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HOW DOES THE PENSION SYSTEM IN POLAND PREVENT OLD-AGE POVERTY?

Abstract:

The old-age pension systems are the largest component of social protection and pursue a variety of social goals. This paper focuses on old-age poverty protection as the key aspect of the adequacy of pensions. The main purpose of this work is to assess, whether the Polish pension scheme provides sufficient protection against income poverty for future pensioners? The following hypothesis was verified: institutional solutions in the current Polish pension scheme will not provide sufficient protection against poverty for all future pensioners. The research methods used included a review of the subject literature and an empirical analysis of statistical data.

The research findings show that the statutory pension scheme in Poland does not protect well all future pensioners against income poverty. Transition to pensions based on lifetime contributions will lead to lower adequacy and an increased risk of poverty among elderly population. A minimum insurance period of 25 years for men and 20 years for women is required to obtain the right to a guaranteed minimum-pension. Persons, who do not meet this condition receive extremely low pensions (so-called penny pensions). Unfortunately, their number is still growing. Therefore, further changes in the pension system are advisable.

Keywords:

public pension system, pensioner, poverty, demographic aging, replacement rate

JEL Classification: H55, I32, I38

Introduction

Current old-age pension systems realize different goals: consumption smoothing, income redistributions, poverty relief and other (ex. supporting economic development) (Barr, Diamond, 2006). However, their key role still is to provide adequate income for financing consumption of pensioners as well as to prevent them from poverty and social exclusion. These goals results among others from Article 25 of the Universal Declaration of Human Rights (art. 25) and from the Open Method of Coordination as regards pension schemes in the EU countries (Council of the European Union, 2001).The European Commission represents a multi-dimensional approach to adequacy of pensions and considers three aspects of adequacy: poverty protection, income maintenance and pension duration (European Commission, 2018a).

This paper focuses on old-age poverty protection as the key aspect of adequacy of pensions. The main purpose of this work is to assess, if the Polish pension scheme provides sufficient protection against income poverty for future pensioners? The following hypothesis was verified: institutional solutions in the new Polish pension scheme will not provide sufficient protection against poverty of future pensioners. The research methods used included a review of subject literature and an empirical analysis of statistical data.

This paper is organised as follows. Part one presents of currently applicable statutory public pension scheme in Poland. Part two provides assessment of income maintenance with regard to pensioners in Poland. The third part, shows assessment of the risk of poverty for old people in Poland, including institutional solutions, which are to ensure minimum financial resources for future pensioners.

1. The statutory pension scheme in Poland

The old-age pension system in Poland is in a transitional phase. Since 1999 there have been two statutory pension schemes functioning simultaneously. People born before 1949 receive the public pension according to the old system rules (pay-as-you-go scheme, defined benefit formula - DB). The old system has a significant redistributive component and is, therefore, favourable for persons who earned lower income from work.

Those born after 1949 are covered by the new pension scheme, which consists of three pillars. The first pillar is a public PAYG pension scheme, defined contribution formula - DC. The second pillar is a funded part of public scheme, managed by private entities and guaranteed by the state. The first and second pillars provide basic pension within public mandatory pension system. The third one provides privately-managed individual voluntary savings and is supplementary to the public scheme. Voluntary retirement pillar consist of occupational pension schemes (*PPE, pracownicze programy emerytalne*),"individual retirement accounts" (*IKE, indywidualne konta emerytalne*) and "individual pension protection accounts" (*IKZE, indywidualne konta zabezpieczenia emerytalnego*). Currently, the third pillar plays a negligible role in retirement income provision in Poland. So far, retirement benefits are still provided by the public statutory pension system (the first pillar).

Pensions in the first pillar are realized on the pay-as-you-go schemes, but in line with the non-financial defined contribution formula (NDC), which includes less protection than DB ones. The length of contributory periods and the period of receiving benefits are crucial in DC system. It means that the pension benefit depends on the amount of contributions paid earlier and life expectancy. The first pillar is mandatory for emloyees and self-employed outside of agriculture. The first pillar is financed from contributions (19.52 percent of gross salary) paid in equal parts by employees and employers. The contributions are divided between two virtual[1] pension accounts (account and sub-account) managed by the Social Insurance Institution (Zakład Ubezpieczeń Społecznych – ZUS). They show the value of pension rights. They are indexed to reflect the annual growth of GDP. Currently, retirement age is 60 for women and 65 for men.

