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

Spain

December 2023

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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	
a. Coverage of the scheme	
This column includes all defined contribution (DC) employment-related social insurance schemes (916 units at 31th December 2021) and mixed employment-related social insurance schemes (383 units) under the supervision of the General Directorate of Insurance and Pension Funds (DGSFP). All of them are voluntary schemes. The inclusion of this second type is due to most of them are DC for retirement and DB (defined benefit) for disability and death. *At-31 December 2021 the number of participants in these schemes are 2,04 million.*	
b. Institutional set-up	
Data sources/ suppliers	Financial statements and other statistical data sent from pension managing entities to Spanish supervisor, the General Insurance and Pensions Directorate (DGSFP) of the Ministry of Economy, Commerce and Enterprise.
Which institution is running/managing the calculations?	National Statistics Institute (INE). INE is being assisted by a group of experts from the DGSFP and the Central Bank (Working Group INE-DGSFP-BdE on ESA 2010 Pensions Table).
2. Any other comments	
In general, the methodology consists of the translation into national accounts and pensions table concepts of its equivalent included in the financial statements of pension plans.	

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

1. General description of the scheme and the calculation model	
a. Coverage of the scheme	
This column includes the following products that are under the supervision of the DGSFP: 1) *All employment related defined benefit plans (7 units with 742 participants at 31 December 2021).* 2) *The collective insurance contracts that are used by companies to materialize their pension commitments (424.134 units, with 8.916.164 policyholders).* 3) *Corporate Social Security plans (PPSE): insurance products with the same regime of collective insurance contracted by the company for its workers with a legal and fiscal regime that is assimilated to the pension schemes of the employment system (1.829 units, with 81.076 participants).* *All of them are voluntary schemes. Most of them not only cover retirement but also disability and death.*	
b. Institutional set-up	
Data sources/ suppliers	Financial statements and other statistical information from pension funds, insurance companies, and collective insurance, provided by pension managing entities to the Spanish supervisor, the DGSFP.
Which institution is running/managing the calculations?	National Statistics Institute (INE). INE is being assisted by a group of experts from the DGSFP and the Central Bank (Working Group INE-DGSFP-BdE on ESA 2010 Pensions Table).

c. Major formulas: Benefit formula; Indexation of benefits	
Benefit formula	Each pension plan fixes this formula in the "specifications document".
Indexation of benefits	It depends on the specifications document that reflects the collective agreement.

d. Type and structure of the calculation model

In general, the methodology consists of the translation into national accounts and pensions table concepts of its equivalent included in the financial statements of pension plans.

Row 1 and 10 correspond to the sum of technical provision of pension plans and insurance contracts calculated by each pension managing entity and insurance company according to technical base and specifications documents.

Row 2.1, 2.3 and 4 come from data of annual accounts of pension plans and insurance collective contracts.

Row 9 is estimated indirectly in order to keep full consistency between stocks and flows.

2. Assumptions and methodologies applied

a. Discount rate

For the calculation of technical provisions:

- Each pension plan fixes the discount rate used. It is fixed in the technical base according to Spanish regulation.

- The maximum discount rate will be determined annually by the supervisor and it will be: 100% of the Spanish public debt average rate from the last quarter of the exercise. This is published every year (0,22% nominal for 2021).

For row 2.4 "Household social contribution supplements" and row 8 "Changes in entitlements due to revaluations" the interest rate published by the DGSFP for pension plans and insurance contracts from each year and the previous one (in order to calculate the changes in entitlements) is used.

Link for DGSFP resolutions about interest rate:

http://www.dgsfp.mineco.es/es/Regulacion/Paginas/default.aspx

For pension plans: select into the panel "*Planes y Fondos de Pensiones*" -> "*Resoluciones de la DGSFP*"
For insurance contracts: select into the panel "*Ordenación y Supervisión de los Seguros Privados*" -> "*Resoluciones de la DGSFP*"

b. Wage growth

There is no national rule. It is fixed in the technical specification of each scheme according to collective agreements.

c. Valuation method: ABO/PBO

The valuation method used for the calculation of the technical provision is Projected Benefit Obligations (PBO).

3. Data used to run the model

a. Mortality tables

Companies choose the table they consider most appropriate as long as they meet the following requirements:

> ➢ The mortality and disability tables used must be based on a local or foreign experience, ending no later than 20 years prior to the evaluation date and must have been graduated using recognized actuarial techniques.

