

Pension Entitlements: 2021

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By the end of 2021, Malta's pension entitlements stood at €37.5 billion, 244.4 per cent of the national GDP.



Pension entitlements in Malta

Accrued-to-date pension entitlements (ADLs) represent the current value of pensions to be paid out in future periods based on rights accumulated by each contributor during his or her working life. In simpler terms, it shows what it would cost to settle the outstanding pension liabilities if the pension scheme were, theoretically, to be closed.

These entitlements provide two different perspectives; the (i) households (creditors) entitlements equivalent to the (ii) government (debtors) liabilities.

Main Assumptions

A real discount rate of two per cent was applied to determine the present value of Malta's pension entitlements as at end 2021. An inflation rate of two per cent was assumed, hence a nominal discount rate of four per cent. These standard assumptions were established in the Technical Compilation Guide for Pension Data in National Accounts as compiled by Eurostat and the European Central Bank, to be followed by all Member States to allow geographical comparison¹.

The wage growth assumptions found in the European Commission's 2024 Ageing Report were used to calculate the progression of wages, while life expectancy was determined through the latest (2023) EUROPOP projections.

Results

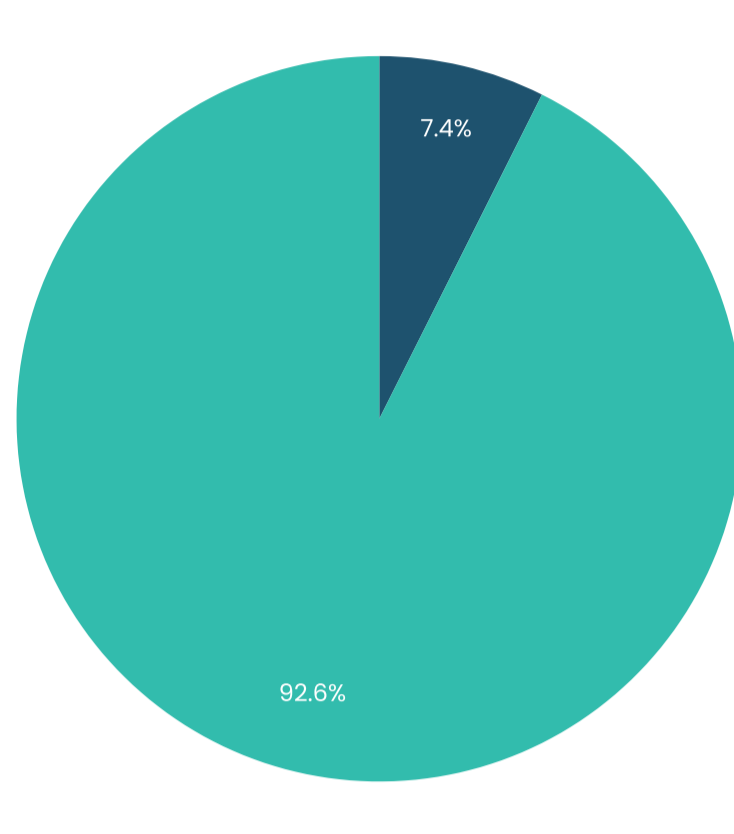
By the end of 2021, total pension entitlements for Malta amounted to €37.5 billion, equivalent to 244.4 per cent of the national GDP. Social Security pensions represented the bulk of these entitlements, accounting for €34.7 billion or 92.6 per cent of the total (Table 1). The remaining 7.4 per cent reflect entitlements towards Service Pensions (Chart 1).

