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Pension entitlements of households accrued under social insurance till 31st December 2021

303,4% GDP

constitutes pension entitlements of households accrued till the end of 2021

The total value of pension entitlements of households accrued under social insurance in Poland amounted to 303,4% of GDP¹, i.e. 7 983 061,9 mln zł million PLN on 31st December 2021.

Introduction

The obligation for EU Member States to estimate the value of accrued-to-date pension entitlements arises from Regulation No 549/2013 of the European Parliament and of the Council of 21st May 2013 *on the European system of national and regional accounts in the European Union* (ESA 2010). The data are transmitted to the European Commission (Eurostat) in Table 29 in accordance with the ESA 2010 Transmission Programme every three years, two years after the reporting period, starting with the information for 2015. The first compulsory data transmission took place in December 2017.

The main objective of reporting on pensions in national accounts is to ensure a comprehensive and comparable overview of household pension entitlements in EU Member States, covering all social insurance systems, i.e. employment-related schemes and social security schemes.

Pension entitlements at the end of 2021 have been estimated in line with ADL methodology (accrued to date liabilities), in accordance with the methodological requirements of the ESA 2010 (Chapter 17) and the guidelines on the assumptions to be used in the calculations, included in the manual developed under the auspices of Eurostat and the European Central Bank: *Technical Compilation Guide for Pensions in National Accounts – 2020 edition*². In the case of capital schemes (OFE and PPE), the accumulated benefit obligations approach – ABO has been used, i.e. at the level of the current value of accumulated assets, which means that the stock of entitlements is equal to the accumulated assets at the end of a given period.

It ought to be stressed here that statistics on pension liabilities estimated in line with ADL methodology cannot and should not be used for assessment of public finances stability. They only show the present value of benefits which will be paid at the time of retirement of current contributors and of remaining benefits of the current pensioners. Such an approach shows the liabilities in the limited time perspective. It does not take into account the entitlements accrued after an accounting period, both by the current contributors and persons who in future will enter the labour market for the first time. However, statistics on pension entitlements and liabilities can be a valuable source of information about the cost of a pension

The entitlements and liabilities in the ADL approach include the present value of benefits to be paid in the future, and arise from contributions already paid by employees and remaining entitlements of those receiving benefits. This approach therefore shows commitments over a limited period of time. It does not take into account the entitlements accrued after an accounting period, both by the current contributors and persons who in future will enter the labour market for the first time.

¹Gross domestic product (current prices) in 2021: 2 631 302,1 million PLN.

² The manual is available on the Eurostat website: <http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-RA-11-027>.

scheme liquidation, when benefits to which the members of the scheme are entitled at the time of liquidation should be paid out. Data on expenditures connected with the ageing of population and on their impact on public finances stability can be found in The Ageing report elaborated and disseminated by the European Commission and Ageing Working Group, which operates under Economic Policy Committee, and the member of which is the Ministry of Finance.

Information on the methodology used is described in the Fact Sheet and full dataset is presented in the supplementary table on accrued-to-date pension entitlements in social insurance (Table 29), which was posted on the Statistics Poland website together with this information.

The results

The total value of accrued-to-date pension entitlements in Poland amounts to 7 201 462,7 million PLN at the beginning of 2021 and to 7 983 061,9 million PLN at the end of 2021 (303,4% of GDP). For comparison, the total value of accrued-to-date pension entitlements amounted to 6 097 282,3 million PLN at the beginning of 2018 and to 6 189 064,7 million PLN at the end of 2018 (291,0 % of GDP).

