

ACCRUED-TO-DATE PENSION ENTITLEMENTS IN SOCIAL INSURANCE: FACT SHEET

Poland

March 2024

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1. Table 29 column A: Defined contribution schemes (funded, non-general government)

1. General description of the scheme and the calculation model	
<i>a. Coverage of the scheme</i>	
<p>In Poland, column A of table 29 records the following private, funded schemes:</p> <p>1) Open Pension Funds (OFE)</p> <p>Part of the general pension system in Poland (Second Pillar). OFE are private, funded pension funds managed by Common Pension Societies which can operate only as stock companies. In 2021 there were 10 open pension funds. In total, OFE covers around 84.8% of the economically active persons (of which 16.7% are active members). Prior to 2014, everyone born after 1968 had to participate in the OFE on a mandatory basis and part of the contribution paid by the insured (employee) to the general social security scheme (First Pillar) managed by the Social Insurance Institution (ZUS) was transferred to individual accounts in OFE. For those born between 1949 and 1968, participation in OFE was voluntary.</p> <p>The 2014 amendments to the pension law overturned the mandatory participation in OFE. Participants in OFE are divided into two groups:</p> <ol style="list-style-type: none"> 1) active members of OFE (that is those who have decided to have accounts in ZUS and OFE), for whom part of the employee's contribution paid to the general social security scheme (ZUS) is transferred to their OFE account and 2) non-active members of OFE (that is those who have resigned from participation in OFE), for whom their contributions are no longer divided between ZUS and OFE. <p>Contributions are invested in financial instruments. Both active and non-active members have their assets accumulated in OFE accounts and when they have less than 10 years to retirement these assets are gradually (year by year) transferred to ZUS until there are no assets left in OFE accounts. At the same time part of the contribution of those active members is no longer transferred from ZUS to OFE. The insured in general pension scheme (I Pillar) remain members of OFE regardless of whether they opt out of OFE or not. The funds in OFE are intended for the payment of pensions, which are paid out by ZUS (both for active and inactive members). Resignation from OFE applies only to future contributions. Part of the contributions that have already been paid to OFE accounts, still remain in them – OFE have funds of active and inactive members. Money from OFEs cannot be withdrawn earlier than upon reaching retirement age. Social Insurance Institution (ZUS) is responsible for the payment of savings from OFEs – they are part of the retirement benefit from the First Pillar.</p> <p>2) Occupational Pension Schemes (PPE)</p> <p>Part of the general pension system in Poland (Third Pillar). PPE are a form of group, organized, voluntary savings for future retirement, conducted by the employer. PPE is conducted on the basis of a company agreement concluded between its employees and the employer and a management agreement concluded between the employer and the financial institution. At the end of 2021 there were 2 083 PPE in Poland which covered around 3.6% of the economically active persons. The program can be carried out by the employer alone (company scheme) or with other employers who decided to jointly sponsor it (inter-company scheme). Payments to the scheme come from contributions: basic and supplementary. The basic contribution is paid by employers and is mandatory for those employers who have decided to set up such a scheme. The supplementary contribution is paid by employees on a voluntary basis if they want to increase their contribution and future benefit. The annual supplementary limit for supplementary contribution is set annually by the Ministry of Family and Social Policy. Pursuant to the PPE Act, the funds accumulated by the participant in his/her account may be withdrawn, transferred (to another PPE or IKE) or returned. The conditions for withdrawing funds from the program have been specified in detail by the law. The savings may be paid out: (a) at the participant's request after reaching the age of 60, (b) after providing the decision on granting the right to an old-age pension, after turning 55, (c) at the request of the entitled person - in the event of the participant's death, (d) without the participant's request, if the participant turns 70 (if he has not previously applied for the payment of funds).</p>	
<i>b. Institutional set-up</i>	
<i>Data sources/ suppliers</i>	<ul style="list-style-type: none"> • Polish Financial Supervision Authority (KNF) with regard to the opening and closing stock of assets accumulated in individual accounts and with regard to data on investment income and scheme charges • Social Insurance Institution (ZUS) with regard to the amount of contributions transferred to individual accounts in OFE • The Ministry of Finance RB-40 report and the financial statement of the Social Security Fund (FUS) with regard to data on the transfer of assets between OFE and ZUS (safety slider)