Table 1. Pension entitlements by scheme and description

Description		Service	Social Security	Total
Pension Entitlements	€ billion	2.8	34.7	37.5
	% of GDP	18.1	226.3	244.4

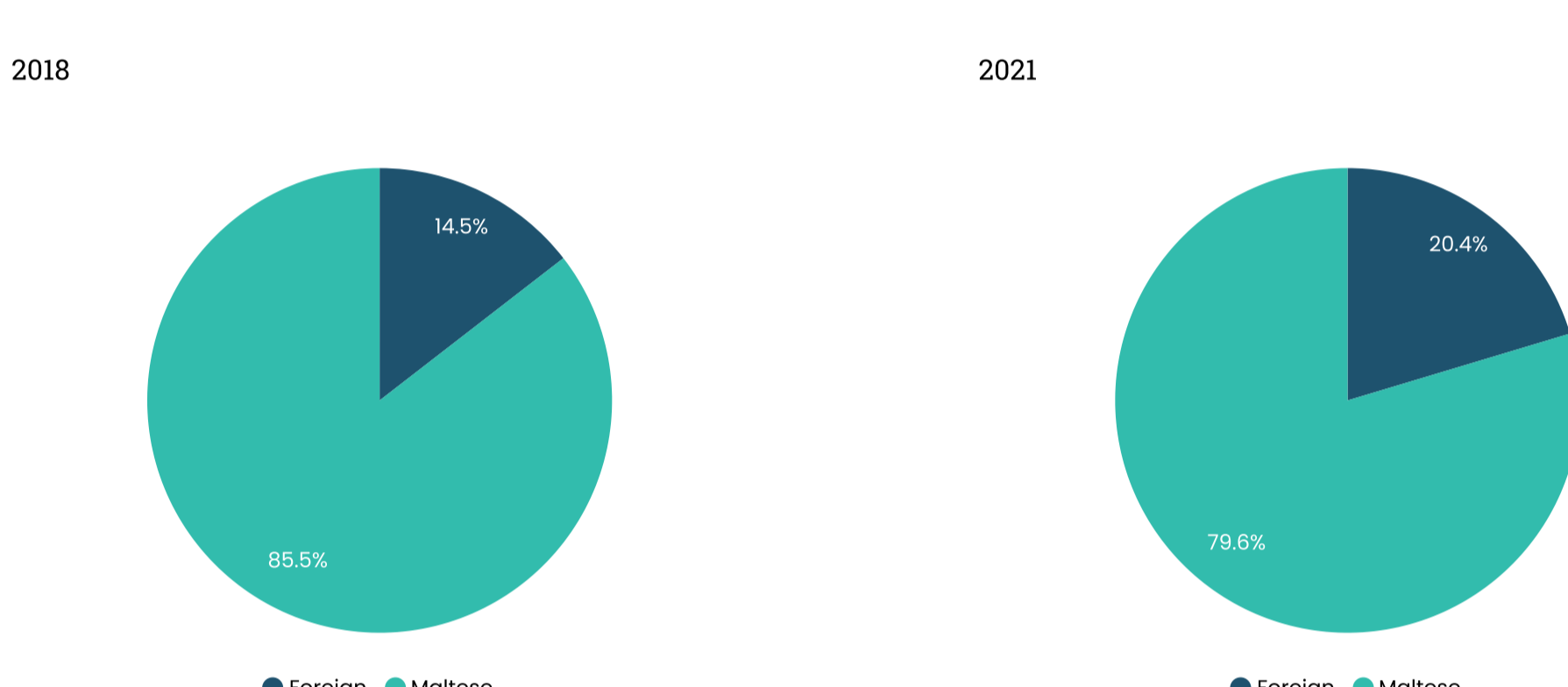
Note: GDP as published in NSO News Release 214/2023.

Chart 1. Pension entitlements by scheme and as a percentage of total entitlements



