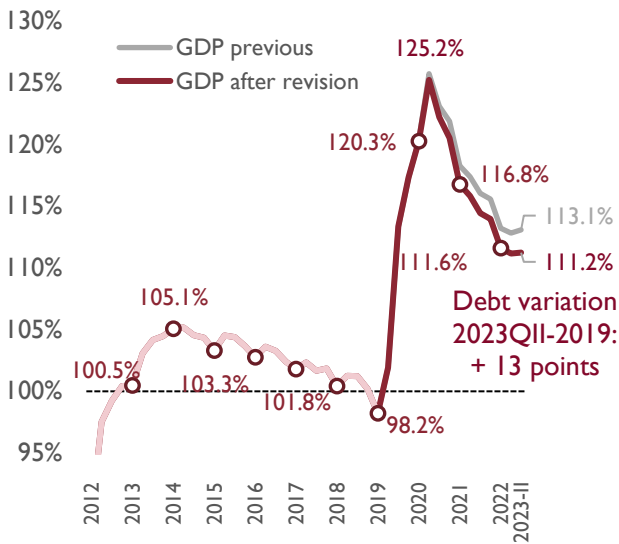


- *The Spanish debt-to-GDP ratio stood at 111.2% in the second quarter of 2023, a reduction of 0.4 points on the end of 2022, of 3.2 points of GDP over the last year, and a rise of 13 points compared with the pre-pandemic level. In monetary terms, public debt has continued to grow at a similar rate to nominal GDP in 2023 to amount to €1.56tn in July.*
- *The recent revision of €23bn in the level of GDP has meant a reduction of 1.84 points in the debt ratio as a result of a higher denominator effect, of which 1.4 points are due to the revision of the GDP for 2021.*
- *After a strong initial increase caused by the pandemic, the debt ratio is now on a downward path. The quarterly profile of the debt ratio had been on a continuous downward path for eight quarters, which was interrupted in the second quarter of 2023, stabilising at 112.1%.*
- *The reduction from the ceiling reached in the first quarter of 2021 (125.2%) amounts to 14 points. The correction of the public deficit, together with the rebound of activity and much higher inflation than expected have managed to correct almost half of the increase caused by the pandemic.*
- *However, Spain is currently one of the EMU countries with the highest levels of debt, behind only Greece and Italy and with a similar level to Portugal and France. In 2019, Spain was one of the euro area countries with the highest debt ratio, a situation since consolidated by the pandemic.*
- *AIReF's latest projections contained in the 'Report on Budgetary Execution' point to a reduction in the debt ratio this year of 3.1 points on the level recorded in 2022 to stand at 110.1% of GDP. However, following the revision of GDP in the National Accounts, the ratio will very likely stand at between 108% and 109% at the end of the year, exceeding the latest projections by the Government in the 2023-2026 SPU and the latest projections by the IMF and the European Commission.*
- *As regards financing conditions, the rapid increase in the yield required from sovereign debt has been determined by the monetary policy response to the evolution of very high and persistent inflation. There has never before been such a fast, intense and widespread increase in the interest rates of the different central banks.*
- *With interest rates at clearly restrictive levels and sound signs that the transmission of monetary policy is functioning, the monetary authorities have adopted a more cautious approach, aware that the macroeconomic impact of interest rate hikes takes effect with a certain lag. Without ruling out further hikes, the strategy of central banks involves maintaining interest rates with a restrictive tone for a "sufficiently long" period of time, conditioning future decisions on the evolution of activity and inflation data they receive.*
- *Following a sharp rebound in 2022, European sovereign debt yields have remained relatively stable over the course of 2023, consolidating the levels reached, above all as from the first quarter, fluctuating in a range of 50 b.p.*

- The markets have started to point to a potential relaxation of financing conditions beyond 2023, and the latest figures on inflation allow a certain moderation to be glimpsed. This has meant that the long-term debt differential vis-à-vis the short-term differential has narrowed considerably in recent months (150 b.p.), even marking a minimum of 4 b.p. at the end of the month of June.
- The increase in yields as a result of high inflation has been a global phenomenon. In this regard, it should be highlighted that the Spanish 10-year debt has kept its spread stable vis-à-vis its German counterpart at a relatively low level (around 100 b.p.). This fact, along with the maintenance of the contribution from credit default swaps (CDS) at very contained levels, is a sign that investors do not perceive any deterioration in the financial health of Spanish public debt despite higher yields.
- As regards State financing, after hitting an all-time low in 2021, the average cost of new Treasury issues has increased from -0.04% to 3.33% in August 2023, a value not recorded since back in 2011. This higher issue cost has also signified a turning point in the average cost of the State's debt portfolio, which has increased from its all-time low of 1.64% to 2.02%.
- The cost of servicing debt of the General Government sector increased by €5.55bn in 2022 to a total of €31.6bn, accounting for 2.3% of GDP. In 2022, the cost of servicing debt in nominal terms consolidated and accelerated the change of trend that began in 2021 after seven straight years of reductions. If the same implicit rate as 2021 had been maintained in 2022 (1.9% vs. 2.2%), the financial burden would have only increased by €1.58bn, in other words, by €3.97bn less.
- Most of the increase in the financial burden stems from the increase in the debt portfolio tied to inflation, since the high average life of the debt portfolio means that higher issue rates pass through gradually. If this increase is excluded, the cost of servicing debt would have continued to drop in 2022, given that bonds issued with relatively high yields, not far from those recorded over the course of that year, continue to be paid off.
- Inflation-linked debt stands at slightly above 5% of the whole portfolio, in line with that of other large European issuers. Beyond the recent economic impact of the high inflation episode on the financial burden, maintaining inflation-linked debt is a necessary asset to suitably diversify the Treasury's investor base needed to cover high financing needs.
- According to AIREF's forecast, the average issue rate will close 2023 slightly higher than 3%, rising to 3.4% in the coming years. These issue rates will raise the implicit rate to 2.8% and the cost of servicing debt to 2.9% of GDP in 2026.
- High yields of short-term securities have had a noteworthy effect on the distribution of Treasury bill holdings, with a significant increase in securities in the hands of households and non-financial institutions over the last year, rising from a share of 0.1% in July 2022 to 35.2% in July 2023.