> ➢ These tables must be contrasted to the real behaviour of the collective during a period of 10 years.

> ➢ When the contrast isn't reliable, the supervisor allows the use of tables with national or foreign experience not particulars, their observation period isn't higher than 20 years up to the date of the calculation of the technical provision.

These general Mortality tables that are used are the following:

> ➢ PERM/F – 2020_Col_1er_orden P (differentiate according to gender), applied to pension plans from 17 December, 2020.

https://www.boe.es/buscar/doc.php?id=BOE-A-2020-17154

b. Entitlement statistics; other relevant statistics
None
4. Reforms incorporated in the model
None
5. Specific assumptions
a. How are careers modelled?
It is fixed by each scheme in its technical provision. It is very common to use a percentage of wage growth and if the amount of the benefit also takes into account the amount to be paid for social security, also estimates a growth of the contribution base (until the fixed cap).
b. How are survivor pensions calculated?
It is fixed by each scheme in its technical provision. It is usually calculated as a percentage of the benefit paid by the worker
c. How is the retirement age modelled over time?
It is fixed by each scheme for the calculation of the technical provision. According to our regulation (article 6 of Order EHA/407/2008): the annual cost distribution should be based on the age of the participant at the time of entry in the collective in whose interest the plan is created or, in the age reached on the date of incorporation into the plan or modification of the technical base hypothesis, there is no allowed the used of methods based on the age reached of the participant in each exercise or, any other that avoid knowing the evolution and situation of the plan in each moment.
d. Other specific features of the model
6. Any other comments
Transfers of pension rights between schemes are estimated as the sum of the following three types of mobilizations: mobilization from defined benefit pension plans, mobilization from collective insurance and mobilization from *Corporate Social Security plans (PPSE) using* financial statements and other statistical information from pensions funds, insurance companies, and collective insurance, provided by pension managing entities to the Spanish supervisor, the DGSFP.

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

This type of occupational pension scheme does not exist in Spain.

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

This type of occupational pension scheme does not exist in Spain.

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

This type of occupational pension scheme does not exist in Spain.

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	
a. Coverage of the scheme	
Old Age, disability and survivor of Central government employees and military forces. The scheme is called *Clases Pasivas*. It covers protection against the risks of old age, disability, death and survival of civil servants of the Civil and Military Administration of the State, Justice, Security Forces and Corps and General Courts. Public positions as ex-presidents of the Government, vice-presidents and ministers, are also covered in this scheme. In practice, this regime is in extinction from January 1, 2011 as a result of Royal Decree-Law 13/2010 that establishes that new public employees have to be integrated into the Social Security System.	
b. Institutional set-up	
Data sources/ suppliers	- Directorate of Personnel Costs and Public Pensions from the Ministry of Finance and Public Administration. - Civil servants mutual insurance entities (MUFACE, ISFAS and MUGEJU). - Ministry of the Economy, Industry and Competitiveness. - Audit Office (IGAE)
Which institution is running/managing the calculations?	National Statistics Institute (INE). INE is being assisted by a group of experts from the Ministry of Employment and Social Security (MESS) and the Central Bank (BdE) (Working Group INE-MESS-BdE on ESA 2010 Pensions Table).
c. Major formulas: Benefit formula; Indexation of benefits	
Benefit formula	The amount of the ordinary pension is determined by applying to the corresponding base pay, according to the category of the official, percentage based on the number of full years of effective services to the State. Base pay are set annually in the General State Budget Law for each group and subgroup of officials classification.
Indexation of benefits	Index for Pension Revaluation, as established in Law 21/2021and general state budgets for the years in which they are available.
d. Type and structure of the calculation model	

Estimates of rights accrued to the reference date are based on the following general formulae for every of the risks covered:

$$D_{s,e,b} = \sum_t \lambda_{s,e} \times N_{s,e,t} \times P_{s,e,t} \times (1+r)^{b-t}$$

$D_{s,e,b}$ are the pension rights accrued to 31th of December of the year b by individuals of sex (s) and age (e).

$N_{s,e,t}$ is the number of individuals of sex (s) and age (e) that in a year (t) are or will be beneficiaries of a pension.

$P_{s,e,t}$ is the average amount of the pension that an individual of sex (s) and age (e) will receive in the year (t).

$\lambda_{s,e}$ is the accrual factor that indicates the percentage of the full pension that has been accrued until the reference date by an individual of sex (s) and age (e).

r Is the discount interest rate.