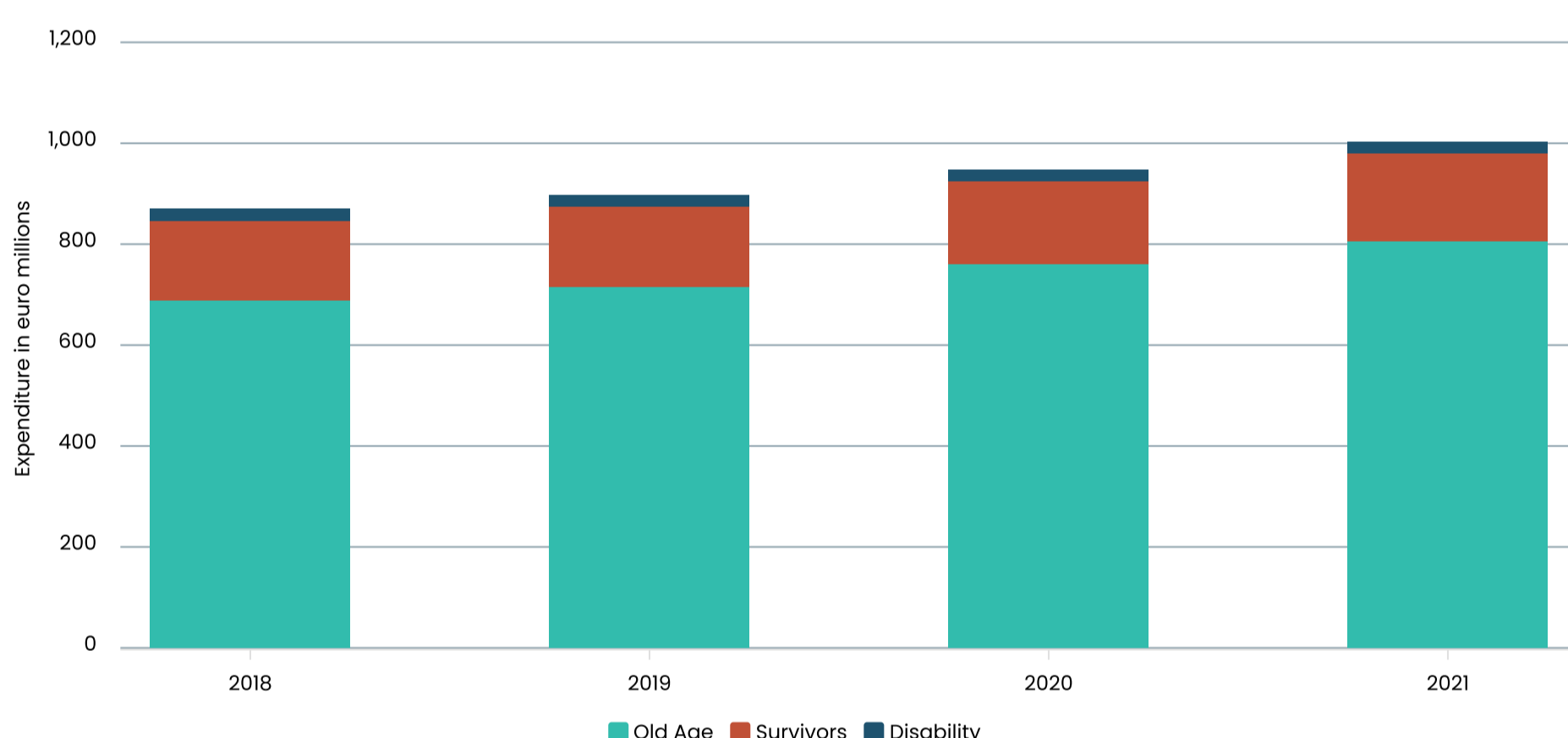
Social contributions totalled €2.3 billion, 99.6 per cent being used to cover the Social Security Pension system and the rest covering Service Pensions (Table 2). By the end of 2021, there were 407,238 working age persons with paid or credited contributions, 82,882 or 20.4 per cent being foreigners with a residence permit (Chart 2).

Chart 2. Contributors by nationality status



Furthermore, there was €1.0 billion in pension payments, €0.8 billion of which went towards recipients of Old Age type pensions. In comparison to the 2018 exercise, pensions outlay rose by 15.2 per cent (Chart 3).