**Debt (GDP), quarter-on-quarter evolution**



The Spanish debt-to-GDP ratio stood at 111.2% in the second quarter of 2023, a reduction of 0.4 points on the end of 2022, of 3.2 points of GDP over the pre-pandemic level. In monetary terms, public debt has continued to grow at a similar rate to nominal GDP in 2023 to amount to €1.56tn in July.

The recent revision of GDP has meant a reduction of 1.84 points in the debt ratio. The €23bn rise in the level of GDP in the second quarter of 2023, according to the latest revision of the National Accounts, has meant a reduction of 1.84 points in the debt ratio as a result of a higher denominator effect, of which 1.4 points are due to the revision of the GDP for 2021.

Source: INE and Bank of Spain

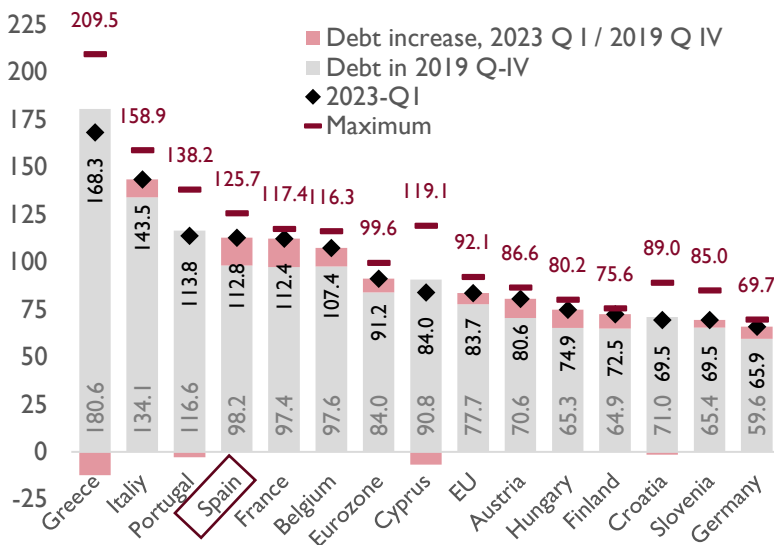
After a strong initial increase caused by the pandemic, the debt ratio is now on a downward path. The quarterly profile of the debt ratio had been on a continuous downward path for eight quarters, which was interrupted in the second quarter of 2023, stabilising at 112.1%.

The reduction from the ceiling reached in the first quarter of 2021 (125.2%) amounts to 14 points. The correction of the public deficit (from 10.1% in 2020 to 4.7% of GDP in 2022), together with the rebound of activity and much higher inflation than expected have managed to correct almost half of the increase caused by the pandemic.

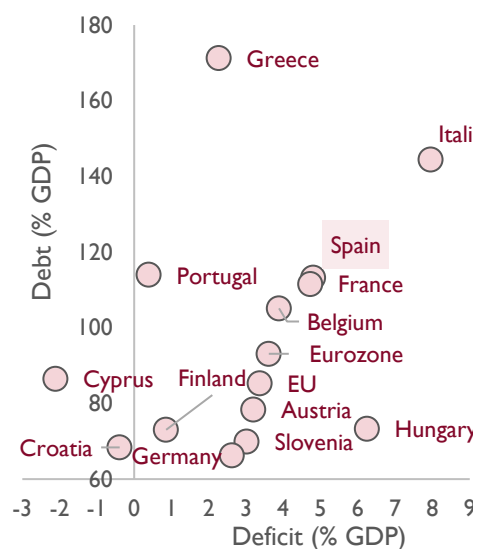
However, Spain is currently one of the EMU countries with the highest levels of debt, behind only Greece and Italy and with a similar level to Portugal and France. In 2019, Spain was already one of the euro area countries with the highest debt ratio, a situation since consolidated by the pandemic. Despite the 13-point reduction from the ceiling, Spain and France are the countries that saw their debt increase the most due to the Covid crisis, and are the ones that maintain the highest levels of debt. In contrast, Portugal, after a similar initial rebound, has managed to reduce its deficit over the last three years to almost achieve budgetary balance.

**Debt (% GDP) of European Union countries with more than 60%,**

**Debt (% GDP) in 2023 Q-I, and change versus pre-Covid level**

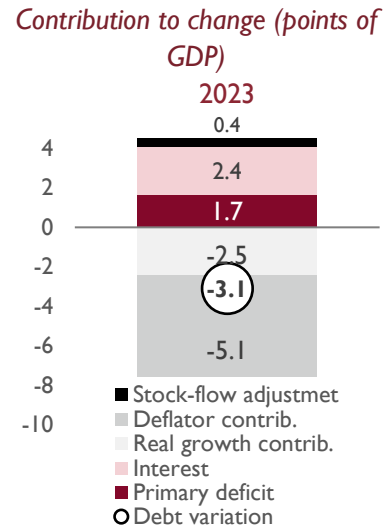
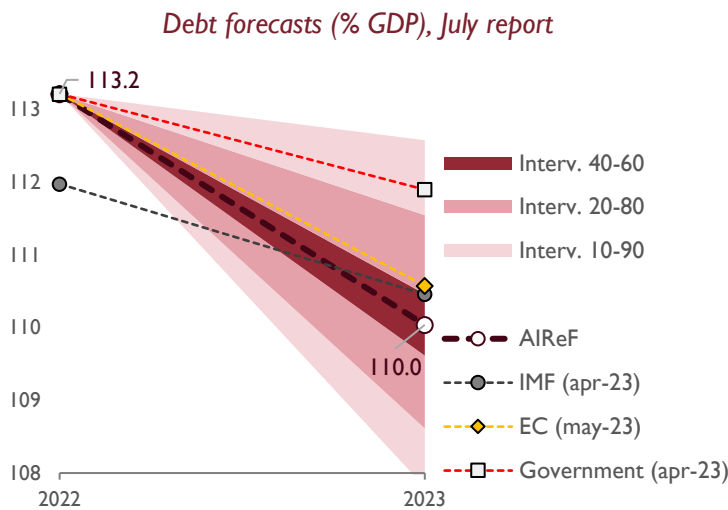