Which institution is running/managing the calculations?	Statistics Poland
2. Any other comments	
<p>Accrued-to-date pension entitlements for OFE and PPE were estimated according to ABO - accumulated benefit obligations – approach, i.e. at the level of the current value of accumulated assets. This means that the balance of pension rights is equal to the number of assets accumulated at the end of a given period.</p> <p>Column A excludes individual retirement saving accounts (IKZE) and individual pension plans (IKE), which are currently covered in core financial accounts and balance sheets.</p> <p>In private pension schemes like OFE and PPE assets are invested in financial instruments and their valuation at the end of the period directly depends on their investment portfolio and on the investment return rate. In the case of OFE, the value of accumulated assets in 2021 compared to 2020 increased by PLN 39.4 billion (a change of 26.5%). In the case of PPE, the value of assets at the end of 2021 was PLN 1.9 billion higher than at the beginning of the year (an increase of 11.2% compared to 2020).</p> <p>These changes in the value of assets are shown in row 8 of table 29 (changes in entitlements due to revaluation) in line with the Technical Compilation Guide for Pension Data in National Accounts which defines revaluations, among other things as changes in assumed price developments. Changes in entitlements due to revaluations (row 8) in column A are the difference between stock of entitlements at the end of the year, stock of entitlements at the beginning of the year and all current transactions in the course of the year.</p>	

2. Table 29 column B: Defined benefit schemes and other non-defined contribution schemes (funded, non-general government)

This type of scheme does not exist in Poland.

3. Table 29 column D: Defined contribution schemes (funded, general government)

This type of scheme does not exist in Poland.

4. Table 29 column E: Defined benefit schemes (funded, for general government employees, classified in financial corporations)

This type of scheme does not exist in Poland.

5. Table 29 column F: Defined benefit schemes (funded, for general government employees, classified in general government)

This type of scheme does not exist in Poland.

6. Table 29 column G: Defined benefit schemes (unfunded, for general government employees, classified in general government)

1. General description of the scheme and the calculation model
<i>a. Coverage of the scheme</i>
<p>Column G consists of security provision systems, which are entirely financed by the state budget without any contributions from the persons employed. This category is not one coherent system but it comprises several different DB systems:</p> <p>1) Social provision scheme for judges and prosecutors</p> <p>Covers all judges and prosecutors in the Polish justice system. No contributions are paid, benefits are covered from the State Budget. The only criterion for retirement is either age or disability/sickness regardless of age. The scheme replaces the social security scheme for this type of public servants.</p> <p>2) Pension provision scheme for uniformed services</p>