Table 1. The value of accrued-to-date pension entitlements of households in Poland on 31st of December 2021

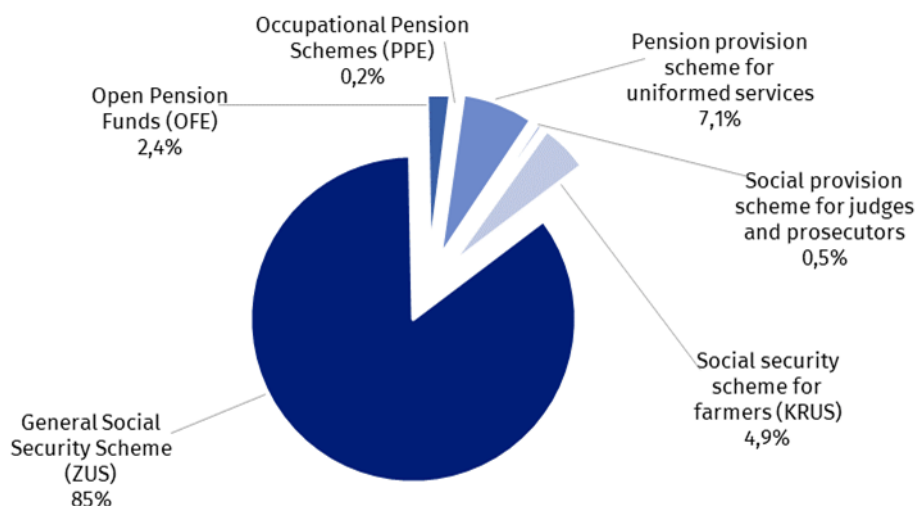
Type of social insurance in line with ESA 2010 methodology	Type of pension scheme in line with ESA 2010 methodology	PENSION SCHEME	Accrued-to-date pension entitlements (in million PLN)	Accrued-to-date pension entitlements (as percentage of GDP)
		TOTAL	7 983 061,9	303,4%
Social security	Social security schemes (column H in table 29)	General Social Security Scheme (ZUS)	6 783 474,5	257,8
		Social Security Scheme for Farmers (KRUS)	387 297,0	14,7
	Defined benefit schemes for employees of the general government sector classified in the general government sector (column G in table 29)	Pension provision scheme for uniformed services	565 396,6	21,5
		Social provision scheme for judges and prosecutors	39 979,4	1,5
Employment-related social insurance, other than social security	Defined contribution schemes (column A in table 29)	Open Pension Funds (OFE)	187 985,1	7,1
		Occupational Pension Schemes (PPE)	18 929,3	0,7

The value of accrued-to-date-pension entitlements under the general social security scheme (ZUS) amounted to 6 783 474,5 million PLN at the end of 2021 (257,8% of GDP)

The second largest are pension entitlements accrued under the pension provision scheme for uniformed services. At the end of 2021, their value amounted to 565 396,6 million PLN, i.e. 21,5% of GDP

The vast majority of total pension liabilities at the end of 2021 are liabilities of the general social security scheme (85%). The share of pension provision scheme for uniformed services and social security scheme for farmers (KRUS) in the total value of liabilities amounted to 7.1% and 4.9%, respectively. The smallest share in total pension liabilities amounted for the social provision scheme for judges and prosecutors (0.5% share) and the PPE (0.2%).

Chart 1. The share of accrued-to-date pension rights in total value of entitlements at the end of 2021 according to pension schemes



Sensitivity analysis

According to Eurostat guidelines, all non-capital schemes, i.e. the general social security scheme (ZUS), the social security scheme for farmers (KRUS), social provision scheme for judges and prosecutors and pension provision scheme for uniformed services, were subjected to a sensitivity analysis to a slight change in the nominal discount rate. A one-percent decrease (Scenario 1) in the discount rate results in an increase in liabilities accrued to the base year (2021) by 1 843 741,9 million PLN, that is about 70.1% of GDP³. In turn, an increase in the discount rate by only 1% (Scenario 2) results in a decrease in accrued entitlements by 1 305 795,1 million PLN, i.e. 49.6% of GDP⁴.