**Deficit and debt (% GDP in 2022)**



Source: Eurostat and Ameco

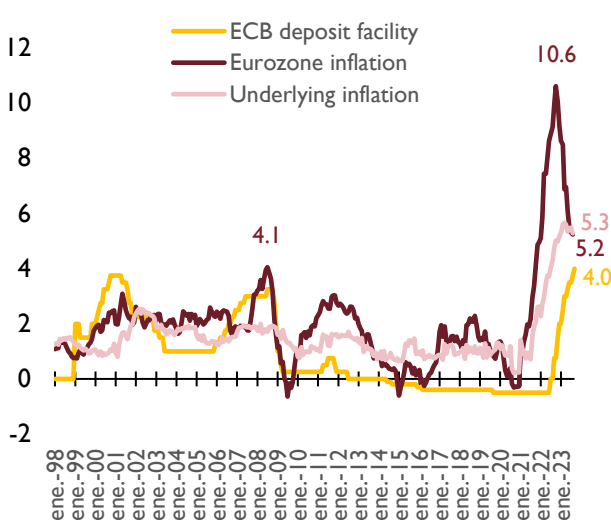
AIReF's latest projections contained in the [\("Report on Budgetary Execution, Public Debt and Expenditure Rule 2023"\)](#) pointed to a reduction in the debt-to-GDP ratio this year of 3.1 points on the level recorded in 2022. However, following the revision of GDP in the National Accounts, the ratio will very likely stand at between 108% and 109% at the end of the year, exceeding the latest projections by the Government in the 2023-2026 SPU (111.9%) and the latest projections by the IMF and the European Commission. The public deficit will continue to contribute to the debt increase in a similar fashion to 2022 and the reduction in the ratio will primarily be underpinned by nominal GDP growth, where the deflator will make a very significant contribution.



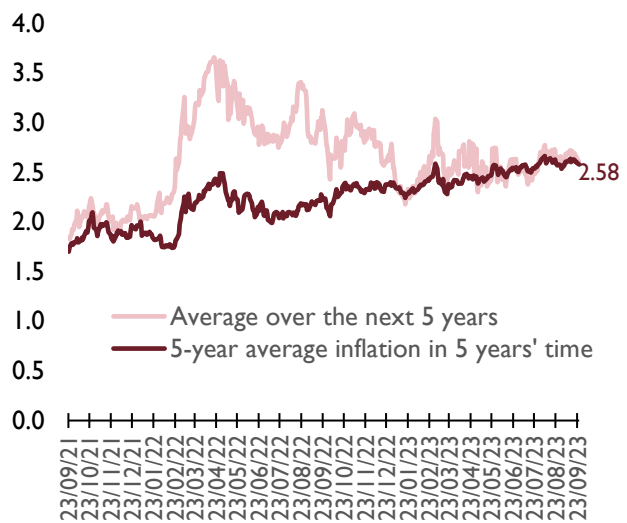
Source: AIReF, IMF; European Commission and Government

Headline inflation has fallen consistently since the ceiling hit in 2022, mainly thanks to energy prices, both due to their base effect and to lower energy costs. The knock-on effect of energy will indirectly filter down to the rest of the price basket in the coming months, which will intensify the fall in inflation. However, in the year to date, underlying price pressures have been more resistant than initially expected. Long-term inflation expectations already priced in, measures through the 5Y-5Y (average inflation expected for a period of five years to start in five years) remain stable at 2.6%.

Harmonised inflation in the euro area (year-on-year rate) and ECB deposit facility rate (%)



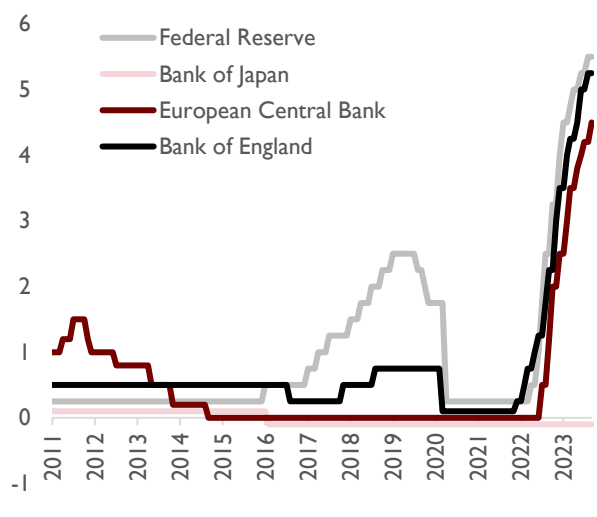
Euro area inflation expectations



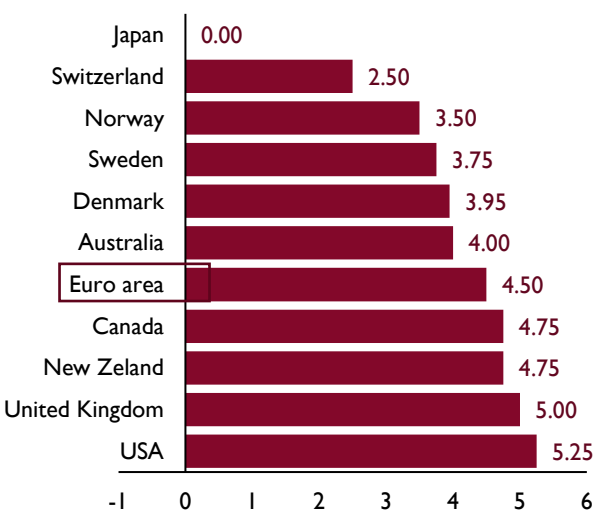
Source: Eurostat and Refinitiv

The evolution of inflation, which has been higher and more persistent than initially anticipated by the central banks, has forced the restrictive tone of monetary policy to be intensified in the last year. Never before has there been such a fast, intense and widespread rise in the interest rates of the different central banks. As a whole, a cumulative rise of between 400 and 500 basis points in global interest rates has been seen over the course of the last year, following a decade of rates close to zero or even negative in some countries. In the case of the Federal Reserve, this rate has risen by 525 basis points since March 2022, the fastest and most intense tightening cycle since the 1980s. For its part, the ECB has accumulated an increase in its official rates of 450 basis points since July 2022.