The second pillar is funded (financial defined contribution - FDC) and consists of open pension funds (otwarte fundusze emerytalne - OFE), managed privately by pension fund companies (powszechne towarzystwo emerytalne - PTE). 2.92 percent of gross salary is paid to the accounts, which come from a part of a mandatory social insurance contribution. The FDC accounts were mandatory until 2014, now they are voluntary, both for workers and new entrants to the labour market.

Pensions from two of these pillars are paid by ZUS. In the new pension scheme in Poland there is no minimum insurance period to claim a pension. Pensions are calculated by dividing the amount accrued in pension accounts (from the first and the second pillar) by unisex life expectancy at retirement. The life expectancy factor is calculated by the Central Statistical Ofice (Główny Urząd Statystyczny – GUS) and adjusted annually.

2. Assessment the adequacy of pensions

Adequacy of pensions can be illustrated by the replacement rate, i.e. the level of pension income compared to the income from work before retirement. There are several ways of measuring this relation. The European Commission uses two of them: the aggregate replacement ratio (ARR) and the theoretical replacement rate (TRR) (European Commission, 2018a).

Theoretical replacement rates measure how a retiree’s pension income in the first year after retirement would compare to their earnings immediately before retirement. They are expressed as a percentage of pre-retirement earnings. TRRs are calculated for a number of hypothetical cases, by taking into account a given career length, earnings level and age of retirement. Computing TRRs involves several assumptions, ranging from a specific career path to salary, inflation and interest rates over decades. Calculations depend on numerous details , e.g. the role of taxation, occupational pensions, the difference between high earners and low earners, and indexation rules. Net TRRs are affected by taxation.

According to current standards, TRR rate should amount to at least 60-70 percent. It is possible to maintain the standard of living before retirement (Bielawska 2016). Social Security Minimum Standard: Convention 102 of the International Labour, ratified by Poland in 2004, states that the minimum requirement of adequacy of a pension scheme is a replacement rate at the level of at least 40 percent. Only then does the pension cover basic needs (Uścińska 2005).

Unfortunately, future generations of Poles retirees (with current solutions in place) may receive pensions that will be less suited to their needs. A gradual transition to pensions based on lifetime contributions will lead to lower adequacy and an increased risk of poverty

[1] „Notional” individual accounts are exist only on the books of the Social Insurance Institution (ZUS).

among elderly population. Future replacement rates for Poland reflect the projected outcomes of the new pension system that introduced a close link between contributions and benefits. If the life expectancy at retirement age increases, levels of benefits in the future will decline as a result.

According to the simulations prepared for Poland by the European Commission, the gross theoretical replacement rate (GTRR) for an average-wage earner, who will be retiring after a 40-year career at standard pensionable age in 2056, will be 38.2 percent for men and 32.1 percent for women. It will be 37.2 p.p. lower for men and 31.7 p.p. lower for women compared with someone retiring in 2016. The gross theoretical replacement rate for women with a 40-year career will be 6.1 p.p. lower than for men, reflecting the 5-year difference in pensionable ages (European Commission, 2018b).

After all, for many persons the requirement of the employment continuity for 40 years will not be met due to career breaks connected with maternity, unemployment, retraining or random events. Maternity, , childcare or periods of unemployment will decrease the level of pension, and therefore the replacement rates. Pension credits are granted for periods of maternity and childcare, as well as unemployment (during the time of receiving an unemployment benefit). However, it still shows reduction in expected gross pension level. Women with a 3-year childcare break could expect a moderate decline of pension by 0.7 p.p. (0,8 p.p. for men). In the case of a 3-year unemployment break, the reduction is slightly more tangible – 2.4 p.p. for women, 2.8 p.p. for men. A short career (20 years) means a drop of gross theoretical replacement rate by 19 p.p. for men and 15.9 p.p. for women (European Commission, 2018b).