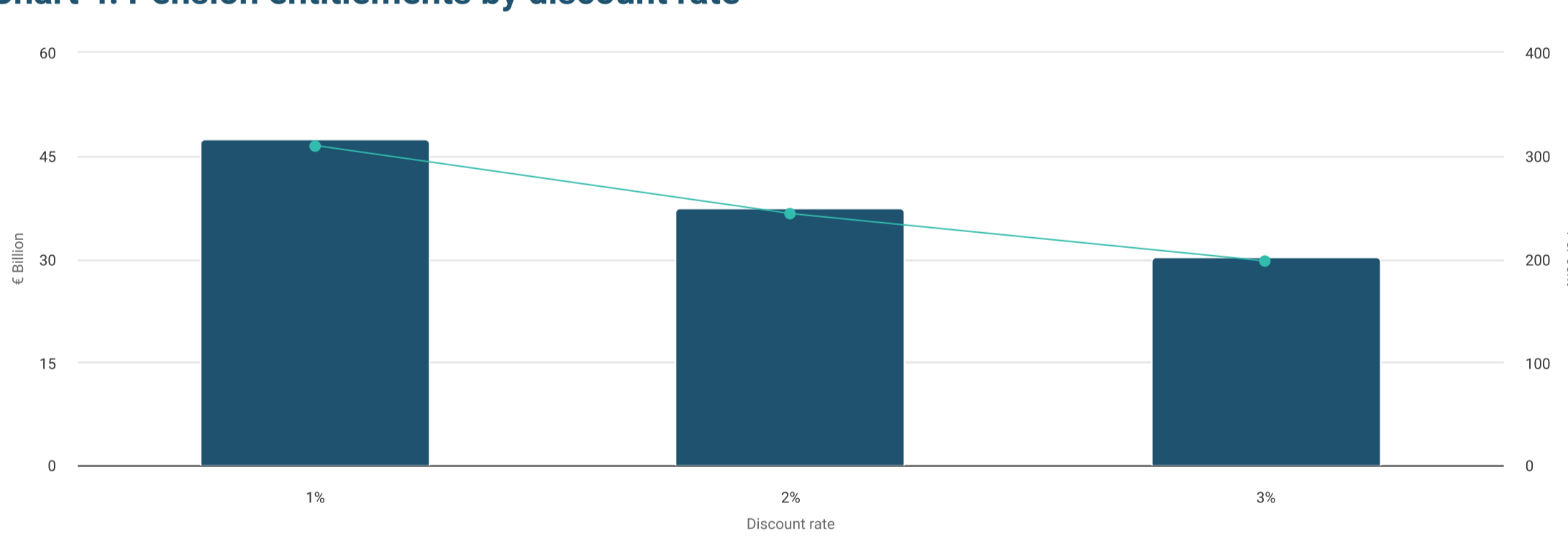
Chart 3. Pension expenditure by type



Sensitivity Analysis

Besides the standard discount rate of two per cent, the robustness of the results was tested by applying different discount rates to Malta's ADL model. In particular, entitlements were re-estimated using discount rates of one per cent and three per cent. Assuming a lower discount rate of one per cent results in higher pension obligations by 26.8 per cent to €47.5 billion. Conversely, pension liabilities decline by 19.2 per cent to €30.3 billion when a higher discount rate of 3 per cent is assumed (Table 2).