*Official interest rates*

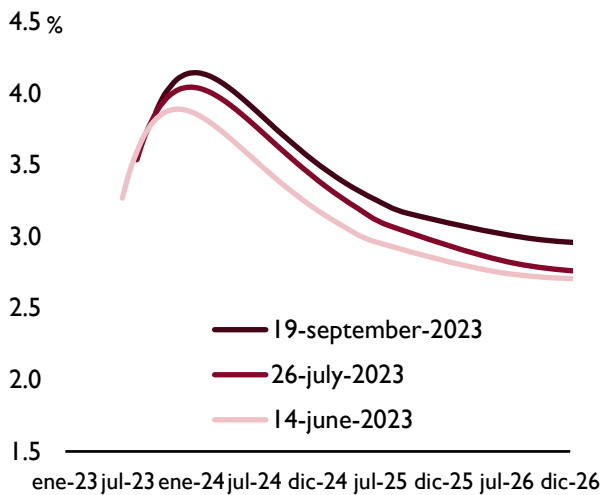


*Cumulative change in 2022 and 2023 (p.p.)*



Source: BCE and Refinitiv

*Discounted Euro interest rates (€STR forward-looking term rate)*



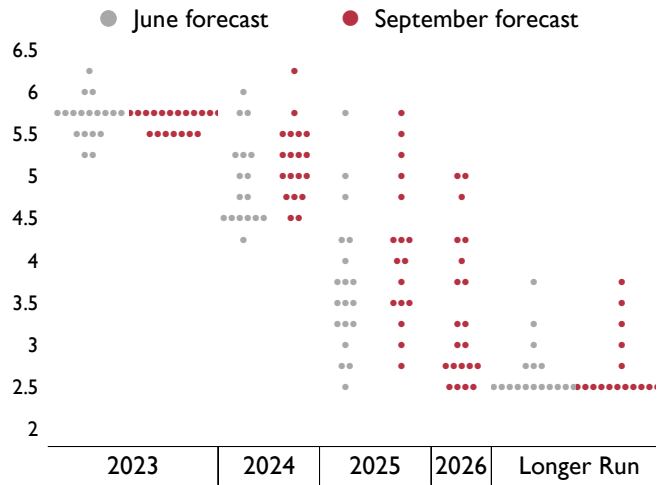
Source: Refinitiv

Without ruling out further hikes, the strategy of central banks involves maintaining interest rates with a restrictive tone for a “sufficiently long” period of time, conditioning future decisions on the evolution of activity and inflation data. With interest rates at clearly restrictive levels and sound signs that the transmission of monetary policy is functioning, the monetary authorities have adopted a more cautious approach, aware that the macroeconomic impact of interest rate hikes takes effect with a certain lag.

At its latest meeting in September, the ECB raised interest rates again by 25 b.p., underlining that current levels may bring the cycle of hikes to an end, but without closing the door to potential new increases. Implicit monetary market expectations point to the ECB maintaining the deposit facility rate at 4% (MRO rate at 4.5%) until Q3 2024, when the first reduction in interest rates may occur.

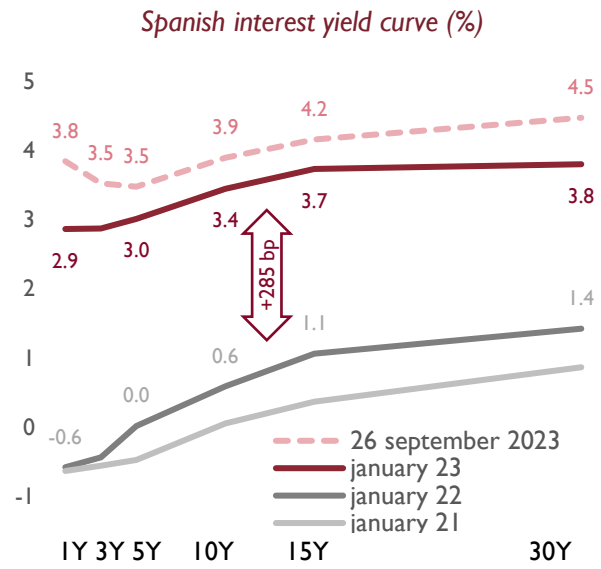
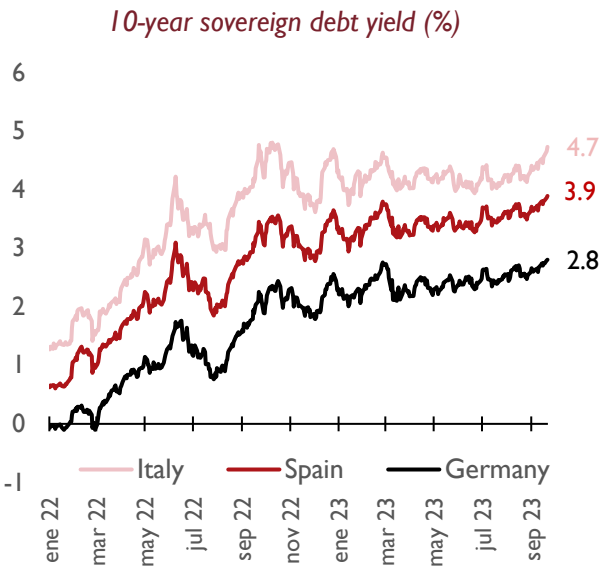
In the United States, the Federal Reserve decided, at its meeting on September 20<sup>th</sup>, to maintain interest rates between 5.25% and 5.5%. However, the tone of the communication combined with the upward revision of growth forecasts and the "dot plot" suggest that it is possible that a further increase will be announced before the end of the year. Most of the members of the Federal Open Market Committee (FOMC) expect an additional increase in interest rates before the end of the year and the average voting member now projects that interest rates will be half a percentage point higher at the end of 2024 and 2025 than forecast back in June (5.1% and 3.9%, respectively). The likelihood that the market will see an interest rate rise at the meetings in October and November is more than 50% (40% previously) and the discounted official rate for the end of 2024 is 4.75% (4.5% previously).