3. Assessment the risk of poverty of pensioners in Poland

Poverty may be understood in an absolute or relative way. A pensioner's household is considered poor if the level of his/her pension is lower than the assumed poverty threshold. Table 1 presents a variety of poverty thresholds applied in practice in Poland.

Table 1. Various poverty threshold in Poland for a one-person household of a pensioner in 2010-2016

Specification	2010	2011	2012	2013	2014	2015	2016
Social minimum (in PLN)	943.52	984.37	1043.09	1062.45	1070.65	1080.20	1094.92
Subsistence minimum [2] (in PLN)	447.54	474.20	493.96	523.87	515.43	518	527.30
Statutory poverty threshold [3] (PLN)	477	477	542	542	542	634	634
Relative poverty threshold [4] (PLN)	665	690	693	706	713	734	770
At Risk of poverty threshold[5] in PLN per month (single person)	**914.94**	**1043.72**	**1050.99**	**1072.45**	**1108.45**	**1153.80**	**1222.0**

[2] Subsistence minimum also referred to as biological minimum, is a bottom poverty threshold, estimated on the basis of a fixed basket, which meets only basic needs. Subsistence minimum – it is the amount determined each year by the Institute of Labour and Social Affairs on the basis of a normative model of meeting low consumption needs. There are only good to meet the existential needs (food, clothing and footwear, housing, health and hygiene).

[3] Statutory poverty threshold - is the amount which, under the applicable law gives the right to apply for financial benefit from social assistance system.

[4] Relative poverty threshold - provided by the Polish Central Statistics Office (GUS) – 50 percent of average expenditures of all households.

[5] At risk of poverty threshold recommended by Eurostat (At-risk-of-poverty rate after social transfers) - percentage of persons with an equivalised annual disposable income (with social transfers) below the at-risk-of-poverty threshold set at 60 percent of the national median of equivalised annual disposable income.

Source: Own study based on GUS data and Eurostat data.

In the UE, an assessment of at-risk-of-poverty of pensioners' households (at risk of poverty rate - AROP) is most often used a measure of the adequacy of pensions in the context of protection against poverty. The AROP rate is based on evaluation the percentage of households of retirees whose equivalised annual disposable income does not exceed 60 percent of the national median of equivalised annual disposable income after transfer. AROP rate indicates the percent of people whose income is below the poverty threshold.

In 2010-2016 a majority of pensioners receive pensions from the old DB system. If we are to assess, the adequacy of pensions in terms of protection against poverty, the currently paid benefits meet the standards discussed earlier. Social Insurance Institution data from 2000-2016 show that the ratio between average old-age pensions and average wages remains stable; it is at the level of around 60 percent (Zakład Ubezpieczeń Społecznych, 2017). Therefore, the current adequacy of the Polish pension system is relatively good. AROP rate in Poland in 2010-2016 was lower for older people than for the population aged 18-64, similarly as in the UE (table 2). In 2016 AROP rate for persons aged 65+ was at 12.8 percent and it was the level lower than the average in the EU countries (14.6 percent).

Table 2. At-risk-of-poverty rates in 2010-2016 (percent)

Specification	2010	2011	2012	2013	2014	2015	2016
AROP 65 years or over in Poland	14,9	14,7	14,0	12,3	11,7	12,1	12,8
AROP less than 65 years in Poland	18,1	18,1	17,6	18,1	17,9	18,7	18,1
AROP 65 years or over in UE 28	16,0	15,9	14,5	13,7	13,7	14,1	14,6
AROP less than 65 years in UE 28	16,6	17,1	17,3	17,4	18,0	18,1	17,9

Source: Eurostat data.

It can be concluded that, the old pension system in Poland protects elderly population against poverty and social exclusion very well. The significant redistributive component has such effect, that the level of income poverty among pensioners in Poland is relatively low. Unfortunately, numerous simulations of the future replacement rate indicate that it will be much lower, therefore, increased threat of poverty in the old age for the future is to be expected than it is now. In Poland in the new DC pension system, there is only one institutional solution for protection against old-age poverty, that is a minimum pension offered by the state. The minimum pension is granted to an employee, who reached retirement age (60 women, 65 men) and who has a minimum years of coverage (20 women, 25 men) and his/her total pension from NDC and FDC accounts is not at the minimum level. In 2016 it was 1000 PLN (about 250 euro) per month. Owing to subsidies from the state budget (taxes), he/she will consequently receive a minimum pension.