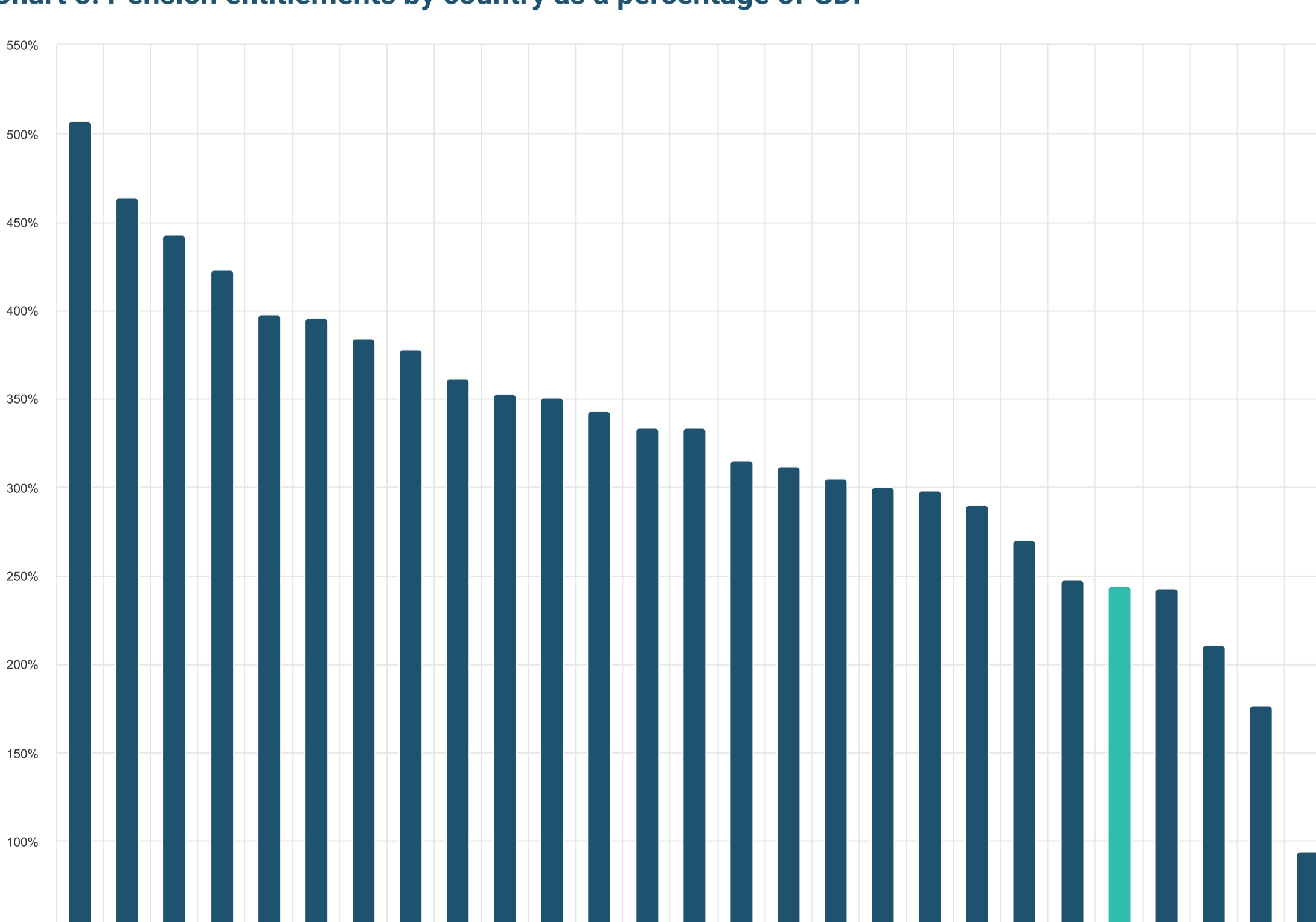
Chart 4. Pension entitlements by discount rate



International Comparison

Malta's pension entitlements amounted to 244.4 per cent of GDP in 2021, the 5th lowest percentage among 27 European countries (24 EU Member States, Iceland, Norway and Switzerland) for which data is currently available. The highest ratios were reported by Spain, Austria and Italy, at 507.0 per cent, 464.0 per cent and 443.0 per cent, respectively. In contrast, Denmark registered the lowest share, with their obligations amounting to 94.0 per cent of GDP, followed by Ireland (177.0 per cent) and Bulgaria (211.0 per cent) (Chart 5).

Chart 5. Pension entitlements by country as a percentage of GDP



Source: Eurostat.

Note: Data unavailable for Greece, Poland and Romania.

¹ Further details, including links to reference documents, may be found in methodological note 4.

