Pension System in the South Caucasus: Challenges and Reform Options

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ABSTRACT. The countries of the South Caucasus, like other countries, are trying to change publicly managed solidarity pay-as-you-go (PAYG) pension system by the hybrid (PAYG and mandatory savings) pension system. This is due to the fact that financial unsustainability of the old PAYG systems and factors such as aging, rising longevity, declining fertility rate, reducing active population, labor migration caused financial difficulties and led many countries to rethink their pension schemes. Armenia (since 2006) and Azerbaijan (since 2014) started reforming the existing old PAYG pension system to the multi-pillar mixed model. Georgia is the only country in the South Caucasus region where the old PAYG pension system still operates. The government of Georgia proposes to shift to a hybrid pension model in 2018. This paper considers the main features and trajectories of development of the pension systems in South Caucasus countries. Considering that solidarity (PAYG) pension system plays an important role in poverty reduction and serves a valuable welfare distribution function, its reject will have many undesired social consequences. Therefore, it is advisable to introduce a more sustainable pension system. One possible solution is the introduction of publicly managed solidarity PAYG and the accumulated mandatory savings (Fully Funded) hybrid pension model. Any decision about possible reforms should be based on comprehensive analysis and study of international experience. © 2018 Bull. Georg. Natl. Acad. Sci.

Key words: pension systems, South Caucasus

Typology of Pension Systems

The historical development of pension systems led to complex systems across the world, making it difficult to classify them consistently. Among the social welfare systems two types of pension system can be identified: Bismarck and Beveridge systems [1, 2].

Under the Beveridgen system, social security benefits ensure each citizen with basic income, a flat-rate pension (potentially means-tested) independent of his or her profession and earnings during active employment. This system was put in place in Denmark, Ireland, the Netherlands and the United Kingdom in various forms. Today it largely corresponds to a system of a flat rate or social allowance for PAYG systems [1].

Under the Bismarckian system, pension benefits are earnings-related and profession-related. This system has been followed in Germany, Belgium, Sweden, France, southern and eastern European countries [1].
According to OECD classification, the pension schemes are mainly classified on the basis of a three-pillar system [3].

1st Pillar: Avoiding poverty in old age which covers mandatory public PAYG pension plans. The PAYG pension scheme is based on a “pay as you get paid” principle. It is a state social security system that functions on the social, intergenerational solidarity principle, i.e. those currently receiving income financially support those who worked in the past, with the promise that, in turn, they will be supported by future generations. The goal of PAYG pension plan is to ensure a minimum standard of living for all pensioners. This plan contains a strong redistributive element.

2nd Pillar: Occupational schemes, which covers the employment-related pension plans: either earnings-related PAYG Defined Benefit (DB) plans (public or private), or occupational DC (Define Contribution) schemes.

3rd Pillar: Individual plans, which covers personal savings plans consisting of voluntary contributions by individuals. They are often privately managed, but can be a part of voluntary extra contributions to occupational schemes.

Typically, the public pension system is based on the PAYG idea, meaning current payment of pensions from contributions collected from present incomes of working population. On the other hand, there are private pension systems based on the accumulation and investment of individual savings, also called fully funded. Consequently, there are three different types of pension systems in the world:

- Pension System based on a Solidarity Principle: the payments made by employees, employers and individual entrepreneurs (taxpayers) to the State budget. The pensions are directly financed from the state budget.
- Pension System based on an Accumulation Principle: this model comprises individual character of pension, the amount of pension is in correlation with contributions to pension funds and pension funds’ investment strategies.
- Mixed Model of the Pension System: this model means combination of the both above-mentioned models.

### Table 1. Advantages and disadvantages of PAYG and fully-funded pension systems

<table>
<thead>
<tr>
<th>Pension Systems</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay-as-you-go (PAYG) pensions</td>
<td>Simplicity and transparency</td>
<td>Budgetary burden</td>
</tr>
<tr>
<td></td>
<td>Low administration costs</td>
<td>No “choice”</td>
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<td></td>
<td>Progressive redistribution</td>
<td>Over-commitment to a specific level of pensions</td>
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<td></td>
<td>Wide coverage</td>
<td>Resistance to tax funding</td>
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<td></td>
<td>Do not inhibit the mobility of labor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low risk</td>
<td></td>
</tr>
<tr>
<td>Fully-funded (FF) pensions</td>
<td>Higher returns from professional equity investment</td>
<td>Regressive impact on the distribution of income</td>
</tr>
<tr>
<td></td>
<td>Saver has independence and choice</td>
<td>High administrative costs</td>
</tr>
<tr>
<td></td>
<td>Increases savings and growth</td>
<td>Limited coverage</td>
</tr>
<tr>
<td></td>
<td>Promotes the development of financial markets</td>
<td>Uncertain return (high risk)</td>
</tr>
<tr>
<td></td>
<td>Effective</td>
<td>Need for a social security safety net</td>
</tr>
<tr>
<td></td>
<td>Corporate governance</td>
<td>In some cases limits mobility of labor</td>
</tr>
<tr>
<td></td>
<td>Automatically adjusts the level of pension to available returns</td>
<td>(occupational pensions)</td>
</tr>
</tbody>
</table>