The problem is also to reconcile long-term stability of the pension system with the adequacy of retirement benefits. Defined contribution formula (DC) does not guarantee any level of final retirement benefit, the risk of the benefits is taken entirely by the participant of the pension system. Many examples show that in the case of low-income employees even very long contribution periods (35–40 years) does not provide adequate pensions. It is worrying, that more and more workers at pensionable age in Poland do not have required contributory period and do not acquire the right to minimum pension. The number of pensioners with minimum pensions is decreasing every year (see Table 3).

Table 3. Pensioners with minimum pensions in 2010-2016

Specification	Years				
	2012	2013	2014	2015	2016
Minimum pension (PLN)	799.18	831.15	844.45	880.45	882,56
Number of pensioners with minimum pensions (thousand)	104	99	92	86	80
Percentage of pensioners with minimum pensions	**2.1**	**2**	**1.9**	**1.7**	**1,6**

Source: Own study based on the ZUS data.

On the other hand, the number of pensioners with pensions lower than minimum pension is still growing. In 2012, they accounted for 67 thousand and in 2016 they came to 112 thousand (70 percent more than in 2012), which was 2.24 percent of all pensioners (see table 4). This is due to the fact, that in the new old-age pension scheme each person, who reached a statutory retirement age and who paid at least one pension contribution has the right to apply for a pension. Poland is the only country in the UE, where the right to pension is related only to retirement age without the minimum insurance period (years of coverage). When contributions paid by the insured are very low, pensions according to DC formula may be extremely low and they are so-called ”penny pensions”.

Table 4. Pensioners with pensions lower than minimum in 2010-2016

Specification	Years				
	2012	2013	2014	2015	2016
Number of pensioners with pensions lower than minimum pension (thousand)	67	83	92	110	112
Dynamics (percent)	100	124	137	164	176
Percentage of pensioners with pensions lower than minimum pension	**1.35**	**1.67**	**1.9**	**2.17**	**2,24**
Number of pensioners with pensions lower than PLN 100	49	43	37	38	222
Number of pensioners with pensions lower than PLN 200	160	160	236	293	449

Source: Own study based on the ZUS data.

The analysis of the data from the tables shows, that the new Polish pension scheme protects pensioners from the lack of income to finance consumption after retirement but not from old-age poverty (Szczepański, 2015). There are at least two reasons for this. Firstly, the low level of guaranteed minimum pension – below at risk of poverty threshold and social minimum (Table 1). Secondly, a minimum pension is not common. Many people do not meet conditions to receive it and the number of pensioners with pension lower than guaranteed minimum is growing (Table 4). Therefore, stronger protection mechanism should be introduced, especially for women and low-paid workers.

Conclusions

The analysis reveals that the most important goal of the pension scheme reform from 1999 was to ensure sustainability of the pension scheme but not to protect against old-age poverty (Hagemejer, 2006; Zaidi and Grech, 2007; Kawiński and others, 2012).The introduction of a funded pension scheme (previously was only pay-as-you-go scheme) and defined contribution formula into the statutory (basic) pension scheme, as well as the reduction of income redistribution promotes its sustainability but not the adequacy of pensions.

The change of the pension formula from a defined benefit to a defined contribution has a number of consequences. On the one hand, it implements the principle of equivalent contributions and benefits, which provides a solution to the problem of aging societies, encourages people to a long professional activity and discourages them from working in the grey economy. On the other hand, sustainability, which is favourable for public finances, does not go hand in hand with the most important social goal of the pension system, which is adequacy (Szczepański, 2015). However, the total dependence of pensions on contributions paid earlier (earnings) leaves persons in a difficult position. It's about those who have got low income for different reasons long breaks in their professional careers and mainly women whose pensions are much lower than those of men due to lower salaries and shorter professional life owing to their official retirement age and caring responsibilities. Moreover, flexible forms of employment (civil-law contracts for a definite period and self-employment) that bring temporary benefits during professional life do not provide employees with access to pension entitlements. Therefore, in the future we should expect a greater risk of poverty in old age than it is today.

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