Table 2. Pension entitlements balance sheet by scheme and description

Description	Service	Social Security	Total
	€ million		
<i>Opening Balance Sheet</i>			
1 Pension entitlements ¹	2,969	36,836	39,806
<i>Changes in pension entitlements due to transactions</i>			
2 Increase in pension entitlements due to social contributions (=2.1+...+2.4-2.5)	8	2,299	2,307
2.1 Employer actual social contributions	0	387	387
2.2 Employer imputed social contributions	-111	-	-111
2.3 Household actual social contributions	0	438	438
2.4 Household social contribution supplements	119	1,473	1,592
2.5 Less pension scheme charges	0	0	0
3 Other (actuarial) increase of pension entitlements	-	-2,154	-2,154
4 Reduction in pension entitlements due to payment of social benefits	104	898	1,002
5 Change in pension entitlements due to social contributions and pension benefits (=2+3-4)	-96	-753	-849
6 Transfers of entitlements between schemes	0	0	0
7 Change in pension entitlements due to other transactions	0	0	0
<i>Change in pension entitlements due to other economic flows</i>			
8 Changes in entitlements due to revaluations	0	0	0
9 Change in entitlements due to other changes in volume	-100	-1,397	-1,497
<i>Closing Balance Sheet</i>			
10 Pension entitlements (=1+5+6+7+8+9)	2,773	34,686	37,459
As a percentage of GDP²	18.1	226.3	244.4
Main Assumptions			
1. Discount rate: 2% real / 4% nominal Source: Pension Technical Guide (2020 edition)			
2. Wage growth: 1.6% average growth per year (period: 2022 - 2070) Source: Labour Productivity Growth from the 2024 Ageing Report			
3. Life expectancy: EUROPOP 2023 population projections Source: Eurostat			

Notes:

¹Equal to the closing stock for the previous year.

²As published in NSO News Release 214/2023.

Table 3. Sensitivity analysis: Pension entitlements by scheme and discount rate

Description			2021		
			Service	Social Security	Total
Discount rate (%)	1.0	€ million	3,325	44,166	47,491
		% of GDP ¹	21.7	288.2	309.8
	2.0	€ million	2,773	34,686	37,459
		% of GDP	18.1	226.3	244.4
	3.0	€ million	2,356	27,916	30,272
		% of GDP	15.4	182.1	197.5

¹GDP as published in NSO News Release 214/2023.

Methodological Notes

1. Following the requirements established in both the European System of Accounts (ESA 2010; EU Regulation 549 of 2013 of the European Parliament and of the Council of 21 May 2013) and System of National Accounts (SNA 2008), EU Member States are required to record their total pension entitlements accrued by members of employment-related pension schemes or social security pension schemes. Mandatory transmissions of the supplementary table are performed every 3 years.

2. The rows of the supplementary table (Table 29), as transmitted to Eurostat, are defined as follows:

1. The opening stock of pension entitlements (equal to the closing stock of the previous year).
- 2.1 Actual social contributions made by employers during the reference year.
- 2.2 Balancing item for defined benefit pension schemes, recording any changes in entitlements not included in any other rows of Table 29.
- 2.3 Actual social contributions made by employees during the reference year.
- 2.4 Relates to the property income earned, or imputed on the schemes. This is equivalent to the unwinding of the discount rate, equal to the nominal discount rate for the base year multiplied with the pension entitlements recorded at the beginning of the year.
3. The imputed transactions of social security pension schemes. This row is used as a balancing item for social security pension schemes. Therefore, figures may be either positive or negative, with a positive value implying that the discount rate is lower than the scheme's annual rate of return.
4. Pension payments made during the year.
5. Changes in pension entitlements due to contributions and pension benefits.
6. Amount of entitlements transacted from one pension fund to another.
7. Changes in entitlements due to any pension reforms introduced during the year.
8. Changes in entitlements due to changes made to the key model assumptions, such as the discount rate, wage rate and inflation rate.
9. Other changes to the volume of assets that are not classified under row 8.
10. Total pension entitlements recorded at the end of the year.

3. In 2015, the National Statistics Office (NSO) embarked on a project in collaboration with the Research Centre for Generational Contracts (RCG) at Freiburg University to compile a suitable model able to estimate Malta's pension entitlements for its two pension systems; (i) the Social Security Pension system and (ii) the Treasury Pension system.

Anonymised data was collected for each of the reference years and inputted into the ADLs model. Data used included current pensioners' micro data, reflecting each individual's pension intake categorised by type of pension payment (Old Age, Survivors or Disability), and contributions micro data, where for each individual the number of contributions paid were categorised by class (1 to 3). Credited contributions given to each eligible person along with data on person's wage history (from 1982 onwards, when available) were also covered in the contributions database.