Observed figures of individuals who are pensioners or contributors at the reference date by sex and age have been used as starting data. The projection of these figures to the future is based on hypothesis of future mortality as described in point 3.

In the case of pensioners, average pensions at the reference year have been calculated by sex and age. The future evolution of these amounts has been projected based on the value of the Consumer Price Index (CPI) according to Law 21/2021, of December 28, guaranteeing the purchasing power of pensions and other measures to reinforce the financial and social sustainability of the public pension system.

The average pensions of the future pensioners has been estimated according to the projections developed by the Ministry of Economy, Commerce and Enterprise in the scope of the AWG for Spain. In addition, the future acquisition of the status of pensioners by the contributors has been projected based on current observed rates.

As regards the pensions of survivors from the deaths of pensioners and contributors, they have been projected separately assigning an accrual factor of value 1 to those coming from the deaths of pensioners and the one corresponding to the age and sex group of the deceased for those coming from the deaths of contributors.

2. Assumptions and methodologies applied
a. Discount rate
Annual nominal rate of 4% (3% and 5% in the sensitivity analysis).
b. Wage growth
The projection of the pensions of the future pensioners has been carried out in coherence with the hypotheses established for Spain by the Ministry of Economy, Commerce and Enterprise in pension expenditure projections carried out in the framework of the AWG.
c. Valuation method: ABO/PBO
PBO
3. Data used to run the model
a. Mortality tables
Mortality tables projected for Spain in the baseline scenario of Eurostat Population Projections 2022-2100. In the particular case of disability pensions, the hypothesis of mortality is based on the mortality tables of disabled people provided by the Ministry of Employment and Social Security.
b. Entitlement statistics; other relevant statistics
4. Reforms incorporated in the model

The projections have been carried out with the legislation in force at the reference date and there have been no reforms throughout 2021.	

5. Specific assumptions
a. How are careers modelled?
Careers have been modelled in coherence with the hypotheses established for Spain by the Ministry of Economy, Commerce and Enterprise in pension expenditure projections carried out in the framework of the AWG.
b. How are survivor pensions calculated?
Survivor pensions are modelled in coherence with the hypotheses established for Spain by the Ministry of Economy, Commerce and Enterprise in pension expenditure projections carried out in the framework of the AWG.
c. How is the retirement age modelled over time?
Retirement age is modelled in coherence with the hypotheses established for Spain by the Ministry of Economy, Commerce and Enterprise in pension expenditure projections carried out in the framework of the AWG.
d. Other specific features of the model

6. Any other comments
The Audit Office provides the data for rows 2.3 and 4.

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

1. General description of the scheme and the calculation model	
a. Coverage of the scheme	
Social Security contributory pensions, both under the *General Scheme* for employees and the *Special Scheme for Self-Employed Workers*, which cover the risks of old age, disability and death and survival. It is important to point out that those pensions that correspond to individuals that at the reference date are beneficiaries of a pension and who, either have not made contributions at all, or have not made them for a sufficient time to generate the right to receive a contributory pension remain outside the model and are considered social assistance. Nonetheless, with regard to scheme members (current contributors) that had not yet completed sufficient years of contributions to receive a contributory minimum pension, but were likely to do so in the future, they have been included in the model and then an accrual factor was applied, in order to derive an accrued-to-date estimate.	
b. Institutional set-up	
Data sources/ suppliers	- Ministry of Employment and Social Security - Ministry of the Economy, Industry and Competitiveness. - Audit Office (IGAE)
Which institution is running/managing the calculations?	National Statistics Institute (INE). INE is being assisted by a group of experts from the Directorate of Insurance and Pension Funds (DGSFP) of the Ministry of Economy, Commerce and Enterprise and the Central Bank (BdE) (Working Group INE-DGSFP-BdE on ESA 2010 Pensions Table).
c. Major formulas: Benefit formula; Indexation of benefits	
Benefit formula	The amount of pension granted is determined by applying the general percentage according to the number of years contributed to BP and, if applicable, the additional percentage for prolonging their working life, when retiring above the ordinary retirement age at any time and the applicable reduction quotient. As of the year 2022, the pension base will be the quotient resulting from dividing the worker's contribution bases by 350 during the 300 months immediately preceding the month before the causal event of the pension.