Forecast interest rates of Federal Open Market Committee members ("dot plot")



Source: US Federal Reserve

Following a sharp rebound in 2022, European sovereign debt yields have remained relatively stable over the course of 2023, consolidating the levels reached, above all as from the first quarter, fluctuating in a range of 50 b.p. The latest interest rate hike by the ECB has boosted the yields of the main European debt references to values close to the highs of recent months. The perspective that the ECB interest rates are close to their high kept interbank rates flat, with a stable 12-month Euribor at around 4.1% since June following a sharp rise at the start of 2022.



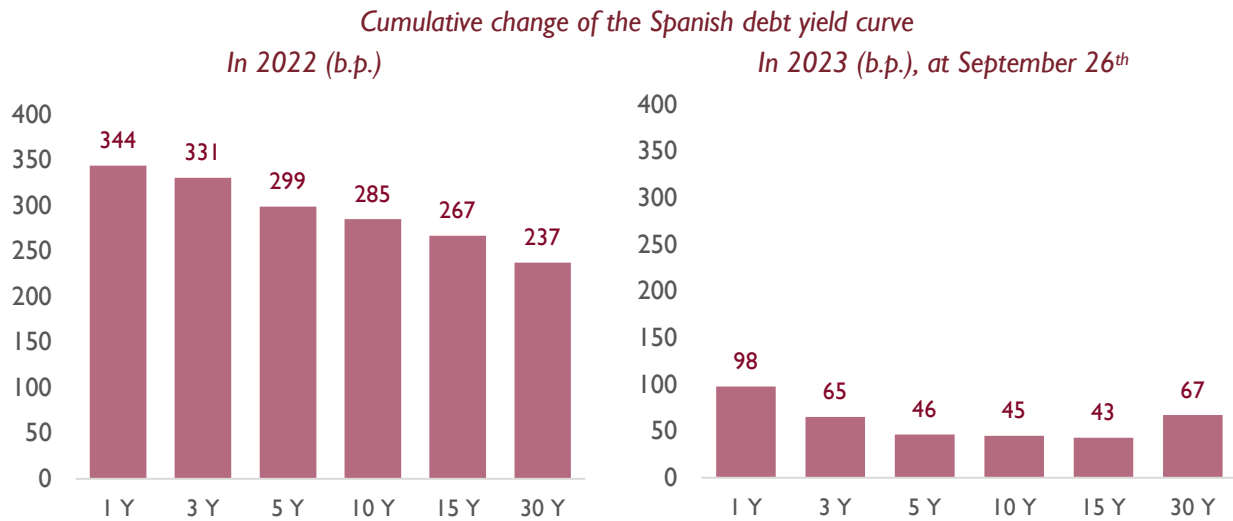
10-year yield at September 26<sup>th</sup>

<b>2.78</b>	<b>4.33</b>	<b>3.37</b>	<b>3.57</b>	<b>3.89</b>	<b>4.73</b>	<b>4.28</b>	<b>4.52</b>
Germany	UK	France	Portugal	Spain	Italy	Greece	USA

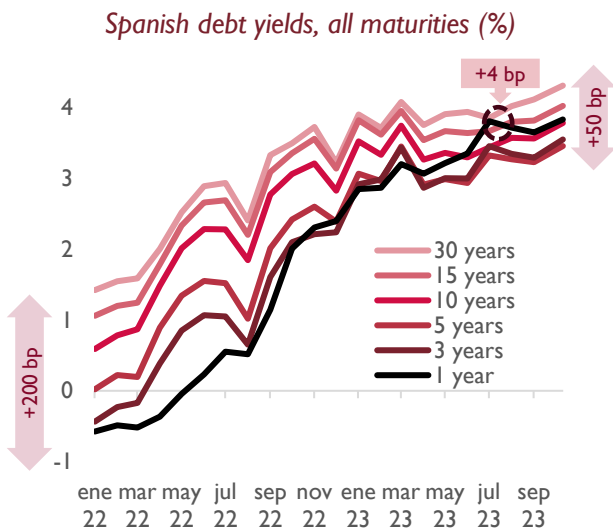
Source: BCE and Refinitiv



In 2022, Spanish debt recorded an increase of close to 300 b.p. for medium-term maturities on the yield curve (+299 b.p. at 5 years and +285 b.p. at 10 years), and close to 250 b.p. for long-term maturities (+267 b.p. at 15 years and +237 b.p. at 30 years). The increase in short-term maturities was significantly higher (+344 b.p. at 1 year and +331 b.p. at 3 years), leading to considerable displacement of the yield curve, where the spread of debt at 30 years over that at 1 year reached as high as 70 b.p. The main reason for the strong displacement of the curve in 2022 was due to the reference rate rises that took place and those to be discounted in the future.