The model takes a forward-looking approach to estimating pension entitlements, making use of each current contributor's historical data to project their future entitlements. No projection is required for current pensioners as they have already accrued their full pension rights.

4. The present value of future pension rights is determined by applying a real discount rate of 2 per cent to the model, or a nominal rate of 4 per cent with the inflation target being 2 per cent in line with both the European Central Bank's (ECB) target over the medium term and the Ageing Working Group's (AWG) long-term price inflation assumptions. This represents one of a set of standard assumptions established in the Eurostat/ECB Technical Compilation Guide for Pension Data in National Accounts and which all countries, bar different inflation targets set by Poland, Romania (both 2.5 per cent) and Hungary (3 per cent), applied in their calculations to ensure comparable results.

Furthermore, the Projected Benefit Obligation (PBO) approach, taking into consideration future wage increases when applying wage indexation rules to pension payment increases, is the selected estimation technique. Other standard assumptions include the use of: (i) the latest (2023) EUROPOP life expectancy assumptions categorised by gender and (ii) the labour productivity growth forecasts from the 2024 AWG assumptions to project future wage growth.

[Pension Technical Guide \(2020 edition\)](#)

[2024 Ageing Working Group](#)

5. It needs to be stressed that ADLs are not to be used as an indicator of fiscal sustainability as only entitlements up to the reference year are considered, implying a limited time horizon. Furthermore, all present or future assets of the pension systems, which are a crucial element one needs to take into consideration when assessing the long-term sustainability of any pension system are being disregarded in the study.

6. The System for the Administration of Social Benefits (SABS), held by the Ministry for Social Policy and Children's Rights, was used to obtain both the pensioners micro data for the Social Security pension scheme and also the contributors' micro data. Separately, the Ministry also provided the micro data for Service pensioners.

7. Glossary:

7.1 **Accrued-to-date pension entitlements (ADLs)** amount to the present value of pensions to be paid in future periods to members of a pension system based on their acquired accrued rights. Hence, it represents the current cost to settle the outstanding pension liabilities if the pension scheme was to be closed. ADLs are equivalent to the sum of social contributions paid by current contributors together with the remaining pension entitlements of existing pensioners.

7.2 In **Defined Benefit (DB) pension schemes** a formula is used to determine the amount of pension benefits to be paid to each individual, normally taking into consideration years of service, the person's salary over a certain period of time, the age at retirement and the pension indexation rules.

7.3 **Disability Pensions** are benefits paid to persons below the legal/standard retirement age suffering from a disability which prevents them from working or earning above a certain minimum level as legislated.

7.4 The **Discount Rate** represents an interest rate used to convert a future sum of money to its present value.

7.5 The **Gross Domestic Product (GDP)** is the total value of all goods and services produced, deducting the value of any goods and services used in their production within a certain period in a country.

7.6 The **Inflation Rate** is the rate at which the general level of prices for goods and services is increasing during a particular reference period.

7.7 **Old Age Pensions** are benefits paid to persons who have retired from gainful employment at the legal/standard retirement age, in return for years of service and/or social insurance payments.

7.8 **Pension Indexation** refers to the method used to update pensions on an annual basis. In Malta's case, pensions are updated by a sum equivalent to 70 per cent growth in average national wage and 30 per cent of the inflation rate.

7.9 The **Present Value** represents the current worth of a future sum of money.

7.10 The **Projected Benefit Obligations (PBO)** approach takes into consideration future wage increases, obtained either through promotions or a general increase in wages, when estimating the ADLs of a pension system.

7.11 **Survivors Pensions** are paid to the close relatives (wife or children) of a deceased person who would have been eligible to receive an old age pension upon reaching retirement age.

7.12 **Working age** implies persons between the ages of 15 and 64.

8. Figures may not add up due to rounding.

9. References to this news release are to be cited appropriately. For guidance on access and re-use of data please visit our [dedicated webpage](#).

10. A detailed news release calendar is available [online](#).

11. Further details on [Malta's pension system](#).

12. European statistics comparable to data in this News Release are available [here](#).

13. For further assistance send your request through our [online request form](#).