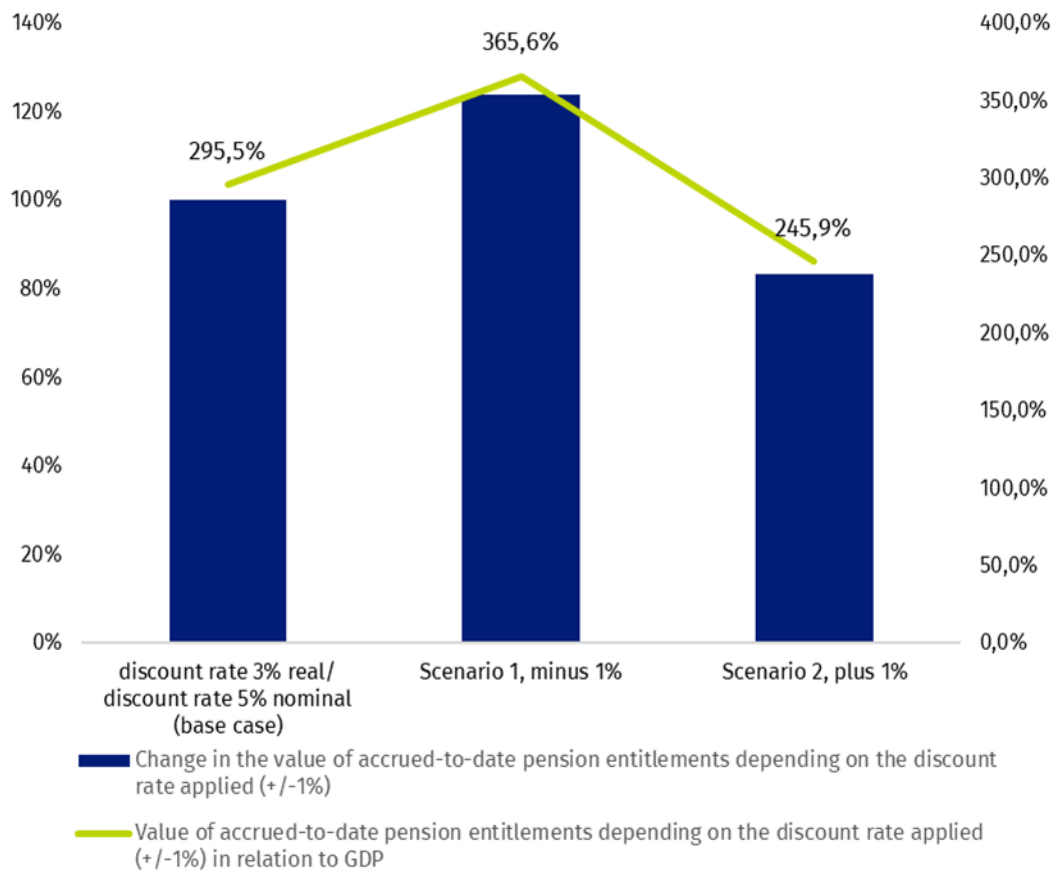
Table 2. The value of accrued-to-date pension entitlements at the end of 2021 depending on the discount rate used

SPECIFICATION	2021		
	Base rate (discount rate 4.5% nominal)	Scenario 1, minus 1%	Scenario 2, plus 1%
TOTAL	7 776 147,5	9 619 889,4	6 470 352,4
General Social Security Scheme (ZUS)	6 783 474,5	8 358 560,8	5 633 423,4
Social Security Scheme for Farmers (KRUS)	387 297,0	470 653,3	325 194,4
Pension provision scheme for uniformed services	565 396,6	741 481,2	478 663,2
Social provision scheme for judges and prosecutors	39 979,4	49 194,1	33 071,4

³ Up to 1% real rate and 3.5% nominal.

⁴ Up to 3% real rate and 5.5% nominal.