<p>Covers uniformed services such as military, police, security service, intelligence, counterintelligence, border guards, prison guards, firemen. No contributions are paid, benefits are covered from the State Budget. Benefits differ for those hired before and after December 31, 2012. Retirement is based on a combination of age and service.</p> <p>In fact all of Poland's schemes require a combination of age and years of service. For the military plan, and for judges and prosecutors, the model makes an assumption about the percent of contributors who retire each year by age and sex. Under the military plan, those hired prior to 2013 are eligible to retire at age 35 with 15 years of service. However, statistics show that the majority of military and police actually retire much later than age 35 – either because they have not yet met the years of service requirements or because they choose to continue working despite eligibility to retire. The actual average retirement age is about 47 for males and 50 for females. Consequently, the model assumes that only 0.3% of 35 year old contributors have 15 or more years of service and choose to retire at age 35. Those hired on or after 2013, the only condition for granting retirement rights for officers/soldiers is 25 years of service.</p> <p>The scheme replaces the social security scheme for this type of public servants.</p>	
b. Institutional set-up	
<i>Data sources/ suppliers</i>	<ul style="list-style-type: none"> • Courts of law and prosecutors' offices with regard to detailed data • Ministry of National Defence, Ministry of the Interior and Administration, Pension Office of the Ministry of the Interior and Administration Central Board of the Prison Service, Central Anti-Corruption Bureau, The Internal Security Agency with regard to detailed data • AWG with regard to the main macroeconomic and population assumptions • The latest EUROPOP population forecast with regard to fertility and migration
<i>Which institution is running/managing the calculations?</i>	Statistics Poland in strict cooperation with Statistical Office in Rzeszów
c. Major formulas: Benefit formula; Indexation of benefits	
<i>Benefit formula</i>	<p>1) Social provision scheme for judges and prosecutors 75 % of the last salary</p> <p>2) Pension provision scheme for uniformed services</p> <ul style="list-style-type: none"> • Officers/soldiers employed in uniformed service before January 1, 2013: 40% of the last salary for 15 years of service plus 2.6% of the last salary for each subsequent year of service above 15 years. Officers/soldiers employed in uniformed service after December 31, 2012: 60% of the calculation base for 25 years of service, i.e. of the average salary out of 10 calendar years selected by the employee, plus 3% of the calculation base for each subsequent year of service above the required period. • The disability pension is dependent on the degree of incapacity for work and it equals: <ul style="list-style-type: none"> a. for group I – 80% of the last salary b. for group II – 70% of the last salary c. for group III – 40% of the last salary
<i>Indexation of benefits</i>	<p>1) Social provision scheme for judges and prosecutors Proportionally to the wage growth of judges and prosecutors in the same position</p> <p>2) Provision scheme for uniformed services Pension benefits are indexed to consumer price index increased by 20 % of real wage growth</p>
d. Type and structure of the calculation model	
Pension entitlements have been modelled by applying the World Bank's PROST model, the same as in the case of social security schemes.	
2. Assumptions and methodologies applied	
a. Discount rate	
The discount rate is set at 4.5% in nominal terms (2% in real terms, target inflation 2.5%). This approach is in line with the recommendations for Poland from the Technical Compilation Guide for Pension Data in National Accounts.	
b. Wage growth	
AWG assumptions reflecting productivity growth per capita	
c. Valuation method: ABO/PBO	

PBO
3. Data used to run the model
<i>a. Mortality tables</i>
Data from AWG
<i>b. Entitlement statistics; other relevant statistics</i>
<ul style="list-style-type: none"> Detailed data on the whole population of judges and prosecutors such as the number of active judges/prosecutors by age and sex, the number of retired judges/prosecutors by age and sex, the amount of salaries and benefits. Detailed data on the whole population of officers/soldiers such as the number of active officers/soldiers by age and sex, the number of retired officers/soldiers by age and sex, the amount of salaries and benefits. Demographic, labour and macroeconomic assumptions from AWG: life expectancy, participation rate, unemployment rate, population tables, mortality tables, all by age and sex; macroeconomic assumptions. Fertility and migration tables projected for Poland in the baseline scenario of Eurostat Population Projections 2021-2100
4. Reforms incorporated in the model
1) Social provision scheme for judges and prosecutors
<p>All reforms introduced before December 31, 2021 have been incorporated, i.e. lowering the retirement age to 65. Previously, the retirement age of 67 was, for both sexes. The provisions of the Act of 12 April 2018 amending the Act - Law on the System of Common Courts, the Act on the National Council of the Judiciary and the Act on the Supreme Court have lowered the retirement age to 65 for men and women. However, National Council of the Judiciary of Poland / the Public Prosecutor General, at the request of the judge / prosecutor, may give consent to continue to occupy the position, but not longer than until the age of 70. The judges and prosecutors may also retire before reaching the age of 65. However, they must meet the age requirement and seniority as a judge or prosecutor. They must be over 55 years old and have length of service of at least 25 years (female), or reach the age of 60 and length of service of at least 30 years (male). This criteria can be used by people who met the required conditions until December 31, 2017.</p>
2) Pension provision scheme for uniformed services
<p>Based on the reform of 2012, the uniformed officers have been divided into two groups, for which there are different rules for retirement eligibility and calculating old-age pensions.</p>
5. Specific assumptions
<i>a. How are careers modelled?</i>
<p>Estimations take into account wage growth. Salaries generally increase for an individual due to following factors – general increases in the level of earnings due to inflation and productivity growth, and increases in wages due to merit, promotions and seniority. The PROST model takes all factors into account in modelling career progressions. Careers are modelled through a combination of an earnings profile and annual increases in the earnings profile based on inflation and productivity growth assumptions. The earnings profile is developed from existing data on contributors' in the base year and shows average earnings by age and sex. The earnings profile shows how salaries increase (or decrease) with age due to merit, promotions and seniority. The entire earnings profile is increased from one year to the next based on assumptions regarding inflation and productivity growth. Therefore, as an individual progresses through his or her career, the salary from the prior year increases for all reasons.</p>
<i>b. How are survivor pensions calculated?</i>
85 % of the last salary for one eligible person, 90 % - for two and 95 % - for three and more eligible persons
<i>c. How is the retirement age modelled over time?</i>
1) Social provision scheme for judges and prosecutors
<p>The retirement age was modelled in accordance with Polish law. Judges and prosecutors can retire at the age of 65. It was modelled as statutory for both women and men.</p>
2) Pension provision scheme for uniformed services
<p>In the old system (for those hired before December 31, 2012) the minimum retirement age was 35 and it is kept at this level until 2065. By contrast, in the new subsystem (for those hired after December 31, 2012), the only condition for granting pension rights to officers/soldiers is 25 years of service. Because of the differing retirement ages, different benefits formulas, and the change in the percentage of old and new system workers and beneficiaries over time, it was necessary to model each of the two groups separately.</p>
<i>d. Other specific features of the model</i>