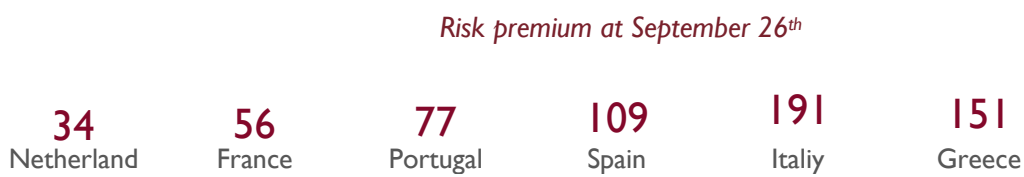
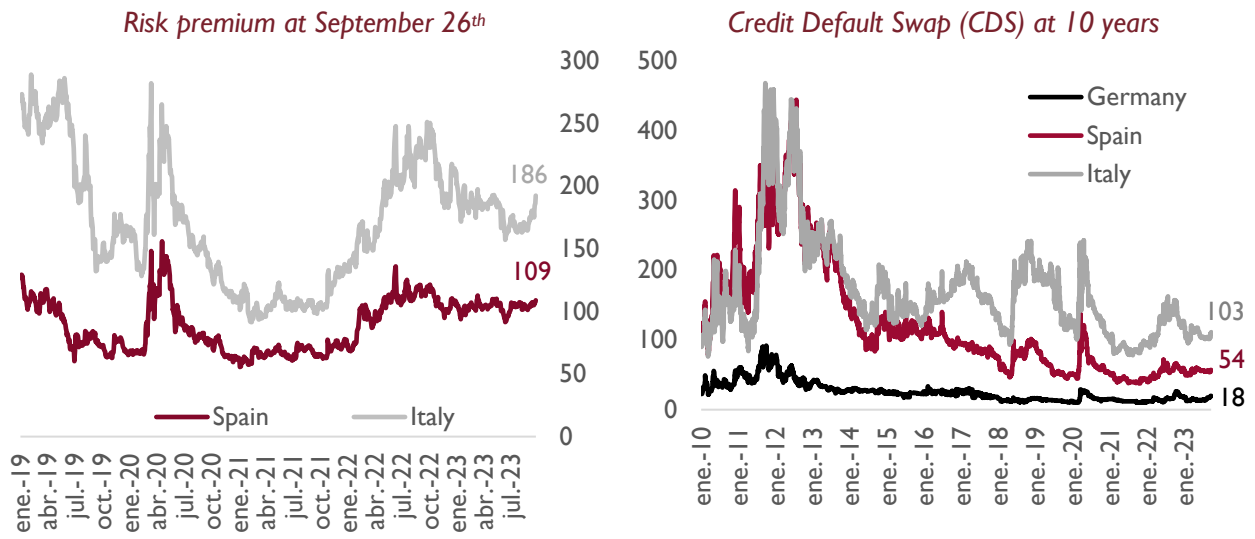
Source: Refinitiv and AIReF



In 2023, the yield curve has continued to flatten, with the yield at 1 year rising more considerably, but with a certain stability in the other maturities. The markets have started to point to a potential relaxation of financing conditions beyond 2023, and the latest figures on inflation allow a certain moderation to be glimpsed. This has meant that the spread of long-term debt *vis-à-vis* short-term debt (30 years vs. 1 year) has narrowed by 150 b.p. from 200 b.p. at the start of 2022 to 50 b.p. in September 2023 even marking a minimum of 4 b.p. at the end of the month of June.

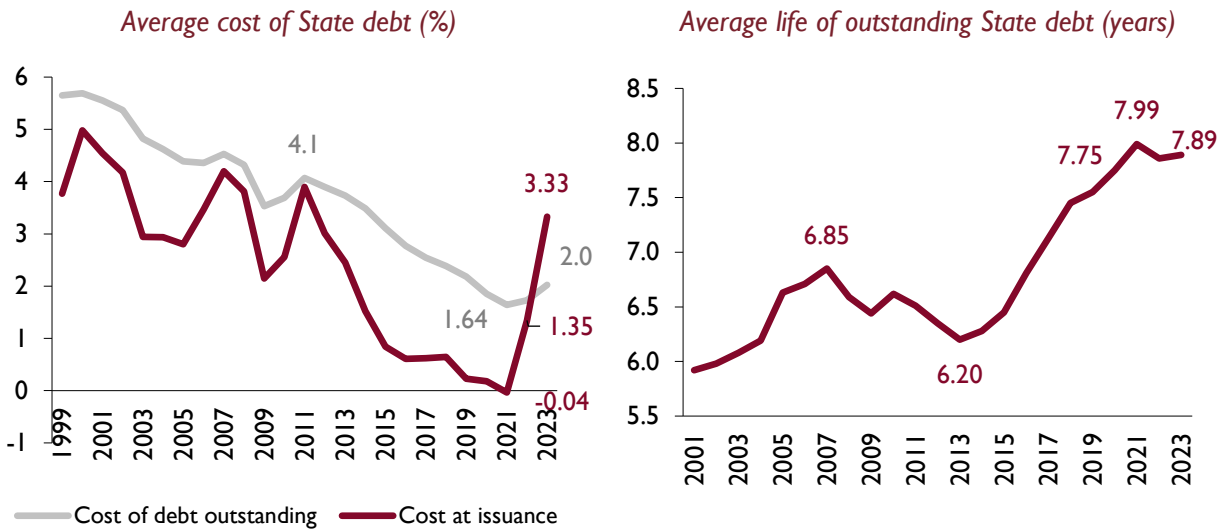
Source: Refinitiv

The higher yields as a result of high inflation have been a global phenomenon. In this regard, it is noteworthy that Spanish 10-year debt has maintained its spread *vis-à-vis* German debt in 2023 stable at around 100 b.p., which is relatively low in historical terms. This fact, together with the maintenance of the contribution from credit default swaps (CDS) at very contained levels, is a sign that investors do not perceive any deterioration in the financial health of Spanish public debt despite higher yields.



As regards State financing, after hitting an all-time low in 2021, the average cost of new Treasury issues has increased from -0.04% to 3.33% in August 2023, a value not recoded since back in 2011. This higher issue cost has also led to a turning point in the average cost of the State's debt portfolio, which has increased from its all-time low of 1.64% to 2.02%.