Chart 2. The increase/decrease of accrued to date pension entitlements depending on the different discount rates (+/-1% in relation to the basic discount rate)



Assumptions used to estimate accrued-to-date pension entitlements

Assumptions for estimation of pension entitlements are specified in the *Technical Compilation Guide for Pension Data in National Accounts – 2020 edition* worked out jointly by Eurostat and European Central Bank in 2020. These assumptions are the same for all member states so as to ensure comparability of estimations. It has been decided that data should be estimated in line with ADL (accrued to date liabilities) method and PBO (projected benefit obligations) approach for all social security schemes and pension provision schemes. In the case of private, funded schemes (OFE, PPE) ABO (accumulated benefit obligations) approach is more recommended, which means that the stock of entitlements is equal to the value of assets accumulated at the end of the given period. Other, the most important assumptions are as follows:

Table 3. Assumptions accepted for estimation of pension liabilities on 31st December 2021

Nominal discount rate	4,5 %	Eurostat
GDP	2 631 302,1 million PLN	Eurostat
Inflation	2 %	Eurostat
Benefit indexation:	<ul style="list-style-type: none"> • Pension indexation was established in line with the Polish law as 80% to inflation and 20% to nominal wage growth (the general social security scheme (ZUS), the social security scheme for farmers (KRUS), Pension provision scheme for uniformed services) • Indexation proportional to the wage growth of judges and prosecutors in the same position as the retiree (social provision scheme for judges and prosecutors) 	In line with law regulations in force in 2021
Retirement age	<p>The retirement age was modelled in accordance with Polish law:</p> <ul style="list-style-type: none"> • 60 years for women, 65 years for men (general social security scheme (ZUS) and social security scheme for farmers (KRUS)) • 65 years for women and men (pension scheme for judges and prosecutors) • in the case of pension provision scheme for uniformed services – in the old system (for those employed before 31 December 2012) the minimum retirement age was 35 years and at this level was modelled, in the new subsystem (for employees after 31 December 2012), the only condition for granting retirement rights to officers/soldiers is 25 years of service 	In line with law regulations in force in 2021
Real wage growth	Reflecting productivity growth per capita	AWG
Macro-economic and demo-graphic assumptions (population, births, deaths, migrations)	<p>Data from AWG (Working Group on Population Ageing) on the main macroeconomic and demographic assumptions</p> <p>EUROPOP forecasts for Poland in 2021-2100 in terms of fertility and migration</p>	<p>AWG</p> <p>Eurostat</p>

Data Sources

The following data were collected for the purpose of pension entitlements estimations:

- anonymized individual data and aggregated data from managers of relevant pension schemes (administrative data),

- aggregated data from the Polish Financial Supervision Authority (administrative data) as well as statistical data.

Table 4: Data Sources

	Data Sources	Form of transfer
General social security scheme (ZUS)	Social Insurance Institution	3% sample obtained from the ZUS computer system; aggregated data on contributors, old age pensioners and disability pensioners
Social security scheme for farmers (KRUS)	Agricultural Social Insurance Fund	Full population obtained from KRUS computer system; aggregated data on contributors, old age pensioners and disability pensioners
Pension provision scheme for uniformed services	Ministry of National Defence Ministry of the Interior and Administration Military Pension Office Pension Office of the Ministry of the Interior and Administration Pension Bureau for Prison Guards	Full population, data collected on the form designed specifically for this purpose
Social provision scheme for judges and prosecutors	Courts and prosecutor's offices	Full population, data collected on the form designed specifically for this purpose
Open Pension Funds (OFE)	Polish Financial Supervision Authority	Full population, aggregated data
Occupational pension schemes (PPE)	Polish Financial Supervision Authority	Full population, aggregated data

In the case of quoting data from the Statistics Poland, please provide information: “ Source of Statistics Poland data”, and in the case of publishing calculations made using data published by the Statistics Poland, please provide information: “Own study based on Statistics Poland data”.

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Related information

[European System of National and Regional Accounts \(ESA 2010\)](#)

[Technical compilation guide for pension data in national accounts – 2020 edition](#)

Data available in databases

[Pensions in National Accounts](#)