsory insurance pension funds increased 13 times in the Republic of Armenia. In 2015 their assets amounted to \$65 million (at the rate of 480), and in 2020 - to \$770.3 million. The assets of compulsory insurance pension funds amounted to 6.1% of GDP in 2020.

In the area of OECD countries, the assets of savings and private pension plans in 2018 amounted to more than 42 trillion. USD. The US had the largest pension market in OECD countries with \$27.5 trillion in assets. dollars, which is 64.8% of the total assets of the OECD countries. Other OECD countries with large pension systems include the United Kingdom with \$2.8 trillion in assets. dollars and 6.6% of the share of the OECD pension market in 2018; Canada, 2.5 trillion dollars and 5.9%; Australia, 1.9 trillion dollars and 4.5%; Netherlands, trillion. dollars, 3.6%; and Japan - 1.4 trillion. dollars and 3.3% [Assets in funded and private pension plans, and public pension reserve funds, Pensions at a Glance 2019: OECD and G20 Indicators,2019].

The weighted average of assets in accumulative and private pension funds in the OECD area in 2018 was equal to 82.3% of GDP. Eight OECD countries have achieved an asset-to-GDP ratio above 100%, these are Denmark - 198.6%, the Netherlands -

173.3%, Iceland - 161.0%, Canada - 155.2%, Switzerland - 142.4%, Australia - 140.7%, USA - 134.4% and UK - 104.5%. These countries have long had private pensions and, with the exception of Canada, the United Kingdom and the United States, have mandatory or quasi-compulsory private pension systems. Greece recorded the lowest asset size relative to its GDP among OECD countries (less than 1%). Outside the OECD area, pension assets varied widely, from 95% in South Africa to 1% of GDP in India [Assets in funded and private pension plans, and public pension reserve funds, Pensions at a Glance 2019: OECD and G20 Indicators, 2019].

In world practice, some pre-financing also takes place in public pension systems, which are usually financed on a pay-as-you-go basis. The Public Pension Reserve Funds (PPFR) are designed to play a future funding role for some public pension systems, reducing the impact of population aging on the public budget. By the end of 2018, total assets in the PPRF were equivalent to \$6.0 trillion for the 17 OECD countries for which data are available. In these countries, assets in public pension reserve funds (PPRFs) averaged 14% of GDP in 2018. The largest ratio was observed in the Korean National Pension Fund with 34.2% of GDP, followed by Luxembourg (30.8%), Sweden (29.4%) and Japan (28.8%) [Assets in funded and private pension plans, and public pension reserve funds, Pensions at a Glance 2019: OECD and G20 Indicators, 2019].

Globally, assets in accumulative and private pension funds and state pension reserve funds have been invested mainly in traditional asset classes (bonds and stocks). The proportion of stocks and bonds varies considerably from country to country, but bonds are generally preferred.

**Conclusion.** Summing up the activities of the mandatory pension funds of the Republic of Armenia, it can be noted that pension fund managers are professional institutional investors, their strategy and tactics are generally based on a conservative approach. In general, the pattern is that the Armenian pension funds do not tend to be very active in the capital market of the Republic of Armenia. In practice, they hold a large amount of bank deposits, government securities and short-term assets.

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**Davit KARIMYAN**

**Comparative Assessment of Institutions, Infrastructure and Management of RA Pension Funds**

*Key words: pension, pension fund, stock, fund management*

The pension system is an important and at the same time very vulnerable part of the social structure of the state, which is at the crossroads of the interests of the national economy, the whole society and the elderly of disabled age. The pension system manifests itself based on the level of economic development, the prevailing socio-demographic realities. In 2010, the RA Law “On Funded Pensions” was adopted, and the funded pension system of the RA entered the process of active reform, as a result of which a four-tier pension system was formed. The concept of the pension reform boiled down to the introduction of a multi-level pension system in the Republic of Armenia, which, along with the existing pay-as-you-go system, included two new components: a) compulsory pension insurance and b) voluntary non-state pension insurance. The new matrix of the pension system, along with certain benefits, also contains certain risks, including political, organizational, regulatory, managerial, requiring the establishment of preventive regulations and constant monitoring. The article describes the activities of pension funds in Armenia, assesses the effectiveness of management companies. A detailed comparative analysis of key pension indicators of both the EAEU countries and the OECD member countries was carried out