Advantages of PAYG Pension Schemes

The PAYG schemes have a number of advantages. The PAYG schemes make it easier to redistribute resources between generations. The people who lived during unfavorable economic conditions deserve support from later generations.

PAYG pension system was introduced in 2006 to reduce Georgia’s substantial poverty. The old-age average pension increased from 14.3% of GDP per capita in 2006 to 26.5% in 2013. However,
sustainability of this system largely depends on such factors, as demographic, that are beyond the government’s control [4]. These demographic dynamics affect the stability of the PAYG system. In the Caucasus region the economic restructuring of the 1990s resulted in a dramatic decline in both the number of contributors and the level of contributions collected [5]. Population aging is becoming one of the “mega trends” of the new century. The growing number of elderly in society means more pension beneficiaries and more pension expenditures, while declining birthrates leads to a decreasing workforce and fewer pension contributors. This was exacerbated by significant migration of younger workers, further reducing the domestic labour force [6, 7]. The change in the structure of employment, from large state enterprises to small private firms, increasing levels of self-employment and employment in the informal sector was accompanied by widespread tax evasion, affecting both contributors and contributions [8]. Due to the increasing number of beneficiaries and falling contributors the number of pension beneficiaries per pension contributor in the South Caucasus region reached high level [9, 10].

It should be noted that from year to year the share of pensions is increased in the state budget. For example, in Georgia in 2013 the total share of pensions in the state budget was 13.1%, in 2014 – 14.6%, in 2015 14.5% and in 2016 15.5%.

Therefore, three main points are emphasized: 1) the challenge of population aging and its implications for the maintenance of adequate and sustainable pensions, 2) financial sustainability as “a necessary precondition for an adequate provision of pensions in the future,” and 3) “the modernization of pensions systems,” related to the labor market: part-time, temporary, self-employed and mobile workers [11].

To maintain system stability in spite of demographic changes, governments can either increase taxes to fill the gap, or decrease the pension benefit levels to keep pension expenditures in line with pension revenues. Alternatively, retirement age can be adjusted [10]. In Georgia retirement age was raised to 65 for men and 60 for women. In Armenia retirement age is 65 for men and 63 for women. In Azerbaijan retirement age is 63 for men and 60 for women.

**Fully Funded Pension Schemes as an alternative**

In contrast to the PAYG system, a fully funded social security system has certain advantages: intergeneration transfer risk passes from the government to individuals’ accounts. Fully funded pension scheme implies individuals saving for their own retirement. Contributions made by workers are saved and invested in various asset. The savings increases the long-term capital available for investments and therefore contributes to economic growth. It is also known to be more effective, as savings grow over the investment period due to investment returns and generate higher levels of benefits for the same level of contributions [10].

Capital market development is another benefit created by introducing a funded pension system. This will bolster the development of stronger financial institutions (stock exchanges, clearing houses, investment management companies…), lead to a wider variety of financial services being offered (pension savings management, IPOs, bond placements, etc.), and all of them will represent the positive spillover from the funded pension system [10, 12].

**Pension System Reforms in the South Caucasus Region**

Given falling contributions and constrained government expenditure, the South Caucasus countries reformed their pension system. Armenia is changing the existing PAYG pension system to the multi-pillar system. The pension system in Azerbaijan can be considered as a mixed model (PAYG and fully funded pension schemes). Georgia’s current pension system is operating, for the most part, on a PAYG basis. The government of Georgia proposes to shift to a hybrid (mixed) pension model in 2018.
Georgia

Georgia established Social Pension System in 1995. The amount of pension depended on the annual income of the pension fund. The income source for the pension fund was contributions from the companies and employees. The next reform started in 2004. Government decided to finance Social Programs from the common budget income. As a result of reorganization, two new agencies were formed: Employment and Social Care Agency and Healthcare and Social Programs Agency. By the end of 2010 the above mentioned agencies merged and a new Social Service Agency was created. Social Service Agency is a governmental agency under the Ministry of Labor, Health and Social Affairs of Georgia [13]. From 2008, the only source for the pension system is the annual state budget. In 2010, there was a reform of taxation system in Georgia. In the new edition of Tax Code, Income Tax united Social Tax and other taxes in itself [14].