Old age and disabled have been specified as flow of contributors from the previous year based on actual experience under the plans which means that the number of new old age and disability pensioners is calculated and then the total number of pensioners is estimated by starting with the prior year stock, adding the number of new pensioners and subtracting those who are assumed to die. The number of new beneficiaries is calculated by making assumptions regarding the percentage of prior year contributors who retire or become disabled each year by age and sex. Summary and comparison reflects finances of mono pillar system for the social provision scheme for judges and prosecutors and finances of multi pillar system for the pension provision scheme for uniformed services. Mono pillar system means the one that is defined benefit only or defined contribution only. Multi pillar system means a combination of different systems

6. Any other comments

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7. Table 29 column H: Social security pension schemes (unfunded)

1. General description of the scheme and the calculation model	
<i>a. Coverage of the scheme</i>	
<p>Column H includes two schemes which are characterized as social security pension schemes. Participation in these schemes is mandatory:</p> <p>1) The General Social Security Scheme (ZUS).</p> <p>The First Pillar of the general pension system in Poland. It covers the majority of working population in Poland (all employees, self-employed and employers working outside agriculture, with the exclusion of participants in security provision scheme – schemes for uniformed service and judges plus prosecutors), that is around 89.8 % of the economically active persons. The scheme is mandatory and insures against old age, disability and loss of a family breadwinner. The scheme is an unfunded notional defined contribution scheme on Pay as You Go basis with compulsory contributions as the main source of income. Contributions are paid both by employers and employees. The basis for contributions is income as understood in the act of law on personal income tax (in the case of employees it is their salary as defined by this act of law). The basis doesn't include remuneration for sickness and benefits. The total contribution for old age pension is 19.52 % of the basis and it is paid in half by an employer and an employee (that is 9.76 % by each one of them). For disability pension the rate is 8 % of the basis, of which 6.5% is paid by the employer and 1.5 % by the employee. So in total the employer pays 16.26% of the basis and the employee 11.26% of the basis.</p> <p>2) Social Security Scheme for Farmers (KRUS)</p> <p>Covers all farmers, their spouses and other members of their families working together with them in agriculture, which is around 6.3 % of the economically active persons. The scheme is mandatory and insures against old age, disability and loss of a family breadwinner. The scheme is an unfunded defined benefit scheme on Pay as You Go basis with compulsory contributions and subsidies from State Budget as the main source of income. The basic contribution is equal to 10 % of the basic pension benefit, that is the lowest employee pension benefit. The amount of the basic pension benefit is officially announced by the President of Statistics Poland. Farmers who own farms with arable land bigger than 50 hectare pay additional contribution, from 12 to 48 % of the basic pension depending on the size of their farm. In case a farmer runs business activities outside agriculture his/her contribution is twice as much.</p>	
<i>b. Institutional set-up</i>	
<i>Data sources/ suppliers</i>	Social Insurance Institution (ZUS), Social Insurance Institution for Farmers (KRUS), AWG
<i>Which institution is running/managing the calculations?</i>	Statistics Poland in strict cooperation with Statistical Office in Rzeszów
<i>c. Major formulas: Benefit formula; Indexation of benefits</i>	
<i>Benefit formula</i>	<p>1) For the general social security scheme (ZUS) there are two types of benefit formula:</p> <p>Before the systemic reform in 1999 the scheme was a pay as you go defined benefit scheme with the following formula: benefit equals to 24 % of the average salary decreased by obligatory social contributions + 1.3 % of the contribution base for each contributory year + 0.7% of the contribution base for each non-contributory year where the contribution base is a salary on which social contributions are paid by a given person. The formula also takes into account the additional criteria for the old age scheme, which are the minimum years of service – 15 for women and 20 for men. For</p>