	From 2024, the pension base will be the quotient resulting from dividing the worker's contribution bases by 378 during the 348 months immediately preceding the month before the causal event of the pension (Royal Decree Law 2/2023, of March 16, on urgent measures to expand the rights of pensioners, reduce the gender gap and establish a new sustainability framework for the public pension system) As from 01/01/2013, the number of months will be progressively raised by 12 months per year, in accordance with the following table that indicates the number of months entering in each financial year until reaching the figure of 300 in 2022 and the corresponding divisor. The contribution bases of the 24 months immediately preceding the month prior to the causal event are taken at their nominal value. The other contribution bases are updated according to the evolution of the Consumer Price Index (CPI) from the month said bases correspond to the month immediately preceding the one when the period referred to in the previous paragraph begins. Law 27/2011, of August 1, on updating, adaptation and modernization of the Social Security system (https://www.boe.es/eli/es/l/2011/08/01/27)
Indexation of benefits	Index for Pension Revaluation, as established in Law 21/2021, of December 28, of December 28, guaranteeing the purchasing power of pensions and other measures to reinforce the financial and social sustainability of the public pension system.

d. Type and structure of the calculation model

Estimates of rights accrued to the reference date are based on the following general formulae for every of the risks covered:

$$D_{s,e,b} = \sum_t \lambda_{s,e} \times N_{s,e,t} \times P_{s,e,t} \times (1+r)^{b-t}$$

$D_{s,e,b}$ are the pension rights accrued to 31th of December of the year b by individuals of sex (s) and age (e).

$N_{s,e,t}$ is the number of individuals of sex (s) and age (e) that in a year (t) are or will be beneficiaries of a pension.

$P_{s,e,t}$ is the average amount of the pension that an individual of sex (s) and age (e) will receive in the year (t).

$\lambda_{s,e}$ is the accrual factor that indicates the percentage of the full pension that has been accrued until the reference date by an individual of sex (s) and age (e).

r is the discount interest rate.

Observed figures of individuals of individuals who are pensioners or contributors at the reference date by sex and age have been used as starting data. The projection of these figures to the future is based on hypothesis of future mortality of Spain population.

In the case of pensioners, average pensions at the reference year have been calculated by sex and age. The future evolution of these amounts has been projected based on the value of the Consumer Price Index (CPI) according to Law 21/2021, of December 28, guaranteeing the purchasing power of pensions and other measures to reinforce the financial and social sustainability of the public pension system.

The average pensions of the future pensioners has been estimated according to the projections developed by the Ministry of Economy, Commerce and Enterprise in the scope of the AWG for Spain. In addition, the future acquisition of the status of pensioners by the contributors has been projected based on current observed rates.

As regards the pensions of survivors from the deaths of pensioners and contributors, they have been projected separately assigning an accrual factor of value 1 to those coming from the deaths of pensioners and the one corresponding to the age and sex group of the deceased for those coming from the deaths of contributors.
2. Assumptions and methodologies applied
a. Discount rate
Annual nominal rate of 4% (3% and 5% in the sensitivity analysis).
b. Wage growth
The projection of the pensions of the future pensioners has been carried out in coherence with the hypotheses established for Spain by the Ministry of Economy, Commerce and Enterprise in pension expenditure projections carried out in the framework of the AWG.
c. Valuation method: ABO/PBO
PBO
3. Data used to run the model
a. Mortality tables
Mortality tables projected for Spain in the baseline scenario of Eurostat Population Projections 2022-2100. In the particular case of disability pensions, the hypothesis of mortality is based on mortality tables of disabled people provided by the Ministry of Employment and Social Security.
b. Entitlement statistics; other relevant statistics
4. Reforms incorporated in the model
The projections have been carried out with the legislation in force at the reference date and there have been no reforms throughout 2021.
5. Specific assumptions
a. How are careers modelled?
Careers have been modelled in coherence with the hypotheses established for Spain by the Ministry of Economy, Commerce and Enterprise in pension expenditure projections carried out in the framework of the AWG.
b. How are survivor pensions calculated?
Survivor pensions are modelled in coherence with the hypotheses established for Spain by the Ministry of Economy, Commerce and Enterprise in pension expenditure projections carried out in the framework of the AWG.
c. How is the retirement age modelled over time?
Retirement age is modelled in coherence with the hypotheses established for Spain by the Ministry of Economy, Commerce and Enterprise in pension expenditure projections carried out in the framework of the AWG.
d. Other specific features of the model
6. Any other comments
Estimates on payments of pension benefits have been provided by the Audit Office.

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

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

https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736177063&menu=ultiDatos&idp=1254735576581