In the mid-1990s, spending on public pensions as a share of GDP decreased: 1.7% in Georgia, 2.5% in Azerbaijan and 3.1% in Armenia [15]. The level of public pensions does not afford older people an adequate standard of living. The social pension is lower than minimum old age pension.

Old age retirement pensions in Georgia have been set at 180 GEL (70 euros). Pensions for work experience do not exist in Georgia. The government of Georgia proposes to shift to a savings system, which is more in line with practices in developed countries. The base part of the pension will be annually indexed. Both working citizens and their employers will contribute to the fund. According to the pension reform project, citizens, employers, and the state will have to make monthly payments into the new pension fund:

- Employed people - 2% of their salary will be transferred to the pension fund;
- Employers - 2% of salaries they pay will be transferred to the pension fund;
- State - 2% of income tax revenue received from every employed citizen will be transferred to the fund.

It is assumed that those who will retire in the next 10 - 15 years will benefit most from these changes [16].

Armenia

Like many countries, Armenia is changing its existing PAYG pension system to the multi-pillar system. In 2005-2006, Armenia has launched a new phase of pension reforms. Moving from “Solidarity pensions” to defined contributions mandatory funding and voluntary (complementary) pension funding, the pension system in Armenia became a multi pillar and incorporates the following components:

- **Pillar 0 – Social Pension**: providing social pension to those individuals who have reached 65 and whose length of service is up to 10 years.
- **Pillar 1 – Contributory State (Employment) Pension**: continue providing pensions both to the current pensioners and those people who will not be obligatory participants of the mandatory funded component. The mandatory participants of the funded component will be only entitled to receive a base pension from this pillar. Under this component, pensions will be paid to individuals with more than 10 years’ length of service.
- **Pillar 2 – Mandatory Funded Pension**: providing mandatory funded pensions to

<table>
<thead>
<tr>
<th></th>
<th>Number of pensioners</th>
<th>% of population</th>
<th>Average pension</th>
<th>Pension Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>men</td>
<td>women</td>
<td>men</td>
<td>women</td>
</tr>
<tr>
<td>Georgia</td>
<td>867,000</td>
<td>867,000</td>
<td>70 euros</td>
<td>65</td>
</tr>
<tr>
<td>Armenia</td>
<td>451,900</td>
<td>451,900</td>
<td>80 euros</td>
<td>65</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>1,299,946</td>
<td>1,299,946</td>
<td>95 euros</td>
<td>63</td>
</tr>
</tbody>
</table>

Table 2. Share of pension population, average pension and pension age in the South Caucasus region
individuals born on and after January 1, 1974, as well as individuals above 40 who will voluntarily join the mandatory funded component and make mandatory funded contributions.

Pillar 3 – Voluntary Funded Component: providing voluntary funded pensions without any age restrictions to those who will join this component and make voluntary funded pension contributions.

Under the new system, young employees will be forced to save an additional amount out of their income, which together with contributions from the state will be managed by private funds until the workers’ retirement [17].

According to the law, employees born after 1974 should contribute 5% of their salary to the pension fund they have chosen. Government adds up amount equaling to 5% of the employee salary. So the total contribution equals 10% of the salary base of those under the framework of this new pension scheme. According to the new law on Accumulated pensions, the minimal pension in the country will be equal to the minimum wage, while the basic pension will total 150% of the minimum wage.

Old age retirement pensions in Armenia have been set at 41,000 drams (80 euros). Officers in the army receive around 87,000 (170 euros). Former high-placed officials can earn up to 1 million dram (1940 euros).

Azerbaijan
The pension system in Azerbaijan can be considered as a mixed model, which consists of two elements:

- A notional defined contribution (NDC) social insurance program: implemented in 2006, is financed by an employee contribution of 3% of gross earnings and an employer contribution of 22% of payroll.
- A non-contributory social assistance program: funded by general revenues, provides benefits to non-working men aged 67 or older and women aged 62 or older who are not eligible for the earnings-related pension.

New pension reform began in 2014 in Azerbaijan, the aim of which was transfer to the savings pension system. From 2006, every worker has an individual account to which a portion of his or her salary is transferred. The base pension is supplied by the government to those who worked for 12 years and are of retirement age. The rest is dependent upon the savings acquired by the individual. There are allowances and bonuses for those who received a higher education, or for those, for example, who worked in a dangerous setting. However, those who retired before 2006 can only count on the base pension.