Cost of financing Spanish debt



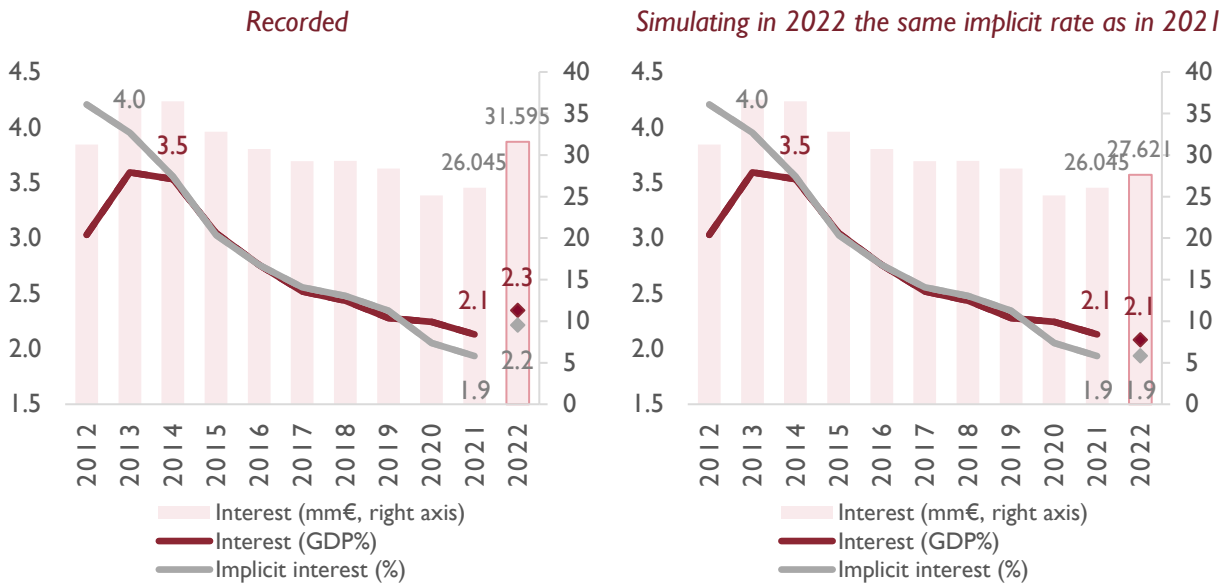
Source: Public Treasury, up to August 2023

The cost of servicing debt of the General Government sector increased by €5.55bn in 2022 to a total of €31.6bn, accounting for 2.3% of GDP. In 2022, the cost of servicing debt in nominal terms consolidated and accelerated the change of trend that began in 2021 after seven straight years of reductions. The high average life of the debt portfolio, of close to eight years, means that higher issue rates pass through gradually. The revision of the GDP in this case has led to a reduction of 0.1 points of expenditure on servicing debt as a percentage of GDP in 2022, from 2.4% to 2.3%.



If the same implicit rate as 2021 had been maintained in 2022 (1.9% vs. 2.2%), the financial burden would have only increased by €1.58bn, in other words, by €3.97bn less. Under this supposition, interest as a percentage of GDP would have remained at 2.1% instead of increasing to 2.3%.

*Financial burden and implicit rate of debt (%)*

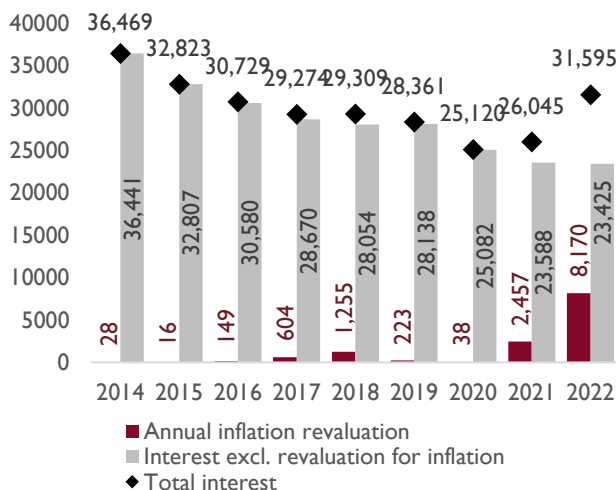


Source: Public Treasury, IGAE and AIReF

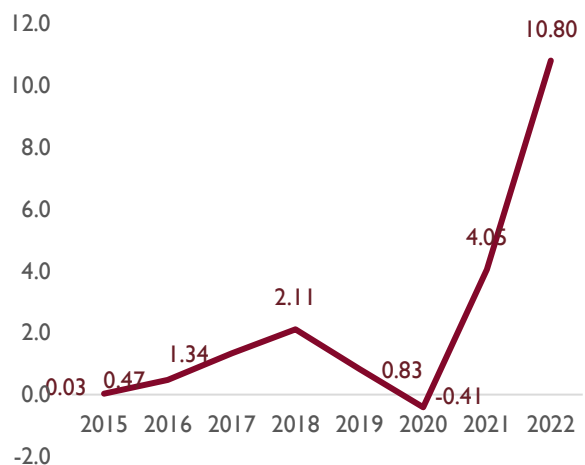
It should be mentioned that the significant increase in the financial burden in 2022 stems from the increase in the debt portfolio tied to inflation, amounting to more than €8bn. If this increase due to inflation in 2021 and 2022 is excluded, the financial burden would have continued to drop in 2022 (€163m). This is true because bonds issued with relatively high yields, not far from those recorded in 2022, continue to be paid off.

Inflation-linked debt stands at slightly above 5% of the whole portfolio, in line with that of other large European issuers. Beyond the recent economic impact of the high inflation episode on the financial burden, maintaining inflation-linked debt is a necessary asset to suitably diversify the Treasury's investor base to cover high financing needs. Maintaining liquid yield curves means frequently issuing the securities with different maturities, which are awarded at lower issue rates, taking into account the inflation expectations from time to time. In this way, the 'linkers' programme would have beaten the hypothetical alternative in the years in which inflation was lower than expected; that is 2015, 2016, 2019 and 2020.