	<p>modelling the incremental replacement rate has been assumed as 1,3 % and basic replacement rate for men 26 % (20 years x 1.3) whereas for women 1.5% (15 years x 1.3). This formula has been used for calculating benefits for persons born until the end of 1948 and for calculating disability and survivors benefits for everyone.</p> <p>Notional defined contribution formula (after the reform): benefit has been calculated as the total of contributions + initial capital + indexing on individual accounts of the insured in ZUS divided by average life expectancy. Initial capital is understood and calculated as the present value of the hypothetical old age pension which the insured would have received if she/he had retired at the time of the systemic reform.</p> <p>2) For the farmers' social security scheme, the defined benefit formula is composed of two parts: contributory and supplementary. The contributory part is calculated as 1% of the basic pension for each contributory year where the basic pension is equal to the lowest regular pension for an employee outside agriculture (i.e., the minimum pension in the general employees' program administered by ZUS). The supplementary part constitutes 95 % of the basic pension if the number of contributory years is less than 20. Otherwise it is decreased by 0.5 % of the basic pension for each year over 20 but cannot be less than 85 % of the basic pension. A minimum of 25 years of service is required for retirement. For the purpose of modelling the replacement rate, the benefit formula for someone with 25 years of service has been calculated as 25% (1 % for each of 25 years of minimum service period) + 95% - 2.5% which equals to 117.5 %. 2.5 % stems from decreasing the basic pension by 0,5 % for each year between 20 and 25. Each additional year of service up to 40 years of service increases the percentage by 0.5% (1% for each additional contributory year, less a loss of 0.5% of the supplementary part for each additional year). The formula applies to the old age benefits, disability benefits and survivors benefits.</p>
<i>Indexation of benefits</i>	In both systems, pension benefits are indexed to consumer price index increased by 20 % of real wage growth.
<i>d. Type and structure of the calculation model</i>	
<p>Pension entitlements have been modelled by applying the World Bank's PROST model operating under Microsoft Windows system. Data and assumptions are inserted into Excel worksheets and outputs are also presented in excel worksheets. The model utilizes country specific data and combines population projections with economic assumptions to forecast future numbers of contributors and beneficiaries, which in turn generate flows of revenues and expenditures. The fiscal balances are projected. The model can use either the stock or the flow approach. In the stock approach, parameters such as retirement are expressed as total retirees as a percentage of population. Projections can be based on either population or employment. All the modules of PROST allow for sensitivity analysis of the results to key demographic and economic parameters, such as fertility, longevity, wage growth and discount rate. In addition to providing detailed information on pension systems, PROST also produces summary tables that include the most important statistics concerning population projection, demographic structure and finances.</p>	
2. Assumptions and methodologies applied	
<i>a. Discount rate</i>	
The discount rate is set at 4.5% in nominal terms (2% in real terms, target inflation 2.5%) This approach is in line with the recommendations for Poland from the Technical Compilation Guide for Pension Data in National Accounts.	
<i>b. Wage growth</i>	
<ul style="list-style-type: none"> • For notional defined contribution scheme (the general scheme after the reform) wage growth assumptions of the AWG reflecting productivity growth per capita are used to project the contributions credited to notional accounts. • For defined benefit schemes (the general scheme before the reform and farmers' scheme) the wage growth assumptions of the AWG reflecting productivity growth per capita have been used for the estimation of pension entitlements. 	
<i>c. Valuation method: ABO/PBO</i>	
PBO for both schemes	
3. Data used to run the model	
<i>a. Mortality tables</i>	
Data from AWG	
<i>b. Entitlement statistics; other relevant statistics</i>	