The average pension in Azerbaijan is 177 manat (95 euros), the maximum – for those who have been deemed “national heroes” – is 1300 (715 euros).

Conclusion
PAYG pension system is facing challenges due to changing demographics, while the alternative Fully Funded pension system offers many benefits. However, the PAYG system plays an important role in poverty reduction and serves a valuable

Table 3. Components of Armenian multi-pillar pension system

<table>
<thead>
<tr>
<th></th>
<th>Funded (voluntary) pension</th>
<th>Funded (mandatory) pension</th>
<th>Funded (mandatory) pension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Pension</td>
<td>Basic Pension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 Pillar</td>
<td>I Pillar</td>
<td>II Pillar (mandatory)</td>
<td>II Pillar (voluntary)</td>
</tr>
</tbody>
</table>
welfare distribution function, so its disappearance would have many undesired social consequences. Nevertheless, the changing demographics calls for the introduction of more sustainable system. One possible solution is a reform that is a mix of PAYG and the Fully Funded pension system.

**摘要**

**საპენსიო სისტემის ნაწილოვანი გადასახადები: საოჯახოპაპლო და ნებაყოფლობის პირთთქვენი**

ვერულაკის სახელმწიფო უნივერსიტეტი, ჯანდაცვის პოლიტიკისა და დაზღვევის ინსტიტუტი, ბიზნესის სკოლა, თბილისი, საქართველო (წარმოდგენილი აკადემიის წევრის სილაგაძის მიერ)

საპენსიო სისტემების მდგრადობა ერთ-ერთი მნიშვნელოვანი გამოწვევად ჩაწერილია მსოფლიოში. იმის გარდა, როგორცაა საპენსიო სისტემების სახელმწიფო, უმნიშვნელობით სამხრეთ კავკასიაში, მსოფლიოში გაიზარდა. სამხრეთ კავკასიის ქვეყნები (საქართველო, სომხეთი, აზერბაიჯანი) საპენსიო სისტემებში, საბოლოო განვითარების მიზნით მსოფლიოში გაგზავნა საპენსიო სისტემა.

1994 წელს მსოფლიო ბანკმა თავის ანგარიშში წარმოგვიდგინა საპენსიო სისტემის კლასიფიკაციის სამი ძირითადი სახე: სოლიდარული (სახელმწიფო) საპენსიო სისტემა; დაგროვებითი შენატანების სქემა და დაგროვებითი საპენსიო სისტემა. ჯგუფი, სოლიდარული (Pay-As-You-Go - PAYG) საპენსიო სისტემის ფინანსური მდგომარეობის გამო, უტარება ფიქსირებული გარანტიებით მას რეიტირინგმა. სომხეთში 2006 წლიდან სოლიდარული (PAYG) საპენსიო სისტემამდე დაიწყო (სოლიდარული, დაგროვებითი და დაგროვებითი) საპენსიო გაშლა. საქართველო სისხლის ხალხის მიერ აღნიშნაირად 2014 წლიდან დამჩინებული ისტორია. ამ მიზნით, საქართველო პოლიტიკურ საერთაშორისო უკანონო ქმის ჩამოყალიბება ქართულთა საპენსიო სისტემას. 2018 წლიდან საქართველო მთავარმა გამოაცხადა აქტიურ მოქმედებაში გადამხდარი პაგალი შემდეგ წლებში. საქართველო საპენსიო სისტემა აქტიურ სიღრმე სტალა, სადაც ფიქსირებული გარანტიები, სოლიდარული (PAYG) საპენსიო სისტემა გადავიდა სოლიდარული (PAYG) საპენსიო სისტემა, რომლითაც გამოიყენებს ამ გამოწვევებს, როგორცაა სოლიდარული (PAYG) საპენსიო სისტემამ, რომლის შერეულობა საპენსიო სისტემაში გადაადგილდება ნებაყოფლობაში. სოლიდარული (PAYG) საპენსიო სისტემა გამოიყენებს ამ გამოწვევებს, რომ სოლიდარული (PAYG) საპენსიო სისტემა.
The system plays a positive role in reducing poverty. It is also significant, as it is characterized by the function of equity. As a result, solidarity system completely undermines adverse social outcomes. Consequently, the aim is to implement solidarity (PAYG) and funded system systems in Georgia (Hypothetical) model of management. Possible reforms should be informed by the analysis of national and international experience of pension policies.

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