*Cost of servicing debt (million euros)*

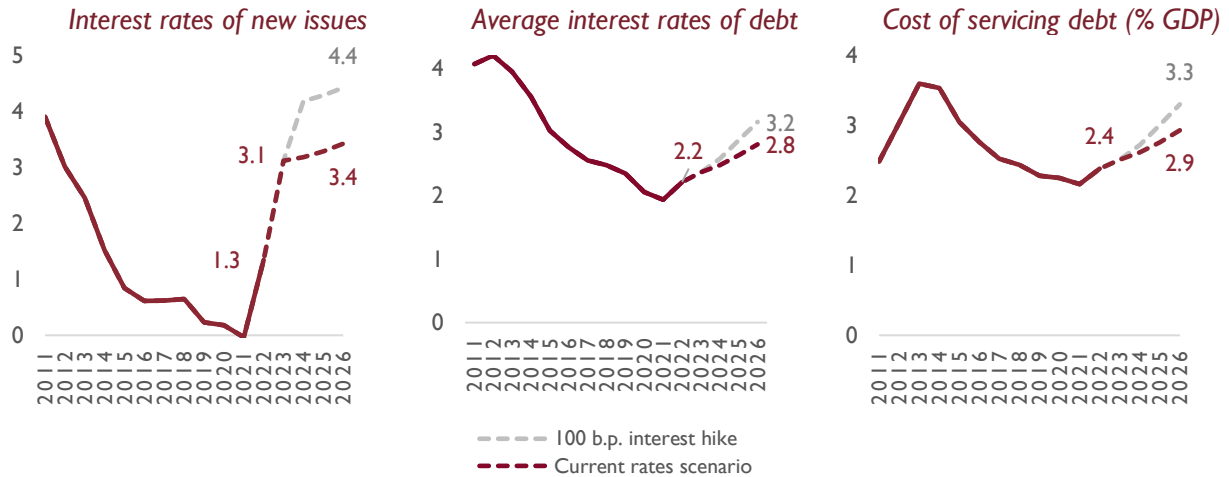


*HICP euro area (% change)*

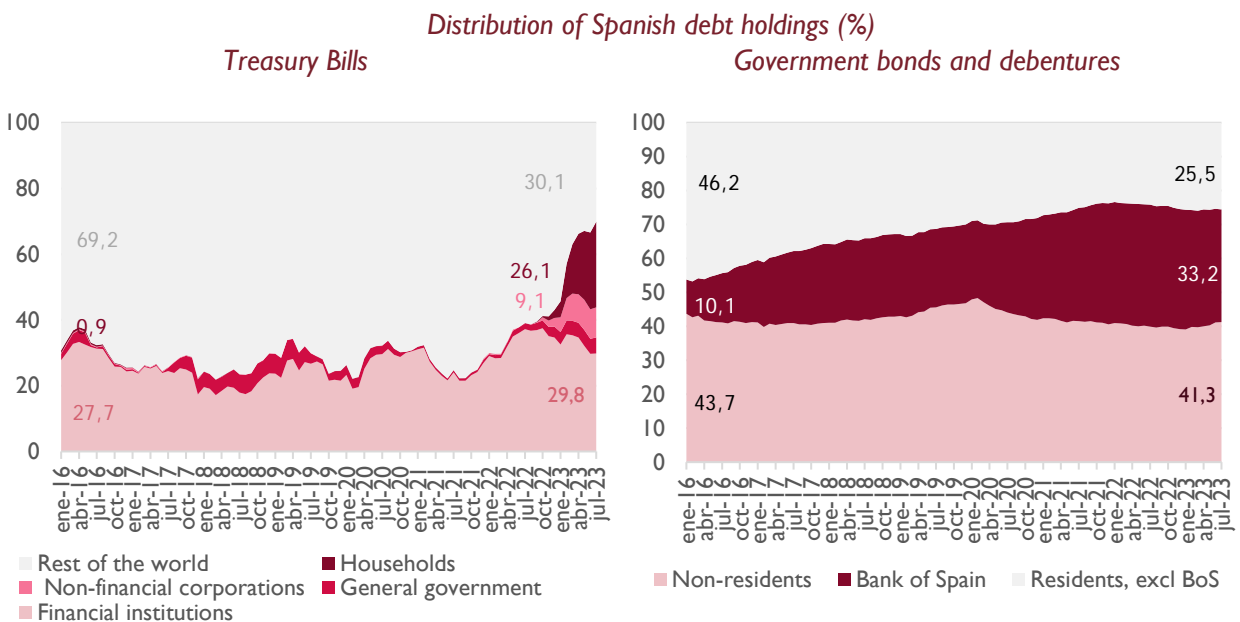


Source: IGAE and AIReF

According to AIReF's forecast, the average issue rate will close 2023 slightly higher than 3%, rising to 3.4% in the coming years. These issue rates will raise the implicit rate to 2.8% and the cost of servicing debt to 2.9% of GDP in 2026. According to AIReF's simulations, an additional rate hike of 100 b.p. as from 2024 in all the maturities of the curve would lead to a substantial change in the evolution of the short-term debt ratio (specifically it would generate a rise of 0.5 points in 2026). However, it would lead to a certain rise in the financial burden as a percentage of GDP (of 0.4 points to 3.3%) and additional cumulative expenditure to service debt of a little over €10bn in 2026.



The high yields of short-term securities have had a noteworthy effect on the distribution of Treasury bill holdings, with a significant increase in securities in the hands of households and non-financial institutions. The high payout from Treasury bills compared with other alternative financial assets like bank deposits has led to a certain transfer of savings in favour of Government debt securities. Specifically, households have increased their holdings over the last year from €25m in July 2022 to €18.52bn in July 2023, and non-financial institutions from €46m to €6.49bn, with a joint share that has increased from 0.1% to 35.2%. Furthermore, the different public asset purchase programmes of the ECB that began in 2015 and intensified in 2020 and 2021 have turned the Bank of Spain into one of the main holders of long-term Spanish public debt, increasing its share by 23 points of the total debt over the last five years to around 33%. This increase in holdings has led to a displacement of part of the resident investor base, while non-resident investment has remained stable at just over 40%.



Source: Bank of Spain