1) The General Social Security Scheme (ZUS)

- 3 % sample of data on contributors and beneficiaries from Social Insurance Institution (ZUS)
- Statistical data on old age, disabled and family pensioners, by age and gender from ZUS
- Retirement and disability rates, e.g. percentage of retirees and disability retirees in total cohort by age and gender from ZUS
- Number of people insured by age and gender from ZUS
- Demographic, employment etc. data (life expectancy, participation rates, unemployment rates, population tables, mortality rates) by age and gender from AWG
- Macroeconomic assumptions from AWG
- Fertility and migration tables projected for Poland in the baseline scenario of Eurostat Population Projections 2018-2100.

2) Social Security Scheme for Farmers (KRUS)

- Full database files on all contributors and beneficiaries from KRUS
- Additional statistical data (for validation purposes) on beneficiaries and contributors by age and gender from KRUS
- Expenditures on old age and disability benefits from KRUS
- Demographic, employment etc. data (life expectancy, participation rates, unemployment rates, population tables, mortality rates) by age and gender from AWG
- Macroeconomic assumptions from AWG
- Fertility and migration tables projected for Poland in the baseline scenario of Eurostat Population Projections 2021-2100.

4. Reforms incorporated in the model

All reforms introduced before December 31, 2021 have been incorporated. In 2017, the pension reform from 2012 aimed at equalizing and raising the retirement age for women (by 2040) and men (by 2020) to 67 years was reversed. As a result, since October 1, 2017, the retirement age in Poland is 60 - for women and 65 - for men.

5. Specific assumptions

a. How are careers modelled?

Estimations take into account wage growth. Salaries generally increase for an individual due to following factors – general increases in the level of earnings due to inflation and productivity growth, and increases in wages due to merit, promotions and seniority. The PROST model takes all factors into account in modelling career progressions. Careers are modelled through a combination of an earnings profile and annual increases in the earnings profile based on inflation and productivity growth assumptions. The earnings profile is developed from existing data on contributors' in the base year and shows average earnings by age and sex. The earnings profile shows how salaries increase (or decrease) with age due to merit, promotions and seniority. The entire earnings profile is increased from one year to the next based on assumptions regarding inflation and productivity growth. Therefore, as an individual progresses through his or her career, the salary from the prior year increases for all reasons.

b. How are survivor pensions calculated?

By applying the old scheme defined benefit formula (the general scheme before the reform)

c. How is the retirement age modelled over time?

The retirement age was modelled in accordance with Polish law. The retirement age has been lowered and differentiated depending on gender. Since October 1, 2017, the retirement age is 60 for women and 65 for men. It has been modelled as statutory to 2065 for both schemes.

d. Other specific features of the model

Old age and disabled have been specified as flow of contributors from the previous year for both schemes. Summary and comparison reflects finances of multi pillar system for the general social security scheme and finances of mono pillar system for the farmers' social security scheme. See the explanations provided for column G.

6. Any other comments

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8. Table 29 column K: Entitlements of non-resident households

Data for non-resident households are not compiled.

9. Links to (national) publications providing further information on the pension schemes

- The General Social Security Scheme managed by ZUS: <http://lang.zus.pl/en/publications/publications>
- Social Security Scheme for Farmers managed by KRUS: <https://www.krus.gov.pl/en/reports-and-publications/>
- Link to ZUS publications on social security in Poland. The publication presents its organization and legal framework: <https://www.zus.pl/documents/10182/167615/Social+Security+in+Poland/71ffe1b1-c142-48fa-a67b-0c7e1cec6eb6>